

Cisco BTS 10200 Softswitch Command Line Interface Reference

Software Releases 4.1, 4.2, 4.4.0, 4.4.1, 4.5 and 4.5.1
Updated July 24, 2009

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Preface

Revised: July 24, 2009, OL-3743-42

This document describes the command line interface commands used to provision and maintain the Cisco BTS 10200 Softswitch Call Agent (CA), Feature Server (FS), Element Management System (EMS), and Bulk Data Management System (BDMS) for Releases 4.1, 4.2, 4.4.0, 4.4.1 and 4.5.

Note The Cisco BTS 10200 Softswitch interworks with a wide range of network elements (NEs), but there are certain limitations. Some features involve using NEs deployed in the service provider network, for example, gateways, media servers, announcement servers, eMTAs, and SIP phones. See the "Component Interoperability" section of the Release Notes document for a complete list of the specific peripheral platforms, functions, and software loads used in system testing for interoperability with the Cisco BTS 10200 Softswitch Release 4.x software. Earlier or later releases of platform software may be interoperable and it may be possible to use other functions on these platforms. The list certifies only that the required interoperation of these platforms, along with the functions and the protocols listed, were successfully tested with the Cisco BTS 10200 Softswitch.

Audience

This guide is designed for Cisco BTS 10200 Softswitch users and system administrators.

Modification History

Table 1 lists the modification history notations used in this document. Subsequent sections list the actual changes by release. Changes made for Releases 4.2, 4.4.0, 4.4.1 and 4.5 are also noted within the text of the document as given in the table.

Table 1 Document Release Notation

Release	Information is Noted As:
All	Not noted.
4.2	Release 4.2 and all subsequent releases. Does not include Release 4.1.

Table 1 Document Release Notation (continued)

Release	Information is Noted As:
4.4.0	Release 4.4.0 and all subsequent releases, unless otherwise stated. For example: “Release 4.4.0 and 4.5” means the item is included in Releases 4.4.0 and 4.5, but not 4.4.1.
4.4.1	Release 4.4.1 and all subsequent releases. Does not include Releases 4.1, 4.2 or 4.4.0.
4.5	Release 4.5 and all subsequent releases. Does not include Releases 4.1, 4.2, 4.4.0 or 4.4.1.
Not supported as of Release	Designates tokens that may list as the result of a CLI command, but are not used in the release.
Obsolete in Release	Designates tokens, values or rules that are no longer supported as of a particular release, but are supported in prior releases.

Release 4.5.1

The following changes were made in Release 4.5.1. It is not an inclusive list.

- Added tokens CHARGE-TYPE and CHARGE-BAND-UNIT to the Destination table.
- New *Block Information* command added to the Session Management Activity Commands.
- In the COS Restrict table, II-WB-LIST changed to II-RESTRICT.
- In the Media Gateway Profile table, for the CODEC-NEG-SUPP token, codec usage has changed when condec-negsupp=Y.
- For medium configurations, ISDN table database usage was increased to 2000 active D-channels.
- Added token FORCED to the Exchange Code table.
- Added list of supported call types to the Usage Guidelines of the National White Black list table. This applies to all releases.
- BPC-ID is obsolete in the Signal Connection Control Part Route table for Releases 4.5 and 4.5.1.
- Added token PADDED-CC to the International Dial Plan table.
- Added mtv.sh information to the Signaling System 7 Trace command. This applies to all 4.x releases.
- The following changes were made to the Office Code table:
  - Added token FORCED.
  - Added new rules.
- Added new rules to the National Destination Code table.
- Added new rules to the Exchange Code table.
- Changed the descriptions for Q761-ISUP-BASE and Q761-ISUP-CHINA values for the CAUSE-CODE-TYPE token.
- Added the value Q767-COLOMBIA to the User Part Variant table.
- Added Measurements for the Columbia ISUP to Appendix I.
- Modified the descriptions of the SEND-BDN-FOR-EMG and

- Added usage guideline for the SEND-GROUP-DN token in the ISDN Trunk Group Profile table. Applies to all releases.
- In the Billing Record Query table, more than one value cannot be specified for the ORDER token.
- Added Office Service id Precedence information to Appendix B, Office Table Features.
- For the END-TIME and START-TIME tokens in the Billing Record Query table, removed the sentence “Response is returned in GMT time.”
- Added bits 3, 5 and 6 to the PROPRIETARY-SUPP token in the ISDN Trunk Group Profile table.
- Added SIA-TG-VALIDATE-SOURCE-IP to the Call Agent Configuration table in Appendix A.
- Added ciscouser information to the Preface; as well as cautions to the delete transaction queue and download database commands. This change also applies to Release 4.5.
- MGCP-T-LONGTRAN value is in seconds, not milliseconds. Applies to all releases.
- Expanded definition of CLH for MLHG. Applies to all releases.
- For CFB (List of Features) in Appendix B, added TDPn=T_EXCEPTION and TIDn=T_NOT_REACHABLE.
- The NANP-WB-LIST column in COS Restrict table was renamed to NATIONAL-WB-LIST (all releases).
- Added the token SPARE1-SUPP to the Media Gateway Profile table.
- Added the following France ISUP values for the DISPLAY token in the Measurement ISUP Summary table:
  - MEAS_SGA_TXA_RX
  - MEAS_SGA_TXA_TX
  - MEAS_SGA_ITX_RX
  - MEAS_SGA_ITX_TX
- Added ISUPs for France and Poland to Appendix I.
- Added section concerning Extended Read Access Commands to the Preface.
- Added the following values to the ID token of the User Part Variant table:
  - Q761-ETSIV3-FRENCH
  - Q761-ETSIV2-POLAND
- Added the token SEND-SIP-181-RESP to the Softswitch Trunk Group Profile table.
- The IPTOS-RTP-LOWDELAY token default is N. This applies to all releases.
- The MGCP-SIG-TOS-PRECEDENCE token default is 3. This applies to all releases.
- Mexico ISUP is supported.
- Changed ranges for the MGCP-MAX1-RETRIES and MGCP-MAX2-RETRIES tokens in the Media Gateway Profile table.
- Added the following tokens to the SS7 Q761 Trunk Group Profile table: AOC-ENABLED, CRG-ABILITY
- Added a note in the cause-code-type token of cause-code-map table to indicate the cause-code-type for ISDN trunk groups.

Release 4.5

The following changes were made in Release 4.5. It is not an inclusive list.

- The following changes were made to the Office Code table:
  - Added token FORCED.
  - Added new rules.
- Added new rules to the National Destination Code table.
- Added new rules to the Exchange Code table.
- Added SIP-3XX-REROUTE-ON-LOCAL-DOMAIN to the Call Agent Configuartion table in Appendix A.
- For the query call-trace command, MGW has been replaced with RGW.
- Length of the BILLING-FILE-PREFIX token changed to 64 characters.
- Subnet is no longer supported for the *query call-trace* command.
- Added EM-PRIVACY-IND-SUPP to Appendix A. Used by EM Billing.
- The token USE-GRP-DN in the ISDN Trunk Group Profile table moved to the Subscriber table.
- Added the EXCHANGE-TYPE token to the SS7 Q767 Trunk Group Profile table.
- Added CIDS, CIDSD and CIDSS to the Feature Profile Base table.
- Added complete command security level list by noun and verb.
- Added the following to the SIPT ISUP Version Base table:
  - Added the value GTD to the ID token.
  - Added the value SIPT-GTD to the BASE token.
- Added the following values to the ID token of the User Part Variant table:
  - Q761_STANDARD97 (Q.761 base variant—97 version)
  - Q761_ETSIV3 (Base ETSI v3 variant)
  - Q761_ETSIV3_HUNGARY (Hungarian variant)
- Added the THROTTLE token to the *status mgw, status trunk-grp, status trunk-termination* and *status subscriber-termination* commands.
- Added Hungary and France ISUP display values to Appendix G.
- The following measurement SIA display values are obsoleted. These values will still execute, but will always contain a value of zero:
  - SIA_TOTAL_SUCC
  - SIA_TOTAL_FAIL
  - SIA_TOTAL_OUTG_MSG_FAIL
  - SIA_TOTAL_INCOM_MSG_FAIL
- In the SCTP Association Profile table, the tokens HB-TIMEOUT and MAX-PATH-RETRANS cannot be changed.
- Added WAIT token to all status, control and equip commands in Chapter 17: ADM Commands.
- Added the following tokens to the Transaction Queue table: USER-ID, TERMINAL-ID and STATUS.

- Added the tokens AUTO-REFRESH, DISPLAY, LIMIT, ORDER and START-ROW to every show and report command where applicable.

Note The tokens AUTO-REFRESH, DISPLAY, LIMIT, ORDER and START-ROW apply to all previous releases of this document.

- Added new command: Number Resource Utilization and Forecast for NANPA audit.
- The *change ems ntp-server* command is obsolete.
- Added new query command: query-call-trace.
- In the SCTP Association table, the tokens DSCP and IP-TOS-PRECEDENCE are obsolete.
- For the AOR To Subscriber table:
  - The add and delete commands are obsolete
  - Added the SEQURE-FQDN token
- In the Maintenance and Administration of System Component Commands chapter, replaced references to MySQL with Oracle.
- The status-ss7 is now obsolete.
- In the H.323 Gateway table, PASSWORD can be changed without taking the gateway out of service.
- In the Stream Control Transmission Protocol Association table, the maximum size of the HTTP-FEATURE-SERVER-ID is 8.
- In the Signaling System 7 Q761 Trunk Group Profile table, the default is 20 for the CHARGE-ORIG token.
- The following changes were make to the Routing Key table:
  - Subsystem-grp-id is required if si=SCCP.
  - Cross-check the opc-id and subsystem-grp-id across the Subsystem table when the routing-key is added with si=sccp.
  - The opc-id and subsystem-grp-id combine to make a unique key if si=sccp.
  - If a dpc-id is specified, the net-ap values for OPC and DPC must be the same.
- Added the tokens PASS-UNREC-PARAM-WITHOUT-PCI and T4 to the SS7 Q761Trunk Group Profile table.
- Added the following values to the DISPLAY token in the AIN Services Feature Server table:
  - AINSVC_LOC_LNP_QUERY
  - AINSVC_LOC_LNP_QUERY_SUCC
  - AINSVC_LOC_LNP_FAIL_APP
  - AINSVC_LOC_LNP_QUERY_RN_FOUND
  - AINSVC_LOC_LNP_QUERY_NO_RN
- Added notation “Not provisionable—provisioned in the User Part Variant Base table” to the following tokens in the User Part Variant table:
  - MAX-BLOCK-MASTER-RANGE
  - MAX-BLOCK-SLAVE-RANGE
  - MAX-PARALLEL-JOBS

  - MAX-RESET-MASTER-RANGE
  - MAX-RESET-SLAVE- RANGE
  - PROTO-FAM
  - RESET-SUPPORTED
- The following changes were made to the Feature table:
  - FNAME is now a foreign key to the Feature Profile Base table.
  - Added token FNAME5.
  - The value for the following tokens is now 32: VALUE1, VALUE2, VALUE3 and VALUE4.
- Added PS-TRIGGER to the Trigger Identification Descriptions table. Removed the following triggers:
  - ACCOUNT_CODE
  - D_OF_TRIGGER
  - ENUM-TRIGGER
  - O_ABANDON
  - O_ANSWER
  - O_CALLED_PARTY_BUSY
  - O_DISCONNECT
  - O_EXCEPTION
  - O_NO_ANSWER
  - O_NOT_REACHABLE
  - O_REANSWER
  - O_SUSPEND
  - ORIGINATION_ATTEMPT
  - T_ABANDON_DP
  - T_DISCONNECT
  - T_EXCEPTION
  - T_NOT_REACHABLE
  - T_REANSWER
  - T_SUSPEND
- Added the following tokens to the Quality of Service table:
  - FAX-T38-ENABLED
  - FORCED
  - MAX-DQOS-AUTH-BANDWIDTH
  - CLIENT-TYPE
  - DOCSIS-DSCP-TOS
  - DOCSIS-DSCP-TOS-BITMASK
  - DQOS-DSCP-TOS-BITMASK
- Added the following tokens to the DN2subscriber table:

  - END-TIME
  - LAST-CHANGED
  - START-TIME
  - PORTED-IN
  - VIRTUAL-DN
- Added the following tokens to the Class of Service Restriction table:
  - BLOCK-900
  - BLOCK-976
  - BLOCK-DA
  - BLOCK-INFO
  - BLOCK-INTL
  - BLOCK-INTL-OPER-ASSIST
  - BLOCK-NANP-OPER-ASSIST
  - BLOCK-TW
  - PROMPT-METHOD
  - ALLOW-CALLS-ON-IVR-FAILURE
- Added the following values to the Valid Nature of Dial Values table.
  - LNP
  - BLV
  - SPEED-CALL
- The valid return code combinations MDCX 3xx through 9xx when mgcp-msg=mdcx have changed to Valid Values of Call Action=None and Valid Values of Endpoint Action=EP_ACTION_NONE.
- Added the following tokens to the Carrier table:
  - LNP-QUERY
- In the Activity table, the ENABLED token default is now Y; the ID token is now 32 in length.
- Added the following MO and MT rules to the Trunk Group table:
  - When configuring a trunk group, set the direction token to OUT when the MGCP-PKG-TYPE is MO.
  - When configuring a trunk group, set the direction token to IN when the MGCP-PKG-TYPE is MT.
- Added Automatic Completion and Expansion of CLI commands.
- Added Context Sensitive Help section.
- In the Dial Plan table, the range for MIN-DIGITS is 1–64. Added the FORCED token.
- The following DISPLAY values were obsoleted in the Measurement SIA Summary table:
  - SIA_ATTENDED_TRANSFER
  - SIA_MWI_NOTIFY_TX_FAIL
  - SIA_SIP_INCOM_FAIL
  - SIA_SIP_INCOM_INIT

  - SIA_SIP_INCOM_SUCC
  - SIA_SIP_OUTG_FAIL
  - SIA_SIP_OUTG_INIT
  - SIA_SIP_OUTG_SUCC
  - SIA_UNATTENDED_TRANSFER
- The following DISPLAY values were added to the Measurement SIA Summary table:
  - SIA_AUDIT_BCM_CALL_RELEASED
  - SIA_AUDIT_CALL_RELEASED
  - SIA_AUDIT_CCB_FREED
  - SIA_AUDIT_REGCONTACT_FREED
  - SIA_INCOM_FAIL
  - SIA_INCOM_INIT
  - SIA_INCOM_SUCC
  - SIA_OUTG_FAIL
  - SIA_OUTG_INIT
  - SIA_OUTG_SUCC
  - SIA_SECURE_FQDN_VIOLATION_REQ
  - SIA_SECURE_FQDN_VIOLATION_RESP
- The following DISPLAY values were added to the Measurement ISUP Summary table:
  - ISUP_ABNORMAL_REL_RX
  - ISUP_ABNORMAL_REL_TX
  - ISUP_ACM_RX
  - ISUP_ACM_TX
  - ISUP_ANM_RX
  - ISUP_ANM_TX
  - ISUP_ARR_RX
  - ISUP_ARR_TX
  - ISUP_BLA_RX
  - ISUP_BLA_TX
  - ISUP_BLO_RX
  - ISUP_BLO_TX
  - ISUP_CCL_RX
  - ISUP_CCL_TX
  - ISUP_CCR_RX
  - ISUP_CCR_TX
  - ISUP_CFN_RX
  - ISUP_CFN_TX
  - ISUP_CGB_RX

- ISUP_CGB_TX
- ISUP_CGBA_RX
- ISUP_CGBA_TX
- ISUP_CGU_RX
- ISUP_CGU_TX
- ISUP_CGUA_RX
- ISUP_CGUA_TX
- ISUP_CON_RX
- ISUP_CON_TX
- ISUP_COT_RX
- ISUP_COT_TX
- ISUP_CPG_RX
- ISUP_CPG_TX
- ISUP_CQM_RX
- ISUP_CQM_TX
- ISUP_CQR_RX
- ISUP_CQR_TX
- ISUP_CRA_RX
- ISUP_CRA_TX
- ISUP_CRG_RX
- ISUP_CRG_TX
- ISUP_CRM_RX
- ISUP_CRM_TX
- ISUP_CVR_RX
- ISUP_CVR_TX
- ISUP_CVT_RX
- ISUP_CVT_TX
- ISUP_EXM_RX
- ISUP_EXM_TX
- ISUP_FAA_RX
- ISUP_FAA_TX
- ISUP_FAC_RX
- ISUP_FAC_TX
- ISUP_FAR_RX
- ISUP_FAR_TX
- ISUP_FOT_RX
- ISUP_FOT_TX
- ISUP_FRJ_RX

- ISUP_FRJ_TX
- ISUP_FWT_RX
- ISUP_FWT_TX
- ISUP_GRA_RX
- ISUP_GRA_TX
- ISUP_GRS_RX
- ISUP_GRS_TX
- ISUP_IAM_RX
- ISUP_IAM_TX
- ISUP_IDR_RX
- ISUP_IDR_TX
- ISUP_INF_RX
- ISUP_INF_TX
- ISUP_INR_RX
- ISUP_INR_TX
- ISUP_IRS_RX
- ISUP_IRS_TX
- ISUP_LPA_RX
- ISUP_LPA_TX
- ISUP_LPM_RX
- ISUP_LPM_TX
- ISUP_MSG_RX
- ISUP_MSG_TX
- ISUP_NRM_RX
- ISUP_NRM_TX
- ISUP_OLM_RX
- ISUP_OLM_TX
- ISUP_OPR_RX
- ISUP_OPR_TX
- ISUP_PAM_RX
- ISUP_PAM_TX
- ISUP_PRI_RX
- ISUP_PRI_TX
- ISUP_REL_RX
- ISUP_REL_TX
- ISUP_RES_RX
- ISUP_RES_TX
- ISUP_RLC_RX

  - ISUP_RLC_TX
  - ISUP_RSC_RX
  - ISUP_RSC_TX
  - ISUP_SAM_RX
  - ISUP_SAM_TX
  - ISUP_SGM_RX
  - ISUP_SGM_TX
  - ISUP_SUS_RX
  - ISUP_SUS_TX
  - ISUP_UBA_RX
  - ISUP_UBA_TX
  - ISUP_UBL_RX
  - ISUP_UBL_TX
  - ISUP_UCIC_RX
  - ISUP_UCIC_TX
  - ISUP_UNEXPECT_MSG_RX
  - ISUP_UNRECOG_MSG_RX
  - ISUP_UPA_RX
  - ISUP_UPA_TX
  - ISUP_UPT_RX
  - ISUP_UPT_TX
  - ISUP_USR_RX
  - ISUP_USR_TX
- Added the following DISPLAY values to the Measurement TCAP Protocol Summary table:
  - TCAP_OPERATION_REQ_RX
  - TCAP_OPERATION_CONFIRM_RX
  - TCAP_OPERATION_IND_RX
  - TCAP_COMPONENT_REQ_RX
  - TCAP_COMPONENT_CONFIRM_RX
  - TCAP_COMPONENT_IND_RX
  - TCAP_DATA_IND_RX
  - TCAP_UDATA_IND_RX
  - TCAP_DATA_REQ_RX
  - TCAP_DELIMITER_REQ_RX
  - TCAP_DELIMITER_IND_RX
  - TCAP_OPEN_IND_RX
  - TCAP_OPEN_CONFIRM_RX
  - TCAP_STATUS_IND_RX

  - TCAP_DIALOG_CONFIRM_RX
  - TCAP_CLOSE_IND_RX
  - TCAP_ABORT_IND_RX
  - TCAP_BIND_CONFIRM_RX
  - TCAP_STAT_CONFIRM_RX
  - TCAP_NOTICE_IND_RX
  - TCAP_STAT_IND_RX
- Added the following DISPLAY values to the Measurement AIN Tools Summary table:
  - AINSVC_LOC_LNP_FAIL_APP
  - AINSVC_LOC_LNP_QUERY
  - AINSVC_LOC_LNP_QUERY_NO_RN
  - AINSVC_LOC_LNP_QUERY_RN_FOUND
  - AINSVC_LOC_LNP_QUERY_SUCC
- Added the following DISPLAY values to the POTS Class of Service Feature Server table:
  - POTS_COS_TOLLFREE_BLOCKED
  - POTS_TDISC_CALLS_OUTG_BLOCKED
  - POTS_COS_TOT_AUTH_IVR_SESSION
  - POTS_COS_TOT_ACCT_IVR_SESSION
  - POTS_COS_TOT_IVR_FAIL
- The following POTS Miscellaneous Feature Server table DISPLAY token values are obsoleted:
  - POTS_LCD_AUTH_ATTEMPTS. Use POTS_LCD_AUTH_ATTMP.
  - POTS_LCD_AUTH_SUCCESS. Use POTS_LCD_AUTH_SUCC.
  - POTS_LCD_FORCED_DISCONNECT. Use POTS_LCD_FORCED_DISC.
- Added the values SIM_AUDIT_CCB_FREED and SIM_AUDIT_SIP_CCB_FREED to the DISPLAY token in the Measurement SIM Summary table.
- Added Session Initiation Protocol values to the DISPLAY token of the Measurement SIA Summary table, the Measurement SIM Summary table, the Measurement POTS Miscellaneous Feature Server Summary table and the Measurement AIN Tools Summary table.
- Added the following tokens to the Measurement Trunk Group Summary table:
  - TRKGRP-EXCHANGE
  - TRKGRP-NAME
  - CALL-AGENT-ID
- Added the following values to the DISPLAY token of the Measurement MGCP Signaling Adapter Summary table:
  - MGCP_AUCX_TX
  - MGCP_AUCX_ACK_RX
  - MGCP_AUCX_NACK_RX
- Added the following values to the DISPLAY token of the Measurement Billing Summary table:
  - BILLING_TOTAL_AIRLINES

  - BILLING_TOTAL_CNA
  - BILLING_TOTAL_DA_INTER
  - BILLING_TOTAL_DA_INTL
  - BILLING_TOTAL_INTL_OPR
  - BILLING_TOTAL_INTL_WZ1
  - BILLING_TOTAL_LB_TEST
  - BILLING_TOTAL_NAT_OPR BILLING_TOTAL_RAILWAYS
  - BILLING_TOTAL_SVC_CODE
  - BILLING_TOTAL_MOBILE
  - BILLING_TOTAL_UAN
- Added value definitions to the PROTOCOL-VERSION token in the Electronic Surveillance Server table.
- The following tokens were added to the Media Gateway Profile table: MGCP-TO-SUPP, MGCP-QDISCARD-SUPP, MGCP- TEST-CONN-SUPP and SDP-CAP-ENCODE-TYPE.
- Db-license file provisioning is not required.
- The token MAX-INIT-RTO value in the Stream Control Transmission Protocol Association table is now SMALLINT:1000–3000 (Default = 1000).
- The token MAX-LINES in the MultiLine Hunt Group table is obsolete.
- The following changes were made to the Trunk Group table:
  - Added the tokens TG, SCRIPT-SUPP, VOICE-INFO-TRANSFER-CAP, VOICE-LAYER1-USERINFO and PERFORM-LNP-QUERY.
  - The TG token is a unique key.
  - Added two values, DYNAMIC and LINE, to the MGCP-PKG-TYPE token.
  - Added usage rule for MGCP-PKG-TYPE token.
  - The MD value for MGCP-PKG-TYPE is now supported.
  - The token PFX-DIGITS is 1-10 digits.
- The following changes were made to the Subscriber table:
  - Added the tokens ACCOUNT-ID, BILLING-TYPE, FORCED, LNP-TRIGGER, PORTED-IN, PRIVACY-MANAGER-ID, SECURE-FQDN, VMWI, SDT-MWI, VOICE-MAIL-ID and DN-STATUS.
  - The SECURE-FQDN token is a unique key.
  - The COUNTRY token has no default.
  - Added rule regarding use of FORCED in add commands.
  - The delete subscriber command now deletes all subscriber related records such as those in the Subscriber Feature Data table and the Subscriber Service Profile table.
- The following changes were made to the Destination table:
  - The CALL-TYPE token is a foreign key to the Call Subtype table.
  - Added the tokens ACQ-LNP-Query and CALL-SUBTYPE.
  - The RING-TYPE-DN1 token value is now a range from 1 to 7.
  - The test-line value for the CATEGORY token is obsolete.

- Added Database Usage Default sections for Small, Medium, Routeserver, Local Number Portability (LNP) and Cable8 configurations to Appendix D.
- The TCAP-VERSION token is obsoleted in the Subsystem table.
- The Subsystem Profile table is obsoleted.
- Added new tables AAA Server Group, Call Type Profile, Call Subtype, Subsystem Group, Region Code, Directory Number to Routing Number, Signal Connection Control Part Route and Directory Number to Gateway Number.
- For medium and large configurations, up to 30 OPCs can be provisioned per Cisco BTS 10200 Softswitch. For small configurations, up to 8 OPCs can be provisioned per Cisco BTS 10200 Softswitch.
- Added the subsystem-grp-id token to the following tables:
  - Service Logic Host Route
  - Signaling Connection Control Part Route
  - Routing Key
- Obsoleted the ssn-id token in the following tables
  - Service Logic Host Route
  - Signaling Connection Control Part Route
  - Routing Key
- Added new section on Subsystem Group control and status commands.
- The OPC-ID token is now required in the “control subsystem” command.
- The SDT and SDT-TYPE tokens in the Vertical Service Code table are obsoleted.
- Added new delete rule to the Service table.
- In the Digit Map table, the DIGIT-PATTERN token size is now 2048 ASCII characters.
- In the Changed Number table, made the following changes:
  - Added new tokens: END-TIME, LAST-CHANGED and START-TIME.
  - Added new delete and show command examples.
- In the Audio Segment and Audio Sequence tables, the description token is now 512 ASCII characters.
- In the Route table, added the following new tokens:
  - NEXT-ACTION
  - ANNC-ID
  - OVERFLOW-DN
- In the ISDN D-Channel table, added the following new tokens
  - DCHAN-FORMAT
  - DCHAN-SUBSLOT.
- The following changes were made to the Digit Manipulation table:
  - The token MATCH-NOA is 40 ASCII characters
  - The token REPLACE-NOA is 32 ASCII characters.

  - Added the following values to the MATCH-NOA token: PORTED-NUMBER-WITHOUT-RN, PORTED-NUMBER-WITH-RN, NON-UNIQUE-INTL, NON-UNIQUE-NATIONAL and NON-UNIQUE-SUBSCRIBER.
- Added tokens OVERDECADIC-DIGITS-SUPP, NOA-BASED-ROUTING and NOA-ROUTE-PROFILE-ID to the Dial Plan Profile table.
- Added the following call types to the Call Type table:
  - ANA
  - MOBILE
- Added the following feature information to Appendix B:
  - CFC
  - CFC-DN-CHG-ACT
  - CFC-ACT
  - CFC-DEACT
  - CFCI
  - CFCI-NO-DN-VRFY
  - NSA
  - NSA-ACT
  - PS
  - PS-MANAGE
  - PS-O
  - SLE
  - VM
  - VM-ACCESS
  - VMA
  - VMA-ACT
  - VM-ACT
  - VMA-DEACT
  - VM-DEACT
  - Added column “VALUE 5.”
- Added the following rules to the Stream Control Transmission Protocol table:
  - The remote-port and remote-tsap-addr1 cannot be the same.
  - The remote-port and remote-tsap-addr2 cannot be the same.
- Added the following note to the Call Agent Configuration table: When the Cisco BTS 10200 Softswitch looks for provisioned values, Call Agent Configuration table is read first to provide a value. If the Call Agent Configuration table is not provisioned, the system then reads the Call Agent Configuration Base table and returns that default value.
- The IKE-KEY token description has changed in the Aggregation, Media Gateway Profile, Electronic Surveillance Server and Radius Profile tables.
- Modified the description of the IKE-KEY-ENCR token in the Aggregation, Media Gateway Profile, Electronic Surveillance Server and Radius Profile tables.

- Modified the description of the IPSEC-SA-ESP-CS token in the Aggregation, Media Gateway Profile, Electronic Surveillance Server and Radius Profile tables.
- Added the following types to the Check Possible Values Types and Values table (these types are not provisionable in this release):
  - MGCP-T38-FAX-MODE-PREF1
  - MGCP-T38-FAX-MODE-PREF1
  - MGCP-T38-FAX-MODE-PREF1
  - MGCP-T38-FAX-MODE-PREF2
  - MGCP-T38-FAX-MODE-PREF2
  - MGCP-T38-FAX-MODE-PREF2
  - MGCP-T38-FAX-MODE-PREF3
  - MGCP-T38-FAX-MODE-PREF3
  - MGCP-T38-FAX-MODE-PREF3
- Point of Presence (POP) table changes:
  - Added the following tokens: ENUM-PROFILE-ID, ENUM-SUPP, CLLI-CODE-ID, CUSTOMER-SUPPORT-DN, IVR-DN, OFFICE-SERVICE-ID, POLICY-SERVER, PRIVACY-MANAGER-ID, SENSOR-ID, TEMP-DISC-COS-RESTRICT-ID, TEMP-DISC-SERVICE-ALLOWED, VIRTUAL-NSA-SUBSCRIBER-ID, VOICE-MAIL-ID
  - Added information to the TIMEZONE token; TIMEZONE token is now optional, and is a foreign key to the Timezone table.
  - Added cos-restrict-id for temporarily disconnected subscribers.
  - LATA token range has changed from 100–65535 to 100–99999. Token defaults to 99999 if not provisioned.
  - The STATE token changed to VARCHAR(16) and is uppercase only. Use two uppercase characters for U.S. states. For example: TX, CA, and so forth.
  - JIP token value is now numeric.
- Added list of 4.5 timezone values to Appendix C.
- Channel Associated Signaling Trunk Group Profile table changes:
  - Added tokens: TEST-LINE-TYPE, PLAY-DIAL-TONE, PLAY-RINGBACK-TONE, SEND-ANI, INBAND-INFO, NO-ANSWER-TIMER and NO-ANSWER-ACTION.
  - Modified the values for SIG-TYPE.
  - The SIG-TYPE value MF-FGD has been obsoleted.
  - Added the SIG-TYPE value LINE.
  - The MGCP-PKG-TYPE token is obsoleted. Token moved to the Trunk Group table.
  - The OSS-SIG token is obsoleted. Use new token OSS-SIG-TYPE.
  - The tokens TEST-LINE and NO-TEST-TRUNK are now optional.
- Media Gateway table changes:
  - Added token: NODE.
- Media Gateway Profile table changes:

  - Added tokens: FAX-FAILURE-HANDLING, FAX-INBAND-METHOD, T38-FXR-LOOSE-SUPP, T38-FXR-GW-SUPP, NLB-SUPP, MGCP-MSG-PIGGYBACK-SUPP, MGCP-MAX-KEEPALIVE-INTERVAL, MGCP-REQ-ID-SUPP, MGCP-PIGGYBACK-MSG-SUPP, and PARALLEL-NETWLOOP-SUPP.
  - Marked obsoleted: “if fax-pref-mode=FAX-T38CAMODE, then fax-t38-camode-supp=Y” and “if fax-pref-mode=FAX-INBAND, then fax-inband-supp=Y” from the usage guidelines.
  - Added rule for MGCP-MAX-KEEPALIVE-INTERVAL.
  - Added rule for PARALLEL-NETWLOOP-SUPP.
  - Added the value MD to the MGCP-DEFAULT-PKG token.
- Added BAU-URI token to the Announcement table.
- Call Park Subscriber Group table changes:
  - Added token: CPRK-DIGIT-MAP-STRING.
- Exchange Code table changes:
  - Added primary key token digit-string.
  - NDC token now optional.
  - Digit-string token is created by concatenating NDC + EC.
- Office Code table changes:
  - NDC token now optional.
  - Digit-string range changed to 1–14 ASCII characters.
- Subscriber table changes:
  - Added tokens: PORTED-IN, FORCED, BILLING-TYPE, ACCOUNT-ID, VOICE-MAIL-ID, VOICE MAIL ID, and PRIVACY-MANAGER-ID.
  - Added expanded description to the temp-unavailable value of the STATUS token.
  - Added forced rule.
  - The delete subscriber command deletes all subscriber related records such as subscriber-feature-data and subscriber-service-profile.
  - The token SEND-BILLING-DN is obsolete.
- Subscriber Profile table changes:
  - Added tokens: TEST-LINE-TYPE, VOICE-MAIL-ID, INTERLATA-PFX1-OPT and PRIVACY-MANAGER-ID.
- Subscriber Feature Data table changes:
  - Added values NSA, PM, VM, and VMU to the fname token.
  - Added new value “T” to the active token.
  - Added value FDN4 to the type token.
- The following changes were made to the Feature Server table:
  - Table containment area now includes FSAIN.
  - Added new 3PTY value to the type token.
  - Added new token EXTERNAL-FEATURE-SERVER.
- The following new tables were added:

  - Script
  - Trigger NOD Escape List
  - Feature Profile Base
  - Feature Configuration Base
  - Feature Configuration Base Check Possible Values
  - Feature Configuration Check Possible Values
  - Subscriber Time of Day Schedule
  - Common Language Location Identifier
  - Emergency Number List
  - Nature of Address Route Profile
  - Nature of Address Route
- Added the token policy-server-id to the Aggregation table.
- The following changes were made to the Users table:
  - It is now possible to change user attributes DAYS-VALID and WARN using the “change user” command.
  - Added token PASSWORD.
  - Added note in the Examples section on using the PASSWORD token in the add command.
- Subscriber table: added new delete rule.
- Screen List Editing table: added new value, NSA, to the fname token.
- Added Application Server table to the Features chapter.
- Vertical Service Code table: added two Second Dial Tone Indicator tokens.
- Custom Dial Plan table: added sdt-type token.
- Softswitch Trunk Group Profile table changes:
  - The following tokens are obsoleted: ECHO-SUPP-REQUIRED, SATELLITE-CIRCUIT, SEND-CPN, SEND-OCN, SEND-REDIR-NUM, SEND-ATP, SEND-GAP, SEND-GN, SEND-JIP, CC-DIVERSION-SUPP AND SEND-CIP.
  - The following new tokens were added: SEND-FULL-E164, SCALE-FACTOR, MAX-FORWARDS, HOP-COUNTER-SUPP, HOP-COUNTER-MAX, USE-CMSS-RESRC-MGMT, USE-RESOURCE-MGMT, ES-SUPP, AUDIT-THRESHOLD, SIP-TIMER-PROFILE-ID, SEND-CIC-PARAM, USE-PAI-HDR-FOR-ANI, APPLY-USER-PRIVACY, and DNS-SRV-ADV-ON-RETRANS-TIMEOUT.
  - Added two rules for add.
- Display token values for ETSI are supported.
- Display token values for Chile, Israel and Australia ISUPs are not supported.
- Added new tokens SEND-FS-CALLP and REMOTE-FAX-PORT-RETRIEVAL-MSG to the H.323 Terminal Profile and H323 Trunk Group Profile tables.
- The following rules are no longer required for the H323 Trunk Group Profile table:
  - If fax-pref-mode=FAX-T38-CAMODE, then fax-t38-camode-supp=Y;
  - If transport-pref-mode=UDP-MODE, then annexe-supp=Y;
  - If h245-tunneling = AUTO or ENABLE, then facility-supp=Y;

- The following rules are no longer required for the H.323 Terminal Profile table:
  - If fax-pref-mode (in QOS table) = fax-t38-gwmode, then fax-t38-gwmode-supp=Y;
  - If fax-pref-mode (in QOS table) = fax-t38-camode, then fax-t38-camode-supp=Y;
  - If fax-pref-mode (in QOS table) = fax-inband, then fax- inband-supp=Y;
  - If dtmf-pref-mode (in QOS table) = dtmf-cisco-rtp, then dtmf-cisco-rtp-supp=Y;
  - If dtmf-pref-mode (in QOS table) = dtmf-h245-alpha, then dtmf-h245-alpha-supp=Y;
  - If dtmf-pref-mode (in QOS table) = dtmf-h245-signal, then dtmf-h245-signal-supp=Y;
  - If dtmf-pref-mode (in QOS table) = dtmf-rfc2833, then dtmf-rfc2833=Y;
- The H.323 Terminal Profile table tokens FAX-T38-CAMODE-SUPP and FAX-T38-GWMODE-SUPP are obsoleted.
- In the Call Detail Block table, 108 and NLB test calls are supported under the type token.
- The following values were added to the SERVICE-TYPE token for billing:
  - call-forward-combination
  - no-solicitation-announcement
  - privacy-screening
  - voice-mail
  - voice-mail-access
- The following values were added to the TYPE token for billing:
  - calling-number-announcement
  - interlata-da
  - international-da
  - universal-access-number
- The loopback-test (108 test calls) value of the TYPE token in the Call Detail Block table is obsoleted.
- Added Appendix F covering timezones and timezone localities for billing and call processing.
- The FREQ token in the Activity table is now mandatory.
- The following changes were made to the Activity Base table:
  - Added example for the *show activity-id* command.
  - Added four new activity ids: SIA-MEMORY-PERIODIC-AUDIT, SIA-MEMORY-SCHEDULED-AUDIT, SIM-MEMORY-PERIODIC-AUDIT and SIM-MEMORY-SCHEDULED-AUDIT.
  - The ID token is now 32 characters.
  - The VALID-FREQ token is now 64 characters.
  - Added the following tokens: AUDIT-COUNT-RANGE-FROM, AUDIT-COUNT-RANGE-TO, AUDIT-INTERVAL-RANGE-FROM, AUDIT-INTERVAL-RANGE-TO, and FIXED-TIME-INTERVAL
- The following changes were made to the Aggregation table:
  - Modified the description of the TSAP-ADDR token.
  - The IPSEC-SA-GRACE- PERIOD token range has changed; notes added.

  - The IKE-GROUP token range has changed.
  - Added token: TYPE.
- Added Appendix H: Data Values for DiffServ Code Point and Type of Service Parameters.
- Added examples and made corrections to the PacketCable chapter.
- The Measurement TSA Summary table is obsoleted. Display values are now part of the Measurement TCAP Summary table.
- The Measurement INAP Summary table is obsoleted.
- Added example for the Measurement Trunk Group Usage Summary table showing how to use the reporting option to gather statistics on a per Pop basis.
- Added the following display values for the Measurement Call Processing Summary table:
  - CALLP_LB_TEST_SUCC
  - CALLP_NCT_TEST_SUCC
  - CALLP_ NCT_TEST_FAIL
  - CALLP_NLB_TEST_SUCC
  - CALLP_NLB_TEST_FAIL
  - CALLP_TEST_ROUTE_SUCC
  - CALLP_TOTAL_TDISC_ORIG_ATTMP
  - CALLP_T38_FAX_MEDIA_SETUP_SUCC
  - CALLP_T38_FAX_MEDIA_SETUP_FAIL
- Added the following display values for the POTS Local Feature Server table:
  - POTS_CFC_ACT_ATTMP
  - POTS_CFC_ACT_FAIL
  - POTS_CFC_ACT_SUCC
  - POTS_CFC_DEACT_ATTMP
  - POTS_CFC_DEACT_FAIL
  - POTS_CFC_DEACT_SUCC
  - POTS_CFC_DN_CHG_ACT_ATTMP
  - POTS_CFC_DN_CHG_ACT_FAIL
  - POTS_CFC_DN_CHG_ACT_SUCC
  - POTS_CFC_FORWARD_ATTMP
  - POTS_CFC_FORWARD_FAIL
  - POTS_CFC_FORWARD_SUCC
  - POTS_CFC_INTERROG_ATTM
  - POTS_CFC_INTERROG_FAIL
  - POTS_CFC_INTERROG_SUCC
  - POTS_NSA_INVOKE_ABANDON
  - POTS_NSA_INVOKE_ATTMP
  - POTS_NSA_INVOKE_FAIL

  - POTS_NSA_INVOKE_SUCC
- Added the following display values for the Measurement TCAP Protocol Summary table:
  - TCAP_ABORT_IND_RX
  - TCAP_BIND_CONFIRM_RX
  - TCAP_CLOSE_IND_RX
  - TCAP_COMPONENT_CONFIRM_RX
  - TCAP_COMPONENT_IND_RX
  - TCAP_COMPONENT_REQ_RX
  - TCAP_DATA_IND_RX
  - TCAP_DATA_REQ_RX
  - TCAP_DELIMITER_IND_RX
  - TCAP_DELIMITER_REQ_RX
  - TCAP_DIALOG_CONFIRM_RX
  - TCAP_NOTICE_IND_RX
  - TCAP_OPEN_CONFIRM_RX
  - TCAP_OPEN_IND_RX
  - TCAP_OPERATION_CONFIRM_RX
  - TCAP_OPERATION_IND_RX
  - TCAP_OPERATION_REQ_RX
  - TCAP_STAT_CONFIRM_RX
  - TCAP_STAT_IND_RX
  - TCAP_STATUS_IND_RX
  - TCAP_UDATA_IND_RX
- Added the following display values to the Measurement ISUP Summary table. These counters replace the SGA counters in previous releases.
  - ISUP_ABNORMAL_REL_RX
  - ISUP_ABNORMAL_REL_TX
  - ISUP_ACM_RX
  - ISUP_ACM_TX
  - ISUP_ANM_RX
  - ISUP_ANM_TX
  - ISUP_ARR_RX
  - ISUP_ARR_TX
  - ISUP_BLA_RX
  - ISUP_BLA_TX
  - ISUP_BLO_RX
  - ISUP_BLO_TX
  - ISUP_CCL_RX

- ISUP_CCL_TX
- ISUP_CCR_RX
- ISUP_CCR_TX
- ISUP_CFN_RX
- ISUP_CFN_TX
- ISUP_CGB_RX
- ISUP_CGB_TX
- ISUP_CGBA_RX
- ISUP_CGBA_TX
- ISUP_CGU_RX
- ISUP_CGU_TX
- ISUP_CGUA_RX
- ISUP_CGUA_TX
- ISUP_CON_RX
- ISUP_CON_TX
- ISUP_COT_RX
- ISUP_COT_TX
- ISUP_CPG_RX
- ISUP_CPG_TX
- ISUP_CQM_RX
- ISUP_CQM_TX
- ISUP_CQR_RX
- ISUP_CQR_TX
- ISUP_CRA_RX
- ISUP_CRA_TX
- ISUP_CRG_RX
- ISUP_CRG_TX
- ISUP_CRM_RX
- ISUP_CRM_TX
- ISUP_CVR_RX
- ISUP_CVR_TX
- ISUP_CVT_RX
- ISUP_CVT_TX
- ISUP_EXM_RX
- ISUP_EXM_TX
- ISUP_FAC_RX
- ISUP_FAC_TX
- ISUP_FAR_RX

- ISUP_FAR_TX
- ISUP_FOT_RX
- ISUP_FOT_TX
- ISUP_FRJ_RX
- ISUP_FRJ_TX
- ISUP_FWT_RX
- ISUP_FWT_TX
- ISUP_GRA_RX
- ISUP_GRA_TX
- ISUP_GRS_RX
- ISUP_GRS_TX
- ISUP_IAM_RX
- ISUP_IAM_TX
- ISUP_IDR_RX
- ISUP_IDR_TX
- ISUP_INF_RX
- ISUP_INF_TX
- ISUP_INR_RX
- ISUP_INR_TX
- ISUP_IRS_RX
- ISUP_IRS_TX
- ISUP_LPA_RX
- ISUP_LPA_TX
- ISUP_LPM_RX
- ISUP_LPM_TX
- ISUP_MSG_RX
- ISUP_MSG_TX
- ISUP_NRM_RX
- ISUP_NRM_TX
- ISUP_OPR_RX
- ISUP_OPR_TX
- ISUP_PAM_RX
- ISUP_PAM_TX
- ISUP_PRI_RX
- ISUP_PRI_TX
- ISUP_REL_RX
- ISUP_REL_TX
- ISUP_RES_RX

  - ISUP_RES_TX
  - ISUP_RLC_RX
  - ISUP_RLC_TX
  - ISUP_RSC_RX
  - ISUP_RSC_TX
  - ISUP_SAM_RX
  - ISUP_SAM_TX
  - ISUP_SGM_RX
  - ISUP_SGM_TX
  - ISUP_SUS_RX
  - ISUP_SUS_TX
  - ISUP_UBA_RX
  - ISUP_UBA_TX
  - ISUP_UBL_RX
  - ISUP_UBL_TX
  - ISUP_UCIC_RX
  - ISUP_UCIC_TX
  - ISUP_UNEXPECT_MSG_RX
  - ISUP_UNRECOG_MSG_RX
  - ISUP_USR_RX
  - ISUP_USR_TX
- In the Measurements chapter, INAP is obsoleted.
- Added Appendix I: ISUP Measurement Counters.
- In the Media Gateway Profile table, the token SPARE2-SUPP is used to specify network loopback test calls.
- SS7 display values have been changed to AUDIT values in the Measurement Audit Summary table. The following display values have been added:
  - AUDIT_SS7_TRUNK_STATE_SYNCED
  - AUDIT_SS7_LONG_DUR_EXCEEDED
  - AUDIT_FS_TOTAL_SIP_RESP_TMO
  - AUDIT_FS_TOTAL_SIP_NOACK_TMO
  - AUDIT_FS_TOTAL_CA_SWITCHOVER
  - AUDIT_SIP_CCB_FREED
  - AUDIT_SIP_CALL_RELEASED
  - AUDIT_SIP_BCM_CALL_RELEASED
  - AUDIT_SIP_REGCONTACT_FREED
- Added the following display values to the Measurement Billing Summary table:
  - BILLING_TOTAL_LB_TEST

  - BILLING_TOTAL_INTL_OPR
  - BILLING_TOTAL_NAT_OPR
  - BILLING_TOTAL_AIRLINES
  - BILLING_TOTAL_RAILWAYS
  - BILLING_TOTAL_SVC_CODE
  - BILLING_TOTAL_INTL_WZ1
  - BILLING_TOTAL_CNA
  - BILLING_TOTAL_DA_INTER
  - BILLING_TOTAL_DA_INTL
  - BILLING_TOTAL_UAN
- Added the following display values to the Measurement Trunk Group Usage Summary table:
  - TRKGRP_EXCHANGE
  - TRKGRP_GLARE_COUNT
  - TRKGRP_LBLK_TRK_USAGE
  - TRKGRP_MAINT_TRK_USAGE
  - TRKGRP_NAME
  - TRKGRP_OOS_TRK_USAGE
  - TRKGRP_RBLK_TRK_USAGE
  - TRKGRP_TOTAL_INS_TRK
  - TRKGRP_UEQP_TRK_USAGE
- Added the display value ANM_EMG_CKT_UNAVAIL to the Announcement Measurements Summary table.
- In the Screening List Editing table the following changes were made:
  - Added the value NSA to the fname token.
  - Added tokens FORCED and LAST-CHANGED.
  - Added delete command examples using the FORCED token.
- Added the following call types:
  - Automatic number announcement (ANA)
  - InterLATA DA call (DA-INTERLATA)
  - International DA Call (DA-INTL)
  - International call within World Zone 1 (INTL-WZ1)
  - Universal Access Number (UAN)
- VACANT call type: removed default call type.
- The following changes were made to the Call Agent Configuration table in Appendix A:
  - Added the following T38 values:
    - MGCP-T38-FAX-MODE-PREF1: Not provisionable.
    - MGCP-T38-FAX-MODE-PREF2: Not provisionable.
    - MGCP-T38-FAX-MODE-PREF3: Not provisionable.

- CODEC-T38-PTIME
- T38-MAX -BIT-RATE: Not provisionable.
- T38-MAX -BUFFER-SIZE: Not provisionable.
- T38-MAX -DATAGRAM-SIZE: Not provisionable.

– The following values are obsoleted:
- MGCP-MIN-RETRANSMIT-COUNT
- MGCP-MAX-RETRANSMIT-COUNT
- MGCP-PING-ATTEMPTS
- MGCP-PING-DURATION
- MGCP-TIMER-VAL
- MIN-SE
- SESSION-EXPIRES
- DEFAULT-IVR-SCRIPT-PKG-TYPE
- FQDN-FOR-EXTERNAL-FS
- SCTP-IP-TOS-PRECEDENCE

– The following values were added:
- ACCT-CODE-PROMPT-DELAY
- ACCT-CODE-PROMPT-TIMEOUT
- ACCT-CODE-PROMPT-TONE
- COT-ACTIVATION-LEVEL
- FEATURE-RECONNECT-TMR
- EMG-SUSPEND-TMR
- ENUM-QUERY-RESPONSE-TIMER
- ENUM-QUERY-RETRY-COUNT
- INACTIVE-CONN-MODE-BEFORE-ANSWER
- MGCP-MAX-KEEPALIVE-AUEP
- MGCP-MAX-KEEPALIVE-ICMP
- MGCP-RTO-MAX
- NCT-TEST-SERVICE-AFFECTING
- NLB-TEST-SERVICE-AFFECTING
- TEST-TRUNK-GRP-DIGITS
- TEST-TRUNK-MEMBER-DIGITS
- BEST-EFFORT-ON-QOS-FAIL
- DEFAULT-OCB-PROFILE-ID
- DEFAULT-PRIVACY-MANAGER-ID
- DEFAULT-VOICE-MAIL-ID
- ENCRYPTION-KEY
- RADIUS-AUTHORIZATION-ALLOWED

- RADIUS-SERVER-ADDRESS
- WHISPER-TONE-TIMER
- SCTP-DSCP
- SIP-TIMER-PROFILE-ID
- SUB-MAX-FORWARDS
- SUB-SESSION-TIMER-ALLOWED
- SIA-REG-MAX-EXPIRES-SECS
- SIA-REG-MIN-EXPIRES-SECS
- REFER-ACCEPT-TIMER-SECS
- SESSION-EXPIRES
- REFER-ABANDON-TIMER-SECS
- MAX-SESSION-EXPIRES
- MAX-SUBSCRIPTION-LEVEL
- MGCP-T-HIST.
- RELEASE-CALL-ON-LCD-TRIGGER-FAILURE.

– The default value for SIA-REG-MIN-EXPIRES-SECS changed to 1800.

– The following types have no default values: CODEC-G722-PTIME, CODEC-G723-1A-H-PTIME, CODEC-G723-1A-L-PTIME, CODEC-G723-1-H-PTIME, CODEC-G723-1-L-PTIME, CODEC-G726-16K-PTIME, CODEC-G726-24K-PTIME, CODEC-G726-32K-PTIME, CODEC-G726-40K-PTIME, CODEC-G728-PTIME, CODEC-G729AB-PTIME, CODEC-G729B-PTIME, CODEC-G729E-PTIME,CODEC-G729-PTIME, CODEC-PCMA-PTIME, CODEC-T38-PTIME and CODEC-PCMU-PTIME.

Release 4.4.1

The following changes were made in Release 4.4.1. It is not an inclusive list.

Note The OCB Profile and OCB K Value tables are supported in this release.

- Added TGID value to the TRUNK-SUB-GRP-TYPE token of the Softswitch Trunk Group Profile table.
- Added the token AAA-SERVER-GRP-ID to the Point of Presence table.
- For the measurement provisioning command, the ALL value for the TYPE token is obsolete.
- In the User Part Variant table, added the Q761_STANDARD value to the ID token.
- Added the tokens SEND-EARLY-BKWD-MSG and EARLY-BKWD-MSG-TMR to the Trunk Group table.
- In the H.323 Gateway to Gatekeeper table, the GK-IP-ADDR token must now be entered in dot notation: A.B.C.D.
- Added feature information for limited call duration (LCD) to Appendix B.

- Added new table Generic Transparency Descriptor (GTD) and table listing supported GTD parameters.
- Added the following new tables for IVR functionality:
  - Audio Segment
  - Audio Sequence
  - IVR Script Profile
  - Language
- The following rules were added to the Subscriber table:
  - if subscriber category=individual/pbx, mlhg-id and ctxg-id are not provisionable.
  - if subscriber category=mlhg/mlhg-individual/mlhg-pref-indiv, ctxg-id is not provisionable.
  - if subscriber category=ctxg/ctxg-individual/ctxg-tg, mlhg-id is not provisionable.
- Added the token ALARM-STATE to the Alarm Log/Event Log table.
- Added the following values for the Measurement POTS Miscellaneous Feature Server Summary table display token:
  - POTS_LCD_AUTH_ATTEMPTS
  - POTS_LCD_AUTH_SUCCESS
  - POTS_LCD_AUTH_FAIL
  - POTS_LCD_REAUTH_FAIL
  - POTS_LCD_FORCED_DISCONNECT
- In the ADM chapter, Address of Record to Subscriber (aor2sub) table, the status and control commands are obsoleted. Use the change command to control an aor2sub ID, and the show command to check the status.
- Added the token USE-PACKETCABLE-IAP to the Electronic Surveillance Server table for CALEA SII support.
- Added the following values and note to the ID token of the Activity table:
  - MEDIA-ALIVE-EM
  - MGCP-TERM
  - SS7-CIC

Note Note: Enter these values in upper case. These values are case-sensitive.

- Added note to the id token of the Activity Base table that the values are case-sensitive.
- In the Call Agent table, the token tsap-addr-sidea is now tsap-addr.
- In the Call Agent Configuration table:
  - Added example of add command.
  - Delete command is now supported
  - The tokens batch-mode-supp and batch-latency are obsoleted.
- In the Local Access and Transport Area table, the LATA id range is increased to 99999.
- In the Call Agent Profile table:

  - Removed the add and change rule “cms-id cannot equal the mgc-id.”
  - Cms-id is now mandatory. Default is 99999.
  - Default for the feid token is now 33333.
  - Mgc-id is now mandatory. Default is 99999.
  - The token cms-supp is obsolete.
  - Removed the token mgc-supp.
  - Removed the token gtd-supp.
  - Removed the token es-intercept-type.
  - Added the tokens FORCED and PCMM-SUPP.
- For the cdb-billing-supp token:
- Added the token ALARM-STATUS to the Alarm or Event Log command.
- In the Softswitch Trunk Group Profile table the value for the SIPT-ISUP-VER token is no longer restricted to GR317.
- Added the following values for the Measurement POTS Miscellaneous Feature Server Summary table display token:
  - POTS_LCD_AUTH_ATTEMPTS
  - POTS_LCD_AUTH_SUCCESS
  - POTS_LCD_AUTH_FAIL
  - POTS_LCD_REAUTH_FAIL
  - POTS_LCD_FORCED_DISCONNECT
- In the ADM chapter, Address of Record to Subscriber (aor2sub) table, the status and control commands are no longer supported. Use the change command to control an aor2sub id, and the show command to check the status.
- Added the token use-packetcable-iap to the Electronic Surveillance Server table for CALEA SII support.
- Added the following values and note to the ID token of the Activity table:
  - MEDIA-ALIVE-EM
  - MGCP-TERM
  - SS7-CIC
  - Note: Enter these values in upper case. These values are case-sensitive.
- Added note to the ID token of the Activity Base table that the values are case-sensitive.
- In the Call Agent Configuration table:
  - Added example of add command.
  - Delete command is now supported
  - The tokens batch-mode-supp and batch-latency are no longer supported.
- In the Call Agent Profile table:
  - Removed the add and change rule “cms-id cannot equal the mgc-id.”
  - Cms-id is now mandatory. Default is 99999.
  - Default for the FEID token is now 33333.

  - MGC-ID is now mandatory. Default is 99999.
  - Removed the tokens CMS-SUPP, MGC-SUPP, GTD-SUPP and ES-INTERCEPT-TYPE.
  - For the CDB-BILLING-SUPP token:

    - Added the caution: Cisco strongly recommends that you do not set both CDB-BILLING-SUPP and EM-BILLING-SUPP to Y. Attempting to generate both types of records simultaneously can significantly degrade system performance.

    - Added the note: To set both the cdb-billing-supp and em-billing-supp tokens to Y, include FORCED=Y in the command line.
  - For the EM-BILLING-SUPP token:

    - Added the caution: Cisco strongly recommends that you do not set both CDB-BILLING-SUPP and EM-BILLING-SUPP to Y. Attempting to generate both types of records simultaneously can significantly degrade system performance.

    - Added the note: To set both the cdb-billing-supp and em-billing-supp tokens to Y, include FORCED=Y in the command line.
  - For the FEID token:

    - Default is now 33333.

    - Amended note: This optional token becomes a mandatory token if the CMS-SUPP token, the MGC-SUPP token, or both are set to Y (yes) in Releases 4.1 and 4.2. This token is optional in Release 4.4.1 regardless of whether the CMS-SUPP token, the MGC-SUPP token, or both are set to Y (yes).

- Added new table Check Positive Values table. Moved the Check Positive Values Valid Types and Values table from Appendix A to Chapter 1.
- Added new token SEND-ALERT to the DB Usage table.
- Added the following tokens to the Trunk Group table: STATUS-MONITORING.
- Added the new token KEEPALIVE-METHOD to the Media Gateway Profile table. In Release 4.4.1, the Cisco BTS 10200 Softswitch uses the value NONE for this token to replace the mgw-monitoring flag in MGW table.
- Destination table:
  - Added new call type UAN.
  - Added new route type SCRIPT.
  - Added new token SCRIPT-ID.
- New tables:
  - Script
  - Network Element
  - GTD Parameter Values
- Cause Code Map Profile table: deleted tokens DEFAULT-STD-CAUSE-CODE and DEFAULT-ACTION.
- Measurements:
  - Added new report and clear commands for call-tools, ain-tools and pct-tools.
  - Added new types: call-tools, ain-tools, and pct-tools.
- Deleted the token MGW-MONITORING-ENABLED in the Media Gateway table.

- Added new tokens ES-SUPP and AUDIT-THRESHOLD to the Softswitch Trunk Group Profile table.
- Changed range to 0–30 seconds for the STATUS-ENQ-TIMER in the H323 Gateway table.
- TIME-TO-LIVE token moved from the H323 GW2GK table to the H323 Gateway table.
- Added the following types to the Call Agent Configuration table in Appendix A:
  - trunk-audit-interval
  - exchange-type
  - ar-announcement-response-timer-tanc
  - ar-invalid-digit-counter
  - ar-announcement-response-timeout-counter
  - ar-dn-voiceback-option
  - ar-name-voiceback-option
  - default-ivr-route-guide-id
- Added caution for no support of Telnet.
- The measurement DISPLAY tokens for ITU-Chile ISUP are not supported.
- DISPLAY token values for ETSI, Israel and Australia ISUPs are not supported.
- Added database usage tables for small, medium, large, routeserver and LNP configurations.
- Removed the delete rules for the IPSec Kerberos Old Service Keys table.
- Added expanded information for the ACC-REQ-RETRANSMIT and ACC-RSP-TIMER tokens in the Radius Profile table.
- Updated all information of all occurrences of the IKE-CS token.
- Values pertaining to the MGX8260 are no longer supported.
- Added new tokens GTD-MODE and GTD-PARMS to the Softswitch Trunk Group Profile table.

Release 4.4.0

The following changes were made in Release 4.4.0. It is not an inclusive list.

- MGP command is obsolete.
- Added new query commands: query-lnp, query-lidb and query-toll-free.
- In the Call Agent table, the token TSAP-ADDR-SIDEA is now TSAP-ADDR.
- Added the AR-ACTIVATION-LEVEL token to the Point of Presence table.
- The following changes were made to the Billing Account Address table:
  - BILLING-FILE-PREFIX token now VARCHAR(20): 1–20 (Default = bil) characters.
  - Added new token SFTP-SUPP.
- The Hardware Monitoring “change node” and “show node” commands are no longer supported.
- Removed the Call Agent Configuration token h323-max-reattempt-count from Appendix A.
- Modified descriptions of the CODEC-NEG-SUPP, MGCP-HAIRPIN-SUPP, MGCP-HAIRPIN-Z2-SUPP, and the MGCP-CONN-ID-AT- GW-SUPP tokens in the Media Gateway Profile table.
- Added change command to the Measurement Provisioning table.

- Added the following expanded information to the MGCP-DEFAULT-PKG token of the Media Gateway Profile table: “If the mgcp-variant=TGCP, the mgcp-pkg-type must be set to IT (ISUP trunk).”
- In the Call Agent Configuration table in Appendix A:
  - Changed the default values for SIA-SIG-TOS-LOWDELAY and SIA-SIG-TOS-PRECEDENCE to Y and 3.
  - Added SIP-SUB-SEND-CPG-ON-HOLD-SIGNAL, ACCT-CODE-PROMPT-DELAY, AUTH-CODE-PROMPT-DELAY, DEFAULT-OCB-PROFILE-ID.
- Added ISUP values for Israel and Australia to the ID token in the User Part Variant Base table.
- Added the token EXCHANGE-TYPE to the Signaling System 7 Q761 Trunk Group Profile table for ETSI v2 ISUP.
- Added the token EXCHANGE-TYPE to the Call Agent Configuration table in Appendix A.
- Made the following changes to the ISDN Trunk Group Profile table:
  - added new tokens T-304, T037, GENDIGIT-IE-CODESET, GENDIGIT-IE-SUPP, MAX-RESTART-COUNT, MAX-SERVICE-COUNT, OVERLAP-SENDING-SUPP, OVERLAP-RECEIVING-SUPP and GENDIGIT-TOD-INFODIGIT.
  - For the interface-type token: USER value is now valid; added value SYMMETRIC (Not Used).
- Added values to the measurement DISPLAY tokens for ISDN, ETSI, Israel and Australia.
- In the ISDN D Channel table, changed DCHAN-PORT range from 0–255 to 0–32768. Added VSXM note.
- Added Outgoing Call Barring (OCB) Profile and OCB K Value tables.
- Added token OCB-PROFILE-ID to the Point of Presence (POP) table.
- Changed N value description of the BLOCK-EAWOPIC token in the POP table from “Route to LEC” to “Route to LECOSS.”
- Added new table: Local Number Portability Profile.
- Added new appendix: ISUP Message Counters.
- The following changes were made to the Users section of the Security chapter:
  - Removed note regarding the reset password command.
  - Rephrased note regarding user prompt for password. Users connecting by SSH are not prompted to change their password upon first logging in; since SSH is now the default, users will never be prompted to change their password.
  - Added the tokens FIRST and START-TIME.
- Added new Chapter for Interactive Voice Response.

Release 4.2.1

The following changes were made in Release 4.2.1. It is not an inclusive list.

- The MGCP-CMD-SEQ-SUPP token in the MGW Profile table is not configurable.
- Added new table TIMEZONE.

Release 4.2

The following changes were made in Release 4.2. It is not an inclusive list.

- Added the following information to the Usage Guidelines section for the Subscriber Feature Data table: use Table B-1“List of Features” to determine the correct tokens to provision features. For example, when provisioning CFU to allow forwarding to international numbers, you must provision TYPE3 and VALUE3.
- Added Release 4.2 Database Usage default section to Appendix D.
- Updated configurable parameters in Appendix A.
- Added the following tokens to the Subscriber table: H323-TERM-ID, SEND-BDN-AS-CPN and SEND-BDN-FOR-EMG.
- The following Subscriber table token definitions were modified.
  - Term-type—added H323 Term Type
  - Privacy—added USER as a privacy type
- Added the token, VIDEO-CODEC-TYPE to the Quality of Service table.
- The following new tables were added:
  - ANI Screening
  - ANI Screening Profile
  - H.323 Terminal
  - H.323 Terminal Profile
  - SIP Timer Profile
  - SIPT ISUP Version Base
  - SIPT ISUP Version Alias
- The following tokens were added to the Trunk Group table: ANI-SCREENING, ANI-SCREENING-PROFILE-ID and SEND-RDN-AS-CPN.
- The token TRUNK-SUB-GRP is provisionable for H323.
- Added new point-code-type value THAILAND to the DPC table.
- Added new point-code-type value THAILAND to the OPC table.
- The tokens H245-TUNNELINg and CALL-START-MODE were deleted from the H323 Gateway table and moved to the H323 Trunk Group Profile and H323 Termination Profile tables.
- The following new tokens were added to the H323 Gateway table: STATUS-ENQ-TIMER, CODEC-NEG-TIMER, CODEC-NEG-ATTEMPTS and SOURCE-BASED-ROUTING.
- Updated display values for the ISUP summary command in the Measurements chapter with values for Thailand and ITU-HongKong.
- Updated Measurement chapter command examples to include the output-type token.
- Updated the “change ems” command regarding the ntp-server token.
- Added DB-Usage tables for Routeserver and LNP configurations for 4.2, in addition to updating Small and Medium configuration tables.
- Made the following changes to the Call Agent Configuration table in Appendix A:
  - added type H323-MAX-LOOP-COUNT

  - added type DEFAULT-LNP-PROFILE-ID
  - added type SUB-SESSION-TIMER-ALLOWED
  - changed the default to Y for the TYPE CODEC-MOD-DURING-CALL token
  - changed to-value of the type MGCP-INIT-TERMS to 5000
  - changed default value for SCP-RESPONSE-TMR to 3
- In the AOR2SUB table, noted that the default for the STATUS token is OOS.
- Corrected value of the announcement timer token in the Announcement table from VARCHAR to INTEGER.
- The MGCP-CMD-SEQ-SUPP token in the Media Gateway Profile table is configurable only as N.
- The following changes were made to the Softswitch Trunk Group table:
  - The following tokens were added: USE-SIPT-ISUP-BASE and SIPT-ISUP-BASE
  - PROTOCOL-TYPE: updated SIP_T value definition.
  - Add rules no longer apply.

Release 4.1

The following changes were made in Release 4.1. It is not an inclusive list.

- Added the System Health command.
- Added Audit Circuit Identification Code command.
- Added SS7-trace command.
- In the Dial Plan Profile table, the following information was added to the NANP-DIAL-PLAN token: if this token is set to N, then the NOA token in the Dial Plan table defaults to UNKNOWN.
- The following call-types were added to the Call Type table:
  - AIRLINE
  - INTL-WZ1
  - RAILWAYS
  - SVC-CODE
  - NAT-OPR
- Chapter 26 has been renamed to Maintenance and Administration of System Component Commands.
- Returnable Status States and Success and Failure Responses sections in Chapter 26 have moved to the *Cisco BTS 10200 Operations and Maintenance Manual*.
- The PROPRIETARY-SUPP token must be set to 8 when provisioning NI2 in the ISDN Trunk Group Profile table.
- All -unsupp tokens changed to -supp.
- Added new CAUSE-CODE-TYPE values.
- Updated Subscriber table with MAC-ID.
- Changed TCPRK in CPSG table to a VARCHAR.
- Defined rules for the MGCP Retcode Action table.

- Added a new token REFER-TRIGGER to the Trigger ID table.
- Set token mgcp-cmd-seq-supp=N in MGW Profile table.
- Changed range value for MGCP-T-TRAN to 8000.
- Set token FEATURE-SERVER-SO-ON-CA-CONN-LOSS=Y.
- Added a new term-type=NONE in the Subscriber table.
- Added new FEATURE-SERVER type (HTTP) in the Feature server table. The HTTP Server is used by the SIP Phone to activate/deactivate call forwarding features.
- Now allow up to 64 digits in the Dial Plan table.
- Now allow a minimum of 3 digits and a maximum of 64 digits in the International Dial Plan table.
- Added new value=BBG for type=CC in the Feature table. The new value is used for CFVABBG.
- Updated description in the Trunk Group table DPC field.
- Ext2subscriber table is now also provisioned in the Call Agent.
- Added new token tRUNK-SUB-GRP to the Trunk Group table, which is used for SIP to identify a unique TG between two Call Agents.
- Removed tokens IPSEC-CMS-CONTROL-PORT, and IPSEC-AGGR-CONTROL-PORT from the Radius Profile table.
- Added new value NA for freq, day-of-month, day-of-week to the Activity table.
- In the Trunk Group table, traffic-type=local is now the default.
- Added mgcp-pkg-type=NA for SIP and H323 trunk groups.
- In the POP table, cnam-option=none is now the default.
- In the Special Call Type table, call-type is now a required field.
- In the CAS Trunk Group Profile table, added mf-oss-type=na as the default. Rule was also modified.
- In the MGW Profile table, added new mgw-type=unspecified as the default.
- In the QOS table, codec-type default is now PCMU.
- In the QOS table, max-dqos-auth-bandwidth=high is now the default for the default-bc token.
- Added PacketCable chapter.
- New tables:
  - ACTIVITY
  - ACTIVITY-BASE
  - AOR2SUB
  - AUTH-REALM
  - CALL-CTRL-ROUTE
  - CIPHERSUITE
  - CIPHERSUITE-PROFILE
  - DPC
  - HTTP-FEATURE-SERVER
  - IPSEC-KERBEROS
  - IPSEC-KERBEROS-KEYS

  - IPSEC-POLICY
  - IPSEC-SA
  - MAC2SUB
  - MGCP-RETCODE-ACTION
  - OPC
  - ROUTING-KEY
  - SCCP-NW
  - SCCP-ROUTE
  - SCTP-ASSOC
  - SCTP-ASSOC-PROFILE
  - SERVING-DOMAIN-NAME
  - SG
  - SG-GRP
  - SGP
  - SLHR
  - SLHR-PROFILE
  - SS7-Q761-TG-PROFILE
  - STATIC-CONTACT
  - SUBSYSTEM
  - SUBSYSTEM-PROFILE
  - SUP
  - USER-AUTH
  - USER-PART-VARIANT
  - USER-PART-VARIANT-BASE
- Added SS7 CQM diagnostic command responses.
- Removed all references to the MAC tool.
- Added note to User section regarding necessity of provisioning new-password for new user.
- SP-ID in the Technical Prefix Group table changed from optional to mandatory.
- Added CHK-POS-VAL column to Appendix A.
- Added DB-Usage tables for Small and Medium configurations for 4.1.
- Events and Alarms:
  - In the subscribe/unsubscribe commands “level” is changed to “severity.”
  - “Number” can be any value from 1 through 200. It is no longer limited to 150.
  - “Threshold” and “throttle” cannot be used with the show command—returns the error message “invalid key(s) found.”
- The token MGCP-PKG-TYPE was moved from the Announcement Trunk Group Profile table to the Trunk Group table.

- In the Signaling System 7 ANSI Trunk Group Profile table, for the cot-tone token, added note stating: “The Cisco BTS 10200 Softswitch does not support 2 wire side emulation in transponder COT testing.” Marked “2W-TO-2W—Tx High (2010 Hz), Rx Low (1780 Hz),” and “2W-TO-4W—Tx High (2010 Hz), Rx Low (1780 Hz),” as obsoleted.
- In the Signaling System 7 Q761 Trunk Group Profile table, for the cot-tone token, added note stating: “The Cisco BTS 10200 Softswitch does not support 2 wire side emulation in transponder COT testing.” Marked “2W-TO-2W—Tx High (2010 Hz), Rx Low (1780 Hz),” and “2W-TO-4W—Tx High (2010 Hz), Rx Low (1780 Hz),” as not supported.
- Added new values and changed VARCHAR for the CAUSE-CODE-TYPE token.
- Added values for the Measurement ISUP Summary DISPLAY tokens for China ISUP.
- Softswitch Trunk Group table: changed values for redirect-supported token.
- Added Batch Data Retrieval (Paging) information and examples.
- Removed tokens: NAT-800-MSGTYPE, CAR-800-TTYPE, CAR-800-MSGTYPE, LNP-TTYPE, and CNAM-TTYPE from Appendix A.
- In the Destination table, marked the CARRIER-OPERATOR call type as “not used.”
- Added note to the Multiline Hunt Group table ID token: “When you are provisioning a multiline hunt group, add the MLHG-ID to every subscriber in the group. While the MLHG will work when the mlhg-id is added to just the main subscriber; account codes will not work unless the MLHG-ID is added to all subscribers of the MLHG.”
- Added note to the Billing chapter to state that a hyphen is not allowed in the BILLING-FILE-PREFIX token. Also removed hyphen from the example.
- In the Appendix D, Database Usage, changed the following for all medium configurations:
  - NDC 800 N 800 800 Y N N Y
  - EXCHANGE-CODE 50000 N 50000 50000 Y N N Y
  - OFFICE-CODE 50000 Y 50000 50000 Y Y N Y
- The following parameters in Appendix A are obsolete:
  - MGA-SIG-TOS-LOWDELAY
  - MGA-SIG-TOS-PRECEDENCE
  - MGA-SIG-TOS-RELIABILITY
  - MGA-SIG-TOS-THROUGHPUT
- The following changes were made to the Stream Transmission Control Protocol table:
  - Added value definitions for the DSCP token.
  - Added new rule.

Conventions

This section outlines the conventions used within this book and in the commands used to provision and maintain the Cisco BTS 10200 Softswitch.

Document

This document uses the following conventions:

- If only a single option from a list is allowed, the choices are separated by a vertical bar (|).
- Table tokens are specified as table-name::token-name syntax.
- Token names in Syntax Descriptions are in uppercase for easy scanning of information.
- The following terms are used in the table descriptions:
  - Table Containment Area

    The hardware component a table resides in. For example, Call Processing tables reside within the Call Agent (CA). Operations, Administration, Maintenance, and Provisioning (OAMP) tables reside in the EMS. The casual-wb-list resides in the plain old telephone service (POTS) Feature Server.
  - Primary Key Token(s)

    A mandatory, unique key.

    Note A primary key cannot be changed—it identifies the record.

    Some primary key tokens are optional. In these cases, the token does not have to be entered from the CLI, but the default value for the token is always used by the system.
  - Unique Key Token(s)

    Provides a unique index (secondary key).
  - Foreign Key Token(s)

    References tokens in foreign (other) tables. The table of the foreign key is listed in the table cell. When a token has a Foreign Key designation, validation is performed to ensure that the value of the token matches the value of that token in the referenced table.
  - Mandatory tokens are proceeded by an asterisk. If an asterisk is not present, the token is optional.
  - Dependencies

    In some cases, information must be entered into other tables before information can be entered into a given table. Tables with these requirements have *dependencies*.

    For example, you cannot add a dial plan unless a dial plan ID exists.
  - SideA/SideB

    Each Cisco BTS 10200 Softswitch component (Call Agent, Feature Server, Element Management System, and Bulk Data Management System) operates in redundant mode. Each component has two sides, labeled A and B, loaded on different machines during installation. You cannot change these assignments during operation. Side A is designated as “primary” and Side B as “secondary.” During normal operations, Side A is active and Side B is standby.

Notes, Cautions, Warnings, and Tips

Notes, cautions, warnings, and tips are used throughout the document where applicable.

Note Means *reader take note*. Notes contain helpful suggestions or references to material not covered in the manual.

Tip Means *the following information will help you solve a problem*. The tips information might not be troubleshooting or even an action, but could be useful information or information that might save time.

Caution Means *reader be careful*. In this situation, you might do something that could result in equipment damage or loss of data.

Warning **IMPORTANT SAFETY INSTRUCTIONS**

This warning symbol means danger. You are in a situation that could cause bodily injury. Before you work on any equipment, be aware of the hazards involved with electrical circuitry and be familiar with standard practices for preventing accidents. To see translations of the warnings that appear in this publication, see the translated safety warnings that accompanied this device.

Note: SAVE THESE INSTRUCTIONS

Note: This documentation is to be used in conjunction with the specific product installation guide that shipped with the product. See the Installation Guide, Configuration Guide, or other enclosed additional documentation for further details.

Command Structure

The following conventions apply to the commands:

- All commands start with a verb.
- A noun immediately follows the verb if appropriate.
- All primary keys must be specified in add, change, or delete commands.
- A primary key cannot be changed—it identifies the record.
- All parameters must be specified in a “token-name=value” pair. However, when a parameter (token) is referenced by another table, a full table-name qualifier is required. For example, in the Local Service Area table, the token is ID; but, because the table is referenced by the LSA Profile table, the command is entered as lsa-id. Likewise, the token is also specified as lsa-id when used in the LSA Profile table.
- Each value is terminated by a semicolon.
- A token can contain several values separated by commas.
- All token names, command verbs, and command nouns are case insensitive.
- All values entered after the equal sign (=) in a command are case sensitive.

Caution You must enter system component names in the case in which they were originally added to the system. For example, if a Call Agent ID was entered in lowercase (ca146), you must always enter it in lowercase. If it was entered in uppercase (CA146), you must always enter it in uppercase or you will get an error message.

Likewise, feature tokens are always entered in uppercase, or you will receive the message "*Reply: Database is void of entries*." For example, enter AC_ACT, not ac_act.

- White space is allowed in a value field if the value type is an ASCII character string.
- Any alphanumeric character and spaces can be used in specified values.
  - All fields that are alphanumeric characters by definition are stored in string form in the database.
  - If a token has a default value, the value is considered optional when entering a command. However, the token itself can be required, but its default value is automatically entered into the system.
  - Optional fields can become *required* based on the provisioning of another token. For example, in the Destination table, carrier-id (optional) becomes required if route-type=Carrier.
  - All fields that represent digit strings are entered and displayed in the proper dial plan format with a dash (-) but only the numeric characters are stored in the database. The international dial-plan digits should not contain dashes.
  - All dashes (-) in the token fields are converted to underscores (_) when they are stored in the database.

Caution Exception—you must type feature tokens with an underscore (_) or you will receive the message "*Reply: Database is void of entries*." For example, enter AC_ACT, not AC-ACT.

Ciscouser

The "ciscouser" login is a high-level security login for TAC and other Cisco BTS 10200 Softswitch support personnel that restricts access to certain commands. Anyone else trying to execute such commands receives an error message.

User and Command Privilege Levels

The system administrator assigns a User Privilege Level (UPL) to a user's login. There are 10 levels, 1 to 10, with 10 being the highest (system administrator level). Similarly, each command has a Command Privilege Level (CPL), 1 to 10, associated with it. A user must have a UPL equal to or higher than the command's CPL to use that command. The system will deny users with UPLs lower than the CPL. The system administrator can change a user's UPL as well as the CPL of any command. The default Security CPL values are:

Table 2 Noun/Verb Command Default Security Privilege Levels

Noun	Verb	Default Security Level
aaa-server-grp	add	8
aaa-server-grp	audit	8
aaa-server-grp	change	5
aaa-server-grp	delete	8
aaa-server-grp	help	1
aaa-server-grp	show	2
activity	add	8
activity	audit	8
activity	change	5
activity	delete	8
activity	help	1
activity	show	2
activity-base	help	1
activity-base	show	2
activity-summary	report	3
aggr	add	8
aggr	audit	8
aggr	change	8
aggr	delete	8
aggr	help	1
aggr	show	2
aggr	status	8
alarm	ack	7
alarm	clear	7
alarm	help	1
alarm	show	2
alarm-log	help	1
alarm-log	show	3
alarm-report	help	1
alarm-report	subscribe	3
alarm-report	unsubscribe	3
all-ss7-cics	audit	2
all-ss7-cics	help	1
ancement	add	8
ancement	audit	8
ancement	change	5

Table 2 Noun/Verb Command Default Security Privilege Levels (continued)

Noun	Verb	Default Security Level
ancement	delete	8
ancement	help	1
ancement	show	2
ani	add	8
ani	audit	8
ani	change	5
ani	delete	8
ani	help	1
ani	show	2
ani-screening	add	8
ani-screening	audit	8
ani-screening	change	5
ani-screening	delete	8
ani-screening	help	1
ani-screening	show	2
ani-screening-profile	add	8
ani-screening-profile	audit	8
ani-screening-profile	change	5
ani-screening-profile	delete	8
ani-screening-profile	help	1
ani-screening-profile	show	2
ani-wb-list	add	8
ani-wb-list	audit	8
ani-wb-list	delete	8
ani-wb-list	help	1
ani-wb-list	show	2
annc	add	8
annc	audit	8
annc	change	5
annc	delete	8
annc	help	1
annc	show	2
annc-tg-profile	add	8
annc-tg-profile	audit	8
annc-tg-profile	change	8
annc-tg-profile	delete	8

Table 2 Noun/Verb Command Default Security Privilege Levels (continued)

Noun	Verb	Default Security Level
annc-tg-profile	help	1
annc-tg-profile	show	2
annc-trunk	add	6
annc-trunk	audit	6
annc-trunk	change	6
annc-trunk	delete	6
annc-trunk	help	1
annc-trunk	show	2
annc-trunk-termination	diag	2
annc-trunk-termination	help	1
aor2sub	audit	8
aor2sub	change	8
aor2sub	help	1
aor2sub	show	2
application	change	1
application	control	1
application	help	1
application	show	1
application	status	1
app-server	add	8
app-server	audit	8
app-server	change	5
app-server	delete	8
app-server	help	1
app-server	show	2
audio-segment	add	8
audio-segment	audit	8
audio-segment	change	5
audio-segment	delete	8
audio-segment	help	1
audio-segment	show	2
audio-seq	add	8
audio-seq	audit	8
audio-seq	change	5
audio-seq	delete	8
audio-seq	help	1

Table 2 Noun/Verb Command Default Security Privilege Levels (continued)

Noun	Verb	Default Security Level
audio-seq	show	2
auth-code	add	8
auth-code	audit	8
auth-code	change	5
auth-code	delete	8
auth-code	help	1
auth-code	show	2
auth-code-grp	add	8
auth-code-grp	audit	8
auth-code-grp	change	5
auth-code-grp	delete	8
auth-code-grp	help	1
auth-code-grp	show	2
auth-realm	add	8
auth-realm	audit	8
auth-realm	change	5
auth-realm	delete	8
auth-realm	help	1
auth-realm	show	2
backhaul-set	add	8
backhaul-set	audit	8
backhaul-set	change	5
backhaul-set	delete	8
backhaul-set	help	1
backhaul-set	show	2
bdms	control	1
bdms	help	1
bdms	status	1
billing-acct-addr	change	9
billing-acct-addr	help	1
billing-acct-addr	show	2
billing-alarm	change	5
billing-alarm	help	1
billing-alarm	show	2
billing-cdb	change	5
billing-cdb	help	1

Table 2 Noun/Verb Command Default Security Privilege Levels (continued)

Noun	Verb	Default Security Level
billing-cdb	show	2
billing-file	help	1
billing-file	report	6
billing-record	help	1
billing-record	report	6
ca-config	add	8
ca-config	audit	8
ca-config	change	8
ca-config	delete	8
ca-config	help	1
ca-config	show	2
ca-config-base	help	1
ca-config-base	show	2
ca-config-base-pos-val	help	1
ca-config-base-pos-val	show	2
call-agent	add	8
call-agent	audit	6
call-agent	change	5
call-agent	control	6
call-agent	delete	8
call-agent	get-trace	2
call-agent	help	1
call-agent	set-trace	6
call-agent	show	2
call-agent	status	2
call-agent-profile	add	8
call-agent-profile	audit	8
call-agent-profile	change	5
call-agent-profile	delete	8
call-agent-profile	help	1
call-agent-profile	show	2
call-ctrl-route	add	6
call-ctrl-route	audit	6
call-ctrl-route	change	6
call-ctrl-route	delete	6
call-ctrl-route	help	1

Table 2 Noun/Verb Command Default Security Privilege Levels (continued)

Noun	Verb	Default Security Level
call-ctrl-route	show	3
call-subtype	help	1
call-subtype	show	2
call-trace	help	1
call-trace	query	2
call-trace-summary	help	1
call-trace-summary	report	3
call-type	help	1
call-type	show	2
call-type-profile	add	8
call-type-profile	audit	8
call-type-profile	change	8
call-type-profile	delete	8
call-type-profile	help	1
call-type-profile	show	2
carrier	add	8
carrier	audit	8
carrier	change	5
carrier	delete	8
carrier	help	1
carrier	show	2
cas-tg-profile	add	8
cas-tg-profile	audit	8
cas-tg-profile	change	5
cas-tg-profile	delete	8
cas-tg-profile	help	1
cas-tg-profile	show	2
cas-trunk-termination	diag	2
cas-trunk-termination	help	1
casual-wb-list	add	8
casual-wb-list	audit	8
casual-wb-list	delete	8
casual-wb-list	help	1
casual-wb-list	show	2
cause-code-map	add	8
cause-code-map	audit	8

Table 2 Noun/Verb Command Default Security Privilege Levels (continued)

Noun	Verb	Default Security Level
cause-code-map	change	5
cause-code-map	delete	8
cause-code-map	help	1
cause-code-map	show	2
cause-code-map-profile	add	8
cause-code-map-profile	audit	8
cause-code-map-profile	change	5
cause-code-map-profile	delete	8
cause-code-map-profile	help	1
cause-code-map-profile	show	2
centrex-grp	add	8
centrex-grp	audit	8
centrex-grp	change	5
centrex-grp	delete	8
centrex-grp	help	1
centrex-grp	show	2
changed-number	add	8
changed-number	audit	8
changed-number	change	8
changed-number	delete	8
changed-number	help	1
changed-number	show	2
ciphersuite	add	8
ciphersuite	audit	8
ciphersuite	change	8
ciphersuite	delete	8
ciphersuite	help	1
ciphersuite	show	2
ciphersuite-profile	add	8
ciphersuite-profile	audit	8
ciphersuite-profile	change	8
ciphersuite-profile	delete	8
ciphersuite-profile	help	1
ciphersuite-profile	show	2
circuit-code	add	8
circuit-code	audit	8

Table 2 Noun/Verb Command Default Security Privilege Levels (continued)

Noun	Verb	Default Security Level
circuit-code	change	8
circuit-code	delete	8
circuit-code	help	1
circuit-code	show	2
clli-code	add	8
clli-code	change	5
clli-code	delete	8
clli-code	help	1
clli-code	show	2
cmdpar	add	10
cmdpar	change	10
cmdpar	delete	10
cmdpar	show	10
cmdtab	add	10
cmdtab	change	10
cmdtab	delete	10
cmdtab	show	10
command-alias	add	10
command-alias	delete	10
command-alias	show	10
command-level	change	8
command-level	help	1
command-level	show	2
command-table	change	10
command-table	help	3
command-table	reset	10
command-table	show	3
cos-restrict	add	8
cos-restrict	audit	8
cos-restrict	change	5
cos-restrict	delete	8
cos-restrict	help	1
cos-restrict	show	2
cpsg	add	8
cpsg	audit	8
cpsg	change	8

Table 2 Noun/Verb Command Default Security Privilege Levels (continued)

Noun	Verb	Default Security Level
cpsg	delete	8
cpsg	help	1
cpsg	show	2
ctxg	add	8
ctxg	audit	8
ctxg	change	5
ctxg	delete	8
ctxg	help	1
ctxg	show	2
cust-grp	add	8
cust-grp	audit	8
cust-grp	change	5
cust-grp	delete	8
cust-grp	help	1
cust-grp	show	2
custom-dial-plan	add	8
custom-dial-plan	audit	8
custom-dial-plan	change	5
custom-dial-plan	delete	8
custom-dial-plan	help	1
custom-dial-plan	show	2
custom-dial-plan-profile	add	8
custom-dial-plan-profile	change	5
custom-dial-plan-profile	delete	8
custom-dial-plan-profile	help	1
custom-dial-plan-profile	show	2
database	audit	10
database	download	10
database	help	1
db-license	add	10
db-license	change	10
db-license	delete	10
db-license	show	10
db-route	show	10
db-size	add	10
db-size	change	10

Table 2 Noun/Verb Command Default Security Privilege Levels (continued)

Noun	Verb	Default Security Level
db-size	delete	10
db-size	show	10
db-usage	change	6
db-usage	help	1
db-usage	show	2
debug-report	help	1
debug-report	subscribe	3
debug-report	unsubscribe	3
destination	add	6
destination	audit	6
destination	change	6
destination	delete	6
destination	help	1
destination	show	3
dial-plan	add	8
dial-plan	audit	8
dial-plan	change	5
dial-plan	delete	8
dial-plan	help	1
dial-plan	show	2
dial-plan-profile	add	8
dial-plan-profile	audit	8
dial-plan-profile	change	5
dial-plan-profile	delete	8
dial-plan-profile	help	1
dial-plan-profile	show	2
digit-map	add	8
digit-map	audit	8
digit-map	change	5
digit-map	delete	8
digit-map	help	1
digit-map	show	2
digman	add	8
digman	audit	8
digman	change	8
digman	delete	8

Table 2 Noun/Verb Command Default Security Privilege Levels (continued)

Noun	Verb	Default Security Level
digman	help	1
digman	show	2
digman-profile	add	8
digman-profile	audit	8
digman-profile	change	8
digman-profile	delete	8
digman-profile	help	1
digman-profile	show	2
dn2cust-grp	add	8
dn2cust-grp	audit	8
dn2cust-grp	change	5
dn2cust-grp	delete	8
dn2cust-grp	help	1
dn2cust-grp	show	2
dn2gn	add	8
dn2gn	audit	8
dn2gn	change	8
dn2gn	delete	8
dn2gn	help	1
dn2gn	show	2
dn2rn	add	8
dn2rn	audit	8
dn2rn	change	8
dn2rn	delete	8
dn2rn	help	1
dn2rn	show	2
dn2subscriber	add	5
dn2subscriber	audit	5
dn2subscriber	change	5
dn2subscriber	delete	5
dn2subscriber	help	1
dn2subscriber	show	2
dn-feat-list	help	1
dn-feat-list	show	2
dn-line-feat	show	2
dn-sd-list	help	1

Table 2 Noun/Verb Command Default Security Privilege Levels (continued)

Noun	Verb	Default Security Level
dn-sd-list	show	2
dn-summary	help	1
dn-summary	report	6
dpc	add	6
dpc	audit	6
dpc	change	6
dpc	delete	6
dpc	help	1
dpc	show	3
dpc	status	2
ds1	add	8
ds1	audit	8
ds1	delete	8
ds1	help	1
ds1	show	2
element-manager	control	1
element-manager	help	1
element-manager	status	1
emergency-number-list	add	8
emergency-number-list	audit	8
emergency-number-list	change	5
emergency-number-list	delete	8
emergency-number-list	help	1
emergency-number-list	show	2
ems	add	1
ems	change	1
ems	help	1
ems	show	1
ess	add	10
ess	audit	10
ess	change	10
ess	delete	10
ess	help	1
ess	show	10
event-log	help	1
event-log	show	3

Table 2 Noun/Verb Command Default Security Privilege Levels (continued)

Noun	Verb	Default Security Level
event-prov	change	5
event-prov	help	1
event-prov	show	2
event-queue	add	1
event-queue	delete	1
event-queue	help	1
event-queue	show	1
event-report	help	1
event-report	subscribe	3
event-report	unsubscribe	3
exchange-code	add	8
exchange-code	audit	8
exchange-code	delete	8
exchange-code	help	1
exchange-code	show	2
ext2subscriber	add	8
ext2subscriber	audit	8
ext2subscriber	change	5
ext2subscriber	delete	8
ext2subscriber	help	1
ext2subscriber	show	2
feature	add	6
feature	audit	8
feature	change	6
feature	delete	6
feature	help	1
feature	show	3
feature-config	add	8
feature-config	audit	8
feature-config	change	8
feature-config	delete	8
feature-config	help	1
feature-config	show	2
feature-config-base	help	1
feature-config-base	show	2
feature-config-base-pos-val	help	1

Table 2 Noun/Verb Command Default Security Privilege Levels (continued)

Noun	Verb	Default Security Level
feature-config-base-pos-val	show	2
feature-profile-base	help	1
feature-profile-base	show	2
feature-server	add	8
feature-server	audit	8
feature-server	change	5
feature-server	control	6
feature-server	delete	8
feature-server	get-trace	2
feature-server	help	1
feature-server	set-trace	6
feature-server	show	2
feature-server	status	2
fs-audit-profile	add	8
fs-audit-profile	audit	8
fs-audit-profile	change	5
fs-audit-profile	delete	8
fs-audit-profile	help	1
fs-audit-profile	show	2
gtd-parm-values	help	1
gtd-parm-values	show	3
h323-gw	add	8
h323-gw	audit	8
h323-gw	change	5
h323-gw	control	6
h323-gw	delete	8
h323-gw	help	1
h323-gw	reset	2
h323-gw	show	2
h323-gw	status	2
h323-gw2gk	add	8
h323-gw2gk	audit	8
h323-gw2gk	change	5
h323-gw2gk	delete	8
h323-gw2gk	help	1
h323-gw2gk	show	2

Table 2 Noun/Verb Command Default Security Privilege Levels (continued)

Noun	Verb	Default Security Level
h323-term	add	8
h323-term	audit	8
h323-term	change	5
h323-term	delete	8
h323-term	help	1
h323-term	show	2
h323-term-profile	add	8
h323-term-profile	audit	8
h323-term-profile	change	5
h323-term-profile	delete	8
h323-term-profile	help	1
h323-term-profile	show	2
h323-tg-profile	add	8
h323-tg-profile	audit	8
h323-tg-profile	change	5
h323-tg-profile	delete	8
h323-tg-profile	help	1
h323-tg-profile	show	2
help	help	3
hg-dn-find	help	1
hg-dn-find	show	2
hg-dn-list	help	1
hg-dn-list	show	2
hg-sequence	help	1
hg-sequence	show	2
history	help	3
history	report	3
history	show	3
http-feature-server	add	8
http-feature-server	audit	8
http-feature-server	change	5
http-feature-server	delete	8
http-feature-server	help	1
http-feature-server	show	2
ii-restrict-list	add	8
ii-restrict-list	audit	8

Table 2 Noun/Verb Command Default Security Privilege Levels (continued)

Noun	Verb	Default Security Level
ii-restrict-list	delete	8
ii-restrict-list	help	1
ii-restrict-list	show	2
ii-wb-list	add	8
ii-wb-list	audit	8
ii-wb-list	change	8
ii-wb-list	delete	8
ii-wb-list	help	1
ii-wb-list	show	6
intl-dial-plan	add	6
intl-dial-plan	audit	6
intl-dial-plan	change	6
intl-dial-plan	delete	6
intl-dial-plan	help	6
intl-dial-plan	show	6
intl-dial-plan-profile	add	8
intl-dial-plan-profile	audit	8
intl-dial-plan-profile	change	5
intl-dial-plan-profile	delete	8
intl-dial-plan-profile	help	1
intl-dial-plan-profile	show	2
intl-wb-list	add	8
intl-wb-list	audit	8
intl-wb-list	delete	8
intl-wb-list	help	1
intl-wb-list	show	2
ipsec-kerberos	add	8
ipsec-kerberos	audit	8
ipsec-kerberos	change	8
ipsec-kerberos	delete	8
ipsec-kerberos	help	1
ipsec-kerberos	show	2
ipsec-kerberos-keys	audit	8
ipsec-kerberos-keys	delete	8
ipsec-kerberos-keys	help	1
ipsec-kerberos-keys	show	2

Table 2 Noun/Verb Command Default Security Privilege Levels (continued)

Noun	Verb	Default Security Level
ipsec-policy	add	8
ipsec-policy	audit	8
ipsec-policy	delete	8
ipsec-policy	help	1
ipsec-policy	show	2
ipsec-sa	add	8
ipsec-sa	audit	8
ipsec-sa	change	8
ipsec-sa	delete	8
ipsec-sa	help	1
ipsec-sa	show	2
isdn-bchan	audit	8
isdn-bchan	help	1
isdn-bchan	show	2
isdn-dchan	add	8
isdn-dchan	audit	8
isdn-dchan	change	5
isdn-dchan	control	2
isdn-dchan	delete	8
isdn-dchan	help	1
isdn-dchan	show	2
isdn-intf	add	8
isdn-intf	audit	8
isdn-intf	delete	8
isdn-intf	help	1
isdn-intf	show	2
isdn-tg-profile	add	8
isdn-tg-profile	audit	8
isdn-tg-profile	change	5
isdn-tg-profile	delete	8
isdn-tg-profile	help	1
isdn-tg-profile	show	2
isdn-trunk-termination	diag	2
isdn-trunk-termination	help	1
ivr-script-profile	add	8
ivr-script-profile	audit	8

Table 2 Noun/Verb Command Default Security Privilege Levels (continued)

Noun	Verb	Default Security Level
ivr-script-profile	change	5
ivr-script-profile	delete	8
ivr-script-profile	help	1
ivr-script-profile	show	2
language	add	8
language	change	5
language	delete	8
language	help	1
language	show	2
lata	add	8
lata	audit	8
lata	change	5
lata	delete	8
lata	help	1
lata	show	2
lata-map	add	8
lata-map	audit	8
lata-map	delete	8
lata-map	help	1
lata-map	show	2
lidb	help	1
lidb	query	2
line	help	1
line	translate	2
lnp	help	1
lnp	query	2
lnp-profile	add	8
lnp-profile	audit	8
lnp-profile	change	8
lnp-profile	delete	8
lnp-profile	help	1
lnp-profile	show	2
lsa	add	6
lsa	audit	6
lsa	delete	6
lsa	help	6

Table 2 Noun/Verb Command Default Security Privilege Levels (continued)

Noun	Verb	Default Security Level
lsa	show	6
lsa-profile	add	6
lsa-profile	change	6
lsa-profile	delete	6
lsa-profile	help	1
lsa-profile	show	2
mac2sub	add	8
mac2sub	audit	8
mac2sub	change	5
mac2sub	delete	8
mac2sub	help	1
mac2sub	show	2
macro	add	6
macro	change	6
macro	delete	6
macro	help	1
macro	macro	6
macro	show	6
measurement-ainsvc-summary	clear	9
measurement-ainsvc-summary	help	1
measurement-ainsvc-summary	report	2
measurement-ainsvc-summary	show	2
measurement-ain-tools-summary	clear	9
measurement-ain-tools-summary	help	1
measurement-ain-tools-summary	report	2
measurement-ain-tools-summary	show	2
measurement-anm-summary	clear	9
measurement-anm-summary	help	1
measurement-anm-summary	report	6
measurement-anm-summary	show	2
measurement-audit-summary	clear	9
measurement-audit-summary	help	1
measurement-audit-summary	report	2
measurement-audit-summary	show	2
measurement-billing-summary	clear	9
measurement-billing-summary	help	1

Table 2 Noun/Verb Command Default Security Privilege Levels (continued)

Noun	Verb	Default Security Level
measurement-billing-summary	report	6
measurement-billing-summary	show	6
measurement-callp-summary	clear	9
measurement-callp-summary	help	1
measurement-callp-summary	report	2
measurement-callp-summary	show	2
measurement-call-tools-summary1	help	
measurement-call-tools-summary2	report	
measurement-call-tools-summary2	show	
measurement-call-tools-summary9	clear	
measurement-dqos-summary	help	1
measurement-dqos-summary	report	2
measurement-dqos-summary	show	2
measurement-em-summary	clear	9
measurement-em-summary	help	1
measurement-em-summary	report	2
measurement-em-summary	show	2
measurement-h323-summary	clear	9
measurement-h323-summary	help	1
measurement-h323-summary	report	6
measurement-h323-summary	show	6
measurement-isdn-summary	clear	9
measurement-isdn-summary	help	1
measurement-isdn-summary	report	2
measurement-isdn-summary	show	2
measurement-isup-summary	help	1
measurement-isup-summary	report	2
measurement-isup-summary	show	2
measurement-m3ua-summary	help	1
measurement-m3ua-summary	report	2
measurement-m3ua-summary	show	2
measurement-mgcp-summary	clear	9
measurement-mgcp-summary	help	1
measurement-mgcp-summary	report	6
measurement-mgcp-summary	show	2
measurement-pct-tools-summary	clear	9

Table 2 Noun/Verb Command Default Security Privilege Levels (continued)

Noun	Verb	Default Security Level
measurement-pct-tools-summary	help	1
measurement-pct-tools-summary	report	2
measurement-pct-tools-summary	show	2
measurement-pots-acar-summary	clear	9
measurement-pots-acar-summary	help	1
measurement-pots-acar-summary	report	2
measurement-pots-acar-summary	show	2
measurement-pots-cos-summary	clear	9
measurement-pots-cos-summary	help	1
measurement-pots-cos-summary	report	2
measurement-pots-cos-summary	show	2
measurement-pots-cot-summary	clear	9
measurement-pots-cot-summary	help	1
measurement-pots-cot-summary	report	2
measurement-pots-cot-summary	show	2
measurement-pots-local-summary1	help	1
measurement-pots-local-summary2	report	2
measurement-pots-local-summary2	show	2
measurement-pots-local-summary9	clear	9
measurement-pots-misc-summary	clear	9
measurement-pots-misc-summary	help	1
measurement-pots-misc-summary	report	2
measurement-pots-misc-summary	show	2
measurement-pots-sle-summary	clear	9
measurement-pots-sle-summary	help	1
measurement-pots-sle-summary	report	2
measurement-pots-sle-summary	show	2
measurement-prov	change	5
measurement-prov	help	1
measurement-prov	show	2
measurement-sctp-summary	help	1
measurement-sctp-summary	report	2
measurement-sctp-summary	show	2
measurement-sia-summary	clear	9
measurement-sia-summary	help	1
measurement-sia-summary	report	6

Table 2 Noun/Verb Command Default Security Privilege Levels (continued)

Noun	Verb	Default Security Level
measurement-sia-summary	show	2
measurement-sim-summary	clear	9
measurement-sim-summary	help	1
measurement-sim-summary	report	1
measurement-sim-summary	show	2
measurement-snmp-summary	clear	9
measurement-snmp-summary	help	1
measurement-snmp-summary	report	6
measurement-snmp-summary	show	2
measurement-sua-summary	help	1
measurement-sua-summary	report	2
measurement-sua-summary	show	2
measurement-tcap-summary	clear	9
measurement-tcap-summary	help	1
measurement-tcap-summary	report	2
measurement-tcap-summary	show	2
measurement-tg-usage-summary	help	1
measurement-tg-usage-summary	report	6
measurement-tg-usage-summary	show	2
mgcp-retcode-action	add	8
mgcp-retcode-action	audit	8
mgcp-retcode-action	change	8
mgcp-retcode-action	delete	8
mgcp-retcode-action	help	1
mgcp-retcode-action	show	2
mgw	add	8
mgw	audit	8
mgw	change	5
mgw	control	6
mgw	delete	8
mgw	diag	2
mgw	help	1
mgw	show	2
mgw	status	2
mgw-profile	add	8
mgw-profile	audit	8

Table 2 Noun/Verb Command Default Security Privilege Levels (continued)

Noun	Verb	Default Security Level
mgw-profile	change	5
mgw-profile	delete	8
mgw-profile	help	1
mgw-profile	show	2
mlhg	add	6
mlhg	audit	6
mlhg	change	6
mlhg	delete	6
mlhg	help	1
mlhg	show	3
mlhg-pref-list	add	6
mlhg-pref-list	audit	6
mlhg-pref-list	change	6
mlhg-pref-list	delete	6
mlhg-pref-list	help	1
mlhg-pref-list	show	3
mlhg-terminal	add	8
mlhg-terminal	audit	8
mlhg-terminal	change	8
mlhg-terminal	delete	8
mlhg-terminal	help	1
mlhg-terminal	show	2
national-wb-list	add	8
national-wb-list	audit	8
national-wb-list	delete	8
national-wb-list	help	1
national-wb-list	show	2
ndc	add	8
ndc	audit	8
ndc	change	5
ndc	delete	8
ndc	help	1
ndc	show	2
network-element	help	1
network-element	show	2
noa-route	add	8

Table 2 Noun/Verb Command Default Security Privilege Levels (continued)

Noun	Verb	Default Security Level
noa-route	audit	8
noa-route	change	8
noa-route	delete	8
noa-route	help	1
noa-route	show	2
noa-route-profile	add	8
noa-route-profile	audit	8
noa-route-profile	change	8
noa-route-profile	delete	8
noa-route-profile	help	1
noa-route-profile	show	2
nod	help	1
nod	show	2
node	change	9
node	control	9
node	help	1
node	report	9
node	status	9
nod-restrict-list	add	8
nod-restrict-list	audit	8
nod-restrict-list	delete	8
nod-restrict-list	help	1
nod-restrict-list	show	2
nod-wb-list	add	8
nod-wb-list	audit	8
nod-wb-list	delete	8
nod-wb-list	help	1
nod-wb-list	show	2
ocb-k-value	add	6
ocb-k-value	audit	6
ocb-k-value	delete	6
ocb-k-value	help	1
ocb-k-value	show	3
ocb-profile	add	6
ocb-profile	audit	6
ocb-profile	change	6

Table 2 Noun/Verb Command Default Security Privilege Levels (continued)

Noun	Verb	Default Security Level
ocb-profile	delete	6
ocb-profile	help	1
ocb-profile	show	3
office-code	add	6
office-code	audit	6
office-code	change	6
office-code	delete	6
office-code	help	6
office-code	show	6
opc	add	6
opc	audit	6
opc	change	6
opc	delete	6
opc	help	1
opc	show	3
password	help	1
password	reset	1
policy-nxx	add	8
policy-nxx	audit	8
policy-nxx	change	5
policy-nxx	delete	8
policy-nxx	help	1
policy-nxx	show	2
policy-odr	add	6
policy-odr	audit	6
policy-odr	change	6
policy-odr	delete	6
policy-odr	help	1
policy-odr	show	6
policy-oli	add	6
policy-oli	audit	6
policy-oli	change	6
policy-oli	delete	6
policy-oli	help	1
policy-oli	show	3
policy-percent	add	8

Table 2 Noun/Verb Command Default Security Privilege Levels (continued)

Noun	Verb	Default Security Level
policy-percent	audit	8
policy-percent	change	5
policy-percent	delete	8
policy-percent	help	1
policy-percent	show	2
policy-pop	add	8
policy-pop	audit	8
policy-pop	change	5
policy-pop	delete	8
policy-pop	help	1
policy-pop	show	2
policy-prefix	add	8
policy-prefix	audit	8
policy-prefix	change	5
policy-prefix	delete	8
policy-prefix	help	1
policy-prefix	show	2
policy-region	add	8
policy-region	audit	8
policy-region	change	8
policy-region	delete	8
policy-region	help	1
policy-region	show	2
policy-tod	add	8
policy-tod	audit	8
policy-tod	change	5
policy-tod	delete	8
policy-tod	help	1
policy-tod	show	2
pop	add	8
pop	audit	8
pop	change	5
pop	delete	8
pop	help	1
pop	show	2
ported-office-code	add	8

Table 2 Noun/Verb Command Default Security Privilege Levels (continued)

Noun	Verb	Default Security Level
ported-office-code	audit	8
ported-office-code	change	5
ported-office-code	delete	8
ported-office-code	help	1
ported-office-code	show	2
qos	add	8
qos	audit	8
qos	change	8
qos	delete	8
qos	help	1
qos	show	2
queue-throttle	change	6
queue-throttle	help	1
queue-throttle	show	6
radius-profile	add	8
radius-profile	audit	8
radius-profile	change	5
radius-profile	delete	8
radius-profile	help	1
radius-profile	show	2
region-code	add	8
region-code	audit	8
region-code	change	5
region-code	delete	8
region-code	help	1
region-code	show	2
region-profile	add	6
region-profile	audit	6
region-profile	change	6
region-profile	delete	6
region-profile	help	6
region-profile	show	6
release-cause	add	6
release-cause	audit	6
release-cause	change	6
release-cause	delete	6

Table 2 Noun/Verb Command Default Security Privilege Levels (continued)

Noun	Verb	Default Security Level
release-cause	help	1
release-cause	show	3
report-properties	change	5
report-properties	help	1
report-properties	show	7
rgw	add	8
rgw	change	5
rgw	control	6
rgw	delete	8
rgw	diag	2
rgw	help	1
rgw	show	2
rgw	status	2
route	add	8
route	audit	8
route	change	5
route	delete	8
route	help	1
route	show	2
route-guide	add	8
route-guide	audit	8
route-guide	change	8
route-guide	delete	8
route-guide	help	1
route-guide	show	2
routing-key	add	6
routing-key	audit	6
routing-key	change	6
routing-key	delete	6
routing-key	help	1
routing-key	show	3
rudp-backhaul-session	add	8
rudp-backhaul-session	audit	8
rudp-backhaul-session	change	5
rudp-backhaul-session	delete	8
rudp-backhaul-session	help	1

Table 2 Noun/Verb Command Default Security Privilege Levels (continued)

Noun	Verb	Default Security Level
rudp-backhaul-session	show	2
sc1d	add	8
sc1d	audit	8
sc1d	change	8
sc1d	delete	8
sc1d	help	1
sc1d	show	2
sc2d	add	8
sc2d	audit	8
sc2d	change	8
sc2d	delete	8
sc2d	help	1
sc2d	show	2
sccp-nw	add	6
sccp-nw	audit	6
sccp-nw	change	6
sccp-nw	delete	6
sccp-nw	help	1
sccp-nw	show	3
sccp-route	add	6
sccp-route	audit	6
sccp-route	change	6
sccp-route	delete	6
sccp-route	help	1
sccp-route	show	3
scheduled-command	add	6
scheduled-command	change	6
scheduled-command	delete	6
scheduled-command	help	1
scheduled-command	show	6
sctp-assoc	add	6
sctp-assoc	audit	6
sctp-assoc	change	6
sctp-assoc	control	6
sctp-assoc	delete	6
sctp-assoc	help	1

Table 2 Noun/Verb Command Default Security Privilege Levels (continued)

Noun	Verb	Default Security Level
sctp-assoc	show	3
sctp-assoc	status	2
sctp-assoc-profile	add	8
sctp-assoc-profile	audit	8
sctp-assoc-profile	change	5
sctp-assoc-profile	delete	8
sctp-assoc-profile	help	1
sctp-assoc-profile	show	2
security-summary	help	1
security-summary	report	8
service	add	8
service	audit	8
service	change	8
service	delete	8
service	help	1
service	show	2
service-provider	add	8
service-provider	audit	8
service-provider	change	5
service-provider	delete	8
service-provider	help	1
service-provider	show	2
service-trigger	audit	8
service-trigger	help	1
service-trigger	show	2
serving-domain-name	add	8
serving-domain-name	audit	8
serving-domain-name	change	5
serving-domain-name	delete	8
serving-domain-name	help	1
serving-domain-name	show	2
session	block	9
session	block	10 (Release 4.5)
session	change	2
session	help	9
session	show	2

Table 2 Noun/Verb Command Default Security Privilege Levels (continued)

Noun	Verb	Default Security Level
session	stop	9
session	unblock	9
sg	add	6
sg	audit	6
sg	change	6
sg	delete	6
sg	get-trace	3
sg	help	1
sg	set-trace	6
sg	show	3
sg-grp	add	6
sg-grp	audit	6
sg-grp	change	6
sg-grp	delete	6
sg-grp	help	1
sg-grp	show	3
sgp	add	6
sgp	audit	6
sgp	change	6
sgp	delete	6
sgp	get-trace	2
sgp	help	1
sgp	set-trace	6
sgp	show	3
sgp	status	2
sip-reg-contact	help	1
sip-reg-contact	status	2
sip-timer-profile	add	8
sip-timer-profile	audit	8
sip-timer-profile	change	5
sip-timer-profile	delete	8
sip-timer-profile	help	1
sip-timer-profile	show	2
sipt-isup-ver-alias	add	6
sipt-isup-ver-alias	audit	6
sipt-isup-ver-alias	change	6

Table 2 Noun/Verb Command Default Security Privilege Levels (continued)

Noun	Verb	Default Security Level
sipt-isup-ver-alias	delete	6
sipt-isup-ver-alias	help	1
sipt-isup-ver-alias	show	3
sipt-isup-ver-base	help	1
sipt-isup-ver-base	show	3
sle	add	8
sle	audit	8
sle	change	8
sle	delete	8
sle	help	1
sle	show	2
slhr	add	6
slhr	audit	6
slhr	change	6
slhr	delete	6
slhr	help	1
slhr	show	3
slhr-profile	add	6
slhr-profile	audit	6
slhr-profile	change	6
slhr-profile	delete	6
slhr-profile	help	1
slhr-profile	show	3
snmpconfig	add	9
snmpconfig	change	9
snmpconfig	delete	9
snmpconfig	help	1
snmpconfig	show	9
snmptrapdest	add	2
snmptrapdest	change	2
snmptrapdest	delete	2
snmptrapdest	help	1
snmptrapdest	show	2
softsw-tg-profile	add	6
softsw-tg-profile	audit	6
softsw-tg-profile	change	6

Table 2 Noun/Verb Command Default Security Privilege Levels (continued)

Noun	Verb	Default Security Level
softsw-tg-profile	delete	6
softsw-tg-profile	help	1
softsw-tg-profile	show	3
special-call-type	add	8
special-call-type	audit	8
special-call-type	change	8
special-call-type	delete	1
special-call-type	help	1
special-call-type	show	2
split-npa	add	6
split-npa	audit	6
split-npa	change	6
split-npa	delete	6
split-npa	help	1
split-npa	show	3
ss7-ansi-tg-profile	add	8
ss7-ansi-tg-profile	audit	8
ss7-ansi-tg-profile	change	5
ss7-ansi-tg-profile	delete	8
ss7-ansi-tg-profile	help	1
ss7-ansi-tg-profile	show	2
ss7-cic	audit	8
ss7-cic	help	1
ss7-cic	show	2
ss7-q761-tg-profile	add	8
ss7-q761-tg-profile	audit	8
ss7-q761-tg-profile	change	5
ss7-q761-tg-profile	delete	8
ss7-q761-tg-profile	help	1
ss7-q761-tg-profile	show	2
ss7-q767-tg-profile	add	8
ss7-q767-tg-profile	audit	8
ss7-q767-tg-profile	change	5
ss7-q767-tg-profile	delete	8
ss7-q767-tg-profile	help	1
ss7-q767-tg-profile	show	2

Table 2 Noun/Verb Command Default Security Privilege Levels (continued)

Noun	Verb	Default Security Level
ss7-trace	help	1
ss7-trace	start	2
ss7-trace	stop	2
ss7-trunk-termination	diag	2
ss7-trunk-termination	help	1
static-contact	add	8
static-contact	audit	8
static-contact	change	5
static-contact	delete	8
static-contact	help	1
static-contact	show	2
sub-cid	show	2
sub-da-block	help	1
sub-da-block	show	2
sub-dn-find	help	1
sub-dn-list	help	1
sub-dn-list	show	2
sub-intl-block	help	1
sub-intl-block	show	2
sub-ld-block	help	1
sub-ld-block	show	2
sub-oper-block	help	1
sub-oper-block	show	2
subscriber	add	8
subscriber	audit	8
subscriber	change	5
subscriber	delete	8
subscriber	help	1
subscriber	show	2
subscriber-feature-data	add	8
subscriber-feature-data	audit	8
subscriber-feature-data	change	5
subscriber-feature-data	delete	8
subscriber-feature-data	help	1
subscriber-feature-data	show	2
subscriber-profile	add	6

Table 2 Noun/Verb Command Default Security Privilege Levels (continued)

Noun	Verb	Default Security Level
subscriber-profile	audit	6
subscriber-profile	change	6
subscriber-profile	delete	6
subscriber-profile	help	6
subscriber-profile	show	6
subscriber-service-profile	add	8
subscriber-service-profile	audit	8
subscriber-service-profile	change	5
subscriber-service-profile	delete	8
subscriber-service-profile	help	1
subscriber-service-profile	show	2
subscriber-termination	control	6
subscriber-termination	diag	2
subscriber-termination	equip	6
subscriber-termination	help	1
subscriber-termination	reset	2
subscriber-termination	status	2
subscriber-termination	unequip	6
subscriber-tod-schedule	add	8
subscriber-tod-schedule	audit	8
subscriber-tod-schedule	change	5
subscriber-tod-schedule	delete	8
subscriber-tod-schedule	help	1
subscriber-tod-schedule	show	2
subsystem	add	6
subsystem	audit	6
subsystem	change	6
subsystem	control	6
subsystem	delete	6
subsystem	help	1
subsystem	show	3
subsystem	status	2
subsystem-grp	add	6
subsystem-grp	audit	6
subsystem-grp	change	6
subsystem-grp	control	6

Table 2 Noun/Verb Command Default Security Privilege Levels (continued)

Noun	Verb	Default Security Level
subsystem-grp	delete	6
subsystem-grp	help	1
subsystem-grp	show	3
subsystem-grp	status	2
sup-config	change	9
sup-config	help	1
sup-config	show	9
system	control	6
system	help	1
system	status	2
system-health	help	1
system-health	report	9
tech-prefix-grp	add	8
tech-prefix-grp	audit	8
tech-prefix-grp	change	5
tech-prefix-grp	delete	8
tech-prefix-grp	help	1
tech-prefix-grp	show	2
tech-prefix-grp-profile	add	8
tech-prefix-grp-profile	audit	8
tech-prefix-grp-profile	change	5
tech-prefix-grp-profile	delete	8
tech-prefix-grp-profile	help	1
tech-prefix-grp-profile	show	2
termination	add	8
termination	audit	8
termination	change	5
termination	delete	8
termination	help	1
termination	show	2
tgw	add	8
tgw	change	5
tgw	control	6
tgw	delete	8
tgw	diag	2
tgw	help	1

Table 2 Noun/Verb Command Default Security Privilege Levels (continued)

Noun	Verb	Default Security Level
tgw	show	2
tgw	status	2
timezone	help	1
timezone	show	2
toll-free	help	1
toll-free	query	2
toll-free-msg-type	help	1
toll-free-msg-type	query	2
transaction-queue	delete	6
transaction-queue	help	1
transaction-queue	show	2
trigger-detection-point	help	1
trigger-detection-point	show	2
trigger-id	help	1
trigger-id	show	2
trigger-nod-escape-list	add	6
trigger-nod-escape-list	audit	8
trigger-nod-escape-list	change	6
trigger-nod-escape-list	delete	6
trigger-nod-escape-list	help	1
trigger-nod-escape-list	show	3
trunk	add	8
trunk	audit	8
trunk	change	5
trunk	delete	8
trunk	help	1
trunk	show	2
trunk	translate	2
trunk-grp	add	6
trunk-grp	audit	6
trunk-grp	change	6
trunk-grp	control	6
trunk-grp	delete	6
trunk-grp	help	1
trunk-grp	show	3
trunk-grp	status	2

Table 2 Noun/Verb Command Default Security Privilege Levels (continued)

Noun	Verb	Default Security Level
trunk-grp-feature-data	add	6
trunk-grp-feature-data	audit	6
trunk-grp-feature-data	change	6
trunk-grp-feature-data	delete	6
trunk-grp-feature-data	help	6
trunk-grp-feature-data	show	6
trunk-grp-service-profile	add	8
trunk-grp-service-profile	audit	8
trunk-grp-service-profile	change	5
trunk-grp-service-profile	delete	8
trunk-grp-service-profile	help	1
trunk-grp-service-profile	show	2
trunk-termination	control	6
trunk-termination	equip	2
trunk-termination	help	1
trunk-termination	reset	2
trunk-termination	status	2
trunk-termination	unequip	2
tt	control	6
tt	help	1
tt	reset	2
tt	status	2
user	add	9
user	change	9
user	delete	9
user	help	1
user	show	9
user-auth	add	8
user-auth	audit	8
user-auth	change	5
user-auth	delete	8
user-auth	help	1
user-auth	show	2
user-part-variant	add	3
user-part-variant	audit	6
user-part-variant	delete	3

Table 2 Noun/Verb Command Default Security Privilege Levels (continued)

Noun	Verb	Default Security Level
user-part-variant	help	1
user-part-variant	show	3
user-part-variant-base	help	1
user-part-variant-base	show	3
var-alias	add	10
var-alias	change	10
var-alias	delete	10
var-alias	show	10
var-default	add	10
var-default	change	10
var-default	delete	10
var-default	help	10
var-default	show	10
v-commandparameter	show	10
v-commandtable	show	10
vsc	add	8
vsc	audit	8
vsc	change	8
vsc	delete	8
vsc	help	1
vsc	show	2

Login—Logoff/Exit

Logging in to a CLI session is a Telnet or Secure Shell (SSH) function, not a UNIX function. **Login** is not a supported CLI command. Users must use Telnet or SSH to connect to the EMS using their user name and password, which invokes a CLI shell. SSH is the default method of access to the Cisco BTS 10200 Softswitch CLI. The maximum number of CLI sessions allowed is 50.

Note A user must be added as a new user before logging in.

Quitting a session is an OAMP function. Type **quit** or **exit** at the CLI prompt to end both the CLI and Telnet sessions.

Caution For security purposes, Telnet is obsoleted as of Release 4.4.

Shell

You can enter commands using the command line interface (CLI). The CLI allows you to enter an entire command and its parameters from the command line.

The shell parameter is specified when a user is added to the system. If a shell is not specified when a user is added, the default is the CLI. All command defaults, parameters, and rules are the same regardless of which method you use to enter them.

Command Line Interface

After you use SSH to access the server and log in, if the shell is CLI, only the command prompt appears on the screen. To enter commands using the CLI, enter the entire command with all its required parameters (tokens).

Commands

All commands consist of a valid noun-verb pair. Each table has its own valid commands and each type can have specific applicable rules. The show command allows a wildcard. Commands can also be either graceful or forced. Multiple tokens must be separated by a semicolon (;).

Available verbs are defined in the CommandTable for each user table (noun-verb pair). Verb-driven required fields are defined in the CommandParameter table.

The following are valid command verbs:

- Add—Insert records.
- Ack—Acknowledge alarms.
- Audit—Examine entries.
- Change—Modify records.
- Clear—Clear records.
- Control—Change the operational state of devices.
- Delete—Delete records.
- Download—Download the database.
- Equip—Equip terminations.
- Help—Find help on a particular table, table-name, or command.
- Report—Show history of a subsystem event, alarm, traffic.
- Reset—Reset a default.
- Show—Display records with qualifier.
- Status—Show operational status of devices.
- Unequip—Unequip terminations.

Automatic Completion (Release 4.5)

This section describes the automatic completion of CLI commands. Automatic completion means the system automatically completes a command based on user input.

Automatic Completion of Verbs

A CLI command verb is automatically completed after a user enters a substring of the verb and presses the Tab key.

Examples

If a user types “ad” and presses the Tab key, the command is completed to “add.” In order for a verb to complete successfully, a user must enter the minimum number of characters that uniquely identify the verb from all other verbs.

If a user enters the characters “su” and presses the Tab key, the command is resolved to a single command “subscribe.” Since the entered command can be resolved, the word “su” is erased and then replaced with “subscribe” on the same line as follows:

```
su <Tab>

Reply :

CLI>subscribe
```

Automatic Completion of Nouns

A CLI command noun is automatically completed after a user enters a valid verb, followed by a substring of the noun, and presses the Tab key.

Examples

If a user types “add ac” and presses the Tab key, the command is completed to “add activity.” In order for a noun to be completed successfully, a user must enter the minimum number of characters that uniquely identify the noun from all other nouns.

If a user types “subscribe a” and presses the Tab key, the system attempts to complete the noun. As the noun “a” is resolved to “alarm-report” the command is erased and the command is completed on the same line as follows:

```
subscribe a <Tab>

Reply :

CLI>subscribe alarm_report
```

Automatic Completion of Parameters

A CLI command parameter is automatically completed after a user enters a valid verb::noun pair, followed by a substring of the parameter, and presses the Tab key.

Examples

If a user types “add activity ena” and presses the Tab key, the command is completed to “add activity enabled=.” In order for a parameter to be completed successfully, a user must enter the minimum number of characters to uniquely identify the parameter from the possible list of parameters.

If a user types “subscribe alarm-report o” and presses the Tab key, the “o” parameter is resolved. Since it matches a single parameter “origin,” the entered command is erased and the command is completed as “subscribe alarm_report origin=” on the same line follows:

```
subscribe alarm-report o <Tab>

Reply :

CLI>subscribe alarm_report origin=
```

Automatic Completion of Commands with a Single Verb, Noun and Parameter

There are a few CLI commands that have a single verb, noun and parameter. For these commands, when a user enters the verb and presses the Tab key, the entire command is completed.

Examples

If a user enters “ac” and enters the Tab key, the command is completed as “ack alarm id=” as the verb works with a single noun and single parameter.

```
ac <Tab>

Reply :
CLI>ack alarm id=
```

Automatic Completion of Default Parameter Values

Some CLI command parameters have default values. Default values are used during automatic completion of a command.

Examples

If a user types “add user shell=” and presses the Tab key, the value part of the parameter is automatically completed because the parameter has a default value.

```
add user shell=<Tab>

Reply :

CLI>add user shell=CLI;
```

Automatic Validation of CLI Command Syntax

If a user types an invalid combination of verb, noun and parameters and presses the Tab key, the entire command is validated as part of automatic completion (that is, the verb, noun and parameters are checked as to whether they form a true command). After validation, the automatic completion feature displays only the part of the command that is valid. The following error conditions are handled during automatic validation:

- Invalid verbs

- Invalid nouns
- Invalid parameters

Invalid Verbs

If a user enters an invalid verb followed by valid or invalid noun, parameters and presses the Tab key. the entire list of verbs is displayed. The command is completed to “nothing”—that is, the command prompt has no characters following it.

Examples

If a user enters “xxx user name=john;” and presses the Tab key, the verb is determined to be invalid. The command is not completed, a complete list of possible verbs displays as help and the command prompt displays with the entire command removed.

```
xxx user name=john; <Tab>
Reply :

ack
add
audit
block
change
clear
control
delete
diag
download
equip
force_delete
get_trace
help
macro
query
report
reset
set_trace
show
start
status
stop
subscribe
sync
translate
unblock
unequip
unsubscribe
CLI>
```

Invalid Nouns

If a user enters a valid verb with an invalid noun, valid or invalid parameters and presses the Tab key, the entire list of nouns that work with that verb is displayed. For example, a compete list of nouns that work with that verb is displayed and the entered command is completed only to the verb.

Examples

If a user enters “show xxx id=10;” and presses the Tab key, the noun is determined to be invalid. The system completes the command by removing everything from the invalid noun to the end of the command: the command completes to “stop” and displays a list of all possible nouns that work with the verb.

```
stop xxx terminal

Reply :

session
ss7_trace
CLI>stop
```

Invalid Parameters

If a user enters a valid verb and noun with invalid parameters and presses the Tab key, the command is completed up to the first invalid parameter encountered. If a user enters a valid verb and noun with multiple valid parameters but does not enter a value for one or more parameters and presses the Tab key, the command is completed. However, during the validation process, any valid parameters that do not have a value are given a question mark (?) value.

Note This replacement does not work for the last parameter. For example, if a user enters “add user name=;password=;” and presses the Tab key, the command is completed to “add user name=?;password=.”

Examples

If a user enters “add user xxx=10;” and presses the Tab key, the parameter is determined to be invalid. The system completes the command by stripping the parameter and displays a list of possible parameters.

```
add user xxx=10;

Reply :

command_level*
days_valid
name*
password*
shell*
warn
work_groups
CLI>add user
```

If a user enters “add user name=;password=;command-level=” and presses the Tab key, the system determines that the entered parameters are valid but no value was entered. The system completes the command by entering the question mark (?) character for the missing values.

```
add user name=;password=;command-level <Tab>

Reply:

CLI>add user name=?;password=?;command_level=<Tab>
```

Automatic Expansion of Verbs, Nouns and Parameters

During automatic completion of an entered command, the verb, noun and parameters names are expanded to their full name. This expansion clearly shows that the expanded command is executed and there is no additional expansion of the command internally.

Examples

If a user enters “ad user n=john;c=10;wo=” and presses the Tab key, the system completes the command by expanding the verb, noun and parameter names. The command completes to “add user name=john; command_level=10; work_groups=.”

```
ad user n=john;c=10;wo= <Tab>

Reply :

CLI>add user name=john;command_level=10;work_groups=
```

Invalid Characters

This section describes the invalid characters in ASCII and subscriber commands. Usage applies to token values, such as subscriber names, trunk group names, and so forth.

ASCII Characters

The following characters are invalid in all ASCII character commands:

- Double quotation marks (“ ”).
- Single quotation marks (‘ ’).
- Semicolon (;)—A semicolon can only be used as a delimiter between tokens. It cannot be used within a token value (for example, within a subscriber name).

Using any of these characters returns an error message. This applies whether a command is entered from the CLI or by bulk provisioning.

Subscriber

The following characters are invalid or not recommended for using in Subscriber commands:

- Single quotation marks (‘ ’)—The single-quote is a reserved character for delimiting strings.
- Double quotation marks (“ ”)—- The double-quote is also a reserved character for delimiting strings.
- Semicolon (;)—A semicolon can only be used as a delimiter between tokens. It cannot be used within a token value (for example, within a subscriber name).
- Percent sign (%)—The percent sign is a wild-card, for example: show subscriber id=x1-6-00% shows all subscribers whose ID begins with x1-6-00. So the percent sign is a valid character for the show command, but is invalid when used with the add or change commands.
- Hyphen (-)—This is a valid character but impacts the way caller-ids are displayed. Cisco does not recommend using this character.
- Underscore (_)—This is a valid character but impacts the way caller-ids are displayed. Cisco does not recommend using this character.

- Ampersand (&)—The ampersand is a reserved character in XML.

Batch Data Retrieval (Paging) Using the Show Command

You can use the show command for batch data retrieval (paging). This command uses tokens that do not match command-to-field in the database. The tokens are generated as needed by the system. These tokens are available for all show commands in the system that have a database table as the backing store. A show of configuration data does not support these tokens because configuration data is not stored in a database table. This command also works in the CORBA interface.

Batch data retrieval (paging) examples:

```
show subscriber limit=1000; start-row=<next page value>;
show subscriber limit=1000; start-row=<next page value>; display=id,sub-service-profile;
order=id;
>
```

The following tokens are available for batch data retrieval (paging) to order and display desired data:

LIMIT—Specifies the page size for the maximum amount of data returned in any single show.

START-ROW—Specifies the page to start the display. You can start in the middle if so desired. Usually the first page is specified to see the total size of the display to determine how many pages are required.

DISPLAY—Only return the columns of data requested. This is a comma-separated list of the desired columns to be returned in the show. All other data is truncated.

ORDER—Specifies a key by which the data is sorted or ordered.



Note More than one item can be specified for a sort. This is a comma-separated list of columns for the noun being displayed.

Rules

Rules applying to commands are given with each section described in this document. These rules describe behavior exclusive of Primary Key or Foreign Key constraints. Primary Key and Foreign Key constraints are listed as applicable by token.

Add Rules

The following add rules are commonly used:

- What is being added cannot already exist.
- If a key in another table is referenced, that key must exist in the other table.

Delete Rules

The following delete rules are commonly used:

- The ID, or record, must already exist.
- If a key in another table is referenced, that key must be deleted first.

Change Rules

The following change rules are commonly used:

- The ID, or record, must already exist.
- If a key in another table is referenced, that key must exist in the other table.

Note All primary keys must be specified in a change command.

Show Rule

The *ID/Record must exist* is a commonly used show rule.

Wildcard

This section describes how to use the available wildcard in commands and tokens.

In Commands

The percent sign (%) is the only valid wildcard for show, report, and display commands. The asterisk (*) is the only valid wildcard for status and control commands. Using other commands returns the error message: "*invalid parameter*."

The following example returns a list of all Call Agents:

```
show call-agent id=%;
```

The following example shows only those Call Agents whose IDs begin with *ca*:

```
show call-agent id=ca%;
```

The following example is not a valid command. You must specify a value.

```
show %;
```

The following example controls all subscribers into service for a media gateway:

```
control subscriber-termination id=*@c2421.192;mode=forced;target-state=INS;
```

In Tokens

You can use a wildcard with tokens as long as the token is distinctive enough for the wildcard to distinguish it. Only one wildcard is allowed per token. The wildcard does not work with required tokens.

Examples:

Add a policy-prefix where prefix1 is the token for which we are using the wildcard. If the token is not distinctive enough, all possible tokens the token can represent are displayed:

```
add policy-prefix id=Test;pre%=toll-free;policy-id1=somepolicy;policy-type1=TOD;

Command parameter 'pre%' is too ambiguous. Possible parameters are:
   prefix10
   prefix1
   prefix2
   prefix3
```

```
    prefix4
    prefix5
    prefix6
    prefix7
    prefix8
    prefix9

add policy-prefix id=Test;p%1=toll-free;policy-id1=somepolicy;policy-type1=TOD;

Command parameter 'p%1' is too ambiguous. Possible parameters are:
    policy_type1
    prefix1
    policy_id1

add policy-prefix id=Test;pr%1=toll-free;policy-id1=somepolicy;policy-type1=TOD;

Reply: Transaction 1481 was processed.
uca12 update successful
```



Tip Once the command is executed, performing a control-p (^p), causes the verbose form of the command to appear. In the above example, *add policy-prefix id=Test;prefix1=toll-free;policy-id1=somepolicy; policy-type1=TOD;* appears when a ^p is performed.

Graceful and Forced Commands

Most commands are considered graceful unless “mode=forced” is specified. Graceful commands allow applicable processes and components to complete all activity before shutting down. This allows calls to complete and users to go on-hook. When a command is forced, all applicable processes and components terminate immediately, including calls.

Tables

The Cisco BTS 10200 Softswitch uses a replicated master-master database that is partitioned into a set of tables according to function. These tables are user provisionable and provide the user with a clear view of system status and functions.

Tables are provisioned using token IDs. Tokens equate to database field names in a structured query language (SQL) database, similar to the cell names in a spreadsheet. Tokens allow individual fields to be provisioned in any order (within the rules of a command).

Cursor Controls

The following control characters are available:

Control Character	Action
^A	Moves the cursor to beginning of the line.
^B	Moves the cursor back one space.
^C	Interrupts a command during typing.

Control Character	Action
^D	Deletes a character at the cursor position.
^E	Moves the cursor to the end of a line.
^F	Moves the cursor forward one character.
^I	Allows toggling between insert and overwrite (default is overwrite).
^K	Deletes all characters from the cursor position to the end of a line.
^L	Redisplays the current line.
^N	Scrolls forward through commands that have been entered (you must scroll backward through the commands before this will work).
^P	Scrolls backward through commands starting with the most recent.
^T	Transposes a character at cursor position with a previous character.
Backspace	Deletes the character to the left of the cursor.
Return	Executes a command.
Down arrow key	Pages down.
Up arrow key	Pages up.

Secure Shell

Secure shell (SSH) is the default method of access to the Cisco BTS 10200 Softswitch. SSH provides encrypted communication between a remote machine and the EMS or Call Agent for executing CLI commands. The SSH server runs on the EMSs and CAs of the Cisco BTS 10200. To connect, the client and server sides must run the secure shell daemon (SSHD).

The SSH daemon is available 24 hours a day, 7 days a week. It runs as a Solaris daemon process. It is automatically started when the Solaris is brought up, but if it dies, it must be manually restarted. A single unique instance of the SSHD runs on every component of the Cisco BTS 10200 Softswitch.

SSH is an optional login choice. Using the Cisco BTS 10200 Softswitch default application installation option, SSH is enabled; RSH, REMSH, RLOGIN, Telnet, or REXEC are disabled; but, FTP is not affected. If SSH is not selected, then RSH, REMSH, RLOGIN, Telnet, or REXEC are enabled and FTP is still not affected.

Caution For security purposes, Telnet is obsoleted as of Release 4.4.

If SSH is enabled, new users are prompted to enter a new password and reenter that password during their first login. From that point, they are prompted once for a password only.

To log in from the client-side, enter the following:

```
ssh -l username IPaddress
```

On the first SSH login from the client-side, expect a message similar to this:

```
The authenticity of host [hostname] can't be established.
Key fingerprint is 1024 5f:a0:0b:65:d3:82:df:ab:42:62:6d:98:9c:fe:e9:52.
Are you sure you want to continue connecting (yes/no)?
```

Enter yes.

The password prompt appears. From this point on, all communications are encrypted.

Subsequent SSH logins will prompt only for a password.

Help

This section details the help available for the Cisco BTS 10200 Softswitch.

Basic Usage

This section details the help available. The Cisco BTS 10200 generates help information when a question mark (?) character is entered as part of a command. The following list provides a brief summary of the functionality provided.

The following command lists all the commands for the route table that have a verb starting with s:

```
s? route
```

The following command lists all the commands that have a noun starting with rou:

```
show rou?
```

The following command lists all the commands that have a noun starting with rou and a verb starting with s:

```
s? rou?
```

The following command lists all the tokens for the show route command:

```
show route ?
```

The following command lists all the tokens for the add route command:

```
add route ?
```

The following command lists all the parameters that start with i for the show route command:

```
show route i?
```

The following command lists all the parameters that end with id= for the show route command:

```
show route ?id
```

The following command lists all the valid commands on the Cisco BTS 10200:

```
? ?
```

A ? substituted for a token value can be entered for multiple tokens if the full token name is entered. For example, enter the following command to get help on the id and tgn8-id tokens for the show route command:

```
show route id=?;tgn8-id=?

Possible matches:
        id; Enter at least 0 characters, but not more than 16 characters.
        tgn8-id; Enter a number from 0 to 2147483647.
```

For help on tokens, a token name followed by an equal sign (=) is required. A list of tokens can be determined using the percent character (%) wildcard. For example, enter the following command to get help on one of the tgn-id tokens:

```
show route tgn%=?

Command parameter 'tgn%' too ambiguous. Possible parameters:
        tgn10-id
        tgn3-id
        tgn9-id
        tgn1-id
        tgn8-id
        tgn7-id
        tgn6-id
        tgn2-id
        tgn5-id
        tgn4-id

show route tgn3-id=?
Matches found:
        tgn3-id; Enter a number from 0 to 2147483647.

    show route tgn3-id=0;
    Reply : Success: Database is void of entries.
```

System-generated help is available for all command nouns and verbs. For help on a specific command noun/verb pair, help provides:

1. A list of all parameters:
   - Sorted into groups of *Required* or *Optional/Conditional*.
   - With their data format described, or, for those parameters that require a value from a pick-list, a list of permitted values.
   - With their default value (if any).
   - With any FK dependency.
2. All related commands for each help request.
3. The URL to the HTML version of the CLI guide for each help request.

   One parameter is supported:

   - VERB = a valid verb or %.

Support for this verb is hard-coded in ManagedObject.java to avoid significant changes to the CommandParameter table.

Examples

```
****************************** example 1 ******************************
help help
Reply : Success:
Description of the BTS CLI 'help subscriber' command for release 900-03.02.00.I03
=====================================
For a given command noun, Help provides a list of all command noun-verb pairs
associated with the given noun.
For Help on a specific command noun-verb pair, a description of all associated tokens,
related commands, and a reference to the CLI Users Guide is provided. The required
tokens are listed first, and the optional/conditional tokens are listed next.
The following information is provided for each token:
    - a brief description
    - the expected data format or list of values
    - the default value (if any),
    - prevalidation formatting instructions
    - the dependency chain (if the value for the token must be pre-provisioned).
```

```
    The dependency chain is depicted in the by showing the relationship of the token
    to another BTS command token. The format is noun.token->noun.token->noun.token and
    so on until a token is reached that has no dependencies. The rightmost noun.token
    pair references the value that must be provisioned first. Moving to the left, you
    can follow the provisioning dependency chain back up to the token described in the
    help command.
For example, execution of 'show noun token=%', where noun and token are derived from
one of the dependency chain pairs, yields a list of possible values for the token
described in the help text.
Example for getting this description on the BTS help command:
help help
Example for getting help for a command noun:
help the_target_noun
Example for getting help for a specific command noun-verb pair:
help the_target_noun verb=the_target_verb
Where 'verb' represents the command verb for which help information is requested.

****************************** example 2 ******************************
help subscriber
Reply : Success:
Description of the BTS CLI 'help subscriber' command for release 900-03.02.00.I03
========================================
Related Commands:
    add subscriber
    audit subscriber
    change subscriber
    delete subscriber
    sync subscriber
    show subscriber
The BTS 10200 Users Guide is available at http://kyle-btc.cisco.com:10200
****************************** example 3 ******************************
help subscriber verb=change;
Reply : Success:
Description of the BTS CLI 'change subscriber' command for release 900-03.02.00.I03
========================================

----------------------------------------

Required Parameters:
----------------------------------------
id (ID)
    Enter at least 1 character, but not more than 30 characters.
    There is no default value.
----------------------------------------
Optional/Conditional Parameters:
----------------------------------------
address1 (Address1)
Enter at least 1 character, but not more than 32 characters.
    There is no default value.
address2 (Address2)
    Enter at least 1 character, but not more than 32 characters.
    There is no default value.
billing_dn (Billing Dn)
    Enter at least 1, but not more than 14 characters from the following set:
    {0123456789-}.
    There is no default value.
category (Category)
    Enter one of the following values: [INDIVIDUAL, MLHG, MLHG_INDIVIDUAL,
    MLHG_PREF_INDIV, CTXG, CTXG_INDIVIDUAL,
PBX, CTXG_TG, CTXG_MLHG, RACF, IVR]
    The default value is INDIVIDUAL.
city (City)
    Enter at least 1 character, but not more than 16 characters.
    There is no default value.
```

```
cos_restrict_id (COS Restrict ID)
    Enter at least 1 character, but not more than 16 characters.
    There is no default value.
    Dependency chain: cos_restrict.id
country (Country)
    Enter at least 1 character, but not more than 16 characters.
    The default value is USA.
ctxg_id (Ctxg Id)
    Enter at least 1 character, but not more than 16 characters.
    There is no default value.
    Dependency chain: centrex_grp.id
dn1 (Dn1)
    Enter at least 1, but not more than 14 characters from the following set:
    {0123456789-}.
    There is no default value.
email (Email)
    Enter an email address in the form text@text where text is a set of characters
    with no spaces.
    There is no default value.
grp (Grp)
    Enter a boolean value of Y for yes or N for no.
    The default value is N.
immediate_release (Immediate Release)
    Enter a boolean value of Y for yes or N for no.
    The default value is N.
language (Language)
    Enter at least 1 character, but not more than 16 characters.
    There is no default value.
mgw_id (Media Gateway ID)
    Enter at least 0 character, but not more than 32 characters.
    There is no default value.
    Dependency chain: termination.mgw_id -> mgw.id
mlhg_id (MLHG ID)
    Enter at least 1 character, but not more than 16 characters.
    There is no default value.
    Dependency chain: mlhg_pref_list.mlhg_id -> mlhg.id
mlhg_pref_list_id (Mlhg Pref List Id)
    Enter at least 1 character, but not more than 16 characters.
    There is no default value.
    Dependency chain: mlhg_pref_list.id
name (Name)
    Enter at least 1 character, but not more than 32 characters.
    There is no default value.
pic1 (Pic1)
    Enter a PIC value as four numeric characters: NPIC, or NONE.
    There is no default value.
pic2 (Pic2)
    Enter a PIC value as four numeric characters: NPIC, or NONE.
    There is no default value.
pic3 (Pic3)
    Enter a PIC value as four numeric characters: NPIC, or NONE.
    There is no default value.
policy_id (POLICY_ID)
    Enter at least 1 character, but not more than 16 characters.
    There is no default value.
privacy (Privacy)
    Enter one of the following values: [FULL, NAME, NONE]
    The default value is NONE.
qos_id (QOS ID)
    Enter at least 1 character, but not more than 16 characters.
    There is no default value.
    Dependency chain: qos.id
ring_type_dn1 (Ring Type Dn1)
    Enter a number from 1 to 3.
```

```
    The default value is 1.
sip_url (Sip Url)
    Enter at least 1 character, but not more than 32 characters.
    There is no default value.
ss_number (Ss Number)
    Enter a Social Security Number in the form ###-##-#### where # are digits from
    0-9.
    There is no default value.
state (State)
    Enter at least 1 character, but not more than 16 characters.
    There is no default value.
status (Status)
    Enter one of the following values: [ACTIVE, TEMP_OOS, TEMP_DISCONNECTED,
    TEMP_UNAVAILABLE]
    The default value is ACTIVE.
sub_profile_id (Sub Profile Id)
Enter at least 1 character, but not more than 16 characters.
    There is no default value.
    Dependency chain: subscriber_profile.id
term_id (Termination ID)
    Enter at least 1 character, but not more than 32 characters.
    There is no default value.
    Dependency chain: termination.id
term_type (TERM TYPE)
    Enter one of the following values: [TERM, TG, ROUTE, RG]
    The default value is TERM.
terminating_immediate_rel (Terminating Immediate Release)
    Enter a boolean value of Y for yes or N for no.
    The default value is N.
tgn_id (Trunk Group Number ID)
    Enter a number from 0 to 99999999.
    There is no default value.
    Dependency chain: trunk_grp.id
usage_sens (Usage Sens)
    Enter a boolean value of Y for yes or N for no.
    The default value is Y.
zipcode (Zipcode)
    Enter at least 1 character, but not more than 10 characters.
    There is no default value.
----------------------------------------
See Also:
----------------------------------------
Related Commands:
    add subscriber
    audit subscriber
    delete subscriber
    help subscriber
    sync subscriber
    show subscriber
```

Context Sensitive (Release 4.5)

Context sensitive help is available based on the following categories:

- Context sensitive help for verbs
- Context sensitive help for nouns
- Context sensitive help for parameters
- Context sensitive help for parameter values

Context Sensitive Help for Verbs

Context sensitive help for verbs is provided under the following conditions:

- A user does not enter any characters at the CLI prompt and enters the Tab key
- A user enters a substring of the verb at the CLI prompt and enters the Tab key

If a user does not enter any characters at the CLI prompt and just presses the Tab key, a list of possible verbs is displayed.

If a user enters a substring of a verb at the CLI prompt and presses the Tab key, a list of all possible verbs, starting with the substring, is displayed.

Examples

If a user presses the Tab key at the CLI command prompt, a list of all possible verbs is displayed as follows:

```
<Tab>

Reply :
ack
add
audit
block
change
clear
control
delete
diag
download
equip
force_delete
get_trace
help
macro
query
report
reset
set_trace
show
start
status
stop
subscribe
sync
translate
unblock
unequip
unsubscribe
```

If a user types the character “s” and presses the Tab key, the command is ambiguous and cannot be resolved. All possible commands that begin with the character “s” are listed as follows:

```
s <Tab>
Reply :

set_trace
show
start
status
stop
subscribe
```

```
sync
```

Context Sensitive Help for nouns

Context sensitive help for nouns is provided for the following conditions:

- If a user enters a valid verb and presses the Tab key.
- If a user enters a valid verb, followed by a substring of the noun, and presses the Tab key

If a user enters a valid verb and presses the Tab key, a list of all possible nouns is displayed.

If a user enters a valid verb, followed by a substring of the noun, then enters the Tab key. a list of all possible nouns, starting with the substring, displays.

Examples

If a user enters the word “subscribe” and presses the Tab key, all possible nouns are listed for the verb as follows:

```
subscribe <Tab>

Reply :

alarm_report
debug_report
event_report
CLI>subscribe
```

Context Sensitive Help for Parameters

Context sensitive help for parameters is provided under the following conditions:

- A user enters a valid verb::noun pair and presses the Tab key.
- When the user enters a valid verb::noun pair and presses the Tab key a list of all possible parameters is displayed. Any parameters with an asterisks (*) are required parameters.
- A user enters a valid verb::noun pair with an invalid parameter and presses a invalid parameter.
- When the user enters a valid verb::noun pair with an invalid parameter and presses the Tab key, a list of all possible parameters is displayed. The parameters with asterisks (*) indicate a required parameter.

Examples

If user types “subscribe alarm-report” and presses the Tab key, the system attempts to complete the parameter part of the command. Since there is more than one match in this case, the entire list of possible parameters is listed as follows:

```
subscribe alarm-report <Tab>
Reply :

origin*
severity*
type*
```

Context Sensitive Help for Parameter Values

Context sensitive help for parameter values is provided when the a user types a valid verb, noun, parameter and the equal (=) sign.

Examples

If a user types “show user name=” and presses the Tab key, help is displayed for the parameter value.

```
show user name= <Tab>

Reply :

Enter at least 1 character, but not more than 16 characters. If you want to clear the
value, please enter NULL.
```

Command Line Interface Extended Read Access Commands

The following Extended Read Access Commands (ERAC) are documented in the *Cisco BTS 10200 Softswitch Extended Read Access Commands* document.

- hg-dn-find
- hg-dn-list
- hg-sequence
- sub-cid
- sub-da-block
- sub-ld-block
- sub-oper-block

Related Documentation

Related documentation includes the following:

- *Cisco BTS 10200 Softswitch System Description Manual*
- *Cisco BTS 10200 Softswitch Operations, Maintenance and Troubleshooting Manual*
- *Release 4.1, 4.2, 4.4, or 4.5 Release Notes*

Obtaining Documentation

The following sections provide sources for obtaining documentation from Cisco Systems.

World Wide Web

You can access the most current Cisco documentation on the World Wide Web at the following sites:

- http://www.cisco.com
- http://www-china.cisco.com

- http://www-europe.cisco.com

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To access Cisco.com, go to the following website:

http://www.cisco.com

Technical Assistance Center

The Cisco TAC website is available to all customers who need technical assistance with a Cisco product or technology that is under warranty or covered by a maintenance contract.

Contacting TAC by Using the Cisco TAC Website

If you have a priority level 3 (P3) or priority level 4 (P4) problem, contact TAC by going to the TAC website:

http://www.cisco.com/tac

P3 and P4 level problems are defined as follows:

- P3—Your network performance is degraded. Network functionality is noticeably impaired, but most business operations continue.
- P4—You need information or assistance on Cisco product capabilities, product installation, or basic product configuration.

In each of the above cases, use the Cisco TAC website to quickly find answers to your questions.

To register for Cisco.com, go to the following website:

http://www.cisco.com/register/

If you cannot resolve your technical issue by using the TAC online resources, Cisco.com registered users can open a case online by using the TAC Case Open tool at the following website:

http://www.cisco.com/tac/caseopen

Contacting TAC by Telephone

If you have a priority level 1(P1) or priority level 2 (P2) problem, contact TAC by telephone and immediately open a case. To obtain a directory of toll-free numbers for your country, go to the following website:

http://www.cisco.com/warp/public/687/Directory/DirTAC.shtml

P1 and P2 level problems are defined as follows:

- P1—Your production network is down, causing a critical impact to business operations if service is not restored quickly. No workaround is available.
- P2—Your production network is severely degraded, affecting significant aspects of your business operations. No workaround is available.



PART 1

Call Processing Provisioning Commands



CHAPTER 1

Call Agent Provisioning

Revised: July 24, 2009, OL-3743-41

This chapter describes the Call Agent Provisioning commands and their associated tables.

Note In this chapter, an asterisk preceding a token name means the token is mandatory. A token without an asterisk is optional.

Note After a new install or an upgrade, all provisioning is disabled unless the DB-LICENSE file is provisioned**. See the Cisco BTS 10200 Softswitch Provisioning Guide for steps.

**As of Release 4.5, DB-LICENSE provisioning is not required.

Activity

The Activity (activity) table schedules periodic or scheduled activities for the Cisco BTS 10200 Softswitch. Some activities can be enabled during switchover or at initialization time. The Activity table is a two-part table. The Activity Base table defines the activities and their properties supported by the Cisco BTS 10200 Softswitch. The Activity table schedules the frequency, and the start and end times for the activities.

Table Name: ACTIVITY

Table Containment Area: CA, FSPTC, and FSAIN

Command Types

Show, add, change and delete

Examples

```
show activity
add activity id=MEDIA-ALIVE-EM; freq=6h; start-time=02:00;
add activity id=SS7-CIC; enabled=n;
add activity id=MGCP-TERM; enabled=y; freq=30m;
change activity id=MEDIA-ALIVE-EM; freq=8h;
delete activity id=MEDIA-ALIVE-EM; (Release 4.5)
```

Note Prior to Release 4.5, this table does not have a delete command. Disable activities by setting the enabled token to N.

Usage Guidelines

Primary Key Token(s): id

Rules:

- freq is required if enabled=y
- day-of-month is required if freq=monthly
- day-of-week is required if freq=monthly and day-of-month = first | second | third | fourth | last
- date-of-month is required if freq=monthly and day-of-month=date
- day-of-week is required if freq=weekly | biweekly
- end-time is required if fixed-time-interval=y

Syntax Description

* ID	Primary key. Foreign key: Activity Base table. Resource type for the specified module. VARCHAR(16): 1–16 ASCII characters. VARCHAR(32): 1–32 ASCII characters. (Release 4.5) Permitted values are: MEDIA-ALIVE-EM—Controls event message (EM) generation for long duration calls. MGCP-TERM—Controls the trunking gateway MGCP-side CIC audit. SS7-CIC—Controls the SS7-side CIC audit. **Note** Enter these values in upper case. These values are case-sensitive.

* FREQ	Specifies the frequency (number of times) to schedule the specified activity. VARCHAR(16): 1–16 ASCII characters. Permitted values are: 5M—Run periodic task every 5 minutes. 10M—Run periodic task every 10 minutes. 15M—Run periodic task every 15 minutes. 30M—Run periodic task every 30 minutes. 1H—Run periodic task every 1 hour. 2H—Run periodic task every 2 hours. 3H—Run periodic task every 3 hours. 4H—Run periodic task every 4 hours. 6H—Run periodic task every 6 hours. 8H—Run periodic task every 8 hours. 12H—Run periodic task every 12 hours. DAILY—Run periodic task every 24 hours. WEEKLY—Run periodic task once every week on the specified day-of-week. BIWEEKLY—Run periodic task once every two weeks on the specified day-of-week. MONTHLY—Run periodic task once every month on the specified day or date.
AUDIT-COUNT (Not supported) (Release 4.5)	Specifies the number of records to be audited per interval. INTEGER. Range is defined in the Activity Base table.
AUDIT-INTERVAL (Not supported) (Release 4.5)	Specifies the interval between group of auditing triggers. INTEGER. Range is defined in the Activity Base table.
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
DATE-OF-MONTH	Mandatory if day-of-month=date. Specifies the day of the month to run the activity. SMALLINT: 1–28. **Note** Because the dates 29, 30, and 31 do not occur every month, they are not specified.

DAY-OF-MONTH	Mandatory if freq=monthly. Use to schedule activities on a monthly basis. VARCHAR(16): 1–16 ASCII characters. Permitted values are: FIRST—Run periodic task once every month on the specified day-of-week. SECOND—Run periodic task once every month on the specified day-of-week. THIRD—Run periodic task once every month on the specified day-of-week. FOURTH—Run periodic task once every month on the specified day-of-week. LAST—Run periodic task once every month on the specified day-of-week. FIRSTDAY—Run periodic task once every month on the first day of the month. LASTDAY—Run periodic task once every month on the last day of the month. DATE—Run periodic task once every month on the specified date.
DAY-OF-WEEK	Mandatory if freq = weekly | biweekly or freq = monthly and day-of-month = first | second | third | fourth | last. Use to schedule activities on a weekly basis. CHAR(3). Permitted values are: MON—Monday TUE—Tuesday WED—Wednesday THU—Thursday FRI—Friday SAT—Saturday SUN—Sunday
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
ENABLED	Specifies if the activity is enabled or disabled. CHAR(1): Y/N (Default = N). CHAR(1): Y/N (Default = Y). (Release 4.5) Y—The activity is performed at a specified frequency. N—The activity is not a periodic activity.
END-TIME	Specifies a specific time to suspend a scheduled activity. At the next scheduled time, the suspended activity picks up from where it left off. CHAR(5): HH:MM (Default = 00:00). **Note** There is no default as of Release 4.5.
FIXED-TIME-INTERVAL (Not provisionable)	Provisioned from the Activity Base table. Allows scheduling an activity to run only during fixed time interval. For the change command, the end-time token is required when using the fixed-time-interval token. CHAR(1): Y/N.

LAST-CHANGED (Not provisionable)	Specifies when the activity record was modified. DATE: YYYY-MM-DD. **Note** Uses the system time when a record is provisioned or changed.
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
RESTART-ENABLED	Provisioned from the Activity Base table if not entered. Specifies if the activity must be run after initialization if a process was restarted. CHAR(1): Y/N (Default = Y).
SO-ENABLED	Provisioned from the Activity Base table if not entered. Specifies if the activity must be run after a switchover on the newly active side. CHAR(1): Y/N (Default = Y).
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).
START-TIME	Specifies a start time for a scheduled or a periodic activity. For a periodic activity, only the start time is used. Start-time must occur before end-time. CHAR(5): HH:MM—ranging from 00:00 to 23:59 (Default = 00:00).

Activity Base

The Activity Base (activity-base) table defines valid activity IDs and the number of times they are to run. This table is populated during installation.

Table Name: ACTIVITY-BASE

Table Containment Area: EMS

Command Types Show

Examples

```
show activity-base id=MEDIA-ALIVE-EM;
```

Usage Guidelines Primary Key Token(s): id

Syntax Description

* ID	Primary key. Resource Type for the specified module. VARCHAR(16): 1–16 ASCII characters. VARCHAR(32): 1–32 ASCII characters. (Release 4.5) Permitted values are listed in Table 1-1. **Note** Enter values in upper case. The values are case-sensitive.
AUDIT-COUNT-RANGE-FROM (Not supported)	Specifies the lower limit of the audit-count range. INTEGER: Default = 0.
AUDIT-COUNT-RANGE-TO (Not supported)	Specifies the upper limit of the audit-count range. INTEGER: Default = 0.
AUDIT-INTERVAL-RANGE-FROM (Not supported)	Specifies the lower limit of the audit-interval range. INTEGER: Default = 0.
AUDIT-INTERVAL-RANGE-TO (Not supported)	Specifies the upper limit of the audit-interval range. INTEGER: Default = 0.
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
FIXED-TIME-INTERVAL	Specifies if the activity must be run during a fixed time interval. CHAR(1): Y/N (Default = N).
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.

RESTART-ENABLED	Specifies if the activity must be run after initialization if a process was restarted. CHAR(1): Y/N (Default = Y).
SO-ENABLED	Specifies if the activity must be run after a switchover on the newly active side. CHAR(1): Y/N (Default = Y).
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).
VALID-FREQ	Defines a list of intervals that are allowable for the defined activity. If null, any valid frequency can be provisioned. VARCHAR(32): 1–32 ASCII characters. VARCHAR(64): 1–64 ASCII characters. (Release 4.5) Permitted values are: 5M—Run periodic task every 5 minutes. 10M—Run periodic task every 10 minutes. 15M—Run periodic task every 15 minutes. 30M—Run periodic task every 30 minutes. 1H—Run periodic task every 1 hour. 2H—Run periodic task every 2 hours. 3H—Run periodic task every 3 hours. 4H—Run periodic task every 4 hours. 6H—Run periodic task every 6 hours. 8H—Run periodic task every 8 hours. 12H—Run periodic task every 12 hours. DAILY—Run periodic task every 24 hours. WEEKLY—Run periodic task once every week on the specified day of week. BIWEEKLY—Run periodic task once every two weeks on the specified day of week. MONTHLY—Run periodic task once every month on the specified day or date.

Table 1-1 describes the provisioning characteristics for the values of the Activity Base ID token values.

Table 1-1 Activity Base ID Token Values Characteristics

ID	Valid-Freq	Fixed-Time Interval	So-Enabled	Restart-Enabled	Description
MEDIA-ALIVE-EM	6H, 8H, 12H, DAILY	N	N	N	Controls EM generation for long duration calls.
MGCP-TERM	30M, DAILY	N	Y	Y	Controls the trunking gateway MGCP-side CIC audit.

Table 1-1 Activity Base ID Token Values Characteristics (continued)

ID	Valid-Freq	Fixed-Time Interval	So-Enabled	Restart-Enabled	Description
SIA-MEMORY-PERIODIC-AUDIT (Release 4.5)	15M, 30M, 1H, 2H, 3H,4H, 6H, 8H, 12H	N	Y	Y	SIA memory audit.
SIA-MEMORY-SCHEDULED-AUDIT (Release 4.5)	DAILY	N	N	N	Schedules an SIA memory audit daily at a fixed time.
SIM-MEMORY-PERIODIC-AUDIT (Release 4.5)	15M, 30M, 1H, 2H, 3H,4H, 6H, 8H, 12H	N	Y	Y	SIM memory audit.
SIM-MEMORY-SCHEDULED-AUDIT (Release 4.5)	DAILY	N	N	N	Schedules an SIM memory audit daily at a fixed time.
SS7-CIC		N	Y	Y	Controls the SS7-side CIC audit. Can be scheduled at any time.

Call Agent

The Call Agent (call-agent) table contains the domain name of the Call Agent switch. It is also provisioned in the Feature Server.

Table Name: CALL-AGENT

Table Containment Area: Call Agent, FSPTC, and FSAIN

Command Types

Show, add, change, and delete

Examples

```
show call-agent id=CA146;
add call-agent id=CA146; tsap-addr-sideA=190.10.100.200; clli=DALLTXRCDN5;
change call-agent id=ca146; tsap-addr-sideA=190.10.100.200; clli=DALLTXRCDN6;
delete call-agent id=CA146; tsap-addr-sideA=190.10.100.200; clli=DALLTXRCDN6;
```

Examples

```
show call-agent id=CA146;
add call-agent id=CA146; tsap-addr=190.10.100.200;clli=DALLTXRCDN5;
add call-agent id=CA146; tsap-addr=190.10.100.200;clli=DALLTXRCDN5;
change call-agent id=ca146; tsap-addr=190.10.100.200;clli=DALLTXRCDN6;
delete call-agent id=CA146; tsap-addr=190.10.100.200;clli=DALLTXRCDN6;
```

Usage Guidelines

Primary Key Token(s): id

Add Rules: None.

Change Rules: None.

Delete Rules:

- ID does not exist in any centrex-grp::call-agent-id.
- ID does not exist in any mlhg::call-agent-id.
- ID does not exist in any mgw::call-agent-id.
- ID does not exist in any trunk-grp::call-agent-id.

Syntax Description

* ID	Primary key. Call Agent ID (domain name). Service provider assigns, based on network configuration. VARCHAR(8): 1–8 ASCII characters. The form of the id is CAnnn or cannn where nnn = 000 to 999.
* TSAP-ADDR-SIDEA * TSAP-ADDR (Release 4.4.0)	Transport service access point (TSAP) address for the domain name system (DNS) name of the Feature Control Protocol (FCP) link of the Call Agent. The DNS name then resolves to four IP addresses—two on the active side and two on the standby side. This DNS name must match the DNS name configured in the opticall.cfg file for the service interaction module (SIM) communication. VARCHAR(64): 7–64 ASCII characters in formats ranging from n.n.n.n to nnn.nnn.nnn.nnn. Domain names cannot begin with a number. **Note** SIM is responsible for selecting a service when two or more services are defined for the same Trigger ID (TID) / Trigger Detection Point (TDP). Service selection is based on the service priority.
CLLI	The Common Language Location Identifier (CLLI) for the Call Agent. CHAR(11): 11 ASCII characters.
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.

LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
MGW-MONITORING-ENABLED	Media Gateway monitoring enabled/disabled indicator. CHAR(1): Y/N (Default = Y).
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).

Call Agent Configuration

The Call Agent Configuration (ca-config) table defines the values a service provider is allowed to change. The Call Agent Configuration Base defines the defaults for each Call Agent and is used unless the Call Agent Configuration table is added with a different value. See Appendix A, "Configurable Parameters and Values" for the values that can be changed.

Note When the Cisco BTS 10200 Softswitch looks for provisioned values, Call Agent Configuration table is read first to provide a value. If the Call Agent Configuration table is not provisioned, the system then reads the Call Agent Configuration Base table and returns that default value. (Release 4.5)

Table Name: CA-CONFIG

Table Containment Area: Call Agent, FSPTC, and FSAIN

Command Types

Show, add, change and delete (delete is supported as of Release 4.4.1)

Examples

```
show ca-config type=susp-tmr;
add ca-config type=susp-tmr; datatype=integer; value=250;
change ca-config type=susp-tmr; datatype=integer; value=200
change ca-config type=batch-mode-supp; value=Y;
change ca-config type=batch-latency; value=240;
delete ca-config type=susp-tmr; (Release 4.4.1)
```

Usage Guidelines

Primary Key Token(s): type

Change Rules: None.

Syntax Description

* TYPE	Primary key. Type of configuration. VARCHAR(50): 1–50 ASCII characters. See Appendix A, "Configurable Parameters and Values" for values.
* DATATYPE	Type of data for the configuration type. VARCHAR(8):1–8 ASCII characters. Permitted values are: BOOLEAN—The data entered for the value token is a BOOLEAN (Y, N, Yes, No) string. INTEGER—The data entered for the value token is an integer. STRING—The data entered for the value token is a character (ASCII) string. DIGITS—The data entered for the value token are digits.
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
BATCH-LATENCY Obsolete as of Release 4.4.1.	When batch-mode-supp=Y, batch-latency defines the maximum time (in seconds) to hold any EM before sending the batched RADIUS message. INTEGER: 1–999 (Default = 60).
BATCH-MODE-SUPP Obsolete as of Release 4.4.1.	Indicates whether batch mode is supported. CHAR(1): Y/N (Default = N). N—Batch mode is not supported. Y—Batch mode is supported.
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.

START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).
VALUE	The value associated with the datatype. VARCHAR(32): 1–32 ASCII characters.

Call Agent Configuration Base

The Call Agent Configuration Base (ca-config-base) table is a static table provisioned in the Element Management System (EMS) to perform constraint checks. This table is not provisionable. Only the show command is allowed. Use the show command in this table to change information in the Call Agent Configuration table. Information in the Call Agent Configuration Base table must match the information in the Call Agent Configuration table.

Table Name: CA-CONFIG-BASE

Table Containment Area: EMS

Command Types

Show

Examples

```
show ca-config-base type=susp-tmr;
```

Usage Guidelines

Primary Key Token(s): type

Syntax Description

* TYPE (Not provisionable)	Primary key. Defines the type of data and the value column defines the data for the defined type. VARCHAR(50): 1–50 ASCII characters.
* DATATYPE (Not provisionable)	Specifies what kind of parameter is available for this type. VARCHAR(8): 1–8 ASCII characters. Permitted values are: BOOLEAN—The data entered for value token is a BOOLEAN (Y, N, Yes, No) string. INTEGER—The string entered for the value token is an integer. STRING—The string entered for the value token is a character string. DIGITS—The string entered for the value token is a digit string.
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.

CHK-POS-VAL	If set, the EMS validates the VALUE field against one of the values provisioned in the Call Agent Configuration Base Possible Values table. CHAR(1): Permitted values are: Y—Validate the input string against value the Call Agent Configuration Base Possible Values table. N—No check. U—Convert the input string to upper case. L—Convert the input string to lower case.
DEFAULT-VALUE (Not provisionable)	Defines the value associated with data type defined by the type token. VARCHAR(32): 1–32 ASCII characters.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
FROM-VALUE (Not provisionable)	First value of an integer range for this type. INTEGER.
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).
TO-VALUE (Not provisionable)	Last value of an integer range for this type. INTEGER.

Call Agent Profile

The Call Agent Profile (call-agent-profile) table is used to define the properties (functionality) of the Call Agent. This table is also used to specify a billing method: either EM or CDB.

Note A Call Agent must be provisioned before provisioning in the Call Agent Profile table.

Table Name: CALL-AGENT-PROFILE

Table Containment Area: Call Agent

Command Types

Show, add, change, and delete

Examples

```
show call-agent-profile id=ca146;
add call-agent-profile id=ca146; cms-id=12345; mgc-supp=y; mgc-id=12345;
feid=financial-entity-id1; cdb-billing-supp=n; em-billing-supp=y; pri-rks-profile-id=rks1;
sec-rks-profile-id=rks2;
change call-agent-profile id=ca146; cdb-billing-supp=n;
delete call-agent-profile id=ca146;
```

Usage Guidelines

Primary Key Token(s): id

Foreign Key Token(s): id

Add Rules: None.

Change Rules: None.

Delete Rules: None.

Syntax Description

* ID	Primary key. Foreign key: Call Agent table. Domain name of the specific Call Agent (CA), in the format CAnnn, where nnn = 3-digit number previously assigned to the CA. This value is case-sensitive (CA146 and ca146 are not the same). This is the unique identifier for this Call Agent (CMS) node, which was permanently assigned at the time of software installation on the Cisco BTS 10200 Softswitch. VARCHAR(8): 1–8 ASCII characters.
* CMS-ID (This token is optional as of Release 4.4.1)	Specifies the 5-digit element ID of the CMS. INTEGER: 00000–99999 (Default = 99999 in Release 4.4.1). **Note** This token must be provisioned to support the Communications Assistance for Law Enforcement Act (CALEA).
* MGC-ID (Optional as of Release 4.4.1)	Specifies the 5-digit element ID of the MGC. INTEGER: 00000–99999 (Default = 99999 in Release 4.4.1). **Note** This token must be provisioned to support the Communications Assistance for Law Enforcement Act (CALEA).
* FEID	Financial entity ID (FEID) of the Cisco BTS 10200 Softswitch (CMS/MGC) that is included in event messages sent to the RKS for billing purposes. PacketCable zones can be divided into one or more logical financial entity IDs. A single CMS/MGC is assigned at most one FEID; however, more than one CMS can be assigned the same FEID. VARCHAR(255): 1–255 ASCII characters (Default = 33333 in Release 4.4.1). **Note** This optional token becomes mandatory if the CMS-SUPP token, the MGC-SUPP token, or both are set to Y (yes) in Releases 4.1, 4.2 and 4.4.0. This token is optional in Release 4.4.1 regardless of whether the MGC-SUPP token is set to Y (yes). The CMS-SUPP token is obsolete in Release 4.4.1.

AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
CDB-BILLING-SUPP	Specifies whether to generate call detail blocks (CDBs) for billing. If changed, change takes effect only on a failover. CHAR(1): Y/N (Default = Y). Y—Provide CDB billing. N—Do not provide CDB billing **Caution** Cisco strongly recommends that you do not set both cdb-billing-supp and em-billing-supp to Y. Attempting to generate both types of records simultaneously can significantly degrade system performance. **Note** To set both the cdb-billing-supp and em-billing-supp tokens to Y, include FORCED=Y in the command line (Release 4.4.1).
CMS-SUPP (Obsolete in Release 4.4.1)	Specifies whether CMS functionality is supported by the element. CHAR(1): Y/N (Default = N).
DESCRIPTION	Service provider-defined description. VARCHAR(64): 1–64 ASCII characters.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
DQOS-SUPP	Determines whether DQoS is supported by this Call Agent. CHAR(1): Y/N (Default = N). N—DQoS is not supported by this Call Agent. Y—Support for DQoS is supported by this Call Agent.

EM-BILLING-SUPP	Specifies whether to generate PacketCable event messages for billing. If changed, change takes effect only on a failover. CHAR(1): Y/N (Default = N). N—Do not provide event message generation. Y—Provide event message generation. **Caution** Cisco strongly recommends that you do not set both CDB-BILLING-SUPP and EM-BILLING-SUPP to Y. Attempting to generate both types of records simultaneously can significantly degrade system performance. **Note** To set both the cdb-billing-supp and em-billing-supp tokens to Y, include FORCED=Y in the command line (Release 4.4.1).
FORCED (Release 4.4.1)	Allows a user to set both EM and CDB billing. CHAR(1): Y/N (Default = N).
GTD-SUPP	Specifies if generic transport descriptor (GTD) functionality is supported by the element. GTD is an ASCII-based encoding scheme used to pass signaling information end-to-end. CHAR(1): Y/N (Default = N).
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
MGC-ID	The 5 digit element id for the MGC type (used for EM billing) INTEGER: 00000–99999 (Default = 99999).
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
PCMM-SUPP (Release 4.5)	Specifies whether PacketCable Multimedia Specification (PCMM) is supported. CHAR(1): Y/N (Default = N).
PRI-RKS-PROFILE-ID	Foreign key: Radius Profile table. Primary RKS Profile ID. Must be the same as the radius-profile id for the primary RKS. VARCHAR(16): 1–16 ASCII characters.
SEC-RKS-PROFILE-ID	Foreign key: Radius Profile table. Secondary RKS Profile ID. Must be the same as the radius-profile id for the secondary RKS. VARCHAR(16): 1–16 ASCII characters.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).

Call Agent Configuration Base Possible Values (Release 4.4.1)

The Call Agent Configuration Base Possible Values (ca-config-base-pos-val) table is a static table provisioned in the Element Management System (EMS) to perform constraint checks on possible values for any particular ca-config token. This table is not provisionable. Only the show command is allowed.

Table Name: CA-CONFIG-BASE-POS-VAL

Table Containment Area: EMS

Command Types

Show

Examples

```
show ca-config-base-pos-val type=protocol-version;value=I01;
```

Usage Guidelines

Primary Key Token(s): type, value

Add Rules: None.

Change Rules: None.

Delete Rules: None.

Syntax Description

* TYPE	Primary key. Foreign key: Call Agent Configuration Base table. Defines the type of data. VARCHAR(50): 1–50 ASCII characters. See Table 1-2 for permitted values.
* VALUE	Primary key. Defines the value associated with the data type defined by the type token. VARCHAR(32): 1–32 ASCII characters. See Table 1-2 for permitted values.
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.

ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).

Table 1-2 lists the valid types and values for the Call Agent Configuration Base Possible Values table.

Table 1-2 Call Agent Configuration Base Possible Values Types and Values

Type	Value	Description
AC-ACTIVATION-LEVEL	ONE	
AC-ACTIVATION-LEVEL	TWO	
ACCT-CODE-PROMPT-TONE	CF	Confirm tone
ACCT-CODE-PROMPT-TONE	DL	Dial tone
ACCT-CODE-PROMPT-TONE	MWI	Message waiting indicator
ACCT-CODE-PROMPT-TONE	P	Prompt tone
ACCT-CODE-PROMPT-TONE	SDL	Stutter dial tone
ACCT-CODE-PROMPT-TONE	SL	Stutter dial tone
AR-ACTIVATION-LEVEL	ONE	
AR-ACTIVATION-LEVEL	TWO	
COT-ACTIVATION-LEVEL	ONE	
COT-ACTIVATION-LEVEL	TWO	
DEFAULT-CODEC-TYPE	PCMU	
DEFAULT-CODEC-TYPE	PCMA	
DEFAULT-CODEC-TYPE	G.722	
DEFAULT-CODEC-TYPE	G.723.1-H	
DEFAULT-CODEC-TYPE	G.723.1A-H	
DEFAULT-CODEC-TYPE	G.723.1-L	
DEFAULT-CODEC-TYPE	G.723.1A-L	
DEFAULT-CODEC-TYPE	G.729	
DEFAULT-CODEC-TYPE	G.729A	
DEFAULT-CODEC-TYPE	G.729AB	
DEFAULT-CODEC-TYPE	G.729B	
DEFAULT-CODEC-TYPE	G.729E	
DEFAULT-CODEC-TYPE (Not Used)	G.CLEAR	
DEFAULT-CODEC-TYPE	G.726-40K	

Table 1-2 Call Agent Configuration Base Possible Values Types and Values (continued)

Type	Value	Description
DEFAULT-CODEC-TYPE	G.726-32K	
DEFAULT-CODEC-TYPE	G.726-24K	
DEFAULT-CODEC-TYPE	G.726-16K	
DEFAULT-CODEC-TYPE	G.728	
DEFAULT-IVR-SCRIPT-PKG-TYPE	BAU	Basic audio package.
DEFAULT-IVR-SCRIPT-PKG-TYPE	AAU	Advanced audio package.
DEFAULT-IVR-SCRIPT-PKG-TYPE	A	Announcement package.
DEFAULT-IVR-SCRIPT-PKG-TYPE	TCL	Tool command language.
EXCHANGE-TYPE	A	
EXCHANGE-TYPE	B	
PROTOCOL-VERSION	I01	PacketCable EM specification version.
MGCP-T38-FAX-MODE-PREF1 (Release 4.5)	T38_ FXR _ LOOSE	Not provisionable.
MGCP-T38-FAX-MODE-PREF1 (Not used) (Release 4.5)	T38_ FXR _ STRICT	Not provisionable.
MGCP-T38-FAX-MODE-PREF1 (Not used) (Release 4.5)	T38_ FXR _ GW	Not provisionable.
MGCP-T38-FAX-MODE-PREF2 (Not used) (Release 4.5)	T38_ FXR _ LOOSE	Not provisionable.
MGCP-T38-FAX-MODE-PREF2 (Not used) (Release 4.5)	T38_ FXR _ STRICT	Not provisionable.
MGCP-T38-FAX-MODE-PREF2 (Not used) (Release 4.5)	T38_ FXR _ GW	Not provisionable.
MGCP-T38-FAX-MODE-PREF3 (Not used) (Release 4.5)	T38_ FXR _ LOOSE	Not provisionable.
MGCP-T38-FAX-MODE-PREF3 (Not used) (Release 4.5)	T38_ FXR _ STRICT	Not provisionable.
MGCP-T38-FAX-MODE-PREF3 (Release 4.5)	T38_ FXR _ GW	Not provisionable.
PROTOCOL-VERSION	I02	PacketCable EM specification version
PROTOCOL-VERSION	I03	PacketCable EM specification version
SCTP-DSCP	EF	
SCTP-DSCP	AF11	
SCTP-DSCP	AF12	
SCTP-DSCP	AF13	
SCTP-DSCP	AF21	

Table 1-2 Call Agent Configuration Base Possible Values Types and Values (continued)

Type	Value	Description
SCTP-DSCP	AF22	
SCTP-DSCP	AF23	
SCTP-DSCP	AF31	
SCTP-DSCP	AF32	
SCTP-DSCP	AF33	
SCTP-DSCP	AF41	
SCTP-DSCP	AF42	
SCTP-DSCP	AF43	
SCTP-DSCP	CS1	
SCTP-DSCP	CS2	
SCTP-DSCP	CS3	
SCTP-DSCP	CS4	
SCTP-DSCP	CS5	
SCTP-DSCP	CS6	
SCTP-DSCP	CS7	
SCTP-DSCP	DEFAULT	
TIME-RELEASE-TONE	NOTONE	If a time release procedure is applied, the Cisco BTS 10200 Softswitch checks the time release tone values to determine the tone to play. Permitted values for the tone are: NOTONE—no-tone (silence) BT—busy tone ROT—reorder tone ROH—receiver off hook warning tone
TIME-RELEASE-TONE	BT	
TIME-RELEASE-TONE	ROT	
TIME-RELEASE-TONE	ROH	

Common Language Location Identifier Code (Release 4.5)

The Common Language Location Identifier (CLLI) Code (clli-code) table is used when multiple CLLI codes must be supported. One CLLI code can be defined per point of presence (POP). Since the Cisco BTS 10200 Softswitch supports multiple POPs, the Cisco BTS 10200 Softswitch supports multiple CCLI codes.

Table Name: CLLI-CODE

Table Containment Area: EMS ONLY

Command Types Show, add, change, and delete

Examples

```
show clli-code;
add clli-code id=NBWKNJ17DS1;
change clli-code id=NBWKNJ17DS1; description=CLLI Code for NEW Brunswick POP.
delete clli-code id=NBWKNJ17DS1;
```

Usage Guidelines

Primary Key Token(s): id

Add Rules: None.

Change Rules: None.

Delete Rules: None.

Syntax Description

* ID	Primary key. The CLLI code. VARCHAR(11): 1–11 ASCII characters.
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
DESCRIPTION	Service provider-defined description. VARCHAR(64): 1–64 ASCII characters.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).

Emergency Number List

The Emergency Number List (emergency-number-list) table defines emergency numbers. During overload, the call is allowed if a dialed number matches a number in this table. The call is dropped if a dialed number does not match a number in this table.

Table Name: EMERGENCY-NUMBER-LIST

Table Containment Area: Call Agent, EMS

Command Types

Show, add, change and delete

Examples

```
show emergency-number-list;
add emergency-number-list digit-string=911;
change emergency-number-list digit-string=911; description=E911 number;
delete emergency-number-list digit-string=911;
```

Usage Guidelines

Primary Key Token(s): digit-string

Add Rules: None.

Change Rules: None.

Delete Rules: None.

Syntax Description

* DIGIT-STRING	Primary key. Specifies the digit string to be considered as an emergency number. VARCHAR(14): 1–14 ASCII characters.
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
DESCRIPTION (EMS only)	Service provider-defined description. VARCHAR(64): 1–64 ASCII characters.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.

LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).

Feature Server

The Feature Server (feature-server) table identifies the location and type of a Feature Server (POTS or AIN). This table also identifies the media gateways (MGWs) used by the Feature Server. It is updated at both the Call Agent and the applicable Feature Server. The Feature Server can be prepopulated during installation using a script, and it is used to automatically provision the Service Trigger table.

Table Name: FEATURE-SERVER

Table Containment Area: Call Agent / FSPTC / FSAIN (Release 4.5)

Command Types

Show, add, change, and delete

Examples

```
show feature-server id=FSPTC002;
add feature-server id=FSPTC002;tsap-addr-sidea=190.101.100.103:11025;type=pots;
change feature-server id=FSPTC002;type=pots;tsap-addr-sidea=test.cisco.com;
delete feature-server id=FSPTC002;
```

Examples

```
add feature-server id=FSPTC002;tsap-addr=190.101.100.103:11025;type=pots;
change feature-server id=FSPTC002;type=pots;tsap-addr=test.cisco.com;
```

Usage Guidelines

Primary Key Token(s): id

Add Rules: None.

Change Rules: None.

Delete Rules:

- ID does not exist in any feature::feature-server-id.
- ID does not exist in any service-trigger::feature-server-id.

Note When adding a Feature Server, add the entries to the Call Agent as well as the Feature Server tables in the respective Feature Servers. The POTS Feature Server has the Feature Server table, but the AIN Feature Server does not.

Syntax Description

* ID	Primary key. The format of id is FSPTCnnn or (fsptc nnn if POTS Feature Server) and FSAINnnn (or fsainnnn if AIN Feature Server). VARCHAR(8): 1–8 ASCII characters in the format FSPTCnnn or fsptcnnn; FSAINnnn or fsainnnn, where nnn = 000–999. **Note** There are no naming restrictions if the Feature Server TYPE=3PTY.
* TSAP-ADDR-SIDEA TSAP-ADDR (Release 4.4.1)	TSAP address of Side A of the Feature Server. VARCHAR(64): 7–64 ASCII characters in formats ranging from n.n.n.n to nnn.nnn.nnn.nnn. DNS or IP address. Domain names cannot begin with a number.
* TYPE	Type of Feature Server. VARCHAR(4): 1–4 ASCII characters. Permitted values are: AIN—Advanced Intelligent Network POTS—Plain old telephone service (includes Tandem and Centrex) 3PTY—Third Party Feature Server (Release 4.5)
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
DESCRIPTION (EMS-only field)	Service provider-defined description. VARCHAR(64): 1–64 ASCII characters.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
EXTERNAL-FEATURE-SERVER (Release 4.5)	Specifies to the Call Agent whether a feature server is an external feature server. If the feature server is external, an external FQDN must be sent to the Feature Server. Can be set to Y only if type = 3pty. CHAR(1): Y/N (Default = N).
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.

ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).

Nature of Dial

The Nature of Dial (nod) table describes the type of digits that a subscriber can dial. One or more NOD values can apply for a call. The NOD table is used in conjunction with the Nature of Dial White Black List table (NOD-WB-LIST) to allow or restrict types of subscriber calls.

Table Name: NOD

Table Containment Area: EMS only

Command Types

Show

Examples

```
show nod;
```

Usage Guidelines

Primary Key Token(s): nod

Syntax Description

* NOD	Primary key. Nature of dial. VARCHAR(16): 1–16 ASCII characters.
DESCRIPTION	Service provider-defined description. VARCHAR(128): 1–128 ASCII characters.
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.

LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).

Table 1-3 lists the valid NOD values.

Table 1-3 Valid NOD Values

Nature of Dial	Description
AIRLINES	Airlines (Release 4.5)
AMBULANCE	Ambulance
ANA	Automatic Number Announcement (Release 4.5)
ATTENDANT	Attendant Access (Centrex)
BLV	Busy Line Verification (Release 4.5)
BUSINESS	Business Office
CASUAL	Casual Call
CUT-THRU	Cut-thru Call
DA	Directory Assistance Call
DA-TOLL	Directory Assistance Toll Call
EMG	Emergency Call
EXTENSION	Telephone Extension Dialing
FIRE	Fire
INFO	Information Call (976)
INTERLATA	InterLATA Toll Call
INTL	International Call
INTL-OPR	International Operator Assisted
INTL-WZ1	International call within World Zone 1 (outside of contiguous 48 states) (Release 4.5)
LB-TEST	Loopback Test Call (108 Test Line) (Release 4.5)
LNP	Local Number Portability Call (Release 4.5)
LOCAL	Local Call
LRN	Location Routing Number (Release 4.5)

Table 1-3 Valid NOD Values (continued)

Nature of Dial	Description
MOBILE	Calls to Mobile Network (Release 4.5)
NAS	Network Access Server (Release 4.5)
NATIONAL	National Call
NAT-OPR	National Operator Assisted Call
NON-EMG	Non Emergency Number (311)
OPERATOR	Operator Call
PCS	PCS (500) Call
POLICE	Police
PREMIUM	Premium Rate Call (900)
RAILWAYS	Railways Information and Reservation (Release 4.5)
RELAY	Relay
REPAIR	Repair Bureau
SPEED-CALL	Speed dialing (Release 4.5)
SUBSCRIBER	Subscriber Call
SVC-CODE	Generic Service Code Call Type (Release 4.5)
TANDEM	Tandem Call
TEST-CALL	Test Call (Release 4.5)
TIME	Time
TOLL	IntraLATA Toll Call
TOLL-FREE	Toll Free Call
TRAFFIC	Traffic Accident Report
TW	Time and Weather
WEATHER	Weather Report
500	500 (PCS) Call
700	700 Call
900	900 (Premium Rate) Call
976	976 (Information) Call

Network Element (Release 4.4.1)

The Network Element (network-element) table defines specific target elements (Call Agent and Feature Servers). This table is used by the Queuing and Audit Manager (QAM) process during provisioning.

Table Name: NETWORK-ELEMENT

Table Containment Area: EMS Only

Command Types Show

Examples

```
show network-element id=CA146;
```

Usage Guidelines

Primary Key Token(s): id

Add Rules: None

Change Rules: None

Delete Rules: None.

Syntax Description

* ID	Primary key. The Network Element ID (domain name). The format of the ID is CAnnn, FSPTCnnn, or FSAINnnn, where nnn = 000 to 999. The service provider assigns this ID based on the network configuration. VARCHAR(8): 1–8 ASCII characters.
* TYPE	Type of Network Element. VARCHAR(16): 1–16 ASCII characters. Permitted values are: CA POTS AIN
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
DESCRIPTION	Service provider-defined description. VARCHAR(64): 1–64 ASCII characters.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.

ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).

Variable Default

The Variable Default (var-default) table is used to modify the factory default values assigned to database tables. The table-name is referred as *noun* while the token name is referred as *var-name*. A service provider can modify the default values for some tokens to meet specific business needs. This table does not perform any constraint checks.

Table Name: VAR-DEFAULT

Table Containment Area: EMS

Command Types

Show, add, change, and delete

Examples

```
show var-default noun=dial-plan; var-name=min-digits;
add var-default noun=dial-plan; var-name=min-digits; DEF-VALS=9;
change var-default noun=dial-plan; var-name=min-digits; DEF-VALS=10;
delete var-default noun=dial-plan; var-name=min-digits;
```

Usage Guidelines

Primary Key Token(s): noun, var-name

Add Rules: Foreign key constraints

Change Rules: Foreign key constraints

Delete Rules: None.

Syntax Description

* NOUN	Primary key. Foreign key: Commandparameter table. Table name. VARCHAR(50): 1–50 ASCII characters.
* VAR-NAME	Primary key. Token name. VARCHAR(50): 1–50 ASCII characters.
* DEF-VALS	Specifies the default value to use. The default value overrides the factory default value. VARCHAR(100): 1–100 ASCII characters.

AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).



CHAPTER 2

Office Provisioning

Revised: July 24, 2009, OL-3743-41

This chapter describes the Call Agent Office Provisioning commands and their associated tables. Office tables are the primary tables provisioned for call processing that describe the hardware and protocols used.

Note In this chapter, an asterisk preceding a token name means the token is mandatory. A token without an asterisk is optional.

AAA Server Group (Release 4.5)

The AAA Server Group (aaa-server-grp) table holds all the information about the prepaid feature for a point of presence (POP). An AAA Server Group record can be shared by multiple POPs.

Table Name: AAA-SERVER-GRP

Table Containment Area: POTS Feature Server

Command Types Show, add, change, and delete

Examples

```
show aaa-server-grp id=prepaidgrp1;
add aaa-server-grp id=prepaidgrp1;radius-profilepid=rds1;
change aaa-server-grp id=prepaidgrp1;radius-profile-id=rds3;
delete aaa-server-grp id=prepaidgrp1;
```

Usage Guidelines Primary Key Token(s): id

Syntax Description

* ID	Primary key. Unique id for this prepaid profile. VARCHAR(16): 1–16 ASCII characters.
* RADIUS-PROFILE-ID	Foreign key: Radius Profile table. Radius Profile id. VARCHAR(16): 1–16 ASCII characters.
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
DESCRIPTION	Service provider-defined description. VARCHAR(64): 1–64 ASCII characters.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
SERVER-TYPE	Not used.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).
WARNING-TIMER	Specifies the time, in seconds, to provide a low balance warning tone before a call is disconnected. INTEGER: 0–120 (Default = 30).

Aggregation

The Aggregation (aggr) table is used to define aggregation devices used in cable or Network Based Call Signaling (NCS) markets. The table holds Cable Modem Termination System (CMTS)/edge router (ER) related information. Cable Networks use a CMTS; NCS markets use ERs.

The CMTS node configuration table is used by the Common Open Policy Service (COPS) adapter to establish and terminate TCP connections to the CMTS. When a TCP connection is established, the CMTS initiates a client-open procedure to establish end-to-end client connectivity.

Table Name: AGGR

Table Containment Area: Call Agent

Command Types

Show, add, change, and delete

Examples

```
show aggr id=er1;
show aggr;
add aggr id=er1; tsap-addr=190.101.100.123;
change aggr id=er1; dqos-supp=y;
delete aggr id=er1;
```

Usage Guidelines

Primary Key Token(s): id

Add Rules:

- es-event-supp=Y only if es-supp=Y.
- The id and tsap-addr are both required to create a CMTS (or ER) node.

Change Rules:

- no change is allowed on tsap-addr.
- es-event-supp=Y only if es-supp=Y.

Delete Rules: None.

DQoS Rule: To support dynamic quality of service (DQoS) the dqos-supp token must be set to Y.

IPSec Rules:

- es-event-supp=Y only if es-supp=Y.
- ipsec-sa-lifetime must be greater than or equal to 0.
- ipsec-sa-grace-period must be greater than or equal to 0.
- ipsec-sa-grace-period must be less than or equal to 25% of ipsec-sa-lifetime.
- ike-sa-lifetime must be greater than or equal to 0.

Syntax Description

* ID	Primary key. Specifies the user-defined ID for the CMTS, or edge router (ER). Defined by the service provider for the aggregation router. VARCHAR(16): 1–16 ASCII characters.

* TSAP-ADDR	Specifies the FQDN/IP address for the CMTS or edge router (ER). VARCHAR(64): 1–64 ASCII characters.
ACK-TIMEOUT (Not supported)	Time out for retransmission in milliseconds. INTEGER: 10–10000 (Default = 1000).
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
DESCRIPTION	Service provider-defined description. VARCHAR(64): 1–64 ASCII characters.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
DQOS-SUPP	Specifies whether dynamic quality of service (DQoS), or a non-DQoS mechanism is used when talking to the aggregation router. CHAR(1): Y/N (Default = N). **Note** This token must be set to Y for the CMTS (or ER) to support DQoS.
ES-EVENT-SUPP	Set this token to Y (yes) if the CMTS supports event messages (EMs) for electronic surveillance. (You can set **es-event-supp** to Y only if *es-supp* also is set to Y.) BOOLEAN: Y/N (Default = N).
ES-SUPP	Set to Y (yes) to enable electronic surveillance. The es-supp flag is used to duplicate IP packets if electronic surveillance is supported on the CMTS. CHAR(1): Y/N (Default = N).
GC-RADIUS-TSAP-ADDR (Not supported)	Specifies the IP address for the RKS. VARCHAR(64): 1–64 ASCII characters. **Note** Domain names cannot begin with a number.
IKE-CS	Specifies a list of ciphersuites supported by IKE, in priority order. This list is used to negotiate the encryption-authentication algorithm pair used by IKE. The list can contain only those ciphersuites using the authentication algorithms HMAC-MD5 and HMAC-SHA and the encryption algorithm ESP-3DES. VARCHAR(64): 1–64 ASCII characters. Permitted values are: 3DES-MD5, 3DES-SHA1 (Default list) 3DES-SHA1, 3DES-MD5 3DES-MD5 3DES-SHA1

IKE-GROUP	Specifies the available groups in which the Diffie-Helman exchange can occur. INTEGER: Valid values are 1 and 2 (Default = 2).
IKE-KEY	The IKE preshared key. This value is used for security on the interface between the Cisco BTS 10200 Softswitch and the CMTS. VARCHAR(256): 1–256 ASCII characters. The system encrypts the value of the ike-key token and stores the encrypted value as ike-key-encr. See the ike-key-encr token for additional details. (Release 4.5)
IKE-KEY-ENCR (Release 4.5)	The IKE preshared key in encrypted form (system generated). The system encrypts the value of the ike-key token and stores the encrypted value as ike-key-encr. It is then decrypted and displayed only when accessed by a privileged user. VARCHAR(256): 1–256 ASCII characters.
IKE-SA-LIFETIME	IKE Security Association (SA) expiration in seconds. Valid only for a trunking gateway. INTEGER: 0–MAXINT (Default = 86400). **Note** MAXINT is a 4-byte integer, such as MAXINT = 2 to the power of 32 –1.
IPSEC-SA-ESP-CS	The IPSec SA ESP ciphersuite list in priority order. Used to negotiate an encryption-authentication algorithm pair used by IPSec. The list can contain only those ciphersuites using the authentication algorithms HMAC-MD5 and HMAC-SHA and the encryption algorithms ESP-3DES and ESP-NULL. VARCHAR(64): 1–64 ASCII characters. 3DES-MD5, 3DES-SHA1, NULL-MD5, NULL-SHA1 (Default list) **Note** This list can be modified to be a subset of this initial list using the CLI and can be reordered to specify a new priority selection. For example: - 3DES-MD5, 3DES-SHA1, NULL-SHA1, NULL-MD5 - 3DES-SHA1, NULL-MD5, NULL-SHA1 - 3DES-MD5, NULL-MD5 - NULL-SHA1 and additional values.
IPSEC-SA-GRACE-PERIOD	IPSec SA key expiration grace period in seconds. This is used to calculate the soft expiration. The ipsec-sa-grace-period must be less than or equal to 25% of the configured ipsec-sa-lifetime. If not specified when configuring a new ipsec-sa-lifetime, the ipsec-sa-grace-period defaults to 25% of the ipsec-sa-lifetime. INTEGER: 0–MAXINT (Default= 21600). **Note** MAXINT is a 4-byte integer, such as MAXINT = 2 to the power of 32 –1.
IPSEC-SA-LIFETIME	IPSec SA expiration in seconds. This is the hard expiration. INTEGER: 0–MAXINT (Default = 86400). **Note** MAXINT is a 4-byte integer, such as MAXINT = 2 to the power of 32 –1.

IPSEC-ULP-NAME	IPSec SA upper layer protocol name. Used if the SA is created only for specific protocol traffic (for example, IP traffic). The value is a string as described in getprotobyname(3XNET). VARCHAR(8): 1–8 ASCII characters. Permitted values are: IP (Default) TCP UDP The default value (IP) is adequate for most applications.
KA-TIMER	Specifies the time to wait (in seconds) before sending a keepalive message to a CMTS. INTEGER: 1–10 numeric characters (Default = 2).
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
RADIUS-AUTH-KEY (Not supported)	Specifies the RADIUS authorization key for the RKS. VARCHAR(16): 1–16 ASCII characters (Default = all zeros).
RETRY-COUNT (Not supported)	Number of retransmissions. INTEGER: 0–9 (Default = 0).
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).
TYPE (Not provisionable) (Release 4.5)	Specifies the type of aggregation device. VARCHAR(16): 1–16 ASCII characters. Permitted values are: CMTS (0x8008) (Default)—Cable Modem Termination system POLICY-SERVER (0x800A)—Packet Cable Multimedia Policy Server

Announcement

The Announcement (annc) table holds the routing information to get to an announcement. Announcement messages are played if a call cannot be connected. The system comes with preprogrammed (default) announcement audio files, but a service provider can create custom announcement files and load them into the system. System and custom files are saved in a specified

format and stored on the service provider's announcement server. Additionally, Intercept announcements can be used. Intercept announcements can be used for playing messages from the service provider's announcement server when calls require special treatment.

Table Name: ANNC

Table Containment Area: Call Agent

Command Types

Show, add, change, and delete

Examples

```
show announcement id=200;
add announcement id=200; type=system; announcement-file=ann_id_200.au;
route-guide-id=annc-rg;
```

Caution Announcement filenames must be typed with an underscore (_) or the command will not process correctly.

```
change announcement id=200; announcement-timer=30; send-answer=Y;
delete announcement id=200;
```

Usage Guidelines

Primary Key Token(s): id

Foreign Key Token(s): announcement-timer, route-guide-id

Add Rules: See the *Cisco BTS 10200 Provisioning Guide* for valid announcements that can be added.

Change Rules: id is required if type=annc.

Delete Rules: None.

Syntax Description

* ID	Primary key. There can be multiple announcements to cover different scenarios. All announcements must have a unique id assigned in accordance with the numbering range rules. Any number can be picked within a range. SMALLINT: 1–4 digits (Range is from 1–1000).
ANNOUNCEMENT-FILE	The announcement filename. Audio files must be in 8-bit mu-Law encoded, Next/Sun AU format (.au extension). VARCHAR(64): 1–64 ASCII characters. Format = ann_id_x.au. Files are named ann_id_x.au, where x equals the ID specified above for this announcement. For example, a system announcement with ID=57 has an audio file named ann_id_57.au loaded onto the announcement server. **Caution** Announcement filenames must be typed with an underscore (_) or the command will not process correctly.

ANNOUNCEMENT-NUMBER	Number sent to the announcement server that uses that MCGP announcement package type. SMALLINT: 1–65535.
ANNOUNCEMENT-TIMER	Foreign key: Route Guide table. The announcement timer controls the maximum time the call can be connected to an announcement server. If the caller or the announcement server does not disconnect before the timer expires, the system disconnects the call. INTEGER: 0–600 (Default = 180). 0 indicates to not start the timer.
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
BAU-URI (Release 4.5) (Not supported)	Specifies the announcement string sent to the announcement server using an MGCP announcement package type. VARCHAR(128): 1–128 ASCII characters.
DESCRIPTION (EMS-only field)	Described by the service provider. VARCHAR(64): 1–64 ASCII characters.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
NUM-REPEAT	The number of times an announcement is repeated in sequence. Service provider assigns. SMALLINT: 1–10 (Default = 1).
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.

ROUTE-GUIDE-ID	Foreign key: Route Guide table. The route id specifies the route for Intercept-External announcements. Same ID as in the Route table. VARCHAR(16): 1–16 ASCII characters.
SEND-ANSWER	Determines if the caller is charged for the announcement. CHAR(1): Y/N (Default = N). N—Nonchargeable. Answer-supervision is not sent. Y—Answer-supervision is sent and the caller is charged for the announcement call.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).
TYPE	Type of announcement to play. Internal announcements are specific to Cisco BTS 10200 Softswitch. Intercept-External announcements come from outside the Cisco BTS 10200 Softswitch (for example, the local telephone company put a number out-of-service—the announcement for this is routed from them). Custom announcements are created specifically by or for a customer. VARCHAR(9): 1–9 ASCII characters. Permitted values are: SYSTEM (Default)—Internal announcements. CUSTOM—Announcements created by the service provider for a customer. INTERCEPT—Routes a call to an external intercept system using the route-grp-id of the external intercept system.

Announcement Trunk

The Announcement Trunk (annc-trunk) table is used when an announcement server is required network.

Table Name: ANNC-TRUNK

Table Containment Area: Call Agent

Command Types

Show, add, change, and delete

Examples

```
show annc-trunk tgn-id=123;
add annc-trunk tgn-id=123; term-id=S0/DS1-1/1;mgw-id=as54001;remote-term-id=S0/DS1-1/1;
remote-mgw-id=as540054002;
change annc-trunk tgn-id=123; remote-mgw-id=as54009;
delete annc-trunk tgn-id=123; term-id=abc; mgw-id=as54009;
```

Usage Guidelines

Primary Key Token(s): tgn-id, term-id

Foreign Key Token(s): tgn-id, term-id, mgw-id, remote-term-id, remote-mgw-id

Add Rules: term-id, mgw-id combination exists; remote-term-id, mgw-id combination exists.

Change Rules:

- term-id, mgw-id combination exists if entered.
- remote-term-id, mgw-id combination exists if entered.
- must enter both remote-mgw-id and remote-term-id together if used

Delete Rules: Trunk must exist.

Syntax Description

* TGN-ID (or * TG)	Primary key. Foreign key: Trunk Group table. Trunk group ID. This field can also be provisioned using TG instead of tgn-id. The EMS looks up the tgn-id based on the trunk group and then provisions it. INTEGER: 1–99999999.
* TERM-ID	Primary key. Foreign key: Termination table. Identifies the termination. Use as a combined key to the Termination table. VARCHAR(32): 1–32 ASCII characters.
* MGW-ID	Foreign key: Media Gateway table. Identifies the media gateway. Use as a combined key to the Termination table. VARCHAR(32): 1–32 ASCII characters.
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.

REMOTE-MGW-ID	Foreign key: Termination table. Identifies a remote media gateway. Use as a combined key to the Termination table (required for ATM networks, but not required for IP networks). VARCHAR(32): 1–32 ASCII characters.
REMOTE-TERM-ID	Foreign key: Termination table. Identifies a remote termination. Use as a combined key to the Termination table (required for ATM networks, but not required for IP networks). VARCHAR(32): 1–32 ASCII characters.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).

Announcement Trunk Group Profile

The Announcement Trunk Profile (annc-tg-profile) table is required for IP networks and interactive voice response (IVR) trunks.

Table Name: ANNC-TG-PROFILE

Table Containment Area: Call Agent

Command Types

Show, add, change, and delete

Examples

```
show annc-tg-profile id=vendorx-irv;
add annc-tg-profile id=vendorx-ivr;ivr=y;auto-answer=y;local-trunk-selection=y;
change annc-tg-profile id=vendorx-ivr;local-trunk-selection=n;
delete annc-tg-profile id=vendorx-ivr;
```

Usage Guidelines

Primary Key Token(s): id

Add Rules: None.

Change Rules: None.

Delete Rules: None.

Syntax Description

* ID	Primary key. Unique ID for this trunk group profile. Assigned by service provider. VARCHAR(16): 1–16 ASCII characters.
ANNC	Specifies whether announcements are supported. CHAR(1): Y/N (Default = N) Y—Announcements are supported. N—Announcements are not supported.

AUTO-ANSWER	Specifies whether an answer signal is generated when seized. Specifies if call path is two-way. CHAR(1): Y/N (Default = N). Y—Answer signal is generated when seized. N—Answer signal is not generated.
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
DESCRIPTION (EMS-only field)	Described by the service provider. VARCHAR(64): 1–64 ASCII characters.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
IVR	Specifies whether interactive voice response (IVR) is supported. CHAR(1): Y/N (Default = N) Y—IVR is supported. N—IVR is not supported.
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
LOCAL-TRUNK-SELECTION	For some IVRs, the IVR selects the trunk (port). If this is so, this token is set to N. CHAR(1): Y/N (Default = Y) Y—Trunk selection is done locally by Call Agent. N—Trunk selection is done remotely, that is, the IVR does the trunk (port) selection.
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).

Channel Associated Signaling Trunk Group Profile

The Channel Associated Signaling (CAS) Trunk Group Profile (cas-tg-profile) table holds common information on a CAS trunk group. It supports the following signaling types: DTMF loopstart, DTMF groundstart, MF imstart, MF winkstart, DTMF imstart, DTMF winkstart. A cas-tg-profile record can be shared by multiple CAS trunk groups.

Table Name: CAS-TG-PROFILE

Table Containment Area: Call Agent

Command Types

Show, add, change, and delete

Examples

```
show cas-tg-profile id=cas-prf1;
add cas-tg-profile id=cas-prf1; sig-type=dtmf; mgcp-pkg-type=dt;
```

Note The mgcp-pkg-type token is obsolete in Release 4.5. The token was moved to the Trunk Group table.

```
change cas-tg-profile id=cas-prf1;
delete cas-tg-profile id=cas-prf1;
```

Usage Guidelines

Primary Key Token(s): id

Add Rules: id must not exist.

Change Rules: id must exist.

Delete Rules: id must not exist in any dependency table, such as trunk-grp::tg-profile-id where tg-type=cas.

Syntax Description

* ID	Primary key. Unique ID for this trunk group profile. VARCHAR(16): 1–16 ASCII characters.
* E911	E911 trunk group. CHAR(1): Y/N (Default = N). N—Group is not an E911 trunk group. Y—Group is an E911 trunk group.
* MGCP-PKG-TYPE (Obsolete as of Release 4.5. Token moved to Trunk Group table in Release 4.5.)	Package type for MGCP based trunks. VARCHAR(16): 1–16 ASCII characters. Permitted values are: DT—DTMF LINE—Test line. MS—MF MT—MF terminating trunks MO—MF operator trunks

* SIG-TYPE	Specifies the CAS signaling type. VARCHAR(16): 1–16 ASCII characters. Permitted values are: MF—MF signaling (wink or immediate start) using MS package or EAOSS and FG-D signaling using the AUTO package in the trunk group. DTMF—DTMF signaling (wink or immediate start) using DT package. MF-OSS—MF signaling, operator services. MF-TERM—MF terminating trunks. LINE—Regular subscriber line. (Release 4.5)
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
DESCRIPTION (EMS-only field)	Described by the service provider. VARCHAR(64): 1–64 ASCII characters.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
INBAND-INFO (Release 4.5)	Specifies whether to send a release, provide a tone, or provide an announcement if data is available. CHAR(1): Y / N (Default = N).
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
MF-OSS-TYPE	Mandatory if mgcp-pkg-type in Trunk Group table is MO; and applies only if sig-type=mf-oss where mf-oss=MO-7I or MO-7II or MO-10I or MO-10II. Specifies the type of ANI to send. Used for OSS signaling. VARCHAR(16): 1–16 ASCII characters. Permitted values are: MO-7I(MO)—Used with MO package. Send 1 information digit (I) + 7-digit ANI. MO-7II(MO)—Used with MO package. Send 2 information digits (II) + 7-digit ANI. MO-10I(MO)—Used with MO package. Send 1 information digit (I) + 10-digit ANI. MO-10II(MO)—Used with MO package. Send 2 information digits (II) + 10-digit ANI. MO-NOANI(MO) (Not supported)—Give MO10II treatment.

NO-ANSWER-ACTION (Release 4.5)	Specifies what action to perform if the No Answer timer expires. Can set to RELEASE or ANSWER only if no-answer-timer greater than zero. VARCHAR(32): 1–32 ASCII characters. Permitted values are: RELEASE—Release call on no-answer-timer timeout. ANSWER—Consider the call as ANSWERED on no-answer-timer timeout. NA (Default)—Only applicable if no-answer-timer is 0. Allowed only if no-answer-timer=0;
NO-ANSWER-TIMER (Release 4.5)	Specifies the amount of time in seconds after which, if the user does not answer the call, the call is released. INTEGER: 0–900 (Default = 0). 0—Do not start the No Answer timer. Use the gateway default timer.
NO-TEST-TRUNK	Busy line verification trunk group. CHAR(1): Y/N (Default = N). N—Group is not a busy line verification trunk group. Y—Group is a busy line verification trunk group.
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
OSS-SIG (Obsoleted in 4.5—use oss-sig-type)	Operator services system signaling. CHAR(1): Y/N (Default = N). Y—Operator services signaling supported. N—Operator services signaling not supported.
OSS-SIG-TYPE (Release 4.5)	Operator Services System Signaling type. VARCHAR(16): 1–16 ASCII characters. Permitted values are: MOSS—Modified operator services signaling (same as Backward Error Correction (BEC)). NBEC—Non Bell Exchange Carrier. EAOSS—Exchange Access operator services signaling. NONE (Default)—No operator signaling (use regular Signaling Transport (ST) signaling).
PLAY-DIAL-TONE (Release 4.5)	Specifies whether to play a dial tone on origination. Applies only if sig-type=DTMF. CHAR(1): Y/N (Default = N). Y—Play a dial tone on origination. N—Do not play a dial tone on origination.
PLAY-RINGBACK-TONE (Release 4.5)	Specifies whether to play a ringback tone on a CAS trunk. CHAR(1): Y/N (Default = Y).

SEND-ANI (Release 4.5)	Specifies whether to send the Charge Number and Originating Line Information parameters. Applies only to EAOSS trunk groups. Does not apply to MO trunks. CHAR(1): Y/N (Default = N). Y—Send Charge Number and Originating Line Information parameters. N—Do not send Charge Number and Originating Line Information parameters.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).
TEST-LINE	Test line trunk group. CHAR(1): Y/N (Default = N). Y—Test line. N—Not a test line.
TEST-LINE-TYPE (Release 4.5)	Specifies the type of test line. Valid only when test-line=Y. VARCHAR(16): 1–16 ASCII characters. Permitted values are: NONE (Default)—Not a test line. Test line based on dialed number (such as 108 test). NLB-LINE—Dedicated network loopback test line. Used to perform a test call on a subscriber line endpoint. NCT-LINE—Dedicated Network continuity test line. Used to perform a test call on a subscriber line endpoint. NLB-TRUNK—Dedicated network loopback test line. Used to perform a test call on a trunk endpoint. NCT-TRUNK—Dedicated network continuity test line. Used to perform a test call on a trunk endpoint. NTE—Shared trunk group that can originate more than one type of test call. The type of test call is based on detection of the <test-prefix> in the dialed digits.

DS1

The DS1 (ds1) table allows bulk provisioning of a large trunking gateway, reducing the number of CLI commands that are entered.

Note Slot, line, or port, as used in this table, refers to the physical location of an endpoint on a gateway. Whether slot, line, or port is specified depends on the gateway type.

Table Name: DS1

Table Containment Area: Call Agent

Command Types

Show, add, and delete

Examples

```
show ds1 mgw-id=mgw1;
add ds1 mgw-id=mgw1; slot-start=11; slot-end=16; line-num-start=1; line-num-end=168;
line-type=t1; port-start=1; port-end=24; type=trunk; mgcp-pkg-type=trunk;
delete ds1 mgw-id=mgw1; slot-start=11; slot-end=16; line-num-start=1; line-num-end=168;
```

Usage Guidelines

Primary Key Token(s): mgw-id, slot, line-num, port-start, port-end

Foreign Key Token(s): mgw-id

Add Rules:

- If line-type=t1, number of ports allowed = 24.
- If line-type=e1, number of ports allowed = 32.

Delete rules:

- If ds1 is deleted, you must also delete the terminations in the Termination table.
- status=oos.

Syntax Description

* MGW-ID	Primary key. Foreign key: Media Gateway table. The ID of the associated media gateway. This ID must match an ID in the Media Gateway table. VARCHAR(32): 1–32 ASCII characters.
* SLOT-START	Beginning slot number on the specified media gateway. INTEGER: 0–28.
* SLOT-END	Ending slot number on the specified media gateway. INTEGER: 0–28.
SLOT (Not provisionable)	Primary key. Slot number where the gateway endpoint is physically located. Created from slot-start/slot-end. INTEGER: system generated.
* LINE-NUM-START	Beginning DS1 level line card number where the gateway endpoint is physically located. INTEGER: 0–168.
* LINE-NUM-END	Ending DS1 level line card number. INTEGER: 0–168.
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.

DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
LINE-NUM (Not provisionable)	Primary key. DS1 level line card number. Created from line-num-start/line-num-end. INTEGER: System generated.
LINE-TYPE	Specifies whether the line is T1 or E1. CHAR(2). Permitted values are: T1 (Default)—Used in USA. E1—Used in countries outside the USA. E1 is not supported at this time.
MGCP-PKG-TYPE	Primary key. The mgcp-pkg-type provides termination capabilities information by gateway. Used to create termination endpoints such as when port-start and port-end are specified. VARCHAR(10): 1–10 ASCII characters. Permitted values are: LINE-MGCP—Used for residential gateways that support MGCP specification 0.1 and up (for example: all Cisco residential gateways). LINE-NCS—Packet cable specification for residential gateways (a variant of MGCP). For example, a Telogy residential gateway. MO—Packet cable specification for CAS operator services used in case of 911, and so forth. For example, a Cisco 3810 CAS gateway. MT—Not used. MS—Cisco specification (also proposed to Soft Switch Consortium) for CAS MF endpoints. For example, a Cisco 3810 CAS gateway. DT—Cisco specification (also proposed to Soft Switch Consortium) for CAS DTMF endpoints. For example, a Cisco 3810 CAS gateway. BL—Not used. ANNC—MGCP specification for announcements, used for announcement endpoints. For example, a Cisco AS54005400 trunking gateway. TRUNK (Default)—MGCP specification for trunking gateways that includes ISDN and SS7 but not CAS. For example, a Cisco AS5400 trunking gateway.

OPER-STATUS	Operational status. VARCHAR(5): 1–5 ASCII characters. Permitted values are: NF (Default)—Nonfaulty FA—Faulty NF-RB—Nonfaulty remotely blocked FA-RB—Faulty remotely blocked
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
PORT-END	Primary key. DS0 level port number (ending port number). INTEGER: Permitted values are: 1–24 for T1. 1–32 for E1. E1 is not supported at this time.
PORT-START	Primary key. DS0 level port number (beginning port number). This is the actual gateway endpoint. A temporary token, port-num, is generated from the port-start and port-end tokens. The port-num token is not a part of the DS1 table, but it generates records for the Termination table. INTEGER: Permitted values are: 1–24 for T1. 1–32 for E1. E1 is not supported at this time.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).
STATUS	Administrative status. VARCHAR(15): 1–15 ASCII characters. Permitted values are: OOS (Default)—Out-of-Service MAINT—Maintenance (Manual Override) INS—In-Service OOS-PENDING— Waiting to go in OOS state. MAINT-PENDING—Waiting to go in MAINT state.
TYPE	Termination type. Used to create termination endpoints such as when port-start and port-end are specified. VARCHAR(5): 1–5 ASCII characters. Permitted values are: LINE—Termination endpoint is a *line*. TRUNK (Default)—Termination endpoint is a *trunk*.

Exchange Code

The Exchange Code (exchange-code) table specifies the office codes assigned to a particular Call Agent. This table defines the office-code-index (normalized office code) that is used as an index in the DN2Subscriber table.

Table Name: EXCHANGE-CODE

Table Containment Area: EMS, Call Agent

Command Types

Show, add, and delete

Examples

```
show exchange-code ndc=972;
add exchange-code ndc=972; ec=671; office-code-index=5;
delete exchange-code ndc=972; ec=671;
```

Usage Guidelines

Primary Key Token(s): ndc, ec (Releases 4.1, 4.2, 4.4.0 and 4.4.1)

Primary Key Token(s): digit-string (Release 4.5)

Foreign Key Token(s): ndc

Unique Key Token(s): ndc+ec+office-code-index

Add Rules:

- If office-code-index is null, then office-code-index=max (office-code-index) + 1.
- New exchange digit string is rejected if a superset or subset of an existing digit string. For example: if exchange-code ndc=972 already exists, then add exchange-code ndc=97 is rejected. (Release 4.5.1)

Change Rules: No change is allowed.

Delete Rules: NDC and EC cannot exist in the Office Code table.

Syntax Description

* EC	Primary key (Releases 4.1, 4.2, 4.4.0 and 4.4.1 only). Exchange code. VARCHAR(6): 1–6 ASCII characters.
* NDC (Optional in Release 4.5)	Primary key (Releases 4.1, 4.2, 4.4.0 and 4.4.1 only). Foreign key: National Destination Code table. National destination code. VARCHAR(6): 1–6 ASCII characters.
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.

DESCRIPTION (EMS-only field) (Release 4.5)	Described by the service provider. VARCHAR(64): 1–64 ASCII characters.
DIGIT-STRING (Release 4.5)	Primary key. Permits provisioning DNs without area codes. Not provisionable, this token is automatically created by combining the NDC and EC tokens. If an NDC is not specified, this digit-string token is created from the EC token. VARCHAR(12): 1–12 ASCII characters.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
FORCED (Release 4.5.1)	Specifies whether to override add, change or delete rules. CHAR(1): Y/N (Default=N). Y—Override rule and add, change or delete. N—Do not override rules.
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
MAX-DN-LENGTH	Maximum DN length. SMALLINT: 1–14 numeric characters (Default = 10).
MIN-DN-LENGTH	Minimum distributed number (DN) length. SMALLINT: 1–14 numeric characters (Default = 10).
OFFICE-CODE-INDEX	An arbitrary number to be assigned by the service provider. SMALLINT: 1–65535. This field is automatically provisioned if not entered. The default is the highest used office-code-index + 1.
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).

GTD Parameter Values (Release 4.4.1)

The Generic Transparency Descriptor (GTD) Parameter Values (gtd-parm-values) table is used to validate the new gtd-parms token in the Softswitch Trunk Group Profile table. This is a nonprovisionable static table that contains all the valid GTD parameters and their descriptions. It also contains the special keyword ALL that is used when all GTD parameters are encoded.

Table Name: GTD-PARM-VALUES

Table Containment Area: EMS

Command Types

Show

Examples

```
show gtd-parm-values id=adi description=access delivery information
show gtd-parm-values id=BCI name=Backward Call Indicators
```

Usage Guidelines

Primary Key Token(s): id

Syntax Description

* ID	Primary key. The GTD parameter ID. CHAR(3): 3 ASCII characters.
* DESCRIPTION	Full GTD parameter name. VARCHAR(64): 1–64 ASCII characters.
AUTO-REFRESH	Specifies whether to display cached data on the screen. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
DISPLAY	Specifies what token information to display on the screen. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
LIMIT	Specifies the number of rows to display on the screen. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
ORDER	Specifies whether to display data on the screen in a sorted order. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
START-ROW	Specifies to begin displaying data on the screen at a specific row. INTEGER: 1–100000000 (Default = 1).

Table 2-1 lists the GTD parameter values supported by the Cisco BTS 10200 Softswitch.

Table 2-1 Supported GTD Parameters

GTD Parameter	Name	GTD IAM	GTD ACM	GTD CPG	GTD ANM	GTD CON	GTD REL	GTD SUS	GTD RES
ACL	Automatic Congestion Level						YES		
ATP	Access Transport	YES	YES	YES	YES	YES	YES		
BCI	Backward Call Indicators		YES	YES	YES	YES			
CAI	Cause Indicators		YES	YES			YES		
CDI	Call Diversion Information		YES	YES					
CGN	Calling Party Number	YES							
CHN	Charge Number	YES							
CID	Carrier Identification	YES							
CNN	Connected Number				YES	YES			
CPC	Calling Party Category	YES							
CPN	Called Party Number	YES							
CSI	Carrier Selection Information	YES							
DIS	Display Information				YES	YES	YES		
EVI	Event Information Indicators		YES	YES			YES		
FCI	Forward Call Indicators	YES							
GCI	Global Call Identification	YES				YES			
GEA	Generic Address	YES							
GED	Generic Digits	YES							
GEN	Generic Name	YES				YES			
GNO	Generic Notification	YES	YES	YES					
HOC	Hop Counter	YES							
JUR	Jurisdiction	YES							
NOC	Nature of Connection Indicators	YES							
NSF	Network Specific Facilities		YES	YES					
OBI	Optional Backward Call Indicators		YES	YES	YES	YES			
OCN	Original Called Number	YES							
OLI	Originating Line Information	YES							
RCT	Redirect Counter	YES							
RGN	Redirecting Number	YES							
RNI	Redirection Information	YES							
RNN	Redirection Number		YES	YES	YES	YES	YES		
RNR	Redirection Number Restriction		YES	YES	YES	YES			
SCI	Service Code Indicator	YES							

Table 2-1 Supported GTD Parameters (continued)

GTD Parameter	Name	GTD IAM	GTD ACM	GTD CPG	GTD ANM	GTD CON	GTD REL	GTD SUS	GTD RES
SRI	Suspend/Resume Indicators							YES	YES
TMR	Transmission Medium Required	YES				YES			
TNS	Transit Network Selection	YES							
UID	UID Indicators		YES*	YES*					
UUI	User-To-User Indicators		YES	YES	YES	YES			
UUS	User-To-User Information	YES	YES	YES	YES	YES			

Local Access and Transport Area

The Local Access and Transport Area (lata) table defines the LATA ID, state, and country. LATAs are also called service areas by some telephone companies.

Table Name: LATA

Table Containment Area: FSPTC, Call Agent

Command Types

Show, add, change, and delete

Examples

```
show lata id=201;
add lata id=201; state=TX;
change lata id=201; country=US;
delete lata id=201;
```

Usage Guidelines

Primary Key Token(s): id

Add Rules: None.

Delete Rules: None.

Syntax Description

* ID	Primary key. 3- to 5-digit LATA-ID. The first 3 digits represent the LATA-ID. The last 2 digits are for entering the LATA subzone. 5-digit LATA numbers exist only in Florida and in those countries which are outside of the U.S.A. but in World Zone 1. For example: Most LATA IDs are 3 digits and fall in the range 100-999. Others are 5 digits and fall in the range 4xxxx. INTEGER: 100–65535 INTEGER: 100–99999 (Release 4.5)
* STATE	Standard 2-character U.S. state abbreviation. CHAR(2): 2 characters, state codes.

AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
COUNTRY	Name of country. Country: US, CAN, and so forth. VARCHAR(16): 1–16 ASCII characters (Default = US). VARCHAR(16): 1–16 ASCII characters. (Release 4.5: no default)
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).

Local Access and Transport Area Map

The Local Access and Transport Area Map (lata-map) table associates NANP-digits with a LATA. The LATA map and LATA tables are required if *Intra-State Calls Only* and/or *National Calls Only* COS screening is required.

Table Name: LATA-MAP

Table Containment Area: FSPTC

Command Types

Show, add, and delete

Examples

```
show lata-map digit-string=972-671;
add lata-map digit-string=972-671; lata-id=123;
delete lata-map digit-string=972-671;
```

Usage Guidelines

Primary Key Token(s): digit-string

Add Rules: None.

Delete Rules: None.

Syntax Description

* DIGIT-STRING	Primary key. Numbering plan area (area code). VARCHAR(6): 3 or 6 numeric digits. Format: NPA or NPA-NXX
* LATA-ID	ID number assigned to the subscriber in the LATA table. The local access and transport area. INTEGER: 100–65535 (3–5 numeric digits). INTEGER: 100–99999 (3–5 numeric digits). (Release 4.5) There are 5 spaces for entering the LATA code. The last two digits are for entering the LATA sub-zone (only Florida has 5-digit LATA numbers, which represent Equal Access Exchange Areas [EAEAs]), if applicable.
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).

Media Gateway

The Media Gateway (mgw) table holds information about each MGW managed by the Call Agent. The MGW can be uniquely addressed by domain name, an IP address, or the TSAP address.

The Media Gateway table has two associated commands: RGW and TGW. The RGW command provisions gateways as only residential gateways, with the type token automatically set to RGW. The TGW command provisions gateways as only trunking gateways, with the type token automatically set to TGW. Both commands provision the Media Gateway table, but a service provider can use these commands to provide user security to certain individuals based on their roles. That is, some users can be allowed to provision only residential gateways, and others can be allowed to provision only trunking gateways. A service provider sets up the users security accordingly. Both commands provision the Media Gateway table in the Call Agent.

Note Domain names cannot begin with a number.

Table Name: MGW

Table Containment Area: Call Agent

Command Types

Show, add, change, and delete

Examples

```
show mgw id=rgw242;
add mgw id=rgw242; tsap-addr=190.101.100.61; call-agent-id=CA146; mgw-profile-id=ubr1;
change mgw id=rgw242; call-agent-control-port=5000;
delete mgw id=rgw242;
```

Usage Guidelines

Primary Key Token(s): id

Add Rules: None.

Change Rules: None.

Delete Rules:

- ID does not exist in any termination::mgw-id.
- ID does not exist in any trunk-grp::mgw-id.
- ID does not exist in any annc-trunk::mgw-id.
- ID does not exist in any annc-trunk::remote-mgw-id.
- ID does not exist in any mlhg-terminal::mgw-id.

Syntax Description

* ID	Primary key. Media gateway identifier, assigned by the service provider. VARCHAR(32): 1–32 ASCII characters.
* CALL-AGENT-ID	ID of the call-agent the subscriber is assigned to in the Call Agent table. VARCHAR(8): 1–8 ASCII characters.
* MGW-PROFILE-ID	ID of the mgw-profile the subscriber is assigned to in the MGW Profile table. VARCHAR(16): 1–16 ASCII characters.
* TSAP-ADDR	Specifies the DNS/IP address for the MTA or TGW. You can also enter the IP address and port number. VARCHAR(64): 1–64 ASCII characters.

* TYPE	Type of gateway. VARCHAR(3): 1–3 ASCII characters. Permitted values are: RGW—Residential gateway. TGW—Trunking gateway.
AGGR-ID	ID of the aggregation device cable modem termination system (CMTS). This token is mandatory if supporting PacketCable DQoS; it is how the Cisco BTS 10200 Softswitch call management server (CMS) determines the CMTS to which a media terminal adapter (MTA) is attached, so it can issue gate control commands to the correct CMTS. VARCHAR(16): 1–16 ASCII characters.
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
CALL-AGENT-CONTROL-PORT	The Call Agent MGCP listening port for the specified MGW. If it is configured as zero, the Call Agent automatically assigns an MGCP listening port for that MGW. Use the default port for normal operation. SMALLINT: 1–65535 (Default = 0). 0 indicates that no port is configured. If it is non-zero, then the number must be one of the values specified in the system platform.cfg. **Note** If the port number is non-zero, it cannot be a well-known port (except for MGCP ports 2427 or 2727), or port assigned to some other application.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
NODE (Release 4.5)	Defines the hybrid fiber coax (HFC) fiber node the MTA is homed to. The HFC fiber node sits between the CMTS and the MTA. Every MTA is assigned to a particular node—then one or more nodes are assigned to a given CMTS. VARCHAR(20): 1–20 ASCII characters.

OPER-STATUS	Operational status of the media gateway. VARCHAR(5): 1–5 ASCII characters. Permitted values are: NF (Default)—Nonfaulty state. FA—Faulty state. NF-RB—Nonfaulty remotely blocked state. FA-RB—Faulty remotely blocked state.
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).
STATUS (System generated)	Service state of the MGW. VARCHAR(15): 1–15 ASCII characters. Permitted values are: OOS (Default)—Out-of-Service state MAINT—Maintenance state, manual override. INS—In-Service state.

Residential Gateway Command

The Residential Gateway (RGW) command provisions the Media Gateway table with gateways automatically configured as residential gateways (type=rgw). An RGW can be uniquely addressed by domain name, an IP address, or the TSAP address. A service provider can set up security to allow a user to provision only residential gateways.

Table Name: MGW

Table Containment Area: Call Agent

Command Types

Show, add, change, and delete

Examples

```
show rgw id=rgw1;
add rgw id=rgw1; tsap-addr=rgw1@cisco.com; call-agent-id=ca145; mgw-profile-id=iad2420;
change rgw id=rgw1; aggr-id=aggr1@cisco.com;
delete rgw id=rgw1;
```

Usage Guidelines

Primary Key Token(s): id

Add Rules: If noun RGW is used, provision the Media Gateway table with type=rgw.

Syntax Description See the Media Gateway table for token descriptions.

Trunking Gateway Command

The Trunking Gateway (TGW) command provisions the Media Gateway table with gateways automatically configured as trunking gateways (type=tgw). A TGW can be uniquely addressed by domain name, an IP address, or the TSAP address. A service provider can set up security to allow a user to provision only trunking gateways.

Table Name: MGW

Table Containment Area: Call Agent

Command Types Show, add, change, and delete

Examples

```
show tgw id=tgw1;
add tgw id=tgw1; tsap-addr=tgw1@cisco.com; call-agent-id=ca145; mgw-profile-id=mgx8850;
change tgw id=tgw1;
delete tgw id=tgw1;
```

Usage Guidelines Primary Key Token(s): id

Add Rules: If the noun TGW is used, provision the Media Gateway table with type=tgw.

Syntax Description See the Media Gateway table for token descriptions.

Media Gateway Profile

The Media Gateway Profile (mgw-profile) table provides templates for defining a media gateway by hardware vendor. The table identifies the specifications and settings necessary for communications between the Call Agent and each type of media gateway. An ID must be created in this table before entries can be added to the Media Gateway table.

Several tokens have values that can be overwritten after the Call Agent queries the media gateway for supported capabilities. If the media gateway returns a value that is different from the value originally provisioned, the returned value automatically replaces the originally provisioned value.

Table Name: MGW-PROFILE

Table Containment Area: Call Agent

Command Types Show, add, change, and delete

Examples

```
show mgw-profile id=resgw2000;
```

```
add mgw-profile id=resgw2000; vendor=cisco;
change mgw-profile id=resgw2000; packet-type=ip; mgcp-to-supp=n;
delete mgw-profile id=resgw2000;
```

Usage Guidelines

Primary Key Token(s): id

Add Rules:

- if fax-pref-mode=FAX-T38CAMODE, then fax-t38-camode-supp=Y (Obsolete as of Release 4.5.)
- if fax-pref-mode=FAX-INBAND, then fax-inband-supp=Y. (Obsolete as of Release 4.5.)
- if mgcp-variant=ncs-1-0 or tgcp-1-0; then mgcp-version=mgcp-1-0.
- the mgcp-max-keepalive-interval must be greater than or equal to the mgcp-keepalive-interval (Release 4.5).
- the mgcp-max1-retries must be less than mgcp-max2-retries.

Change Rules: the mgcp-max1-retries must be less than mgcp-max2-retries.

Delete Rules: id does not exist in any mgw::mgw-profile-id.

Other rules: for parallel-netwloop-supp: if (mgcp-variant = ncs-1-0), then set to Y—else set to N. (Release 4.5)

Syntax Description

* ID	Primary key. Unique ID assigned to this MGW profile by the service provider. VARCHAR(16): 1–16 ASCII characters.
AAL1 (Voice)	ATM adaptation layer (AAL) parameters. The AAL is a standards layer that allows multiple applications to have data converted to and from an ATM cell. It uses a protocol that translates higher layer services into the size and format of an ATM cell. CHAR(1): Y/N (Default = N). Y—MGW supports Class A traffic (constant bit rate (CBR), voice, and video). N—MGW does not support Class A traffic (CBR, voice, and video).
AAL2 (Voice over ATM)	ATM adaptation layer parameters. The AAL is the standards layer that allows multiple applications to have data converted to and from the ATM cell. It uses a protocol that translates higher layer services into the size and format of an ATM cell. CHAR(1): Y/N (Default = N). Y—MGW supports Class B traffic (variable bit rate (VBR), delay intolerant, voice, and video). N—MGW does not support Class B traffic (VBR, delay intolerant, voice, and video).

AAL5	ATM adaptation layer parameters. The ATM adaptation layer is the standards layer that allows multiple applications to have data converted to and from the ATM cell. It uses a protocol that translates higher layer services into the size and format of an ATM cell. CHAR(1): Y/N (Default = N). Y—MGW supports Class C traffic (VBR, delay tolerant data). N—MGW does not support Class C traffic (VBR, delay tolerant data).
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
BTXML-DISPLAY-PREFIX	Specifies the prefix used to identify the display endpoint. This field is valid only if btxml-supp = Y. VARCHAR(12): 1–12 ASCII characters.
BTXML-SUPP	Specifies whether the BTXML package is supported by the MGCP phone or not. CHAR(1): Y/N (Default = N).

CODEC-NEG-SUPP	Indicates whether to specify a list of codecs (the set of codecs common to both sides of the call) in the local connection option (LCO) parameter of the create connection (CRCX) message. CHAR(1): Y/N (Default = Y). Y—(Release 4.1~4.5)Send the list of common codecs (the codecs that both legs of a call can support). This is valid if both legs of the call use the MGCP connection control protocol (for network elements such as IAD, eMTA, SS7/ISDN gateways, announcement servers, and so forth). The Cisco BTS 10200 Softswitch uses the following method to determine the preferred codec in the list of common codecs. A preferred codec is the first codec in the list of codecs sent with LCO. Y—(Release 4.5.1) Send the list of common codecs (the codecs that one leg of a call can support). This is valid if one of the legs of a call use the MGCP connection control protocol (for network elements such as IAD, eMTA, SS7/ISDN gateways, announcement servers, SIP, H323 and so forth). The Cisco BTS 10200 Softswitch uses the following method to determine the preferred codec in the list of common codecs. A preferred codec is the first codec in the list of codecs sent with LCO. In the common codec list, the first (preferred) codec is the codec specified in the Quality of Service (QOS) table for the originating leg, unless that codec does not appear in the common codec list. If the codec specified in the QOS table for the originating leg is not in the common codec list, then the first (preferred) codec is the codec specified in the QOS table for the terminating leg. N—Send only the single codec configured in the QOS table of the originating side, regardless of whether the gateway reported that it supports that codec. **Caution** Use this parameter with care. This parameter must be set appropriately for the codec capabilities of the gateways using this profile. Otherwise, some calls may not complete. For the available codec types, see the codec-type token in the Quality of Service table. If the QOS table does not exist (was not created with the add command, or was deleted), the system uses the information from the default-codec-type token in the Call Agent Configuration table.
CONN-MODE-REQUIRED-IN-MDCX	Specifies whether connection mode is always required in MDCX. CHAR(1): Y/N (Default = N). Y—Connection mode is always required in MDCX. N—Connection mode is not required unless it is changed.
DESCRIPTION (EMS-only field)	Described by the service provider. VARCHAR(64): 1–64 ASCII characters.

DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
DOMAIN-NAME-CACHING-SUPP	Specifies whether the MGW supports IP address caching. Set this value to Y (default value) for best processing performance. Y—The MGA does not cache the IP addresses for the gateway domain names. Every time the MGA sends a message to a gateway, it does a gethostbyname. N—The MGA does a gethostbyname only on the first message sent to a gateway, and then internally caches the IP address. Subsequently, when the MGA sends messages to that gateway, it gets the IP address from the internal cache and does not do a gethostbyname. ⚠ **Caution** Disabling domain name caching can result in the Cisco BTS 10200 Softswitch becoming overloaded under high traffic conditions. Also, do not disable domain name caching if you are using an external DNS server.
DTMF-OOB-SUPP	Specifies if out-of-band relay using MGCP NTFY DTMF midcall digits is supported. CHAR(1): Y/N (Default = N).
EC-SUPP	Specifies whether MGW supports echo cancellation. The value is provisioned by the service provider, but can be overwritten automatically by the Call Agent upon query from the MGW. CHAR(1): Y/N (Default = N). Y—MGW supports echo cancellation. N—MGW does not support echo cancellation.
FAX-FAILURE-HANDLING (Not provisionable) (Release 4.5)	Specifies, in a failure scenario, whether to send an L:off or to send L:<codec> error to the side that has switched to T38 fax. This error condition typically happens when a CRCX to the fax-detecting side is successful, but the MDCX fails on the other side because it does not support fax. In order to fall back to voice, the fax-detecting side must receive an MDCX with either an L:off or L:<codec> error in it. VARCHAR(32): 1–32 ASCII characters. Permitted values are: VOICE-CODEC-REVERSAL (Default)—The Cisco BTS 10200 Softswitch falls back to the same voice codec that was used before the fax started. VOICE-CODEC-G711—The Cisco BTS 10200 Softswitch always falls back to the G711 codec irrespective of the codec that was used before the fax started. FXR-T38-OFF—The Cisco BTS 10200 Softswitch uses the error L:fxr/fx:off for failure handling.

FAX-INBAND-METHOD (Release 4.5)	Allows gateways to use one of the inband fax methods. Applies only if the token fax-t38-enabled in the Quality of Service table is set to N. VARCHAR(16): 1–16 ASCII characters. Permitted values are: T38-FXR-OFF—The Cisco BTS 10200 Softswitch explicitly tells the gateway to turn off the T.38 call agent and gateway-controlled mode. GW-SPECIFIED (Default)—The Cisco BTS 10200 Softswitch does not explicitly specify any mode to the gateway. The mode configured in the gateway is used as long as the Cisco BTS 10200 Softswitch is not involved in call flows. FT-UPSPEED (Not supported)—The Cisco BTS 10200 Softswitch does codec upspeed based on fax tone (ft) received from the gateway.
FAX-T38-CAMODE-SUPP	Specifies whether Call Agent instructs the gateway to switch to T.38 mode in real time. CHAR(1): Y/N (Default = N).
FAX-T38-GWMODE-SUPP (Not supported)	Specifies whether gateway uses the NSE to switch to T.38 mode in real time. CHAR(1): Y/N (Default = N).
IKE-CS	Specifies the list of ciphersuites supported by IKE, in priority order. This list is used to negotiate the encryption-authentication algorithm pair used by IKE. The list can contain only those ciphersuites using the authentication algorithms HMAC-MD5 and HMAC-SHA and the encryption algorithm ESP-3DES. VARCHAR(64): 1–64 ASCII characters. Permitted values are: 3DES-MD5, 3DES-SHA1 (Default list) 3DES-SHA1, 3DES-MD5 3DES-MD5 3DES-SHA1
IKE-GROUP	Specifies the available groups in which the Diffie Helman exchange may occur. This token is valid only for trunking gateways. INTEGER: Valid values are 1 and 2 (Default = 2).
IKE-KEY	The IKE preshared key. This value is used for security on the interface between the Cisco BTS 10200 Softswitch and the trunking gateway. This token is valid only for trunking gateways. VARCHAR(256): 1–256 ASCII characters. The system encrypts the value of the ike-key token and stores the encrypted value as ike-key-encr. See the ike-key-encr token for additional details. (Release 4.5)
IKE-KEY-ENCR (System generated) (Release 4.5)	The IKE preshared key in encrypted form. VARCHAR(256): 1–256 ASCII characters. **Note** The system encrypts the value of the ike-key token and stores the encrypted value as ike-key-encr. It is then decrypted and displayed only when accessed by a privileged user.

IKE-SA-LIFETIME	The IKE SA expiration in seconds. INTEGER: 0–MAXINT (Default = 86400). **Note** MAXINT is a 4-byte integer, such as MAXINT = 2 to the power of 32 –1.
IPSEC-CMS-CONTROL-PORT	The IPSec SA outbound control port. Used when the SA is created for a particular outbound port for this device class. SMALLINT: 0–65534 (Default = 0).
IPSEC-MGW-CONTROL-PORT	The IPSec SA inbound control port. Used when the SA is created for a particular inbound port for this device class. SMALLINT: 0–65534 (Default = 0).
IPSEC-SA-ESP-CS	The IPSec SA ESP ciphersuite list in priority order. Used to negotiate an encryption-authentication algorithm pair used by IPSec. The list can contain only those ciphersuites using the authentication algorithms HMAC-MD5 and HMAC-SHA and the encryption algorithms ESP-3DES and ESP-NULL. VARCHAR(64): 1–64 ASCII characters. 3DES-MD5, 3DES-SHA1, NULL-MD5, NULL-SHA1 (Default list) **Note** This list can be modified to be a subset of this initial list using the CLI and can be reordered to specify a new priority selection. For example: - 3DES-MD5, 3DES-SHA1, NULL-SHA1, NULL-MD5 - 3DES-SHA1, NULL-MD5, NULL-SHA1 - 3DES-MD5, NULL-MD5 - NULL-SHA1 and additional values.
IPSEC-SA-GRACE-PERIOD	The IPSec SA key expiration grace period in seconds. Used to calculate the soft expiration. The ipsec-sa-grace-period must be less than ipsec-sa-lifetime. The ipsec-sa-grace-period must be less than or equal to 25% of the configured ipsec-sa-lifetime. If not specified when configuring a new ipsec-sa-lifetime, the ipsec-sa-grace-period defaults to 25% of the ipsec-sa-lifetime. INTEGER: 0–MAXINT (Default = 21600). **Note** MAXINT is a 4-byte integer, such as MAXINT = 2 to the power of 32 –1.
IPSEC-SA-LIFETIME	The IPSec SA expiration in seconds. This is the hard expiration. INTEGER: 0–MAXINT (Default = 86400). **Note** MAXINT is a 4-byte integer, such as MAXINT=2 to the power of 32 –1.

IPSEC-ULP-NAME	IPSec SA upper-layer protocol name. Used if the SA is created only for specific protocol traffic (for example, IP traffic). The value is a string as described in getprotobyname(3XNET). VARCHAR(8): 1–8 ASCII characters. Permitted values are: IP (Default) TCP UDP **Note** The default value (IP) is adequate for most applications.
IPTOS-RTP-SUPP	Determines whether to send type of service (TOS) information or not, since not all gateways support the TOS parameter. CHAR(1): Y/N (Default = Y). Y—Send TOS information. N—Do not send TOS information.
KEEPALIVE-METHOD (Release 4.4.1)	Indicates type of protocol method used for keepalive procedure between the Call Agent and the media gateway. VARCHAR(16): 1–16 ASCII characters. NONE—Turns off AUEP ping and ICMP ping. AUEP (Default)—Performs AUEP ping. AUEP-ICMP—Performs AUEP ping, but if it fails, then performs ICMP ping. **Note** For more information on how the keepalive procedure works, see the applicable appendix (Release 4.4.x Keepalive or Release 4.5.x Keepalive) in the *Cisco BTS 10200 Softswitch Troubleshooting Guide*.
KRB-REEST-FLAG	Kerberos Reestablishment Flag. If enabled, the Kerberos SA is automatically reestablished upon expiration. CHAR(1): Y/N (Default = Y).
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
LINE-PREFIX	DS1 level prefix. For example, DS1 as in DS1-1. Used by EMS during bulk provisioning. VARCHAR(8): 1–8 ASCII characters.

MGCP-3WAY-HSHAKE-SUPP	Specifies whether the gateway supports three-way handshaking. Handshaking is the initial exchange between two systems before data transmission. This is a procedure of greeting, verifying identities, determining communication speed and other functions before transmission occurs. CHAR(1): Y/N (Default = Y). Y—MGW supports three-way handshaking. N—MGW does not support three-way handshaking. **Note** Transaction identifiers and three-way handshake: transaction identifiers are integer numbers that range from 0 to 999,999,999. Call Agents can use a specific number space for each of the gateways that they manage, or use the same number space for all gateways that belong to some arbitrary group. Call Agents can share the load of managing a large gateway between several independent processes. These processes share the same transaction number space. There are multiple possible implementations of this sharing, such as having a centralized allocation of transaction identifiers, or preallocating nonoverlapping ranges of identifiers to different processes. The implementations must guarantee that unique transaction identifiers are allocated to all transactions that originate from a logical Call Agent. Gateways detect duplicate transactions by looking at the transaction identifier only.
MGCP-CALEA-SUPP	Specifies whether the gateway supports CALEA. CHAR(1): Y/N (Default = Y). Y—CALEA is supported. N—CALEA is not supported.
MGCP-CAP-NEG-REQ	Specifies whether to negotiate capabilities between originating and terminating endpoints of the connection while creating a connection. CHAR(1): Y/N (Default = Y).
MGCP-CAS-BLOCK-SUPP	Specifies whether a media gateway supports a blocking signal (bl signal as defined in the CAS packages MS and DT). This token applies to CAS TGWs only. For CAS TGW, set to N (default value) to be PacketCable compliant. PacketCable signaling does not send a blocking signal. CHAR(1): Y/N (Default = N).

MGCP-CMD-SEQ-SUPP Provisionable only as N in Release 4.2. Not provisionable as of Release 4.2.1.	MGCP does not mandate that the underlying transport protocol guarantees the sequencing of commands sent to a gateway or an endpoint. This property tends to maximize the timeliness of actions, but it has a few drawbacks. For example: Notify commands can be delayed and arrive at the Call Agent after the transmission of a new NotificationRequest command. If a new NotificationRequest is transmitted before a previous one is acknowledged, there is no guarantee that it will be received after the first one. See RFC 2705. CHAR(1): Y/N (Default = N). Y—MGW supports multiple messages from the Call Agent before sending an ACK. N—MGW does not support command sequencing. Waits for an ACK before sending the next MGCP command.
MGCP-CONN-ID-AT-GW-SUPP	Specifies how the Cisco BTS 10200 Softswitch performs audit and resynchronization of connection status between itself and the MGW. CHAR(1): Y/N (Default = Y). Y—MGW is capable of reporting the active connections on specified endpoints. During audit and resynchronization, the Cisco BTS 10200 Softswitch only deletes connections that are mismatched between the media gateway and the Call Agent. N—MGW is not capable of reporting the active connections on specified endpoints. During audit and resynchronization, in the case of connection-state mismatches, the Cisco BTS 10200 Softswitch deletes all endpoint connections. **Note** The default value (Y) is appropriate in most cases. Use the value N only if there are specific interoperability issues identified on a particular media gateway.

MGCP-DEFAULT-PKG	Specifies the MGCP default package. VARCHAR(8): 1–8 ASCII characters. Permitted values are: NONE (Default)—No package specified. ANNC—MGCP specification for announcements, used for announcement endpoints (for example, the Cisco AS5400 trunking gateway). AUDIO—Audio package used for IVR. BL—Not supported. DT—Cisco specification (also proposed to Soft Switch Consortium) for CAS DTMF endpoints (for example, a Cisco 3810 CAS gateway). G—Generic package. LINE—Subscriber Line (MGCP/NCS). Use this value for an MTA. MD—North American Feature Group D Bellcore FGD Exchange Access North American Signaling (EANA) and Bellcore FGD Exchange Access North American Signaling (EAIN) CAS trunks. (Release 4.5) (Not supported) MO—PacketCable specification for CAS operator services used for 911 calls, and so forth (for example, Cisco 3810 CAS gateway). MS—Cisco specification for CAS MF endpoints (for example, a Cisco 3810 CAS gateway). MT—Not supported. TRUNK—MGCP specification for trunking gateways that includes ISDN and SS7 but not CAS (for example, a Cisco AS5400 trunking gateway). If the mgcp-variant=TGCP, the mgcp-pkg-type must be set to IT (ISUP trunk).
MGCP-DIALTONE-TO-SUPP (Obsolete in Release 4.5.1—use MGCP-TO-SUPP)	Specifies whether the media gateway supports a dial tone timeout. Dial tone timeout is set in the Call Agent Configuration table. CHAR(1): Y/N (Default = N). Y—MGW supports dial tone timeout. N—MGW does not support dial tone timeout. **Note** If dialtone issues occur using this token, use mgcp-to-supp.
MGCP-EP-SPECIFIC-CAP-SUPP	Specifies whether the media gateway supports endpoint-specific capability or not. If gateway does not support endpoint-specific capability, then the MGA queries only one endpoint for capability instead of querying all the endpoints of that gateway. CHAR(1): Y/N (Default = N).
MGCP-ERQNT-SUPP	Specifies whether the media gateway supports Embedded Requests for Notification (ERQNT). CHAR(1): Y/N (Default = Y). Y—MGW supports ERQNT. N—MGW does not support ERQNT.

MGCP-HAIRPIN-SUPP	Specifies the setting of the network-type (nt) parameter in the local connection option (LCO) of the create connection (CRCX) message that the Cisco BTS 10200 Softswitch sends to the MGW (or MGWs). **Note** This parameter applies only when both endpoints in a call are controlled by the same media gateway. If the two endpoints are controlled by two separate media gateways, this parameter has no effect. CHAR(1): Y/N (Default = Y). Y—If the Cisco BTS 10200 Softswitch detects that both endpoints are on the same MGW, the Cisco BTS 10200 Softswitch sends the LCO parameter L:nt:*local* to the MGW. However, if the two endpoints are on separate MGWs, the Cisco BTS 10200 Softswitch sends L:nt:*in*. **Note** The L:nt:local flag typically results in the media gateway using TDM hairpinning for the call if it is capable of TDM hairpinning. If this parameter is set to Y, see also the parameter MGCP-HAIRPIN-Z2-SUPP in this table for additional options. N—Send the LCO parameter L:nt:*in*. Use this value (N) if the MGW does not support TDM hairpinning, or if TDM hairpinning is not desired.
MGCP-HAIRPIN-Z2-SUPP	Specifies the messaging procedure for the hairpin connection. CHAR(1): Y/N (Default = N). Y—The Cisco BTS 10200 Softswitch sends a single create-connection (CRCX) message specifying both endpoints in the call. N—The Cisco BTS 10200 Softswitch sends two separate CRCX messages, one for each endpoint in the call. **Note** This parameter applies only if mgcp-hairpin-supp is set to Y. Otherwise, this parameter is ignored.
MGCP-KEEPALIVE-INTERVAL	Specifies the time interval in which MGW connectivity is monitored when no activity is detected between the MGW and the Cisco BTS 10200. INTEGER: 1–86400 seconds (Default = 60). **Note** For more information on how the keepalive procedure works, see the applicable appendix (Release 4.4.x Keepalive or Release 4.5.x Keepalive) in the *Cisco BTS 10200 Softswitch Troubleshooting Guide*.
MGCP-KEEPALIVE-RETRIES	Specifies the number of keepalive retries if the first MGW status monitor fails. INTEGER: 0–50 (Default = 3). **Note** For more information on how the keepalive procedure works, see the applicable appendix (Release 4.4.x Keepalive or Release 4.5.x Keepalive) in the *Cisco BTS 10200 Softswitch Troubleshooting Guide*.

MGCP-MAX1-RETRIES	Specifies the number of retransmission attempts for each MGW IP address. INTEGER: 1–10 (Default = 2). INTEGER: 1–9 (Default = 2) (Release 4.5.1) **Note** For more information on message retransmission procedures, see the applicable appendix (Release 4.4.x Keepalive or Release 4.5.x Keepalive) in the *Cisco BTS 10200 Softswitch Troubleshooting Guide*.
MGCP-MAX2-RETRIES	Specifies the maximum number of retransmit attempts for the last MGW IP address before declaring the address unreachable. Also known as the disconnection threshold. INTEGER: 1–10 (Default = 3). INTEGER: 2–10 (Default = 3) (Release 4.5.1). **Note** For more information on message retransmission procedures, see the applicable appendix (Release 4.4.x Keepalive or Release 4.5.x Keepalive) in the *Cisco BTS 10200 Softswitch Troubleshooting Guide*.
MGCP-MAX-KEEPALIVE-INTERVAL (Release 4.5)	Specifies the maximum MGCP keepalive interval in seconds. INTEGER: 1–86400 (Default = 600). **Note** For more information on how the keepalive procedure works, see the applicable appendix (Release 4.4.x Keepalive or Release 4.5.x Keepalive) in the *Cisco BTS 10200 Softswitch Troubleshooting Guide*.
MGCP-MWI-SUPP	Specifies whether message waiting indicators are supported. CHAR(1): Y/N (Default = Y). Y—Message waiting indicators are supported. When the user goes off-hook and there is a message waiting, the user receives an MWA tone. N—Message waiting indicators are not supported. When the user goes off-hook and there is a message waiting, the user receives a stutter tone.
MGCP-NAS-SUPP	Specifies whether the gateway supports NAS functionality. CHAR(1): Y/N (Default = Y). Y—NAS functionality is supported. N—NAS functionality is not supported.
MGCP-NE-LOCALNAME-SUPP	Specifies whether the media gateway supports a local name in the notified entity (NE) parameter. CHAR(1): Y/N (Default = N). Y—The gateway supports a local name in the NE. The Call Agent sends the localname@domainName as the NE parameter. N—The gateway does not support a local name in the NE. The Call Agent sends only the domainName as NE parameter.

MGCP-PIGGYBACK-MSG-SUPP (Release 4.5)	Specifies whether the MGCP subsystem enables or disables piggybacking MGCP commands in an ACK message toward a media gateway. CHAR(1): Y/N (Default = Y). Y—Enable MGCP piggyback message support. N—Disable MGCP piggyback message support.
MGCP-QDISCARD-SUPP (Release 4.5)	Specifies whether the Cisco BTS 10200 Softswitch supports sending the quarantine handling process control discard method. CHAR(1): Y/N (Default = Y).
MGCP-QLOOP-SUPP	Specifies whether the gateway supports quarantine looping (QLOOP). CHAR(1): Y/N (Default = Y). Y—MGW supports QLOOP. N—MGW does not support QLOOP.
MGCP-REQ-ID-SUPP (Release 4.5)	Specifies whether the MGW supports use of a Request Identifier (correlation of Request Identifier from RQNT to NTFY message). CHAR(1): Y/N (Default = N).
MGCP-RSIPSTAR-SUPP	Specifies whether media gateway endpoints are available on Restart In Progress (RSIP)*. Used for high-density gateways. An RSIP message with endpoint as * from a gateway only suggests whole gateway availability. It does not mean that all endpoints on the gateway are available. A gateway issues an RSIP */*/*@<mgw domain name> if all endpoints are available or RSIP S1/*/*@<mgw domain name> if only the endpoints in slot S1 are available. CHAR(1): Y/N (Default = Y). Y—MGW supports RSIP. N—MGW does not support RSIP.
MGCP-RSVP-SUPP	Provides static value for media gateway support of the Resource Reservation Protocol (RSVP). This field is only used if the Call Agent cannot read dynamic RSVP support data from a media gateway. This ensures enough bandwidth reserves for IP packets. Used only for non-PacketCable devices. CHAR(1): Y/N (Default = N). Y—MGW supports RSVP. N—MGW does not support RSVP.

MGCP-TERM-INIT-LEVEL	Specifies the termination initialization level. This token applies to certain TGWs, such as the Cisco MGX 8850. Set this to a numerical value: 0, 1, 2, or 3. SMALLINT. Permitted values are: 0—Level 0 (Default). All terminations are initialized individually (TGW: S0/DS1-1/1) 1—Level 1. Level 1 group of terminations (Span/T1/port) are initialized in bulk (TGW: S0/DS1-1/*) 2—Level 2. Level 2 group of terminations (Slot/board) are initialized in bulk (TGW: S0/*) 3—Level 3. Level 3 group of terminations (gateway) are initialized in bulk (TGW: *)
MGCP-TEST-CONN-SUPP (Release 4.5)	Specifies whether to inhibit any network loopback or continuity test call attempts on a media gateway. Currently, the Cisco BTS 10200 Softswitch does not support network loopback and continuity test on trunking gateways (including IMTs used for SS7, ISDN and CAS signaling). CHAR(1): Y/N (Default = Y). Y—If Y, and the MGW returns connection mode capabilities netwloop and netwtest in response to an AuditEndpoint message, the Cisco BTS 10200 Softswitch allows a network loopback connection on the MGW. N—If N, or if the MGW does not return connection mode capabilities netwloop and netwtest in response to an AuditEndpoint message, the Cisco BTS 10200 Softswitch does not allow a network loopback connection on the MGW.
MGCP-T-LONGTRAN	Specifies the initial MGCP transaction timeout, in seconds, after receiving a provisional response (return code 100) from the MGW. INTEGER: 1–10 (Default = 5).
MGCP-TO-SUPP (Release 4.5)	Specifies whether a media gateway supports the timeout parameter (TO) for signaling. The ring timeout is decided based on call type—same as no answer timeout. An MGA always sends TO=0 indicating ring for infinite time (no ring timeout). CHAR(1): Y/N (Default = Y).
MGCP-T-TRAN	Specifies the initial timeout (in milliseconds) after which a command is retransmitted. All subsequent reattempt durations grow exponentially until a limit is reached. INTEGER: 200–8000 in multiples of 200 (Default = 400). **Note** For more information, see the applicable appendix (Release 4.4.x Keepalive or Release 4.5.x Keepalive) in the *Cisco BTS 10200 Softswitch Troubleshooting Guide*.

MGCP-VARIANT	The MGCP variant supported by this type of media gateway. VARCHAR(8): 1–8 ASCII characters. Permitted values are: NONE (Default)—No MGCP variant. NCS-1-0—Protocol as defined by PacketCable. Use this value to create an MGW profile for an MTA. TGCP-1-0—Protocol as defined by PacketCable. Use this value to create a MGW profile for a TGW. BIS—Not used.
MGCP-VERSION	The MGCP version supported by this media gateway. (MGCP Protocol as defined by the Internet Engineering Task Force [IETF]). VARCHAR(8). Permitted values are: MGCP-0-1—MGCP0.1 version is supported by the media gateway. MGCP-1-0—MGCP1.0 version is supported by the media gateway. This is the default version for an MTA. Required for NCS and TGCP.
MGCP-VMWI-SUPP	Specifies whether the media gateway supports visual message waiting indicators (VMWIs). Used for voice mail. CHAR(1): Y/N (Default = N). Y—Does support VMWI. N—Does not support VMWI.
MGCP-XDLCX-SUPP	Specifies whether the MGW supports the Request Identifier (X) parameter in received delete connection (DLCX) messages without any CallId (I) and ConnectionId (I) parameters. CHAR(1): Y/N (Default = N). Y—Use for IOS-based MGCP gateways, not for MTAs. N—Use for PacketCable.

MGW-TYPE	Media gateway type. Used when the gateway is auto-provisionable from the CLI. VARCHAR(16): 1–16 ASCII characters. Permitted values are: UNSPECIFIED (Default)—Generic or unknown gateway type. 2420—RGW and CAS trunking gateway. 2421—RGW and CAS trunking gateway or SS7 and ISDN gateway. 3660—CAS trunking gateway, SS7 or ISDN gateway. 3810—RGW or CAS trunking gateway, or SS7 and ISDN gateway. 5850—CAS, ISDN, SS7 or announcement gateway. 827—Cisco 827 Router. AS5300—CAS, ISDN, SS7 or announcement gateway. AS5400—CAS, ISDN, SS7 or announcement gateway. ATA—Analog telephone adapter. MGX8260—CAS, ISDN, SS7 or announcement gateway. (Obsolete as of Release 4.4.1) MGX8850—CAS, ISDN, SS7 or announcement gateway. OTHER—A device other than one of those listed for this token. UBR—Residential gateways (RGWs).
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
OSI-SUPP	Specifies if open switch interval (OSI) is supported or unsupported. When supported, OSI facilitates call flows involving answering machines or other automated devices acting as a terminating party and aids notification that an originating party is on-hook to such devices. See *Telecordia GR506* for further information. CHAR(1): Y/N (Default = N). Y—Gateway supports OSI. N—Gateway does not support OSI.
PACKET-TYPE	Underlying network layer. VARCHAR(4). Permitted values are: BOTH (Default)—Supports both ATM and IP packet types. ATM—Supports only ATM packet types. IP—Supports only IP packet types.
PARALLEL-NETWLOOP-SUPP (Release 4.5)	Specifies whether the media gateway allows a network loopback connection in parallel to another inactive, recvonly, or sendrecv mode connection. **Note** See the NCS specification (PKT-SP-EC-MGCP-I10-040402), section 4.3 for more information.

PARALLEL-TEST-CONN-SUPP (Release 4.5)	Specifies whether the media gateway allows a network loopback or continuity test connection in parallel to another inactive or recvonly or sendrecv mode connection. CHAR(1): Y/N (Default = Y if variant=NCS, if variant is not equal to NCS the default is N. **Note** See NCS specification PKT-SP-EC-MGCP-I10-040402 section 4.3 for further information.
PC-MPTIME-SUPP	Specifies whether MGW (RGW or TGW) supports multiple packetization (MP)—which means there are individual packetization periods for each codec as defined by PacketCable ECN MGCP-N-02101. This token applies only if mgcp-variant = NCS or TGCP. The default value (Y) works for MGCP (variant=none) since this token is not used for MGCP. CHAR(1): Y/N (Default = Y). **Note** This token is typically set to Y for MTAs, and N for MGCP-based MGWs and TGWs. ⚠ **Caution** This token should not be changed, unless service provider uses an MTA or trunking gateway that is partially compliant to NCS/TGCP (that is, supports NCS/TGCP, but does not support multiple packetization parameter in Local Connection Option field of CRCX/MDCX message).
PORT-START	Specifies the starting port on a gateway. Ports on some residential gateways are numbered as 0, 1 and others are numbered as 1, 2. The port-start value is useful when provisioning terminations. The Cisco BTS 10200 Softswitch supports gateways with port 1 but not 2. That is, if the MGW has 0 or 1 based numbering (ports start with 0 or 1 when describing the first port), then it is supported. CHAR(1): 0 or 1 (Default = 0).
PVC	Specifies whether MGW supports permanent virtual circuits (PVCs). CHAR(1): Y/N (Default = N). Y—MGW supports PVCs. N—MGW does not support PVCs.
RBK-ON-CONN-SUPP	Ringback on connection support specifies whether the MGW or TGW has the ability to send a ringback signal to the calling party on connection. The default value is Y. Y—MGW has the capability to send a ringback signal (inband RTP). N—MGW does not have the capability to send a ringback signal (local ringback at origination).
RBK-ON-INACTIVE-CONN-SUPP (Not supported)	Ringback on an inactive connection support. CHAR(1): Y/N (Default = N). N—MGW cannot send a ringback signal on an inactive connection. Y—MGW can send a ringback signal on an inactive connection.

REFRESH-DIGIT-MAP	Specifies whether the digit map is refreshed at the gateway on every call. CHAR(1): Y/N (Default = N).
SDP-ATTRIB-SUPP	Session Description Protocol (SDP) parameters are used for interoperability with various MGWs. CHAR(1): Y/N (Default = Y).
SDP-BANDWIDTH-SUPP	Specifies whether bandwidth SDP parameters are needed for interoperability with various MGWs. CHAR(1): Y/N (Default = Y).
SDP-CAP-ENCODE-TYPE (Release 4.5)	Specifies the SDP Capability encoding type. There are two specific formats by which SDP capabilities can be encoded—STD and CISCO. VARCHAR(16): 1–16 ASCII characters. Permitted values are: STD—RFC 3407-based SDP attribute encoding. CISCO—Cisco proprietary method of encoding SDP capability attribute parameters using the "X-" prefix. AUTO (Default)—Does not force an endpoint to use a specific format. An endpoint uses the same format as received from the other endpoint.
SDP-EMAIL-SUPP	Specifies whether e-mail SDP parameters are needed for interoperability with various MGWs. CHAR(1): Y/N (Default = Y).
SDP-INFO-SUPP	Specifies whether information SDP parameters are needed for interoperability with various MGWs. CHAR(1): Y/N (Default = Y).
SDP-ORIGFIELD-SUPP	Specifies whether origination field SDP parameters are needed for interoperability with various MGWs. See RFC 2327. CHAR(1): Y/N (Default = N). Y—Gateway does not support SDP. N—Gateway supports SDP.
SDP-PHONE-SUPP	Specifies whether telephone SDP parameters are needed for interoperability with various MGWs. CHAR(1): Y/N (Default = Y).
SDP-SESSNAME-SUPP	Specifies whether session name SDP parameters are needed for interoperability with various MGWs. CHAR(1): Y/N (Default = Y).
SDP-TIME-SUPP	Specifies whether time SDP parameters are needed for interoperability with various MGWs. CHAR(1): Y/N (Default = Y).
SDP-URI-SUPP	Specifies whether URI SDP parameters are needed for interoperability with various MGWs. CHAR(1): Y/N (Default = Y).
SLOT-PREFIX	Slot Level prefix. For example, S as in S0. Used by EMS during bulk provisioning. VARCHAR(8): 1–8 ASCII characters.

SPARE1-SUPP (Release 4.4.0/1)	Specifies whether to optimize the initialization sequence when the Cisco BTS 10200 Softswitch receives an "RSIP rm:disconnected" message from an MGW. This supports MGWs (such as VXSM) that support redundancy and stateful switchover; and sends an "RSIP rm:disconnected" during an MGW failover. CHAR(1): N/Y (Default = N). Y—If an "RSIP rm:disconnected received" message is received and the endpoint point does not have an active call (from a Call Agent perspective), the Cisco BTS 10200 Softswitch sends a DLCX message to all effected endpoints with no CallIdentifier/ConnectionIdentifier. For endpoints with active calls, the Cisco BTS 10200 Softswitch sends an MDCX command with the appropriate connection mode. N—If an "RSIP rm:disconnected" is received and the endpoint point does not have active call (from a Call Agent perspective), the Cisco BTS 10200 Softswitch sends an AUEP command to get the active connections and sends a "DLCX stray connections" or sends an MDCX with appropriate connection mode and RQNT if necessary). For endpoints with active calls, the Cisco BTS 10200 Softswitch sends an AUEP command to get the active connections and sends a "DLCX stray connections" or sends MDCX with appropriate connection mode and RQNT if necessary.
Obsolete in Release 4.5.	
Release 4.5.1	Specifies whether to release active calls when an MGW becomes unreachable. CHAR(1): N/Y (Default = N). Y—If the MGW becomes unreachable, all active calls on that MGW are released. N—Active calls are not released when MGW becomes unreachable. If the MGW becomes reachable later, the Cisco BTS 10200 Softswitch audits all stable calls on that MGW and releases any mismatched calls. **Note** The feature behavior of not releasing active calls on unreachable MGWs was introduced in Release 4.4 and is the default behavior for Releases 4.4.0, 4.4.1 and 4.5. However, this can be overridden by adding *releaseCallOnUnreachable=Y* in the MGA section of the platform.cfg. Contact Cisco TAC before modifying the platform.cfg. In release 4.5.1 onwards it is CLI configurable.

SPARE2-SUPP (Release 4.4.1)	Specifies whether calls are considered network loopback test calls. When configured as Y, the calls from the MGW configured with this MGW-PROFILE are considered as Network loopback test calls. CHAR(1): Y/N (Default = N). Y—Calls from an MGW are considered network loopback test calls. N—Calls from an MGW are not considered network loopback test calls.
(Release 4.5)	Specifies whether to update or flush the MGW DNS cache. CHAR(1): Y/N (Default = N). Y—Update the MGW DNS cache with UDP source address from RSIP message. N—Flush the MGW DNS cache on RSIP. **Note** As of Release 4.5, use the CAS Trunk Group Profile table for network loopback provisioning.
SPVC	Specifies whether MGW supports soft permanent virtual circuits (SPVCs). CHAR(1): Y/N (Default = N). Y—MGW supports SPVCs. N—MGW does not support SPVCs.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).
SVC	Specifies whether MGW supports switched virtual circuits (SVCs). CHAR(1): Y/N (Default = N). Y—MGW supports SVCs. N—MGW does not support SVCs.
T38-FXR-GW-SUPP (Not provisionable) (Release 4.5)	Specifies whether T.38 gateway mode fax is supported for a media gateway. Applies only if the fax-t38-enabled token is set to Y in the Quality of Service table. VARCHAR(8): Y/N or AUTO (Default = N). AUTO—Call Agent determines support based on dynamically obtained capability for a media gateway as received in an AUEP ACK message. Y or N—Overrides the dynamically obtained capability of AUTO.

T38-FXR-LOOSE-SUPP (Release 4.5)	Specifies whether Call Agent-controlled T38 Loose Mode Fax is supported for a media gateway (that is, whether to send or not send the FXR parameter in CRCX:LCO). Applies only if the fax-t38-enabled token is set to Y in the Quality of Service table. VARCHAR(8): Y/N or AUTO (Default = AUTO) AUTO—Call Agent determines support based on dynamically obtained capability for a MGW as received in an AUEP ACK message. Y—send FXR in CRCX:LCO. or N—do not send FXR in CRCX:LCO. **Note** If this token is changed, the change does not take affect until the gateway or subscriber termination is reset. If the value is set to AUTO and gateway does not report T.38 capability in an AUEP ACK, then the Cisco BTS 10200 Softswitch assumes that the gateway does not support T.38 even if the gateway did support it. Set this token to Y in this case. Also, while changing this value to AUTO brings the functionality back to the repossess of the endpoint to AUEP, this does not take effect until the Cisco BTS 10200 Softswitch sends an AUEP after the change to AUTO. Until then, the Cisco BTS 10200 Softswitch functions according to the previous value.
TERMINATION-PREFIX	The default termination prefix to be used for the MGW profile, for example, AALN/. The termination prefix value is useful when provisioning terminations. VARCHAR(32): 1–32 ASCII characters. **Note** For announcements using equipment such as IPUnity, you need to configure this token as ann/. The Cisco BTS 10200 Softswitch then sends ann/$@<ivr-domain-name.net>.
USE-STATIC-PROFILE	Specifies whether to use static or dynamic information. CHAR(1): Y/N (Default = N).
VENDOR	Name of the gateway manufacturer. VARCHAR(32): 1–32 ASCII characters. For example: Cisco.

Media Gateway Control Protocol Return Code Action

The Media Gateway Control Protocol Return Code Action (mgcp-retcode-action) table specifies what action to take when an MGCP message is received from a media gateway.

Table Name: MGCP-RETCODE-ACTION

Table Containment Area: Call Agent

Command Types Show, add, change, and delete

Examples

```
show mgcp-retcode-action mgw-profile-id=mgw2420; mgcp-msg=CRCX; mgcp-retcode=200;
add mgcp-retcode-action mgw-profile-id=mgw2420; mgcp-msg=CRCX; mgcp-retcode=000;
ep-action=none; call-action=none;
change mgcp-retcode-action mgw-profile-id=mgw2420; mgcp-msg=CRCX; mgcp-retcode=000;
ep-action=none; call-action=none;
delete mgcp-retcode-action mgw-profile-id=mgw2420; mgcp-msg=CRCX; mgcp-retcode=000;
```

Usage Guidelines

Primary Key Token(s): mgw-profile-id; mgcp-msg, mgcp-retcode;

Foreign Key Token(s): mgw-profile-id

Add Rules: Foreign key constraints

Change Rules: Foreign key constraints

Delete Rules: Foreign key constraints

Syntax Description

* MGW-PROFILE-ID	Primary key. Foreign key: Media Gateway Profile table. ID from the Media Gateway Profile table. VARCHAR(16): 1–16 ASCII characters.
* MGCP-MSG	Primary key. The MGCP command for which an acknowledge is received with the return code. VARCHAR(16): 1–16 ASCII characters. Permitted values are: AUEP—Audit endpoint. See Table 2-6, for AUEP return code values. RQNT—Notification request. See Table 2-2, for RQNT return code values. CRCX—Create connection. See Table 2-3, for CRCX return code values. MDCX—Modify connection. See Table 2-4 for MDCS return code values. DLCX—Delete connection. See Table 2-5, for AUEP return code values. AUCX—Not used EPCF—Not used
* MGCP-RETCODE	Primary key. The MGCP return code received from the media gateway. INTEGER: for example, 100, 101, 200, 250, 400-499, 500-599, 900-918.

* EP-ACTION	The action, or recovery, operation to be done on an endpoint. VARCHAR(16): 1–16 ASCII characters. Permitted values are: NONE—No action required, consume the response. For example: 000. OK—Take appropriate action based on the MGCP message. Treat it like SUCCESSFUL response code, which indicates that the mgcp command has been successfully executed on the gateway. For example: 200, 250. PROV-OK—The gateway requires more time to execute the command, so it is waiting for the final response. For connection messages, pass the response to connection module; otherwise, ignore it. For example: 100. RETRY—Retry the command transmission with a different transaction id (used for special cases such as the 400 return code). UPDATE—Update the termination state based on the return code. For example: if 401 is received, play the dial tone. RESET—Perform automatic recovery operation once to idle the endpoint; if it fails, then mark the termination faulty. RECOVER—Perform automatic recover multiple times before declaring the endpoint faulty. FAULTY—Nonrecoverable error, mark the endpoint as faulty.
* CALL-ACTION	Specifies the action to be taken when a given cause code is received on the outgoing leg. VARCHAR (16): 1–16 ASCII characters. Permitted values are: NONE—No action required. Consume the response. For example: 000. OK—Take the appropriate action based on the MGCP message. Treat it like SUCCESSFUL response code, meaning the MGCP command has been successfully executed on the gateway. For example: 200, 250. PROV-OK—The gateway requires more time to execute the command; waiting for the final response. For connection messages, pass the response to the connection module; otherwise, ignore it. For example: 100. REATTEMPT (applies only to trunks)—Reattempt the call by choosing a different trunk in the trunk group. RELEASE—Release the call with the appropriate cause value.
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.

LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).

Table 2-2 lists the valid return code combinations when mgcp-msg=rqnt.

Table 2-2 Return Code Values for mgcp-msg=rqnt

MGCP-MSG	Return Code	Valid Values of Call Action	Valid Values of Endpoint Action
RQNT	000	Same as 100	Same as 100
RQNT	0xx	Same as 100	Same as 100
RQNT	200	CALL-ACTION-OK	EP-ACTION-NONE EP-ACTION-OK
RQNT	250	CALL-ACTION-REATTEMPT CALL-ACTION-RELEASE	Can take any possible values specified in CLI guide.
RQNT	100	None	None (User cannot provision this row from the Cisco BTS 10200 CLI.)
RQNT	401	Same as 250	Same as 250
RQNT	402	Same as 401	Same as 401
RQNT	2xx	Same as 200	Same as 200
RQNT	1xx	Same as 100	Same as 100
RQNT	3xx	Same as 250	Same as 250
RQNT	4xx	Same as 250	Same as 250
RQNT	5xx	Same as 4xx	Same as 4xx
RQNT	6xx	Same as 4xx	Same as 4xx
RQNT	7xx	Same as 4xx	Same as 4xx
RQNT	8xx	Same as 4xx	Same as 4xx
RQNT	9xx	Same as 4xx	Same as 4xx

Table 2-3 lists valid return code combinations when mgcp-msg=crcx.

Table 2-3 Return Code Values for mgcp-msg=crcx

MGCP-MSG	Return Code	Valid Values of Call Action	Valid Values of Endpoint Action
CRCX	000	Same as 100	Same as 100
CRCX	0xx	Same as 100	Same as 100
CRCX	200	CALL-ACTION-OK	EP-ACTION-NONE EP-ACTION-OK
CRCX	250	CALL-ACTION-REATTEMPT CALL-ACTION-RELEASE	Can take any possible values specified in CLI guide.
CRCX	100	None	None (User cannot provision this row from the Cisco BTS 10200 CLI.)
CRCX	401	Same as 250	Same as 250
CRCX	402	Same as 401	Same as 401
CRCX	2xx	Same as 200	Same as 200
CRCX	1xx	Same as 100	Same as 100
CRCX	3xx	Same as 401	Same as 401
CRCX	4xx	Same as 401	Same as 401
CRCX	5xx	Same as 4xx	Same as 4xx
CRCX	6xx	Same as 4xx	Same as 4xx
CRCX	7xx	Same as 4xx	Same as 4xx
CRCX	8xx	Same as 4xx	Same as 4xx
CRCX	9xx	Same as 4xx	Same as 4xx

Table 2-4 lists valid return code combinations when mgcp-msg=mdcx.

Table 2-4 Return Code Values for mgcp-msg=mdcx

MGCP-MSG	Return Code	Valid Values of Call Action	Valid Values of Endpoint Action
MDCX	000	Same as 100	Same as 100
MDCX	0xx	Same as 100	Same as 100
MDCX	200	CALL-ACTION-OK	EP-ACTION-NONE EP-ACTION-OK
MDCX	250	CALL-ACTION-REATTEMPT CALL-ACTION-RELEASE	Can take any possible values specified in CLI guide.
MDCX	100	None	None (User cannot provision this row from the Cisco BTS 10200 CLI.)
MDCX	401	Same as 250	Same as 250
MDCX	402	Same as 250	Same as 250
MDCX	2xx	Same as 200	Same as 200

Table 2-4 Return Code Values for mgcp-msg=mdcx (continued)

MGCP-MSG	Return Code	Valid Values of Call Action	Valid Values of Endpoint Action
MDCX	1xx	Same as 100	Same as 100
MDCX	3xx	Same as 250	Same as 250
		None (Release 4.5)	EP_ACTION_NONE (Release 4.5)
MDCX	4xx	Same as 250	Same as 250
		None (Release 4.5)	EP_ACTION_NONE (Release 4.5)
MDCX	5xx	Same as 250	Same as 250
		None (Release 4.5)	EP_ACTION_NONE (Release 4.5)
MDCX	6xx	Same as 250	Same as 250
		None (Release 4.5)	EP_ACTION_NONE (Release 4.5)
MDCX	7xx	Same as 250	Same as 250
		None (Release 4.5)	EP_ACTION_NONE (Release 4.5)
MDCX	8xx	Same as 250	Same as 250
		None (Release 4.5)	EP_ACTION_NONE (Release 4.5)
MDCX	9xx	Same as 250	Same as 250
		None (Release 4.5)	EP_ACTION_NONE (Release 4.5)

Table 2-5 lists valid return code combinations when mgcp-msg=dlcx.

Table 2-5 Return Code Values for mgcp-msg=dlcx

MGCP-MSG	Return Code	Valid Values of Call Action	Valid Values of Endpoint Action
DLCX	000	Same as 100	Same as 100
DLCX	0xx	Same as 100	Same as 100
DLCX	200	CALL-ACTION-OK	EP-ACTION-OK
DLCX	250	CALL-ACTION-OK	EP-ACTION-OK
DLCX	100	None	None (User cannot provision this row from the Cisco BTS 10200 CLI.)
DLCX	401	CALL-ACTION-RELEASE	EP-ACTION-FAULTY
		CALL-ACTION-REATTEMPT	
DLCX	402	Same as 401	Same as 401
DLCX	2xx	Same as 200	Same as 200
DLCX	1xx	Same as 100	Same as 100
DLCX	3xx	Same as 401	Same as 401
DLCX	4xx	Same as 401	Same as 401
DLCX	5xx	Same as 4xx	Same as 4xx
DLCX	6xx	Same as 4xx	Same as 4xx
DLCX	7xx	Same as 4xx	Same as 4xx

Table 2-5 Return Code Values for mgcp-msg=dlcx (continued)

MGCP-MSG	Return Code	Valid Values of Call Action	Valid Values of Endpoint Action
DLCX	8xx	Same as 4xx	Same as 4xx
DLCX	9xx	Same as 4xx	Same as 4xx

Table 2-6 lists valid return code combinations when mgcp-msg=auep.

Table 2-6 Return Code Values for mgcp-msg=auep

MGCP-MSG	Return Code	Valid Values of Call Action	Valid Values of Endpoint Action
AUEP	000	Same as 100	Same as 100
AUEP	0xx	Same as 100	Same as 100
AUEP	200	CALL-ACTION-OK	EP-ACTION-OK
AUEP	250	CALL-ACTION-REATTEMPT	EP-ACTION-RETRY
		CALL-ACTION-RELEASE	EP-ACTION-RESET
			EP-ACTION-FAULTY
			EP-ACTION-RECOVER
AUEP	100	None	None (User cannot provision this row from the Cisco BTS 10200 CLI.)
AUEP	401	Same as 250	Same as 250
AUEP	402	Same as 401	Same as 401
AUEP	2xx	Same as 200	Same as 200
AUEP	1xx	Same as 100	Same as 100
AUEP	3xx	Same as 250	Same as 250
AUEP	4xx	Same as 3xx	Same as 3xx
AUEP	5xx	Same as 3xx	Same as 3xx
AUEP	6xx	Same as 3xx	Same as 3xx
AUEP	7xx	Same as 3xx	Same as 3xx
AUEP	8xx	Same as 3xx	Same as 3xx
AUEP	9xx	Same as 3xx	Same as 3xx

National Destination Code

The national destination code (ndc) table defines the home area codes supported by the Call Agent.

Table Name: NDC

Table Containment Area: Call Agent

Command Types Show, add, and delete

Examples

```
show ndc;
add ndc digit-string=972;
delete ndc digit-string=972;
```

Usage Guidelines

Primary Key Token(s): digit-string

Add Rules: New NDC digit string is rejected if it is a superset or subset of an existing digit string. For example: if ndc=972 already exists, add ndc=97 is rejected.

Change Rules: None.

Delete Rules: digit-string cannot exist in exchange-code.

Syntax Description

* DIGIT-STRING	Primary key. The digit string consists of the area code (referred to as a National Destination Code (NDC) in ITU) portion of the national (significant) number (N(S)N). VARCHAR(6): 1–6 ASCII characters.
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
FORCED (Release 4.5.1)	Valid only for the add command. Specifies whether to override add rules. CHAR(1): Y/N (Default = N). Y—Override rule and add, change or delete. N—Do not override rules.
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).

Office Code

The Office Code (office-code) table specifies the office codes assigned to a particular Call Agent. The office codes defined in this table normally terminate to a subscriber. This table defines the office-code-index (normalized office code) that is used as an index in the DN2Subscriber table.

Table Name: OFFICE-CODE

Table Containment Area: Call Agent, Feature Server

Command Types

Show, add, and delete

Examples

```
show office-code ndc=972; ec=671; dn-group=23xx;
add office-code ndc=972; ec=671; dn-group=23xx;
delete office-code ndc=972; ec=671; dn-group=23xx;
```

Usage Guidelines

Primary Key Token(s): digit-string

Unique Key Token(s): ndc, ec, dn-group

Foreign Key Token(s): ndc, ec, office-code-index

Add Rules:

- if new digit string is a subset of an existing digit string, and
  - if new digit string direct inward dialing (DID)=Y and existing digit string DID=Y, reject.
  - if new digit string DID=Y and existing digit string DID=N, permit with the same OCI value and check that no DN is the DN2 Subscriber table belongs to the new dn-group.
  - if new digit string DID=N and existing digit string DID=Y, reject.
  - if new digit string DID=N and existing digit string DID=N, reject.
- if new digit string is a superset of an existing digit string, and
  - if new digit string DID=Y and existing digit string DID=Y, reject because there are DNs that already exist in the subset.
  - if new digit string DID=Y and existing digit string DID=N, reject because there are DNs that already exist in the subset.
  - if new digit string DID=N and existing digit string DID=Y, permit with the same OCI.
  - if new digit string DID=N and existing digit string DID=N, permit with the same OCI.

Change Rules:

- call-agent-id is required.
- if the change digit-string is a subset of an existing digit-string, and
  - if change digit-string DID=N, and the existing digit-string DID=Y, the digit-string cannot be changed.
  - if change digit-string DID=Y, and the existing digit-string DID=Y, the digit-string cannot be changed.

  - if change digit-string DID=Y, and the existing digit-string DID=N, the digit-string can be changed if no DN in the DN2 Subscriber table belongs to the dn-group.
  - if change digit-string DID=N, and the existing digit-string DID=N, the digit-string can be changed if no DN in the DN2 Subsurface table belongs to the dn-group.
- if the change digit-string is a superset of an existing digit-string, and
  - if change digit-string DID=N, and the existing digit-string DID=Y, the digit-string cannot be changed.
  - if change digit-string DID=Y, and the existing digit-string DID=Y, the digit-string cannot be changed.
  - if change digit-string DID=Y, and the existing digit-string DID=N, the digit-string cannot be changed.
  - if change digit-string DID=N, and the existing digit-string DID=N, the digit-string cannot be changed.

Delete Rules:

- dest: office-code-index: office-code-index cannot exist in any DN2Subscriber::office-code-index.
- if the delete digit string is a subset of an existing digit string, and
  - if delete dn-group DID=Y and existing dn-group DID=Y, the digit string cannot be deleted.
  - if delete dn-group DID=Y and existing dn-group DID=N, and there is no record in the DN2 Subscriber table in the range of the dn-group, the digit string can be deleted.
  - if delete dn-group DID=N and existing dn-group DID=Y, the digit string cannot be deleted.
  - if delete dn-group DID=N and existing dn-group DID=N, the DN2 Subscriber table is not checked because there is a superset digit-string, and the dn-group can be deleted.
- if delete digit-string is a superset of an existing digit-string, and
  - if delete dn-group DID=Y and existing dn-group DID=Y, the dn-group cannot be deleted.
  - if delete dn-group DID=Y and existing dn-group DID=N, the dn-group cannot be deleted.
  - if delete dn-group DID=N and existing dn-group DID=Y, the dn-group can be deleted if no other DNs fall outside the range of the existing dn-group.
  - if delete dn-group DID=Y and existing dn-group DID=Y, the dn-group can be deleted if no other DNs fall outside the range of the existing dn-group.

Digit String Token Rules:

- If digit-string is a subset of another digit-string, then use the same office code index.
- If new digit-string is a superset of another digit-string, then use the same office code index.

Other Rules:

- FORCED=Y overrides add and delete digit-string rules.
- if DID=Y, the dn-group defined in the office code table is used as the DN.

Syntax Description

* DIGIT-STRING	Primary key. The digit string consists of the NPA-NXX-(XXX) portion of the directory number. This token represents the directory number pool available for the Call Agent. For example, if the digit string consists of 6 digits: NPA-NXX, the remaining 4 digits of the DN are available for assignment. If the digit string consists of NPA-NXX-X, DNs in the thousands group are available for assignment. VARCHAR(14): 4–14 ASCII characters. The digit string is a concatenation of the ndc, ec, and dn-group. VARCHAR(14): 1–14 ASCII characters. The digit string is a concatenation of the ndc, ec, and dn-group. (Release 4.5)
* EC	Unique key: ndc, ec, dn-group. Foreign key: ndc+ec+office-code-index to the Exchange Code table. Exchange Code. VARCHAR(6): 1–6 ASCII characters.
* NDC (Optional in Release 4.5)	Unique key: ndc, ec, dn-group. Foreign key: ndc+ec+office-code-index to the Exchange Code table. National Destination Code. VARCHAR(6): 1–6 ASCII characters.
* DN-GROUP	Unique key: ndc, ec, dn-group. A combination of the dn and dn-length tokens that defines the DN range available in the Call Agent. VARCHAR(4): 1–4 ASCII characters, in the following format: For one digit: n or x For two digits: nn or nx or xx For three digits: nnn or nnx or nxx or xxx For four digits: nnnn or nnnx or nnxx or nxxx or xxxx where n = 0–9, x is a wildcard and is entered as ASCII character *x*.
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
CALL-AGENT-ID	Mandatory if in Call Agent. Foreign key: Call Agent table. Valid home Call Agent ID for the dialed NPA or NPA-NXX. VARCHAR(8): 8 ASCII characters. Format is CAnnn or cannn, where nnn = 001–999. Three characters are reserved.
DIALABLE	Dialable indicator. CHAR(1): Y/N (Default = Y). Y—This office code can be reached via user dialing. N—This office code is not reachable via user dialing.

DID	Indicates if the digit string is a subscriber or a direct inward dialing (DID) number. DID allows a user to direct dial without going through an attendant. CHAR(1): Y/N (Default = N). Y—DID number. N—Subscriber number.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
FORCED	Specifies whether to override digit-string add, change or delete rules. CHAR(1): Y/N (Default = N). Y—Override rule and add, change or delete digit-string. N—Do not override digit-string rules.
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
OFFICE-CODE-INDEX	Foreign key: ndc+ec+office-code-index to the Exchange Code table. The office code index is automatically assigned when ndc and ec are defined. If the user does not enter it, the system automatically adds 1 to the previous OCI. When an entry is added to the office code table, the office code index from the Exchange Code table is used. SMALLINT: 1–65535.
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).

Point of Presence

The Cisco BTS 10200 Softswitch Call Agent can serve several geographical regions or Metropolitan Statistical Areas (MSAs) simultaneously. Each geographical region is referred to as a point of presence (POP). Each POP has its own unique dialing and routing characteristics. The Point of Presence (pop) table contains the default dialing and routing characteristics. Each originating entity (subscriber or trunk group) is assigned to a POP. The POP also performs policy routing, for example, to route the call to the nearest announcement server in the POP, or to the nearest interLATA carrier location within a POP.

Table Name: POP

Table Containment Area: Call Agent, FSPOTS, FSAIN

Command Types

Show, add, change, and delete

Examples

```
show pop id=dallaspop;
add pop id=dallaspop; state=tx; country=usa;
change pop id=dallaspop; jip=972-671;
delete pop id=dallaspop;
```

Usage Guidelines

Primary Key Token(s): id

Foreign Key Token(s): aaa-server-grp-id, at-route-guide-id, call-agent-id, digit-map-id, lecoss-route-guide-id, lnp-dp-id, lsa-id, opc-id,

Foreign Key Token(s): timezone, office-service-id, temp-disc-cos-restrict-id, policy-server-id. clli-code-id, enum-profile id, virtual-nsa-subscriber-id, voice-mail-id, privacy-manager-id (Release 4.5), ocb-profile-id (Release 4.4.1)

Unique Key Token(s): pop

Add Rules: None.

Change Rules: None.

Delete Rules:

- Foreign key constraints.
- ID cannot exist in any trunk-grp::pop-id.
- ID cannot exist in any sub-profile::pop-id.

Syntax Description

* ID	Primary key. POP identifier. VARCHAR(16): 1–16 ASCII characters.

* TIMEZONE (This token is optional as of Release 4.5)	Foreign Key: Timezone table (Release 4.5). Time zone the POP is in. Defaults to EST if not provisioned. Defaults to LOCAL if not provisioned in Release 4.5. VARCHAR(20): 1–20 ASCII characters. VARCHAR(32): 1–32 ASCII characters. (Release 4.5) Permitted values are: EST—(Default) Eastern standard time ADT—Atlantic daylight time AST—Atlantic standard time CDT—Central daylight time CST—Central standard time EDT—Eastern daylight time GMT—Greenwich mean time HONGKONG—Hong Kong, China LOCAL—Local POP timezone. MDT—Mountain daylight time MST—Mountain standard time PDT—Pacific daylight time PRC—Peoples Republic of China PST—Pacific standard time **Note** The number of valid timezones expanded in Release 4.5. See Appendix F, "Timezones" for a complete list.
AAA-SERVER-GRP-ID (Release 4.4.1)	Foreign key: Authentication, authorization, and accounting (AAA) Server Group table. Specifies the AAA Server Group ID used for prepaid or limited call duration features. VARCHAR(16): 1–16 ASCII characters.
AR-ACTIVATION-LEVEL (Release 4.4.0)	Specifies AR activation level (1-level, 2-level). If not provisioned, the system uses the default from the Call Agent Configuration table. VARCHAR(3): 1–3 ASCII characters. ONE—1-level AR Activation TWO—2-level AR Activation
AT-ROUTE-GUIDE-ID	Foreign key: Route Guide table. Access tandem route guide ID. Must match a valid route in the Route Guide table. VARCHAR(16): 1–16 ASCII characters.
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.

BLOCK-EAWOPIC	Specifies treatment of Equal Access (interLATA) calls from subscribers without preferred interlata carrier (PIC). CHAR(1): Y/N (Default = Y). N—Route to LECOSS. Y—Block call.
CALL-AGENT-ID	Foreign key: Call Agent table. Valid home Call Agent of the POP. VARCHAR(8): 8 ASCII characters. Format CAnnn or cannn where nnn = 001–999. (3 characters are reserved for Not Used use.)
CLLI-CODE-ID (Release 4.5)	Foreign key: CLLI Code table. Specifies the Common Language Location Identifier (CLLI) for the local POP. VARCHAR(11): must be exactly 11 ASCII characters.
CNAM-OPTION	Determines if a line information database (LIDB) query is to be performed for calls terminating within the Call Agent (subscriber to subscriber). VARCHAR(13). Permitted values are: LOCAL—Use the local name only. Do not use LIDB. EXT-LIDB—Use LIDB name only. LOCAL-OR-LIDB—Use the local name if available. Otherwise use the LIDB name. NONE (Default)—No name is provided.
COUNTRY	Geographical state of the POP. For example: USA. VARCHAR(16): 1–16 ASCII characters (Default = USA). VARCHAR(16): 1–16 ASCII characters. (Release 4.5)
CUSTOMER-SUPPORT-DN (Release 4.5)	Specifies the DN to voice back to reach customer support. This DN is used in conjunction with the temporarily disconnected announcement id. VARCHAR(14): 1–14 numeric digits.
DESCRIPTION (EMS-only field)	Described by the service provider. VARCHAR(64): 1–64 ASCII characters.
DIGIT-MAP-ID	Foreign key: Digit Map table. Default digit-map-id for POP. VARCHAR(16): 1–16 ASCII characters.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
ENUM-PROFILE-ID (Release 4.5)	Mandatory if enum-supp=Y. Foreign key: Enum Profile table. The enumeration profile id. VARCHAR(16): 1–16 ASCII characters.
ENUM-SUPP (Release 4.5)	Specifies whether to perform an ENUM query CHAR(1): Y/N (Default = N).

ITP	Specifies whether intraLATA toll presubscription is supported. CHAR(1): Y/N (Default = N). Y—PIC2 N—LEC
IVR-DN (Release 4.5)	Specifies a POP-specific IVR DN. If this field is not provisioned, the Cisco BTS 10200 Softswitch defaults to the IVR-DN specified in the Call Agent Configuration table. VARCHAR(14): 1–14 ASCII characters.
JIP	Jurisdiction information parameter; sent in the IAM message. VARCHAR(6): 1–6 numeric digits in the format NPANXX. VARCHAR(6): must be exactly 6 digits in the format NPANXX (Release 4.5)
LATA	LATA associated with the POP. INTEGER: 100–65535 (3–5 numeric digits). INTEGER: 100–99999 (Default = 99999) (3–5 numeric digits). (Release 4.5)
LECOSS-ROUTE-GUIDE-ID	Foreign key: Route Guide table. Route-guide-id for LEC Operator Services Signaling System (OSSS). Must match a valid route in the Route Guide table. VARCHAR(16): 1–16 ASCII characters.
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
LNP-DP-ID	Foreign key: Dial Plan Profile table. Use this dial plan to translate the local routing number (LRN). Must match a valid dial plan profile in the Dial Plan Profile table. VARCHAR(16): 1–16 ASCII characters.
LOCAL-7D-DIALING	Specifies if 7-digit local dialing is supported. CHAR(1): Y/N (Default = Y).
LSA-ID	Foreign key: LSA Profile table. Default local service area for the POP. Must match a valid ID in the LSA Profile table. VARCHAR(16): 1–16 ASCII characters.
MY-LRN	LRN assigned to POP. CHAR(10): 10 numeric characters.
OCB-PROFILE-ID (Release 4.4.1)	Foreign key: OCB Profile table.The OCB Profile ID. If not provisioned, the OCB feature uses the default values defined in the Feature table. VARCHAR(16): 1–16 ASCII characters.
OFFICE-SERVICE-ID (Release 4.5)	Foreign key: Service table. When provisioned, this token becomes the Office Service id. If this token is not provisioned, the system uses the service id provisioned in the Call Agent Configuration table. VARCHAR(16): 1–16 ASCII characters.

OPC-ID	Foreign key: Origination Point Code (OPC) table. Specifies the OPC to use for TCAP queries originating on behalf of subscribers assigned to this POP. VARCHAR(16): 1–16 ASCII characters.
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
PIC2-REQD	This option is used when an intraLATA Pic (ITP) is used in the POP as the preferred interchange. CHAR(1): Y/N (Default = N). Y—PIC2 required. Call cannot be routed without a PIC. N—Not required. Call can be routed without a PIC.
POLICY-SERVER-ID (Not supported)	Foreign key: Aggregation table. Specifies which policy server to use for calls requiring Quality of Service (QoS) using the PacketCable Multimedia model. VARCHAR(16): 1–16 ASCII characters.
POP	Unique key. Name for the POP. VARCHAR(16): 1–16 ASCII characters.
PRIVACY-MANAGER-ID (Release 4.5)	Foreign key: Application Server table. Specifies the Default Privacy Manager id for all subscribers belonging to a particular subscriber profile. Type must equal PM in the Application Server table. VARCHAR(16): 1–16 ASCII characters.
SENSOR-ID (Release 4.5)	Mandatory for trunks. Identifies the type of sensor (any system or device that producing usage measurement data) that generates or formats Bellcore Automatic Message Accounting (AMA) Format (BAF) records. A specified sensor-id is included in the call detail record (CDR) and is used to collect usage measurements for billing purposes. Only characters 2 through 7 are specified here. A sensor id is a 7-character field where character 1 contains: • 0 if the record was not previously output to a downstream system (primary data) • 1 if the record was previously output to a downstream system (secondary data) • 2 if the record may have been previously output, but this is not confirmed. Characters 2 through 7 contain a 6-digit identification code assigned by the service provider of the sensor that generated or formatted the Bellcore Automatic Message Accounting (AMA) Format (BAF) record. VARCHAR(6): 6 numeric characters, 000000 to 999998 (Default = 000000). The value 999999 is reserved for sensors that output only AMA test tapes.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).

STATE	Geographical state of the POP. For example: Tx, Ca, and so forth. CHAR(2): 2 alpha characters. VARCHAR(16): 1–16 ASCII characters. Uppercase only. Use two uppercase characters for U.S. states. For example: TX, CA, and so forth. (Release 4.5)
TEMP-DISC-COS-RESTRICT-ID (Release 4.5)	Mandatory if temp-disc-service-allowed=Y. Foreign key: COS Restrict table. This cos-restrict-id screens calls dialed by a temporarily disconnected subscriber. VARCHAR(16): 1–16 ASCII characters.
TEMP-DISC-SERVICE-ALLOWED (Release 4.5)	Controls the behavior of the Cisco BTS 10200 Softswitch when a subscriber is marked as temporarily disconnected. CHAR(1): Y/N (Default = N). N—Deny service. Y—Use the temp-disc-cos-restrict-id to screen all calls.
TREAT-IMS-ANONYMOUS	Specifies whether to treat entries in the incoming memory slot (IMS) as anonymous when copying to the screening list. Allows control of calls with no incoming identification. CHAR(1): Y/N (Default = N). N—Do not treat IMS entry as anonymous. Y—Treat IMS entry as anonymous.
VIRTUAL-NSA-SUBSCRIBER-ID (Release 4.5)	Foreign key: Subscriber table. Specifies the Virtual No Solicitation Announcement (NSA) subscriber ID that defines what default schedule to use to provide the NSA feature. VARCHAR(30): 1–30 ASCII characters.
VOICE-MAIL-ID (Release 4.5)	Foreign key: Application Server table. Specifies the default voice-mail id for all subscribers belonging to a particular subscriber profile. Type must equal VM in the Application Server table. VARCHAR(16): 1–16 ASCII characters.
ZERO-MINUS	Specifies how to route 0- calls within the POP. VARCHAR(4). Permitted values are: LEC (Default) PIC2
ZERO-PLUS-LOCAL (Not supported)	Specifies if 0+ LOCAL calls are supported. CHAR(1): Y/N (Default = N).

Ported Office Code

The Ported Office Code (ported-office-code) table specifies numbers, or ranges of numbers, that might have been ported-in to this switch. If a called number matches any of the ported numbers, or is within any of the specified ranges of numbers, the Call Agent queries the DN2subscriber table to determine the current status of the DN.

Table Name: PORTED-OFFICE-CODE

Table Containment Area: Call Agent

Command Types

Show, add, change, and delete

Examples

```
show ported-office-code digit-string=972-671-23;
add ported-office-code digit-string=972-671-23;
change ported-office-code digit-string=972-222; in-call-agent=Y;
delete ported-office-code digit-string=972-671-23;
```

Usage Guidelines

Primary Key Token(s): digit-string

Add Rules: None.

Change Rules: None.

Delete Rules: None.

Syntax Description

* DIGIT-STRING	Primary key. Ported number which can be 7, 8, or 10 digits in the format NPA-NXX-XXXX, where NPA is the assigned geographic numbering plan area, NXX designates a specific central office within the NPA, and XXXX is the subscriber's number. N in the NXX portion of the number can be any number from 2 to 9 and X can be any number from 0 to 9. To support number pooling, the digit string can specify a pool of 1000 numbers (which requires 7 digits, NPA-NXX-X) or a pool of 100 numbers (which requires 8 digits, NPA-NXX-XX). VARCHAR(10): 7, 8, or 10 ASCII characters in the NPA-NXX-XXXX format.
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.

IN-CALL-AGENT	Specifies whether the Call Agent is the recipient switch for a ported-in number, or a range of numbers, as specified in the digit-string token. CHAR(1): Y/N (Default = N). Y—Call Agent is the recipient switch. The DN2Subscriber table is queried to determine whether to send an LNP query to the SS7 network. If the number appears in the DN2subscriber table and the lnp-trigger is set to Y, an LNP query is performed. N—Call Agent is not the recipient switch. The DN2Subscriber table is not queried.
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).

Quality of Service

The Quality of Service (qos) table provides Codec Negotiation service. Codec Negotiation service is the process a Call Agent uses to find a common codec (compression/decompression of a signal) between two gateways so a call can go through.

Table Name: QOS

Table Containment Area: Call Agent

Command Types

Show, add, change, and delete

Examples

```
show qos id=gold-service;
add qos id=gold-service; codec-type=g.711u; description=all calls are carried as g711;
change qos id=gold-service; codec-type=g.726-32k; description=use g.726-32k codecs.
delete qos id=gold-service;
```

Usage Guidelines

Primary Key Token(s): id

Foreign Key Token(s): ciphersuite-profile-id

Add Rules: LBW must be less than or equal to HBW.

Change Rules: Qos-id must exist.

Delete Rules: Qos-id must exist.

Syntax Description

* ID	User-defined QoS profile name. VARCHAR(16): 1–16 ASCII characters.
AUTO-GAIN-CONTROL	Specifies if gain control is automatically selected by the gateway. CHAR(1): Y/N (Default = Y). Y—Gain control is automatically selected by the gateway. N—Gain control is not automatically selected by the gateway.
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
CIPHERSUITE-PROFILE-ID	Foreign key: Ciphersuite Profile table. The ciphersuite-profile index to use. VARCHAR(16): 1–16 ASCII characters.
CLIENT-TYPE (Release 4.5)	Specifies the type of client based on requiring different methods of Quality of Service. VARCHAR(16): 1–16 ASCII characters (Default = NONE). Permitted values are: NONE (Default)—Other MM-COPS—Packet Cable multimedia DOQS—Dynamic QOS

CODEC-TYPE	Specifies the preferred codec type to use on calls originating from the subscriber or trunking gateway configured with this QoS. When communicating with an RGW (IAD or eMTA) or TGW, the Cisco BTS 10200 Softswitch checks this token for the preferred codec type for the originating endpoint. This is the highest priority codec in the list sent by the Cisco BTS 10200 Softswitch to the MTA (or TGW) in the CRCX message. **Note** The rest of the codec list is based on the data in the AUEP ACK message. VARCHAR(16): 1–16 ASCII characters. Permitted values are: PCMU (or G.711U) (Default)—G.711 ulaw (PCMU) PCMA (or G.711A—G.711 alaw (PCMA) G.722—G.722 G.723.1-H—G.723.1 high rate G.723.1A-H—G.723.1 Annex A High rate G.723.1-L—G.723.1 Low rate G.723.1A-L— G.723.1 Annex A Low rate G.726-16K—G.726 16K rate G.726-24K—G.726 24K rate G.726-32K—G.726 32K rate G.726-40K—G.726 40K rate G.728—G.728 G.729—G.729 G.729A—G.729 Annex A G.729AB—G.729AB G.729B—G.729 Annex B G.729E—G.729 Annex E G.CLEAR (Not supported)—Clear Channel **Note** See also the codec-neg-supp token in the Media Gateway Profile table.
DESCRIPTION (EMS-only field)	Described by service provider. VARCHAR(64): 1–64 ASCII characters.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
DOCSIS-DSCP-TOS (Release 4.5)	Identifies the DSCP/TOS value that must be matched for packets to be classified onto the IP flow. INTEGER: 0–255 (Default = 160). (Binary: 1010 0000)

DOCSIS-DSCP-TOS-BITMASK (Release 4.5)	Determines what bits in the DSCP/TOS byte to use as filters in classifying packets. INTEGER: 0–255 (Default=224). (Binary: 1110 0000)
DQOS-CMTS-DSCP-TOS	The Differentiated Services Code Point (DSCP) value or type of service (TOS) value to be sent to the CMTS in the gate-set message. This affects the QoS level for the packets (media traffic) that are about to enter the service provider network from the CMTS. VARCHAR(4): 0–255 ASCII characters (Default = 160). **Note** The operator can provision a value either for the DSCP byte, or for the IPv4 TOS byte, for each subscriber. When the subscriber makes a call, the DSCP/TOS value is provided to a CMTS in the gate-set message. The CMTS inserts the DSCP/TOS value into IP packets before delivering the packets to the IP core. Routers in the IP network use this value to make per-hop behavior (PHB) decisions about packet classification and traffic conditioning functions. For information on specific DSCP and TOS bits, see Appendix H, "Data Values for TOS, DSCP, and PHB Parameters."
DQOS-DSCP-TOS-BITMASK (Release 4.5)	Specifies the particular bits within the IPv4 DSCP/TOS byte to use INTEGER: 0–255 (Default=224). BINARY (1110 0000)
DTMF-PREF-MODE	Specifies the preferred DTMF relay method. VARCHAR(16): 1–16 ASCII characters (Default = DTMF-INBAND). Permitted values are: DTMF-INBAND—DTMF digits are exchanged in the voice path itself. This method may not work for low-speed codecs. In this method, no digits are reported to the Cisco BTS 10200 Softswitch and digits are exchanged over the bearer path. DTMF-CISCO-RTP—DTMF digits are exchanged using a Cisco proprietary method, where DTMF digits are encoded in RTP packets. In this method, no digits are reported to the Cisco BTS 10200 Softswitch and digits are exchanged over the bearer path. DTMF-CISCO-NSE (Not supported)—DTMF digits are exchanged using a Cisco proprietary method, where DTMF digits are encoded using NSE in RTP packets. In this method, no digits are reported to Cisco BTS 10200 Softswitch and digits are exchanged over the bearer path. DTMF-GW-NTE (Not supported)—DTMF digits are exchanged using RFC 2833 based NTE method. In this method, no digits are reported to Cisco BTS 10200 Softswitch and digits are exchanged over the bearer path. DTMF-OOB—All DTMF digits are reported to Cisco BTS 10200 Softswitch and digits are relayed to the other side by the Cisco BTS 10200.

FAX-PREF-MODE (Obsolete in Release 4.5)	Specifies the preferred fax relay method. VARCHAR(16): 1–16 ASCII characters. Permitted values are: FAX-T38-GWMODE (Default)—Gateway-controlled relay (uses NSE to switch to T.38 mode) in real time. FAX-T38-CAMODE—Call Agent controlled relay (Call Agent instructs gateway to switch to T.38 mode) in real time. FAX-INBAND—Use only for G.711 and G.726.
FAX-T38-ENABLED (Release 4.5)	Specifies whether to use the T.38 protocol for fax transmission. When a call is established between two endpoints, the Cisco BTS 10200 Softswitch uses the value of this token on each endpoint in determining whether to use the T.38 protocol for fax transmission. This token applies only to endpoints that have an associated QOS entry. If QoS is not defined for a trunk or a subscriber, the Cisco BTS 10200 Softswitch operates as if token is set to Y. The Cisco BTS 10200 Softswitch also acts as a transit for H323<->H323 and SIP<->SIP calls. In these cases, the fax_t38 _enabled value is ignored. CHAR(1): Y/N (Default = Y). Y—On an MGCP/NCS/TGCP interface, the system uses the T38 fax method specified in the corresponding Media Gateway Profile table. On an H.323 interface, the system uses the H.323 Annex D v2 to handle the fax over T.38. N—On an MGCP/NCS interface, the system does not use the T.38 protocol for fax transmission, including calls inter-working between this interface and SIP/H.323. The system does not send the local connection options (“L:”) for T.38 fax. However, if the gateways report T.38 fax capability in the SDP, the fax may still transmit using T.38 facilitated by SDP exchange. For example, for SIP<->MGCP calls (where this token is set to N for MGCP), the SIP endpoint can send T.38 fax parameters in SDP. On a media gateway, the MGW uses one of the inband fax methods defined in the media gateway profile. On an H.323 interface, N disables T38 fax for H323<->MGCP, and H323<->SIP calls but not for H323<->H323 calls. **Note** The Cisco BTS 10200 Softswitch uses the T.38 fax protocol when a fax is detected. Usage depends on the value of the QoS fax_t38_enabled token for each endpoint involved in the call, as well as the protocol type of each endpoint. The symbols used in the table are: T38—The Cisco BTS 10200 Softswitch uses the T.38 protocol for fax transmission. X—The Cisco BTS 10200 Softswitch does not use the T.38 protocol for fax transmission. T38*—Since one of the field values in this combination is set to N, the MGCP endpoint involved in this call does not receive the local connection option (L:fxr:fx/t38) in the initial CRCX request from Cisco BTS 10200 Softswitch. However, if the endpoint receives a T.38 SDP from the remote end detecting fax, then it is assumed to support the switch to T.38 media connection.

GAIN-VALUE	Telephony gateways can perform gain control to adapt the level of the signal. However, it is sometimes necessary to turn off this function, for example, for modem calls. The gain control parameter can be specified as either automatic or as an explicit number of decibels of gain. The default is to not perform gain control, which is the equivalent of specifying a gain of 0 decibels. INTEGER: –9999 to +9999 (Default = 0). **Note** This token is used only if auto-gain-control=N and value is non-zero.
HBW	Specifies higher bandwidth in kilobits per second. INTEGER: 0–9999 (Default = 0). 0 = gateway chosen.
HPTIME	Higher packetization time in milliseconds. INTEGER: 5–50 (Default = 10). **Note** For a call to be set up, the two MGWS involved in a call (the originating and terminating MGWs) must use the same packetization rate when they connect to the Cisco BTS 10200 Softswitch. Normally, two MTAs report their packetization rate automatically. However, if one of the MGW units fails to report dynamically, the provisioned values for lptime and hptime are used in the call. ⚠ **Caution** A single value (not a range) must be provisioned for hptime and lptime for both MGWs in a call, so that the two MGWs use the same packetization time. Otherwise, the two MGWs may not communicate properly can the call may not go through. This applies to all pairs of MGWs in a network that communicate with each other, including IVR and announcement servers, TGWs, eMTAs and various other MGCP-based gateways. The qos-id in the Trunk Group table must also be provisioned for each trunk in a call even if you are accepting the default hptime and lptime default values.

IPTOS-RTP-LOWDELAY	Specifies whether to set real-time transport protocol low delay. Low delay refers to the waiting time, or latency involved in sending and receiving a packet. You can set various options on the TCP socket to tune or optimize for certain performance parameters. The TOS provides an indication of the abstract parameters of the quality of service desired. These parameters guide the selection of the actual service parameters when transmitting a datagram through a particular network. See RFC 1349, RFC 791, and RFC 795 for detailed information. CHAR(1): Y/N (Default = N). Y—(1) Set to low delay. N—(0) Set to normal delay. **Caution** Cisco does not recommend using any value other than the specified default. Changing this value from its default may significantly impact network performance. Contact Cisco TAC for further information. **Note** This data is sent only if the iptos-rtp-supp token in the Media Gateway Profile table is set to Y. If you prefer to use DSCP values instead of TOS values, derive the appropriate TOS values using the DSCP/TOS mapping information in Appendix H, "Data Values for TOS, DSCP, and PHB Parameters."
IPTOS-RTP-PRECEDENCE	Specifies which IP precedence to use for the RTP stream. IP precedence utilizes the 3 precedence bits in the type of service (TOS) field in the IP header to specify a class of service assignment for each IP packet. The TOS provides an indication of the abstract parameters of the quality of service desired. These parameters are to be used to guide the selection of the actual service parameters when transmitting a datagram through a particular network. See RFC 1349, RFC 791, and RFC 795 for detailed information. VARCHAR(16): 1–16 ASCII characters. Permitted values are: CRITICAL (Default = 5) NETCONTROL (= 7) INTERNETCONTROL (= 6) FLASHOVERRIDE (= 4) FLASH (= 3) IMMEDIATE (= 2) PRIORITY (= 1) ROUTINE (= 0) **Caution** Cisco does not recommend using any value other than the specified default. Changing this value from its default may significantly impact network performance. Contact Cisco TAC for further information.

IPTOS-RTP-RELIABILITY	Specifies whether to set real-time transport protocol reliability. Reliability refers to the dependability of packet delivery. The TOS provides an indication of the abstract parameters of the quality of service desired. These parameters guide the selection of the actual service parameters when transmitting a datagram through a particular network. See RFC 1349, RFC 791, and RFC 795 for detailed information. CHAR(1): Y/N (Default = N). Y—(1) Set to high reliability. N—(0) Set to normal reliability. **Caution** Cisco does not recommend using any value other than the specified default. Changing this value from its default may significantly impact network performance. Contact Cisco TAC for further information. **Note** This data is sent only if the iptos-rtp-supp token in the Media Gateway Profile table is set to Y. If you prefer to use DSCP values instead of TOS values, derive the appropriate TOS values using the DSCP/TOS mapping information in Appendix H, "Data Values for TOS, DSCP, and PHB Parameters."
IPTOS-RTP-THROUGHPUT	Specifies whether to set real-time transport protocol throughput. Throughput refers to the actual amount of useful and non-redundant information that is transmitted or processed. The TOS provides an indication of the abstract parameters of the quality of service desired. These parameters guide the selection of the actual service parameters when transmitting a datagram through a particular network. Throughput is a function of bandwidth, error performance, congestion, and other factors. See RFC 1349, RFC 791, and RFC 795 for detailed information. CHAR(1): Y/N (Default = N). Y—(1) Set to high throughput. N—(0) Set to normal throughput. **Caution** Cisco does not recommend using any value other than the specified default. Changing this value from its default may significantly impact network performance. Contact Cisco TAC for further information. **Note** This data is sent only if the iptos-rtp-supp token in the Media Gateway Profile table is set to Y. If you prefer to use DSCP values instead of TOS values, derive the appropriate TOS values using the DSCP/TOS mapping information in Appendix H, "Data Values for TOS, DSCP, and PHB Parameters."
LBW	Specifies lower bandwidth in kilobits per second. INTEGER: 0–9999 (Default = 0). 0 = gateway chosen.

LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
LPTIME	Lower packetization time in milliseconds. INTEGER: 5–50 (Default = 10). **Caution** A single value (not a range) must be provisioned for hptime and lptime for both MGWs in a call, so that the two MGWs use the same packetization time. Otherwise, the two MGWs may not communicate properly can the call may not go through. This applies to all pairs of MGWs in a network that communicate with each other, including IVR and announcement servers, TGWs, eMTAs and various other MGCP-based gateways. The qos-id in the Trunk Group table must also be provisioned for each trunk in a call even if you are accepting the default hptime and lptime default values.
MAX-DQOS-AUTH-BANDWIDTH (Release 4.5)	Specifies the maximum authorized bandwidth for DQoS. A value of HIGH refers to codec G.711. A value of LOW refers to codec G.72x. VARCHAR(4): 1–4 ASCII characters. Permitted values are: HIGH (Default)—Refers to codec G.711 LOW—Refers to codec G.72x.
MAX-DQOS-SESSIONS	The maximum number of DQoS sessions allowed for this subscriber. VARCHAR(50): 1–50 ASCII characters. (Default = 5).
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
RESOURCE-RESERVATION	The gateways can be instructed to perform a reservation, for example, using RSVP, on a given connection. When a reservation is needed, the Call Agent specifies the reservation profile to be used, which is either *controlled load* or *guaranteed* service. The absence of reservation can be indicated by asking for the *best effort* service, which is the default value of this parameter. VARCHAR(2): 1–2 ASCII characters. Permitted values are: BE (Default)—Best effort. G—Guaranteed. CL—Controlled load.
RSVP-REQUIRED	Specifies whether the Resource Reservation Protocol (RSVP) is required on connection. CHAR(1): Y/N (Default = N).

SILENT-SUPPRESS -SUP	Silent suppression function. It detects a silent interval and suppresses transmission of silent packets to save bandwidth. The Call Agent can automatically overwrite the service-provider-provisioned value upon querying the media gateway. Whether the silence suppression parameter is sent down to the MGW in the LocalConnectionOption parameter of a CRCX or MDCX MGCP message is decided by performing a logical "and" operation on the Originating side and Terminating side endpoints dynamic (received in AUEP ACK message from GW) and static capabilities (configured in Media Gateway Profile table). CHAR(1): Y/N (Default = Y). Y—MGW supports silent suppression. N—MGW does not support silent suppression.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).
VIDEO-CODEC-TYPE (Release 4.2)	Not supported. VARCHAR(16): 1–16 ASCII characters. Permitted values are: NONE (Default) H.261 H.263 H.264

Region Code (Release 4.5)

The Region Code (region-code) table defines the Region Code "R" digit associated with NPAs outside the U.S. contiguous 48 states but within world zone-1 (Alaska, Canada, the Caribbean, and Mexico). The CC (1) to world zone 1 numbers is padded with "0" and is suffixed with the R digit to form 3 digits in the form of "01R" when MF INC signaling is used towards international or consolidated carriers. If the dialed NPA is not provisioned in this table, then a value of 0 is assumed for region-code indicating no information is available.

Table Name: REGION-CODE

Table Containment Area: Call Agent

Command Types

Show, add, change, and delete

Examples

```
show region-code digit-string=506;
add region-code digit-string=506; region-code=2;
change region-code digit-string=506; region-code=1;
delete region-code digit-string=506;
```

Usage Guidelines

Primary Key Token(s): digit-string

Add Rules: None.

Change Rules: None.

Delete Rules: None.

Syntax Description

* DIGIT-STRING	Primary key. Specifies the NPA within world zone 1. VARCHAR(3): 3 numeric digits.
* REGION-CODE	Required for calls to country codes in world zone-1 (U.S.(outside the contiguous 48 states), Canada, the Caribbean, and Mexico). Used for signaling to "01R" where R is the region code. INTEGER: 0–9 numeric digits.
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
DESCRIPTION (EMS-only field)	Described by the service provider. VARCHAR(64): 1–64 ASCII characters.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).

Release Cause

The Release Cause (release-cause) table is an internal table used by call processing to map SS7, ISDN, and generic release cause values (codes) to an announcement ID. This table is preprovisioned, but a service provider can modify.

Table Name: RELEASE-CAUSE

Table Containment Area: Call Agent

Command Types

Show, add, change, and delete

Examples

```
show release-cause id=159;
add release-cause id=159; annc-id=16;
change release-cause id=159; annc-id=16;
delete release-cause id=159;
```

Usage Guidelines

Primary Key Token(s): id

Foreign Key Token(s): annc-id

Add Rules: None.

Change Rules: None.

Delete Rules: None.

Syntax Description

* ID	Primary key. SS7 release cause identifier. SMALLINT: 0–9999
* ANNC-ID	Foreign key: Announcement table. Announcement ID. SMALLINT: 1–1000.
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
DESCRIPTION (EMS-only field)	Described by the service provider. VARCHAR(64): 1–64 ASCII characters.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.

ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).

Softswitch Trunk Group Profile

The Softswitch Trunk Group Profile (softsw-tg-profile) table holds all the information specific to a Softswitch trunk, such as id, protocol, indicators and echo suppression. The softsw-tg-profile record can be shared by multiple softswitch trunk groups. An ID must be created in this table before entries can be added to the Softswitch Trunk Group table.

Table Name: SOFTSW-TG-PROFILE

Table Containment Area: Call Agent

Command Types

Show, add, change, and delete

Examples

```
show softsw-tg-profile id=softprf1;
add softsw-tg-profile id=softprf1; protocol-type=sip-t;
change softsw-tg-profile id=softprf1; send-cpn=n;
delete softsw-tg-profile id=softprf1;
```

Usage Guidelines

Primary Key Token(s): id

Add Rules:

- cc-diversion-supp and diversion-header-supp must be mutually exclusive. (Not required as of Release 4.2)
- if cc-diversion-supp=Y; then diversion-header-supp=N; (Not required as of Release 4.2)
- if diversion-header-supp=Y; then cc-diversion-supp=N; (Not required as of Release 4.2)
- both cc-diversion-supp and diversion-header-supp can be set to N. (Not required as of Release 4.2)
- if protocol-type=sip-t; then sipt-isup-ver must be specified. (Release 4.5)
- the sipt-isup-ver token must be defined in the SIPT ISUP Version Base table. (Release 4.5)

Change Rules: None.

Delete Rules: ID cannot exist in any trunk-grp::tg-profile-id where tg-type=softsw.

Syntax Description

* ID	Primary key. Unique ID for this trunk group profile. VARCHAR(16): 1–16 ASCII characters.

* PROTOCOL-TYPE	Specifies the type of signaling for this trunk group. It controls the message type sent between two Cisco BTS 10200 Softswitches. For example, if the protocol-type is SIP-T, then the Cisco BTS 10200 Softswitch sends a SIP-T message, which is a normal SIP ASCII message plus an ISUP MIME attachment. In this case, the origination type can be ISDN, SS7, CAS, MGCP, and so forth. The origination type does not matter. However, if the protocol-type is SIP, then the Cisco BTS 10200 Softswitch sends only an ASCII SIP message without an ISUP MIME attachment. VARCHAR(9): 1–9 ASCII characters. Permitted values are: SIP—Signaling via the Session Initiation Protocol (SIP) multimedia sessions across the Internet. SIP-T—Signaling using SIP-T protocol. SIP-T is an inter Call Agent protocol; SIP-GTD protocol is a normalized inter Call Agent protocol. SIP-T—Signaling using both the SIP-T and SIP-GTD protocol types. SIP-T is an inter Call Agent protocol; SIP-GTD protocol is a normalized inter Call Agent protocol. (Release 4.5) CMSS—Not supported. Call Management System Signaling. CMSS is the protocol used for communication between PacketCable cable (CMS) switches when a call spans across them (similar to Cisco BTS 10200 calls to another Cisco BTS 10200 over SIP). CMSS trunk types are used exclusively for CMS switches.
APPLY-USER-PRIVACY (Release 4.5)	Specifies whether to apply user privacy. CHAR(1): Y/N (Default = N). Y—If the originator requested privacy, aspects of the calling party information (such as the calling name and number in the From:header) in the initial outbound SIP INVITE is hidden. Privacy is requested when either the calling party name or number have presentation restrictions. N—User level privacy is not applied.
AUDIT-THRESHOLD (Release 4.4.1)	Specifies the number of consecutive communication timeouts (SIP transaction timeouts) that triggers a trunk group with this profile to be put out of service. INTEGER: 1–5 (Default = 3).
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.

CC-DIVERSION-SUPP (Obsolete as of Release 4.5)	Specifies whether Call Control (redirecting) information support is needed. The CC-Diversion header allows passing call information through a network of various Feature Servers and Call Agents to support various services and feature capabilities as a call is set up. Do not set the cc-diversion-supp and the diversion-header-supp tokens to yes (Y) simultaneously. Both tokens can be no (N) but only one can be yes (Y). CHAR(1): Y/N (Default = N).
DESCRIPTION (EMS-only field)	Described by the service provider. VARCHAR(64): 1–64 ASCII characters.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
DIVERSION-HEADER-SUPP	Indicates if SIP Diversion Header is supported or not. This header conveys diversion information from other SIP user agents and proxies to the called user agent. This information can be used for enhanced features, including Unified Messaging, Third-Party voice mail, and Automatic Call Distribution (ACD). The most common use of the Diversion Header in the Cisco BTS 10200 Softswitch is for call forwarding features. **Note** Do not set the cc-diversion-supp and the diversion-header-supp tokens to yes (Y) simultaneously. Both tokens can be no (N) but only one can be yes (Y). Not applicable to Release 4.5. CHAR(1): Y/N (Default = N).
DNS-SRV-ADV-ON-RETRANS-TIMEOUT (Release 4.5)	Controls whether the Cisco BTS 10200 Softswitch advances to the next server entry associated with the server (SVR) TSAP address on the trunk, for subsequent retransmission, when a timeout occurs. **Note** This token applies if dns-srv-supp = dns-srv-supp-rfc2782-labels. It does not apply to non-SRV trunks. CHAR(1): Y/N (Default = Y). N—RFC3263 compliant behavior prevails. All retransmissions go to the same server within the list associated with an SRV record. Y—Existing Cisco BTS 10200 Softswitch behavior prevails. Each retransmission goes to a different server in the list associated with the SRV record.
DNS-SRV-SUPP	DNS service (SRV) resolution needed flag. VARCHAR(16): 1–16 ASCII characters. Permitted values are: NONE (Default) RFC2782-LABELS—Prepend the protocol and service labels with an underscore.

DTMF-RELAY-METHOD	Specifies which way to send an out-of-band DTMF Relay. VARCHAR(8): 1–8 ASCII characters. Permitted values are: NONE (Default)—Unsolicited DTMF Relay – Not supported. NOTIFY—DTMF Relay supported based on Subscribe/Notify Method. INFO—DTMF Relay supported based on INFO Method.
ECHO-SUPP-REQUIRED (Obsolete as of Release 4.5)	Echo Suppression Required indicator. CHAR(1): Y/N (Default = N).
ES-SUPP (Release 4.4.1)	Specifies whether to send CALEA information on a SIP CMSS interface. Used only for a CMSS type trunk group. Set to Y in case the equipment on the other side of a CMSS SIP interface supports CALEA requirements. CHAR(1): Y/N (Default = N). N—Disable sending of CALEA information on SIP CMSS interface. Y—Enable sending of CALEA information on SIP CMSS interface.
ES-SUPP (Release 4.5)	Used for CALEA. When this token is enabled, surveillance information as defined in Section 8 of RFC 3603 is sent when surveillance is required on the call, and surveillance cannot be performed on this switch. This requires the remote SIP entity interfacing the SIP trunk to support surveillance procedures. CHAR(1): Y/N (Default = N). N—Disable sending of CALEA information on SIP interface. Y—Enable sending of CALEA information on SIP interface.
GTD-MODE (Release 4.5)	Specifies whether to use the compact (default) or verbose mode to encode messages for the SIP-T/GTD trunk group. VARCHAR(8): 1–8 ASCII characters. Permitted values are: COMPACT (Default) VERBOSE

GTD-PARMS (Release 4.4.1)	Mandatory if protocol-type=sip-gtd. Specifies a comma-separated list of Generic Transparency Descriptor (GTD) parameters enabled for this profile. The parameters are parsed against a static table, called the GTD Parameter Values table, which lists all the valid GTD parameters, including the special case parameter ALL. In the DBM of the Call Agent, this comma-separated string is converted into a series of boolean flags, one for each GTD parameter. The Call Agent accesses each individual flag as it builds a GTD attachment. **Note** This value applies only when the protocol-type is SIP_GTD. The Cisco BTS 10200 Softswitch validates each comma-separated GTD parameter in the GTD Parameter Values table. It also verifies that if ALL is used, no other GTD parameters are listed. VARCHAR(500): 3–500 ASCII characters. For example: ALL—use all GTD parameters (or) CPN, CGN, CIC, CPC, BCI (comma-separated list)
HOP-COUNTER-MAX (Release 4.5)	Applies only to received SIP Invite messages that are not SIP-T and contain a max-forwards value in which the max-forwards is scaled down to build the hop counter. If the hop counter derived from the max-forwards is greater than this value, it is set to this value. This value acts as a ceiling for the derived hop counter value. INTEGER: 10–20 (Default = 20).
HOP-COUNTER-SUPP (Release 4.5)	Used for received SIP Invite messages that are not SIP-T and contain a max-forwards value. The default sets the hop counter based on the received max-forwards value. If this flag is set to N, the hop counter field is not populated using the max-forwards value. CHAR(1): Y/N (Default = Y).
INBAND-TONE-AVAILABLE	Send release or provide tone/announcement. CHAR(1): Y/N (Default = Y).
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
MAX-FORWARDS (Release 4.5)	Specifies when an outbound SIP Invite message requires an initial maximum forwards value. INTEGER: 4–80 (Default = 70).
NON-SRV-TRANSPORT	Specifies the transport mechanism to use for signaling. This token is used only when dns-srv-supp=none. VARCHAR(8): 1–8 ASCII characters. Permitted values are: UDP (Default)—Use UDP unless message size requires TCP as described in RFC 3261 and RFC 3263. TCP—Use TCP. UDP-ONLY—Use UDP. Does not attempt TCP even if message size exceeds limits described in RFC 3261 and RFC 3263.

ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
PRACK-FLAG	Specifies if an Invite messages sent on this trunk group require reliable provisional responses. If yes, provisional responses like alerting are delivered. Used with SIP-T. CHAR(1): Y/N (Default = N).
REDIRECT-SUPPORTED	Specifies if the Cisco BTS 10200 Softswitch honors a 3xx class, such as a redirection response for an Invite message sent by the Cisco BTS 10200 Softswitch. VARCHAR(32): 1–32 ASCII characters. Permitted values are: VALID-DOMAINS-ONLY (Default)—If the host name field in the SIP URI of a 3XX contact used for call redirection does not represent this Cisco BTS 10200 Softswitch or a Cisco BTS 10200 Softswitch SIP trunk, then the call is redirected using the SIP trunk used on the previous call redirection. If there was not a previous call redirection, then the SIP trunk that sent the initial Invite is used. If the profile of the selected SIP trunk restricts redirection to only valid domains, then this redirection is blocked and the next contact is tried. Otherwise, it is redirected and the contact URI is used as the request URI of the redirected call. ALL-DOMAINS—Redirects to any allowed domain. NONE—No redirects allowed.
REFER-ALLOWED	Call Transfer allowed on an SS trunk. CHAR(1): Y / N (Default = N).
SATELLITE-CIRCUIT (Obsolete as of Release 4.5)	Satellite Circuit indicator. CHAR(1): Y/N (Default = N).
SCALE-FACTOR (Release 4.5)	Used for conversions between hop counter and max-forwards values; allows no-conversion, one-half, one-third, and one-quarter conversion factors. The default provides a scale relative to the maximum values: if the hop counter is 20, a scale factor of 4 converts to a max-forwards value of 80. Using the default means no conversion. INTEGER: 1–4 (Default = 1).
SEND-ATP (Obsolete in Release 4.5)	Send Access Transport Parameter indicator. CHAR(1): Y/N (Default = Y).
SEND-CIC-PARAM (Release 4.5)	Specifies whether the CIC parameter is included in the request URL for outbound SIP calls. CHAR(1): Y/N (Default = Y)
SEND-CPN (Obsolete in Release 4.5)	Send Calling Party Number indicator. CHAR(1): Y/N (Default = Y).

SEND-FULL-E164 (Release 4.5)	When enabled, all SIP phone numbers contained in SIP messages sent from the Cisco BTS 10200 Softswitch that have an NOA of national significance are represented as fully qualified E.164 numbers prefixed with the local country code and plus sign. This conforms to IETF RFC 3398 Section 12.1. When disabled, national numbers are sent without a country code and plus sign prefix. Numbers of international significance are always sent with a plus sign and country code regardless of this flag setting. CHAR(1): Y/N (Default = N). **Note** The Home Country code is defined in the Call Agent Configuration table.
SEND-GAP (Obsolete in Release 4.5)	Send Generic Address Parameter indicator. CHAR(1) Y/N (Default = Y).
SEND-GN (Obsolete in Release 4.5)	Send Generic Name Indicator. CHAR(1): Y/N (Default = Y).
SEND-JIP (Obsolete in Release 4.5)	Send Jurisdiction Information Parameter indicator. CHAR(1): Y/N (Default = Y).
SEND-OCN (Obsolete in Release 4.5)	Send Original Called Number indicator. CHAR(1): Y/N (Default = Y).
SEND-REDIR-NUM (Obsolete in Release 4.5)	Send Redirecting Number indicator. CHAR(1): Y/N (Default = Y).
SEND-SIP-181-RESP (Release 4.5.1)	Specifies whether the Cisco BTS 10200 Softswitch transmits a 181 response message to a UAC when the terminating side of the Cisco BTS 10200 Softswitch forwarded the call. CHAR(1): Y/N (Default = N)
SESSION-TIMER-ALLOWED	Specifies whether a session timer is allowed. CHAR(1): Y / N (Default = N).
SIP-SIG-LOWDELAY	Specifies whether to set low delay. Low delay refers to the waiting time, or latency involved in sending and receiving a packet. You can set various options on the TCP socket to tune or optimize for certain performance parameters. CHAR(1): Y/N (Default = Y). **Caution** Cisco does not recommend using any value other than the specified default. Changing this value from its default may significantly impact network performance. Contact Cisco TAC for further information. **Note** If you prefer to use DSCP values instead of TOS values, derive the appropriate TOS values using the DSCP/TOS mapping information in Appendix H, "Data Values for TOS, DSCP, and PHB Parameters."

SIP-SIG-PRECEDENCE	Specifies the designation assigned to a phone call by the caller to indicate the relative urgency (and thus the order of handling) of a call. It also sends an indication to the called party of the order in which the call is answered. VARCHAR(16): 1–16 ASCII characters. Permitted values are: FLASH (Default = 3) NETCONTROL (= 7) INTERNETCONTROL (= 6) CRITICAL (= 5) FLASHOVERRIDE (= 4) IMMEDIATE (= 2) PRIORITY (= 1) ROUTINE (= 0) **Caution** Cisco does not recommend using any value other than the specified default. Changing this value from its default may significantly impact network performance. Contact Cisco TAC for further information. **Note** If you prefer to use DSCP values instead of TOS values, derive the appropriate TOS values using the DSCP/TOS mapping information in Appendix H, "Data Values for TOS, DSCP, and PHB Parameters."
SIP-SIG-RELIABILITY	Specifies whether to set reliability. Reliability refers to the dependability of packet delivery. CHAR(1): Y/N (Default = N). **Caution** Cisco does not recommend using any value other than the specified default. Changing this value from its default may significantly impact network performance. Contact Cisco TAC for further information. **Note** If you prefer to use DSCP values instead of TOS values, derive the appropriate TOS values using the DSCP/TOS mapping information in Appendix H, "Data Values for TOS, DSCP, and PHB Parameters."

SIP-SIG-THROUGHPUT	Specifies whether to set throughput. Throughput refers to the actual amount of useful and nonredundant information that is transmitted or processed. The relationship between what went in one end of the network and what came out the other is a measure of the efficiency of that communications network. Throughput is a function of bandwidth, error performance, congestion, and other factors. CHAR(1): Y/N (Default = N). **Caution** Cisco does not recommend using any value other than the specified default. Changing this value from its default may significantly impact network performance. Contact Cisco TAC for further information. **Note** If you prefer to use DSCP values instead of TOS values, derive the appropriate TOS values using the DSCP/TOS mapping information in Appendix H, "Data Values for TOS, DSCP, and PHB Parameters."
SIP-TIMER-PROFILE-ID (Release 4.5)	Foreign key: Softswitch Trunk Group Profile table. Specifies the Timer Profile ID for the Softswitch Trunk Group Profile. VARCHAR(16): 1–16 ASCII characters.
SIPT-ISUP-BASE (Release 4.2)	Not configurable. Mandatory if use-sipt-isup-base=Y. The SIP-T ISUP base version. This field is populated from the SIPT ISUP Version Base table. VARCHAR(32): 1–32 ASCII characters
SIPT-ISUP-VER	Mandatory if protocol-type=SIP-T. Defines the SIP-T or SIP-GTD version. Used only if protocol-type=SIP-T. Defined in the SIPT ISUP Version Base table. **Note** If the value defined in the SIPT ISUP Version Base table has a base value of sip-gtd, then the version is a SIP-GTD type. Otherwise, the version is a SIP-T type. VARCHAR(32): 1–32 ASCII characters. Permitted value is: GR317. **Note** Values other than GR317 are permitted as of Release 4.4.1.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).
TRUNK-SUB-GRP-TYPE	Specifies the parameter to be populated when trunk-sub-grp is defined in the Trunk Group table. VARCHAR(16): 1–16 ASCII characters. Permitted values are: NONE (Default)—Trunk-sub-grp is not used. BGID—Encode trunk-sub-grp in the BGID field of the SIP-URI. BGID is a numeric field. TGID—Encode trunk-sub-grp in the TGID field of the SIP-URI.

USE-PAI-HDR-FOR-ANI (Release 4.5)	Controls the p-asserted-id (PAI) header used to send and receive calling party information. **Note** When this token is set to Y, the calling party information is derived from the PAID header on inbound calls. If a SIP INVITE arrives at the Cisco BTS 10200 Softswitch without a PAID header, the Cisco BTS 10200 Softswitch treats the call as though it does not have calling party number. Features that rely on the calling number, such as Customer Originated Trace (COT, *57), may not work properly with use-pai-hdr-for-ani=Y if the incoming SIP INVITE does not have the PAID header. CHAR(1): Y/N (Default = N). Y—Calling party information is derived exclusively from the PAI header on inbound calls. For outbound calls, a PAI header is sent with the calling party information if provided. N—Calling party information is sent or received using the From:header.
USE-SIPT-ISUP-BASE (Release 4.2)	Mandatory if the protocol-type is SIP_T and the sipt-isup-ver is a SIP-T type. If the version selected is a GTD type, this flag is ignored. GTD does not use the base parameter. Specifies whether the SIP-T ISUP base version is included in the MIME header of the SIP-T message. CHAR(1): Y/N (Default = Y). Y—SIP-T ISUP base version is included in the MIME header of the SIP-T message. N—SIP-T ISUP base version is not included in the MIME header of the SIP-T message.
VOICE-MAIL-TRUNK-GRP	Specifies whether the Softswitch trunk group is used for the voice-mail application. CHAR(1): Y/N (Default = N).

Termination

The Termination (termination) table holds information about each termination/endpoint managed by the Call Agent. Termination structure uniformly addresses analog ports, DS0 ports, ISDN circuits and allows termination groupings for ISDN PRI and multiline hunt groups for a single subscriber.

Table Name: TERMINATION

Table Containment Area: Call Agent

Command Types

Show, add, change, and delete

Examples

```
show termination id= s0/ds1-1/20, mgw-id=tgw1;
```

```
add termination prefix=s0/ds1-2/; port-start=1; port-end=24; type=trunk; mgw-id=c3660.142
change termination id= s0/ds1-1/20, mgw-id=tgw1;
delete termination prefix=s0/ds1-2/; mgw-id=tgw1; port-start=1; port-end=24;
```

Note You can delete a range of terminations, but you cannot change a range of terminations.

Usage Guidelines

Primary Key Token(s): id, mgw-id

Foreign Key Token(s): mgw-id, sub-d, tgn-id

Add Rules: A termination can only be added in the unequipped state. Use the control command (see Trunk Termination Status and Control Commands, page 1-19) to control the termination to the in-service state.

Change Rules: Cannot change a range of terminations.

Delete Rules:

- id, mgw-id combination does not exist in any subscriber::(term-id, mgw-id).
- id, mgw-id combination does not exist in any annc-trunk::(term-id, mgw-id).
- id, mgw-id combination does not exist in any annc-trunk::(remote-term-id, remote-mgw-id).
- id, mgw-id combination does not exist in any trunk::(term-id, mgw-id).
- sub-id, tgn-id, trunk-id = NULL.
- status=ueqp.

This table can use commands that do not match command-to-field of the database. If the prefix token is used during provisioning, the termination ID is generated by concatenating prefix and port-start value and incrementing the termination port number until the port number value reaches port-end. The prefix, port-start, and port-end are not in the table as individual fields.

Enter the following fields:

- prefix: 1–32 ASCII characters
- port-start: 0000–9999 (1–4 numeric characters) (Default = 1)
- port-end: 0000–9999 (1–4 numeric characters) (Default = 24)

Then the system generates the following:

TOKEN	TERMINATION ID
PORT-START	PREFIX + PORT-START
PORT-START+1	PREFIX + PORT-START+1
PORT-START+2	PREFIX + PORT-START+2
.....	.....
PORT-END-1	PREFIX + PORT-END-1
PORT-END	PREFIX + PORT-END

Note Up to 1000 terminations can be added with one add command.

Syntax Description

* ID	Primary key. This is a composite value that identifies the termination. The termination's id is generated from the prefix, port-start, and port-end token parameters, as follows: • prefix—This user-assigned token is required and can be from 1 to 32 ASCII characters. • port-start—This required token can be from 1 to 4 numeric characters. The default is 1. • port-end—This required token can be from 1 to 4 numeric characters. The default is 24.
* MGW-ID	Primary key. Foreign key: Media Gateway table. The ID previously assigned to an MTA or TGW in the mgw table. VARCHAR(32): 1–32 ASCII characters.
TYPE	Termination type. VARCHAR(5): 1–5 ASCII characters. Permitted values are: LINE—Used for telephone connections. Always use this value for MTAs. TRUNK—Used for TGWs.
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
OPER-STATUS	Operational status. VARCHAR(5): 1–5 ASCII characters. Permitted values are: NF (Default)—Nonfaulty. FA—Faulty. NF-RB— Remotely blocked. FA-RB—Faulty remotely blocked.
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.

START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).
STATUS	Status of the termination. VARCHAR(5). Permitted values are: UEQP (Default)—Unequipped. OOS—Out-of-Service. MAINT—Maintenance (manual override). INS—In-Service.
SUB-ID (System generated)	Foreign key: Subscriber table. Subscriber ID of line termination: same as the ID in the Subscriber table. VARCHAR(30): 1–30 ASCII characters.
TGN-ID (or TG) (System generated)	Foreign key: Used as a combined key in the Trunk table. Trunk group ID. This field can also be provisioned using TG instead of tgn-id. The EMS looks up the tgn-id based on the trunk group and then provisions it. SMALLINT.
TRUNK-ID (System generated)	Trunk number within the trunk group. Same as the ID in the trunk-id table. If SS7, the trunk-id is the same as the circuit identification code. SMALLINT.

Trunk

The Trunk (trunk) table identifies the trunk group and maps it to the associated media gateway. It also specifies the circuit identification code (CIC) range and terminations.

Table Name: TRUNK

Table Containment Area: Call Agent

Command Types

Show, add, change, and delete

Examples

```
show trunk id=1; tgn-id=101;
add trunk cic-start=24; cic-end=46; tgn-id=100; mgw-id=mgw-isdn;
termination-prefix=S0/DS1-2/; termination-port-start=1; termination-port-end=23;INTF=1;

(SS7 example) add trunk cic-start=1; cic-end=24; tgn-id=2; mgw-id=c54005400_197;
termination-prefix=S0/DS1-2/; termination-port-start=1; termination-port-end=24;

(ISDN example) add trunk cic-start=1; cic-end=23; tgn-id=100; mgw-id=mgw-isdn;
termination-prefix=S0/DS1-0/; termination-port-start=1; termination-port-end=23;INTF=0;

change trunk id=1; tgn-id=101; term-id=t1ch0; mgw-id=rgw1;
delete trunk cic-start=1; cic-end=24; tgn-id=101;
```

Usage Guidelines

Primary Key Token(s): tgn-id, id

Foreign Key Token(s): term-id, mgw-id, intf

Add Rules: term-id, mgw-id combination exists in the Termination::id table.

Change Rules: term-id, mgw-id combination exists in the Termination::id table.

Delete Rules: None.

Some of the fields in this table are generated by the system after the user enters certain token values:

- The trunk ID is generated beginning with cic-start and incrementing the trunk ID field until the trunk ID value reaches cic-end.
- If the termination-prefix token is used during provisioning, the term-id is generated by concatenating termination-prefix and termination-port-start value and incrementing the termination port number until the port number value reaches termination-port-end.
- If slot-start, slot-end, line-num-start, line-num-end, termination-port-start, and termination-port-end are specified during provisioning, the term-id is generated by concatenating slot-prefix (from the Media Gateway Profile table) with slot number, ds1-prefix (also from Media Gateway Profile table) with line-num, and termination port number.
- The B-channel number is created from the termination-port number.

Note The cic-start, cic-end, termination-prefix, termination-port-start and termination-port-end tokens are not in the table as individual fields.

The user enters the following tokens in the add command:

- cic-start—Range: 0–9999 (1–4 numeric characters)
- cic-end—Range: 0–9999 (1–4 numeric characters)
- termination-prefix—Range: 1–32 ASCII characters
- termination-port-start—Range: 0–9999 (1–4 numeric characters) (Default = 1)
- termination-port-end—Range: 0–9999 (1–4 numeric characters) (Default = 24)
- mgw-id—VARCHAR(32): 1–32 ASCII characters
- tgn-id—Integer

Then the system generates the following:

TRUNK ID	TERM-ID #
CIC-START	TERMINATION-PREFIX + TERMINATION-PORT-START
CIC-START+1	TERMINATION-PREFIX + TERMINATION-PORT-START+1
CIC-START+2	TERMINATION-PREFIX + TERMINATION-PORT-START+2
.....	.....
CIC-END-1	TERMINATION-PREFIX + TERMINATION-PORT-END-1
CIC-END	TERMINATION-PREFIX + TERMINATION-PORT-END

Note (1) The user must enter the same quantity of CICs as termination-ports so that the system can assign each CIC to a termination port.
(2) Up to 1000 trunk ids can be added with one add command.

Syntax Description

* ID (System generated)	Primary key. Identifies the trunk ID. Constructed from the CIC start and CIC end tokens. INTEGER: any number greater than 0.
* TGN-ID (or * TG)	Primary key. Identifies the trunk group ID. This field can also be provisioned using TG instead of TGN-ID. The EMS looks up the TGN-ID based on the trunk group and provisions it. INTEGER: 1–99999999.
* TERM-ID	Foreign key: Termination table. Identifies the termination ID. This token can also be constructed from the termination-prefix, termination-port-start and termination-port-end tokens. Use as a combined key to the Termination table. VARCHAR(32): 1–32 ASCII characters.
* MGW-ID	Foreign key: Media Gateway, Termination tables. Identifies the media gateway. Use as a combined key to the termination table. VARCHAR(32): 1–32 ASCII characters. **Note** For announcements using equipment such as IPUnity, you need to configure the termination-prefix in the Media Gateway Profile table as ann/. The Cisco BTS 10200 Softswitch then sends ann/$@<ivr-domain-name.net>.
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
BCHAN	Mandatory if ISDN. The B-channel number for ISDN PRI. Required if NFAS ISDN PRI termination. INTEGER: 1–24.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
DPC (System generated)	Mandatory if SS7. Destination point code. Automatically provisioned from the Trunk Group table. VARCHAR(16): 1–16 ASCII characters.

INTF	Mandatory if ISDN. Foreign key: ISDN Interface table. Interface number. Required if NFAS ISDN PRI termination. INTEGER: 0–31 (Default = 0).
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
LINE-NUM-END	Ending line number on the specified media gateway. If entered, EMS reads the line prefix from the Media Gateway Profile table to create the termination ID. INTEGER: 0–168.
LINE-NUM-START	Beginning line number on the specified media gateway. If entered, EMS reads the line prefix from the Media Gateway Profile table to create the termination ID. INTEGER: 0–168.
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
SLOT-END	Ending slot number on the specified media gateway. If entered, EMS reads the slot prefix from the Media Gateway Profile table to create the termination ID. INTEGER: 0–28 numeric characters.
SLOT-START	Beginning slot number on the specified media gateway. If entered, EMS reads the slot prefix from the Media Gateway Profile table to create the termination ID. INTEGER: 0–28 numeric characters.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).
TERMINATION-PORT-END	Ending termination port number. INTEGER: 1–24 (Default = 24).
TERMINATION-PORT-START	Beginning termination port number. INTEGER: 1–24 (Default = 1).
TERMINATION-PREFIX	Termination prefix. Used with a termination port number to create a termination ID. VARCHAR(32): 1–32 ASCII characters.

Trunk Group

The Trunk Group (trunk-grp) table identifies the trunk group and maps it to the associated media gateway. Table 2-7 indicates optional tokens that are required during provisioning based on the trunk group type.

The Cisco BTS 10200 Softswitch supports the following trunk group types: announcement, CAS, ISDN, SS7 and SOFTSW. The Trunk Group table defines common information based on the trunk group type. The Cisco BTS 10200 Softswitch supports announcement, CAS, ISDN, SS7 and SOFTSW trunk group profiles.

Table Name: TRUNK-GRP

Table Containment Area: Call Agent

Table 2-7 Required Tokens by Trunk Group

Token	Values	Required Tokens
TG-TYPE	SOFTSW	SOFTSW-TSAP-ADDR, TG-PROFILE-ID, DIAL-PLAN-ID
	ISDN	ID, TG-PROFILE-ID, DIAL-PLAN-ID, TG-TYPE, POP-ID, GLARE, MGCP-PKG-TYPE For ISDN, GLARE must set to ALL and MGCP-PKG-TYPE must be set to T.
	SS7	CALL-CTRL-ROUTE-ID, DPC, TG-PROFILE-ID, DIAL-PLAN-ID
	CAS	TG-PROFILE-ID, DIAL-PLAN-ID
	ANNC	None

Table 2-7 Required Tokens by Trunk Group (continued)

Token	Values	Required Tokens
	H323	H323-GW-ID, TG-PROFILE-ID If you specify the value H323 for the TG-TYPE token, you must provision the association between the trunk group and the H.323 gateway. However, you cannot provision the H.323 trunk group type and the H.323 gateway simultaneously. To provision an H.323 trunk group and H.323 gateway correctly, use the following sequence of commands: Establish the trunk group type as H.323 by using the TG-TYPE token in the Trunk Group table: add trunk-grp tg-type=H323; Establish the association between the H.323 gateway and the trunk group by using the TGN-ID token in the H.323 Gateway table: add h323-gw tgn-id=<*trunk group ID from the trunk group table*>; Establish the association between the specified trunk group and the H.323 gateway by using the H323-GW-ID token in the Trunk Group table. change trunk-grp h323-gw-id=<H.323 gateway ID from the H.323 gateway table>;

Command Types

Show, add, change, and delete

Examples

```
show trunk-grp id=101;
add trunk-grp id=101; call-agent-id=CA146; tg-type=ss7; dial-plan-id=tg-dp;
dpc=101-55-103; tg-profile-id=SS71;call-ctrl-route-id=ccr1;
change trunk-grp id=101; cost=200;
delete trunk-grp id=101;
```

Usage Guidelines

Primary Key Token(s): id

Foreign Key Token(s): call-agent-id, ani-digman-id, call-control-route-id, cause-code-map-id, dial-plan-id, dnis-digman-id, h323-gw-id, main-sub-id, pop-id, qos-id, sp-id, ani-screening-profile-id

Unique Key Token(s): softsw-tsap-addr+trunk-sub-grp, tg (Release 4.5)

Add Rules:

- ID exists in the carrier table; id exists in the subscriber table.
- DIAL-PLAN-ID is required except if tg-typ=ANNC or if main-sub-id is not equal to NULL.

Change Rules:

- Ensure that the id exists in the Subscriber table if entered; ensure the id exists in the Media Gateway table if entered.
- The DPC field cannot be changed.

Delete Rules:

- ID cannot exist in any subscriber::term-id; ID cannot exist in any trunk::term-id.
- ID cannot exist in any mlhg-terminal::term-id.
- Trunk group status must be OOS.

Transit Network Selection (TNS) Rules:

- If a call is interLATA and going to an access tandem (AT), the TNS parameter is sent. This is also known as direct distance, or domestic, dialing (DDD).
- If a call in international, the TNS parameter is sent.
- If a carrier ID is not assigned to a trunk group, the TNS parameter is sent.
- If a carrier ID is assigned to a trunk group, the TNS parameter is not sent.

Trunk/CIC Selection Rules

- Ascending—Whenever a outgoing call is needed, the Cisco BTS 10200 Softswitch always selects the trunk with the lowest available CIC. For example:
  - 3 trunks, CICs 1, 2 and 3
  - outgoing call A uses CIC 1
  - outgoing call B uses CIC 2 (call A has not released)
  - call A releases CIC 1
- outgoing call-C uses CIC 1 again since it is now available.
- Descending—the reverse of ascending. The highest available CIC is always selected.
- Cyclic Ascending (CASC)—when processing outgoing calls, the Cisco BTS 10200 Softswitch loops through all the trunks based on the ascending CIC sequence. For example:
  - 3 trunks, CICs 1, 2 and 3
  - outgoing call A uses CIC 1
  - outgoing call B uses CIC 2 (call A has not released)
  - call A releases CIC 1
  - outgoing call C uses CIC 3 even though CIC 1 is idle and available.
- Cyclic Descending (CDSC)—when processing outgoing calls, the Cisco BTS 10200 Softswitch loops through all the trunks based on the descending CIC sequence. For example:
  - 3 trunks, CICs 1, 2 and 3
  - outgoing call A uses CIC 3
  - outgoing call B uses CIC 2 (call A has not released)
  - call A releases CIC 3
  - outgoing call C uses CIC 1 even though CIC 3 is idle and available.

MGCP-PKG-TYPE/TG-TYPE Rules:

- If mgcp-pkg-type = DT | MS | MT | MO, then it is valid only for CAS tg-type.

- If mgcp-pkg-type = MO, then MF-OSS-TYPE in the Channel Associated Signaling Trunk Group Profile table is required.
- If mgcp-pkg-type = CISCO-TCL | ANNC-CABLE-LABS, then it is valid only for ANNC tg-type.
- Mgcp-pkg-type=line allowed only when tg-type=cas and the corresponding CAS Trunk Group Profile has sig-type=line. (Release 4.5)
- If mgcp-pkg-type=mt, then direction=IN. (Release 4.5)
- If mgcp-pkg-type=mo, then direction=OUT. (Release 4.5)
- If tg-type=ISDN; then glare=ALL.
- If tg-type=ISDN, the mgcp-pkg-type is T or IT.
- If tg-type=SS7, the mgcp-pkg-type is T or IT.
- If tg-type=CAS, the mgcp-pkg-type is one of DT, MS, MT, or MO.
- If tg-type=CAS; then glare=SLAVE.
- If tg-type=ANNC, the mgcp-pkg-type is either tcl-cisco or annc-cable-labs.
- If tg-type=SOFTSW | H323, the mgcp-pkg-type is NA.
- If sig-type in the cas-tg-profile=mf-oss, then the mgcp-pkg-type=MO.
- A trunk-sub-grp is allowed only if tg-type=softsw (Release 4.1 and 4.2) or H.323 (Release 4.2).

MO and MT Rules

- When configuring a trunk group, set the direction token to OUT when the MGCP-PKG-TYPE is MO.
- When configuring a trunk group, set the direction token to IN when the MGCP-PKG-TYPE is MT.

Syntax Description

* ID	Primary key. Trunk group number. INTEGER: 1-99999999.
* CALL-AGENT-ID	Foreign key: Call Agent table. Call Agent ID. Same as ID in Call Agent table. Not valid for the control or status command in Release 4.5.1. VARCHAR(8): 8 ASCII characters. Format is CAnnn or cannn where nnn = 001–999. 3 characters are reserved for Not Used use.
* TG-TYPE	Trunk group type. VARCHAR(6): 1–6 ASCII characters. Permitted values are: ANNC—Announcement. SOFTSW—Softswitch trunk group. CAS—Channel associated signaling. ISDN—Integrated Services Digital Network. SS7—Signaling System 7. H323—H.323 trunk group.
ALT-ROUTE-ON-CONG	Specifies whether to use an alternate route when there is traffic congestion. CHAR(1): Y/N (Default = N). Y—SKIP N—BLOCK

ANI-BASED-ROUTING	Used when there are multiple subscribers homing on the same trunk group. The ANI is used to determine the subscriber ID associated with the call. CHAR(1): Y/N (Default = N). Y—Determine subscriber ID based on the ANI. N—Use normal routing.
ANI-DIGMAN-ID	Foreign key: Digman Profile table. ANI (calling party number) digit manipulation ID. VARCHAR(16): 1–16 ASCII characters.
ANI-SCREENING (Release 4.2)	Specifies to screen the call against the ANI if set. CHAR(1): Y/N (Default = N). N—Perform normal routing. Y—Determine the subscriber ID based on the ANI Screening table.
ANI-SCREENING-PROFILE-ID (Release 4.2)	Foreign key: ANI Screening Profile table. ANI screening profile id. VARCHAR(16): 1–16 ASCII characters.
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
CALL-CTRL-ROUTE-ID	Mandatory if tg-type = SS7. Foreign key: Call Control Route table. The Call Control Route ID. VARCHAR(16): 1–16 ASCII characters. **Note** This token cannot be changed.
CARRIER-ID	Carrier ID if direct trunk group to a carrier. Used during incoming call processing. Same as carrier-id in Carrier table. CHAR(4): 4 numeric characters—leading zeros count.
CAUSE-CODE-MAP-ID	Foreign key: Cause Code Map table. The cause code map ID. VARCHAR(16): 1–16 ASCII characters.
CLLI	Common Language Location Identifier for the remote switch. CHAR(11): Eleven ASCII characters.
COST	Relative cost value; used if TG selection is based on least cost routing (LCR). SMALLINT: 0–999.
DEFAULT-CHG	Default charge number. VARCHAR(16): 1–16 numeric digits.
DEL-DIGITS	Specifies the number of digits to delete. SMALLINT: 0–14 numeric characters. (Default = 0).
DESCRIPTION (EMS-only field)	Described by the service provider. VARCHAR(64): 1–64 ASCII characters.

DIAL-PLAN-ID	Foreign key: Dial Plan table. Specifies which dial plan ID to use. For trunk groups with a Main subscriber ID (CAS, ISDN), the Call Agent uses the dial-plan-id assigned to the trunk group (if available), else it uses the dial-plan-id assigned to the subscriber profile. VARCHAR(16): 1–16 ASCII characters.
DIRECTION	Direction of the trunk group. Can be incoming only, outgoing only, or both incoming and outgoing. If bothway, the glare parameter is required. VARCHAR(4): 1–4 ASCII characters. Permitted values are: BOTH (Default)—Bothway trunk group (used for both incoming and outgoing calls). OUT—Used for outgoing calls only. IN—Used for incoming calls only.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
DNIS-DIGMAN-ID	Foreign key: Digman Profile table. DNIS (called party number) digit manipulation ID. VARCHAR(16): 1–16 ASCII characters.
DPC	Not provisionable. Mandatory if tg-type=SS7. Destination Point Code if SS7. The DPC is automatically provisioned from the call-ctrl-route-id. VARCHAR(16): 1–16 ASCII characters.
EARLY-BKWD-MSG-TMR (Release 4.4.1)	Specifies the amount of time, in seconds, for the Early Backward Message timer. Applies only if send-early-bkwd-msg=Y. INTEGER: 0–30 (Default = 5). **Note** Valid only for ANSI variant. Setting has no effect for other SS7 variants.
GLARE	Used in bothway trunks. Defines how to resolve a glare condition—a bothway (simultaneous) trunk seizure. For example, an incoming and an outgoing call on the same endpoint. For ISDN trunk groups, glare *must* be set to ALL. Setting glare to SLAVE can cause CIC/trunk instability. VARCHAR(5): 1–5 ASCII characters. Permitted values are: SLAVE (Default)—This trunk group yields any trunk in glare condition. ALL—This trunk group is master of all trunks. EVEN—This trunk group is master of even numbered trunks. ODD—This trunk group is master of odd numbered trunks. PC—Not used. Point code driven. In the absence of an overriding control assignment (such as all or none), the SPCS with the higher assigned signaling point code controls the even numbered circuits, and the SPCS with the lower signaling point code controls the odd-numbered circuits.

H323-GW-ID	Mandatory if tg-type=h323. Foreign key: H.323 Gateway table. Specifies the gateway ID for this trunk group. VARCHAR(16): 1–16 ASCII characters.
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
LOCAL-CLLI	The CLLI for the local switch. VARCHAR(11): 1–11 ASCII characters.
MAIN-SUB-ID	Foreign key: Subscriber table. Used for PBX subscribers. VARCHAR(30): 1–30 ASCII characters.
MGCP-PKG-TYPE	Determines the MGCP Package type for the announcement server. VARCHAR(16): 1–16 ASCII characters. Permitted values are: NA—(Default) For SIP and H.323 trunk groups. ANNC-CABLE-LABS—Announcement signaling type based on the Cable Labs package. AUTO—Used for CAS signaling on a combined trunk group (not supported). DT—DTMF package. IT—ISUP trunk package. LINE—Line package used for Test Line Access. MD—MF FGD package (Release 4.5) (Not supported). MO—MF operator trunks. MS—MF package. MT—MF terminating package. TCL-CISCO (Default)—Announcement signaling type for the Cisco AS5350/AS5400. T—Trunk package.
NUM-OF-TRUNKS (System generated)	Not provisionable. EMS provisions this field when trunks are provisioned for this trunk group. SMALLINT: 1–9999.
OPER-STATUS	Operational status. VARCHAR(5). Permitted values are: NF (Default)—Nonfaulty. FA—Faulty. NF-RB—Nonfaulty remotely blocked. FA-RB—Faulty remotely blocked.

ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
PERFORM-LNP-QUERY (Release 4.5)	Specifies whether to perform an LNP query. This token applies only to incoming calls (for ITU local LNP, when the LNP Profile lnp-db-type is RN). CHAR(1): Y/N (Default = N). Y —Perform an LNP Query if required based on the LNP Profile table and the acq-lnp-query token in the Destination table. This applies to both LNP Types: ACQ and QOR. Set this token to Y when the remote switch is not LNP-capable. N—An LNP query is not required as originating switch is LNP-capable or LNP is not required.
PFX-DIGITS	Specifies what digits to prefix. Digits are prefixed after the specified number of digits are deleted. VARCHAR(10): 1–10 ASCII characters.
POP-ID	Foreign key: POP table. Defines the number of POPs in a Call Agent; used for incoming trunk groups. VARCHAR(16): 1–16 ASCII characters.
QOS-ID	Foreign key: QOS table. Specifies whether or not to use QOS index for codec selection. VARCHAR(16): 1–16 ASCII characters. **Caution** This token must be provisioned to match the qos-id for the trunk in the Quality of Service table. If two MGWs are involved in a call, there are additional QoS requirements applicable for the trunk groups on each MGW. See the hptime and lptime token descriptions in the Quality of Service table.
REGION	Region of the incoming trunk group. VARCHAR(16): 1–16 ASCII characters.
REMOTE-SWITCH-LRN	LRN of the previous switch used for billing. VARCHAR(10): 1–10 numeric digits, in the format NPA-NXX-XXXX. (Default = 0).
SCRIPT-SUPP (Release 4.5)	Specifies whether the script package is supported by the trunk group. Used for prepaid service. CHAR(1): Y/N (Default = N).

SEL-POLICY	Trunk selection policy. Control the Call Agent out-of-service, then in-service, after changing the selection policy. Then verify that the selection policy is changed. VARCHAR(4): 1–4 ASCII characters. Permitted values are: ASC (Default)—Select trunks in ascending order. When trunks are released, they are released at the top of the queue. When a new trunk is selected, the lower number trunk (CIC) is selected. CASC—Cyclic ascending. Select trunks in ascending order. When trunks are released, they are released at the end of the list, so when a new trunk is selected, the next higher trunk (CIC) is selected. CDSC—Cyclic descending. Select trunks in descending order. When trunks are released, they are released at the end of the list, so when a new trunk is selected, the next lower trunk (CIC) is selected. DSC—Select trunks in descending order. When trunks are released, they are released at the top of the queue. When a new trunk is selected, the higher number trunk (CIC) is selected. EVEN—Select the least recently used even-numbered trunks. LRU—Select the least recently used trunk. MRU—Not used. Select the most recently used trunk. ODD—Select the least recently used odd-numbered trunks. RAND—Not used. Select a trunk randomly. **Note** When setting ISDN PRI trunk groups to have a CIC selection policy as ASC the first round of calls will always use the last CIC for the first round of calls. It will then start with the first. When setting ISDN PRI trunk groups to have a CIC selection policy as DSC, the first round of calls uses CIC1, then CIC15-23. It will then start with the last.
SEND-EARLY-BKWD-MSG (Release 4.4.1)	Specifies whether to start the Early Backward Message timer. CHAR(1): Y/N (Default = N). Y—Start early backward message timer. An early message is sent when it expires. N—Do not start early backward message timer. **Note** Valid only for ANSI variant. Setting has no effect for other SS7 variants.
SEND-RDN-AS-CPN (Release 4.2)	Use when a call is forwarded and call routing is to the PSTN where Calling Party Number Screening is performed. If redirecting number information is available, the Cisco BTS 10200 Softswitch overwrites the calling party number with RDN. Otherwise, if Original Called number information is available, the Cisco BTS 10200 Softswitch overwrites the calling party number with the OCN. CHAR(1): Y/N (Default = N).

SIGNAL-PORTED-NUMBER	Used for local number portability (LNP) when the next switch does not support LNP. The local routing number (LRN) from the called party number is removed and the called party number parameter is filled with the called party number from GAP. The translated bit (M-bit) is also reset. CHAR(1): Y/N (Default = N). Y—Send IAM without GAP. N—Send GAP.
SOFTSW-TSAP-ADDR	Mandatory if tg-type=softsw. Unique key between softsw-tsap-addr+trunk-sub-grp. TSAP address of the softswitch if tg-type=softsw. Different ports should be used if multiple trunk groups to the same softswitch are supported. VARCHAR(64): 1–64 ASCII characters. Domain names cannot begin with a number.
SP-ID	Foreign key: Service Provider table. The service provider ID. VARCHAR(16): 1–16 ASCII characters.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).
STATUS (Not provisionable)	Status of the trunk group.Valid only for the show command. Can be updated using the Call Agent commands in Chapter 10, "Maintenance and Administration of System Component Commands." VARCHAR(25): 1–25 ASCII characters.
STATUS-MONITORING (Release 4.4.1)	Trunk Group Status Monitoring Indicator. Determines whether a trunk group is monitored whenever call failures resulting from timeouts occur. CHAR(1): Y/N (Default = N). **Note** If set to Y, and trunk-grp type is SIP or SIPT, an options request is periodically sent over the trunk to determine the status of the trunk.
TG (Release 4.5)	Unique key. ASCII name for the trunk group. VARCHAR(20): 1–20 ASCII characters.
TG-PROFILE-ID	Mandatory if tg-type=annc. The trunk group profile ID. VARCHAR(16): 1–16 ASCII characters.
TRAFFIC-TYPE	Specifies the type of traffic carried over this trunk group. It is required for incoming and bothway trunk groups. If it is not specified, the Call Agent defaults to *local*. VARCHAR(8): 1–8 ASCII characters. Permitted values are: LOCAL (Default)—Local incoming trunk group. PBX—Not used. Incoming PBX trunk group (for ISDN and CAS), DAL, and so forth. TANDEM—Incoming local/tandem trunk group. Calls are allowed to a tandem trunk. USER—Cisco BTS 10200 acts as a user side (PBX) toward the network.

TRUNK-SUB-GRP	Unique key: softsw-tsap-addr+trunk-sub-grp. Identifies a specific trunk group when multiple trunk groups exist between a Cisco BTS 10200 Softswitch and another softswitch. VARCHAR(64): 1–64 ASCII characters. **Note** As of Release 4.2, H.332 trunk groups are supported by this token.
VOICE-INFO-TRANSFER-CAP	Information sent in the forward direction indicating the type of transmission medium required for the connection. VARCHAR(16): 1–16 ASCII characters. Permitted values are: AUTO (Default)—Same as configured or received for the incoming leg/ SPEECH—If voice call, override with Speech. 3POINT1KHZ-AUDIO—If voice call, override with 3.1 KHz audio.
VOICE-LAYER1-USERINFO (Release 4.5)	Specifies the voice encoding codec to use for a call. VARCHAR(16): 1–16 ASCII characters. Permitted values are: AUTO (Default)—Same as configured or received for incoming leg. G711-ULAW—Use the G711 µLaw codec. G711-ALAW—Use the A-Law codec. **Note** Use this token to switch between a-law and u-law voice encoding.

Trunk Group Service Profile

The Trunk Group Service Profile (trunk-grp-service-profile) table links a trunk group to services.

Table Name: TRUNK-GRP-SERVICE-PROFILE

Table Containment Area: Call Agent, Tandem Feature Server

Command Types

Show, add, change, and delete

Examples

```
show trunk-grp-service-profile tgn-id=101; service-id= 2;
add trunk-grp-service-profile tgn-id=101; service-id= 2; priority=1
change trunk-grp-service-profile tgn-id=101; service-id= 2; priority=2
delete trunk-grp-service-profile tgn-id=101; service-id= 2;
```

Usage Guidelines

Primary Key Token(s): tgn-id, service-id

Foreign Key Token(s): tgn-id, service-id

Add Rules: None.

Change Rules: None.

Delete Rules: None.

Syntax Description

* TGN-ID (or * TG)	Primary key. Foreign key: Trunk Group table. Trunk group ID. This field can also be provisioned using tg instead of tgn-id. The EMS looks up the tgn-id based on the trunk group and then provisions it. INTEGER: 1–99999999.
* SERVICE-ID	Primary key. Foreign key: Service table. The number of service-ids that can be assigned to a trunk-grp is limited to 50. Must match valid service-id in the Service table. VARCHAR(16): 1–16 ASCII characters.
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
PRIORITY	Priority is used if there are multiple services assigned to a trunk group. The service with higher priority is processed first before the service with a lower priority. Priority 1 is the highest. SMALLINT: 1–10 (Default = 1).
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).



CHAPTER 3

Routing Provisioning

Revised: July 24, 2009, OL-3743-42

This chapter describes the Call Agent Routing Provisioning commands and their associated tables.

Note In this chapter, an asterisk preceding a token name means the token is mandatory. A token without an asterisk is optional.

Call Subtype (Release 4.5)

The Call Type (call-type) table contains the valid call types supported by the Call Agent. It is not provisionable. Only the show command is valid. Specific call-subtypes are linked to a call-type in the Destination table.

Table Name: CALL-SUBTYPE

Table Containment Area: EMS

Command Types

Show

Examples

```
show call-subtype;
```

Usage Guidelines

Primary Key Token(s): call-type, call-subtype

Foreign Key Token(s): call-type

Add Rules: None.

Change Rules: None.

Delete Rules: None.

Syntax Description

* CALL-TYPE	Primary key. Foreign key: Call Type table. The alpha numeric call type. VARCHAR(16): 1–16 ASCII characters.
CALL-SUBTYPE	Primary key. The subcategory of call type for the dialed digits. VARCHAR(16): 1–16 ASCII characters. (Default = none). See Table 3-1 for valid CALL-SUBTYPE values.
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
DESCRIPTION	Service provider-defined description. VARCHAR(256): 1–256 ASCII characters.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).

Table 3-1 lists the valid call subtypes with their associated call type.

Table 3-1 Valid Call Subtypes

Call Subtype	Call Type
AMBULANCE	EMG
FIRE	
NONE	
POLICE	

Table 3-1 Valid Call Subtypes (continued)

Call Subtype	Call Type
AIRLINES	INFO
NONE	
RAILWAYS	
TIME	
TRAFFIC	
TW	
WEATHER	
NLB-LINE-TEST	TEST-CALL
NCT-LINE-TEST	
NLB-TRUNK-TEST	
NCT-TRUNK-TEST	
TEST-ROUTE	
NONE	
LB-TEST	

Call Type

The Call Type (call-type) table contains the valid call types supported by the Call Agent. It is not provisionable. Only the show command is valid.

Table Name: CALL-TYPE

Table Containment Area: EMS only

Command Types

Show

Examples

```
show call-type;
```

Usage Guidelines

Primary Key Token(s): call-type

Syntax Description

* CALL-TYPE	Primary key. Alphanumeric call type. VARCHAR(16): 1–16 ASCII characters. Permitted values are: 500—Service access code 500, use carrier to route the call. 700—700 SAC call-route via PIC or dialed CAC. 900—Service access code 900, use carrier to route the call. 976—Information service calls.

AIRLINES—Airlines Information and Reservation.

AMBULANCE—Ambulance service call.

ANA—Automatic number announcement. (Release 4.5)

ATTENDANT—Call to a Centrex attendant.

BLV—Busy line verification call.

BUSINESS—811 call to business office.

CARRIER—OPERATOR—101xxxx+0-, or 00(PIC) call.

CUT-THRU—Call to user-dialed access code (101xxxx+#).

DA—411, NPA-555-12121 call to directory assistance.

DA-TOLL—1+411, 1+NPA-555-1212 toll call to directory assistance.

EMG—911 emergency calls.

EXTENSION—Call to another extension within a business group.

FIRE—Fire department call.

INFO—Same as 976.

INTERLATA—InterLATA call that uses PIC or dialed CAC.

INTL—International call.

INTL-OPR—International operator call.

INTL-WZ1—Calls within NANP but outside of calling country

INVALID—Partial dialed digits that time out.

LB-TEST—Loopback test call (108 test line).

LOCAL—7-digit or 10-digit nontoll call.

LRN—Calls routed by way of Local Routing Number.

MOBILE—Calls to a mobile network. (Release 4.5)

NAS—Network access server call.

NAT-OPR—National operator assisted calls.

NATIONAL—Call within the United States, use LSA Use LSA and LATA tables to determine if local, toll or destination call. See the *Cisco BTS 10200 Softswitch Provisioning Manual* for more information.

NONE—No call type was provisioned into the Cisco BTS 10200 or the given dialing pattern. No data available regarding call type.

NON-EMG—311 Civic service call.

NULL—Service activation, deactivation, or interrogation call.

OPERATOR—0–call.

PCS—Call to personal communications services line. For service access code 500 use the carrier to route the call.

POLICE—Police service call.

PREMIUM—Same as 900.

RAILWAYS—Railways Information and Reservation

RELAY—711 relay call.

REPAIR—611 repair call.

SPEED-DIAL—Speed-dial call.

SVC-CODE—Generic service code call type. Use when no other call types apply.

	TANDEM—Tandem call between a CA and the next switch or CA. TEST-CALL—Test call dialed as: 958/959-xxxx or 1xx. TIME—Time service call. TOLL—1+NPA-xxx-xxxx IntraLATA toll call. TOLL-FREE—8NN toll-free call (800, 888, 877, 866, 855). TRAFFIC—Traffic service call. TW—Time and weather call. UAN—Universal access number. VACANT—Call attempted to an NPA/DN that is currently unassigned. WEATHER—Weather service call.
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
DESCRIPTION	Service provider-defined description. VARCHAR(256): 1–256 ASCII characters.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).

Call Type Profile (Release 4.5)

The Call Type Profile (call-type-profile) table defines the Call Type properties supported by the Cisco BTS 10200 Softswitch. Provision this table if the ALL-CALL-QUERY flag in the LNP-PROFILE table is set to Y and the ACQ-LNP-QUERY token in the Destination table is set to ACQ-BASED-ON-CALL-TYPE.

Table Name: CALL-TYPE-PROFILE

Table Containment Area: Call Agent

Command Types

Show, add, change and delete

Examples

```
show call-type-profile;
add call-type-profile call-type=mobile; lnp-query=y;
change call-type-profile call-type=mobile; lnp-query=n;
delete call-type-profile call-type=mobile;
```

Usage Guidelines

Primary Key Token(s): call-type;

Add Rules: None.

Change Rules: None.

Delete Rules: None.

Syntax Description

* CALL-TYPE	Primary key. Foreign key: Call Type table. The call type. The valid call types are defined in the Call Type table. VARCHAR(16): 1–16 ASCII characters.
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.

LNP-QUERY	Specifies whether to perform an LNP query on the call type. Applies only if the all-call-query token in the LNP Profile table is set to Y and the acq-lnp-query token in the Destination table is set to acq-based-on-call-type. CHAR(1): Y/N (Default = Y) Y—Perform an LNP query. N—Do not perform an LNP query.
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).

Carrier

The Carrier (carrier) table defines the characteristics and capabilities supported by interLATA carriers, intraLATA carriers, international carriers, and provides routing information.

Note LATA stands for local access transport area. It is predefined by geographical area.

Table Name: CARRIER

Table Containment Area: Call Agent

Command Types

Show, add, change, and delete

Examples

```
show carrier id=2042;
add carrier id=2042;
change carrier id=0288; inter=n;
delete carrier id=2042;
```

Usage Guidelines

Primary Key Token(s): id

Foreign Key Token(s): route-guide-id, sp-id

Add Rules: carrier id cannot exist.

Change Rules: carrier id must exist.

Delete Rules: carrier id must exist.

Syntax Description

* ID	Primary key. Carrier identification number. CHAR(4): 4 numeric characters: XXXX.
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
CASUAL	Specifies whether the carrier supports 101XXXX calls. Carrier provides. CHAR(1): Y/N (Default = Y).
CUT-THRU	Specifies whether the carrier supports 101XXX# calls. With this type of call, the called number is not dialed. Carrier provides. CHAR(1): Y/N (Default = Y).
DESCRIPTION (EMS-only field)	Service provider-defined description. VARCHAR(64): 1–64 ASCII characters.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
INTER	Identifies whether the carrier supports interLATA (long-distance) calls. CHAR(1): Y/N (Default = Y).
INTL	Specifies whether the carrier supports international calls. Carrier provides. CHAR(1): Y/N (Default = N).
INTRA	Identifies whether the carrier supports intraLATA (toll) calls. Carrier provides. CHAR(1): Y/N (Default = N).
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
LNP-QUERY (Not supported for North America—supported for ITU local LNP) (Release 4.5)	Specifies whether the Cisco BTS 10200 Softswitch performs an LNP Query before routing the call using a carrier. CHAR(1): Y/N (Default = N).
OP-SERVICES	Specifies whether the carrier supports operator services. Carrier provides. CHAR(1): Y/N (Default = Y).

ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
ROUTE-GUIDE-ID	Foreign key: Route Guide table. Defines the routing data for the carrier. Must match ID in the Route Guide table. VARCHAR(16): 1–16 ASCII characters.
SEND-CN	Send charge number. Specifies whether the carrier requires sending a charge number; used when the charged number is different from the calling number. For example, collect calls. Also specifies whether the type of line that is making the call (OLI: originating line information) must be sent to the carrier. Carrier provides. CHAR(1): Y/N (Default = N) **Note** Set this token to Y to send the charge number when the billing DN is different from the DN in the Subscriber table and you are using PIC routing.
SEND-CSP	Specifies whether the carrier selection parameter must be sent to the carrier. The CSP identifies how the call was dialed for that carrier—PIC, Casual, Casual-same-as-PIC, and so forth. CHAR(1): Y/N (Default = N).
SP-ID	Foreign key: Service Provider table. Service provider ID associated with a carrier. If the SP-ID is not null, the routing information from the service provider table is used. If the SP-ID is null, then the use-dial-plan flag is checked for routing instructions. VARCHAR(16): 1–16 ASCII characters.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).
STATUS	Status of the carrier. CHAR(3): 1–3 ASCII characters. Permitted values are: OOS (Default)—Out-of-Service. INS—In-Service.
USE-DIAL-PLAN	Specifies whether to use the route guide defined in the Dial Plan table or the route guide defined in the Carrier table. This token is used when the local service provider is also the long-distance service provider. See the *Cisco BTS 10200 Softswitch Provisioning Manual* for information concerning routing impact. CHAR(1): Y/N (Default = N). Y—Use route guide defined in the Dial Plan table. N—Use route guide defined in the Carrier table.

Circuit Code

The Circuit Code (circuit-code) table defines the circuit code value for the transit network selection (TNS) parameter. The circuit code value is defined based on the line, class of service, and call type. Special circuit code values are assigned to calls from coin or hotel motel lines. If special circuit code values are not required, the default circuit code values are based on the call type sent.

Table Name: CIRCUIT-CODE

Table Containment Area: Call Agent

Command Types

Show, add, change, and delete

Examples

```
show circuit-code tgn-id=101;
add circuit-code tgn-id=101; nat-cc=9; opr-cc=14; nat-opr-cc=14; sac-cc=9; da-cc=9;
toll-free-cc=15; intl-cc=1; intl-opr-cc=2; coin-cc=13; hm-cc=13;
change circuit-code tgn-id=101; toll-free-cc=9;
delete circuit-code tgn-id=101;
```

Usage Guidelines

Primary Key Token(s): tgn-id

Foreign Key Token(s): tgn-id

Add Rules: tgn-id must exist in the Trunk Group table.

Change Rules: None.

Delete Rules: None.

Syntax Description

* TGN-ID (or * TG)	Primary key. Foreign key: Trunk Group table. Trunk group ID. This field can also be provisioned using tg instead of tgn-id. The EMS looks up the tgn-id based on the trunk group and then provisions it. INTEGER: 1–99999999.
* NAT-CC	1+ call. SMALLINT: 0–15.
* OPR-CC	0-, 00 operator call. SMALLINT: 0–15.
* NAT-OPR-CC	0+ call. SMALLINT: 0–15.
* SAC-CC	SAC call (500, 700, 900). SMALLINT: 0–15.
* DA-CC	Directory assistance (DA, DA-TOLL). SMALLINT: 0–15.
* TOLL-FREE-CC	Toll-free call (8XX). SMALLINT: 0–15.

* INTL-CC	011+ international call. SMALLINT: 0–15 (Default = 1).
* INTL-OPR-CC	01+ international operator call. SMALLINT: 0–15 (Default = 2).
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
COIN-CC	Coin line (OLI = 23, 27, 70). SMALLINT: 0–15.
CUT-THRU-CC	101XXXX+#. SMALLINT: 1–15.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
HM-CC	Hotel motel line (OLI = 6). SMALLINT: 0–15.
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).
TOLL-CC	IntraLATA calls. SMALLINT: 0–15.
TOLL-OPR-CC	0+ IntraLATA operator calls. If not provisioned, system uses NAT-OPR-CC value. SMALLINT: 0–15.

Destination

The Destination (destination) table defines the call type and the routing information for the dialed digits. Multiple digit strings in the Dial Plan table can use the same destination ID.

Table Name: DESTINATION

Table Containment Area: Call Agent

Command Types

Show, add, change, and delete

Examples

```
show destination dest-id=dallasaustin;
add destination dest-id=dallasaustin; call-type=toll; route-type=route;
route-guide-id=rg10;
change destination dest-id=dallasaustin; route-guide-id=rg11;
delete destination dest-id=dallasaustin;
```

Usage Guidelines

Primary Key Token(s): dest-id

Foreign Key Token(s): dnis-digman-id, ani-digman-id, route-guide-id, route-id, dial-plan-id, carrier-id, script-id, call-type, call-subtype

Add Rules:

- If call-type=nas, then route-type=none.
- If charge-band is added for one destination id then charge-unit do not datfill for same destination.

Change Rules: None.

Delete Rules:

- ID does not exist in any dial-plan::dest-id.
- ID does not exist in any intl-dial-plan::dest-id.

Syntax Description

* DEST-ID	Primary key. Destination identification. VARCHAR(16): 1–16 ASCII characters.
* ROUTE-TYPE	Routing type. VARCHAR(7): 1–7 ASCII characters. Permitted values are: ANNC—Use annc-id to terminate call. CARRIER—For SAC calls. The call is routed based on the routing specified in the Carrier table. DP—Use dial-plan-id to retranslate based on the new dial plan ID. NONE—No route required. Use for NAS application. RID—Use route-id for routing. ROUTE—Use route-guide-id for routing. SCRIPT—(Not supported) Use a scripting package to terminate a call. Release 4.4.1. SUB—Subscriber termination. Use office code index and last four digits of the DN to find the subscriber.
ACQ-LNP-QUERY (Release 4.5)	Specifies whether an LNP Query is required. Applies only if the all-call-query token is set to Y and lnp-db-type=RN in the LNP Profile table. VARCHAR(32): 1–32 ASCII characters. Permitted values are: NA (Default)—Not applicable. ACQ-BASED-ON-CALL-TYPE—Applies only if lnp-db-type in the LNP Profile table is ACQ. Perform an LNP Query based on definition in the Call Type Profile table. If the call type is not found in the Call Type Profile table, then an LNP Query is not performed. PERFORM-LNP-QUERY—Used when a call type-specific query is not required but LNP criteria is defined based on the destination ID. An LNP query is performed if the all-call-query flag in the LNP Profile table is set to Y. NO-LNP-QUERY—Do not perform an LNP query on this destination.
ANI-DIGMAN-ID	Foreign key: Digman Profile table. ANI (calling party number) digit manipulation ID. VARCHAR(16): 1–16 ASCII characters.
ANNC-ID	Mandatory only if route-type=annc. Announcement ID. SMALLINT: 1–1000.
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.

CALL-SUBTYPE (Release 4.5)	Foreign key: Call Type table. Specifies the subcategory of a call type for dialed digits: call-type plus call-subtype. Only one call-type/call-subtype pair is permitted per destination. VARCHAR(16): 1–16 ASCII characters. Permitted values are: **Note** Any subtype listed in the Call Subtype (Release 4.5) table is permitted. NONE (Default)—No associated subtype, not applicable. If call-type=test-call the following values are permitted: NLB-LINE-TEST—Network loop-back (netwloop) test call on subscriber line endpoint. NCT-LINE-TEST—Network continuity test (netwtest) on subscriber line endpoint. NLB-TRUNK-TEST—Network loop-back (netwloop) test call on trunk endpoint. NCT-TRUNK-TEST—Network continuity (netwtest) test call on trunk endpoint. LB-TEST—TDM Loopback Test Call (108 Test Line) based on test prefix. The calling party number is in format: <test-prefix><TG><TM>. The number of digits in trunk group (trunk-grp number) and trunk member (TM) is determined based on the test-trunk-grp-digits and test-trunk-member-digits values configured in the Call Agent Configuration table. TEST-ROUTE—Route the test call using <DN>. The calling party number is of format <test-prefix><TG><TM><DN>. The number of digits in TG (trunk-grp number) and TM (trunk member) is determined based on the test-trunk-grp-digits and test-trunk-member-digits values configured from Appendix A, “Configurable Parameters and Values” in the Call Agent Configuration table. **Note** If you are using separate DNs for ambulance, fire, and police service (such as networks outside the U.S.A.), Cisco strongly recommends that you provision these calls with call-type EMG and call-subtype <AMBULANCE or FIRE or POLICE> to guarantee EMG treatment.

CALL-TYPE	Foreign key: Call Subtype table. Type of dialed call. VARCHAR(16): 1–16 ASCII characters (Default = VACANT). Permitted values are: 500—Service access code 500, use carrier to route the call. 700—700 SAC call-route via PIC or dialed CAC. 900—Service access code 900, use carrier to route the call. 976—Information service calls. AIRLINES—Airlines Information and Reservation. AMBULANCE—Ambulance service call. ANA—Automatic number announcement. (Release 4.5) ATTENDANT—Call to a Centrex attendant. BLV—Busy line verification call. BUSINESS—811 call to business office. CARRIER—OPERATOR—101xxxx+0-, or 00(PIC) call. CUT-THRU—Call to user-dialed access code (101xxxx+#). DA—411, NPA-555-12121 call to directory assistance. DA-TOLL—1+411, 1+NPA-555-1212 toll call to directory assistance. EMG—911 emergency calls. EXTENSION—Call to another extension within a business group. FIRE—Fire department call. INFO—Same as 976. INTERLATA—InterLATA call that uses PIC or dialed CAC. INTL-OPR—International operator call. INTL-WZ1—Calls within NANP but outside of calling country INVALID—Partial dialed digits that time out. LB-TEST—Loopback test call (108 test line). LOCAL—7-digit or 10-digit nontoll call. LRN—Calls routed by way of Local Routing Number. MOBILE—Calls to a mobile network. (Release 4.5) NAS—Network access server call. NAT-OPR—National operator assisted calls. NATIONAL—Call within the United States, use LSA Use LSA and LATA tables to determine if local, toll or destination call. See the Cisco BTS 10200 Softswitch Provisioning Manual for more information. NONE—No call type was provisioned into the Cisco BTS 10200 or the given dialing pattern. No data available regarding call type. NON-EMG—311 Civic service call. NULL—Service activation, deactivation, or interrogation call. OPERATOR—0–call. PCS—Call to personal communications services line. For service access code 500 use the carrier to route the call. POLICE—Police service call. PREMIUM—Same as 900. RAILWAYS—Railways Information and Reservation RELAY—711 relay call. REPAIR—611 repair call. SPEED-DIAL—Speed-dial call. SVC-CODE—Generic service code call type. Use when no other call types apply. TANDEM—Tandem call between a CA and the next switch or CA. TEST-CALL—Test call dialed as: 958/959-xxxx or 1xx. TIME—Time service call. TOLL—1+NPA-xxx-xxxx IntraLATA toll call. TOLL-FREE—8NN toll-free call (800, 888, 877, 866, 855). TRAFFIC—Traffic service call. TW—Time and weather call. UAN—Universal access number. VACANT—Call attempted to an NPA/DN that is currently unassigned. WEATHER—Weather service call.

CARRIER-ID	Mandatory only if route-type=carrier. Foreign key: Carrier table. The call is routed to the specified carrier. Used for 900, 500 type calls. Also used to route 800 calls to Access Tandem Server if the Call Agent does not support 800 Service Control Point (SCP) queries. CHAR(4): 4 numeric characters: 0000–9999.
CHARGE-BAND-UNIT (Release 4.5.1)	Defines the parameter value for charge band number/charge unit number in a CRG message. If charge-type is charge-band then the value is charge band number and it is included in the CRG message. If charge-type is charge-unit then the value is the charge unit number and it is included in the CRG message. VARCHAR(2): 00–FF hexadecimal characters (Default = 00).
CHARGE-TYPE (Release 4.5.1)	Defines what kind of action to take in the switch. If charge-type is charge-band then the charge band number is included in CRG message. If charge-type is charge-unit then the charge unit number is included in CRG message. VARCHAR(16): 1–64 ASCII characters (Default = NONE). Permitted values are: CHARGE-BAND—1 CHARGE-UNIT—2 NONE (Default)—0
CLDPTY-CTRL-REL-ALWD	Called party release control allowed indication. Indicates to the Cisco BTS 10200 Softswitch that this call requires called party control. CHAR(1): Y/N (Default = N).
DESCRIP-TION (EMS-only field)	Service provider-defined description. VARCHAR(64): 1–64 ASCII characters.
DIAL-PLAN-ID	Mandatory only if route-type=dp. Foreign key: Dial Plan table. Valid dial plan ID from the Dial Plan table. VARCHAR(16): 1–16 ASCII characters.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
DNIS-DIGMAN-ID	Foreign key: Digman Profile table. DNIS (called party number) digit manipulation ID. VARCHAR(16): 1–16 ASCII characters.
GAP-ROUTING	If set, and a generic address parameter is present, check if the called number in the GAP parameter is a Call Agent PBX subscriber, based on the Office Code table. CHAR(1): Y/N (Default = N). Y—Check called number in the GAP. N—Do not check called number in the GAP.
INTRA-STATE	Specifies if dialed digits are for an intrastate (toll) destination. CHAR(1): Y/N (Default = Y). Y—Intrastate N—Interstate

LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
SCRIPT-ID (Release 4.4.1) (Not supported)	Foreign key: Script table. Specifies a script identifier. A script id is required if route-type=script. The specified script is executed on the end point to perform IVR functions. VARCHAR(16): 1–16 ASCII characters.
ROUTE-GUIDE-ID	Mandatory only if route-type=route. Foreign key: Route Guide table. Valid route guide ID from the Route Guide table. VARCHAR(16): 1–16 ASCII characters.
ROUTE-ID	Mandatory only if route-type=route. Foreign key: Route table. Valid Route ID from the Route table. VARCHAR(16): 1–16 ASCII characters.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).
ZERO-PLUS	Specifies if 0+ calls are allowed. CHAR(1): Y/N (Default = N). Y—0+ calls are allowed to this destination. N—0+ calls are not allowed to this destination.

Dial Plan

Dial plans analyze, screen, and route calls based on dialed digits. The Dial Plan (dial-plan) table holds dial plan information for a specific type of call. It defines valid dialing patterns and determines call routing. All records that share a common dial-plan-profile id are considered a dial plan.

Table Name: DIAL-PLAN

Table Containment Area: Call Agent

Command Types

Show, add, change, and delete

Examples

```
show dial-plan id=sub; digit-string=972-671;
add dial-plan id=sub; digit-string=972-671; noa=national; dest-id=richardson;
change dial-plan id=sub; digit-string=972-671; noa=national; dest-id=plano;
delete dial-plan id=sub; digit-string=972-671; noa=national; dest-id=plano;
```

Usage Guidelines

Primary Key Token(s): id, digit-string, noa

Foreign Key Token(s): id, dest-id

Add Rules: dial-plan id cannot exist.

Change Rules: dial-plan id must exist.

Delete Rules: dial-plan id must exist; NOA defaults to unknown. If NOA is other than unknown, NOA is required.

Syntax Description

* ID	Primary key. Foreign key: Dial Plan Profile table. Dial plan ID of a subscriber, trunk group, etc. Assigned by service provider. VARCHAR(16): 1–16 ASCII characters.
* DIGIT-STRING	Primary key. Dialed digits (what was dialed). VARCHAR(16): 1–16 numeric characters entered as NDC-ED-DN.
* DEST-ID	Foreign key: Destination table. Provides the routing information for the dialed number. ID from Destination table. VARCHAR(16): 1–16 ASCII characters.
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
DEL-DIGITS	Specifies the number of digits to delete from the received digit string. SMALLINT: 0–16 (Default = 0).
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
FORCED (Release 4.5)	Specifies whether the system bypasses the parser rules and allows a user to enter a dial plan record as a free format record (ASCII). CHAR(1): Y/N (Default = N). Y—Allows a user to enter a dial plan record as a free format record (ASCII). N—Does not allow a user to enter a dial plan record as a free format record (ASCII).
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
MAX-DIGITS	Maximum number of digits allowed. SMALLINT: 1–64 (Default = 10).

MIN-DIGITS	Minimum number of digits required for a call. SMALLINT: 1–26 (Default = 10). SMALLINT: 1–64 (Default = 10). (Release 4.5)
NOA	Primary key. Nature of address. Use the Variable Default table to change the default value if required. VARCHAR(16): 1–16 ASCII characters. Permitted values are: NATIONAL (Default)—National Number. SUBSCRIBER—Subscriber Number. UNKNOWN—Nature of address is unknown.
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
PFX-DIGITS	Specifies the digits to prefix. VARCHAR(16): 1–16 numeric characters.
SPLIT-NPA	Automatically provisioned when a record is added to the split-NPA table. Applies only to NANP. VARCHAR(7): 1–7 ASCII characters. Permitted values are: OLD-NPA—Dialed number is associated with the old NPA. NEW-NPA—Dialed number is associated with the new NPA. NONE (Default)—Not associated with split NPA.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).

Dial Plan Profile

The Dial Plan Profile (dial-plan-profile) table creates dial-plan-profile ids before they are assigned to subscribers or trunk groups. The dial-plan-profile id links digit-string entries in the Dial Plan table within a dial plan. Different dial-plan-profile ids are assigned to subscribers and trunk groups. A dial-plan-id must be created in this table before entries can be added to the Dial Plan table.

Table Name: DIAL-PLAN-PROFILE

Table Containment Area: Call Agent

Command Types

Show, add, change, and delete

Examples

```
show dial-plan-profile id=business;
add dial-plan-profile id=business;
description=dialing plan for new business users in dallas;
```

```
change dial-plan-profile id=business; description=dialing plan for new business users in
northdallas;
delete dial-plan-profile id=business;
```

Usage Guidelines

Primary Key Token(s): id

Foreign Key Token(s): intl-dial-plan-id, dnis-digman-id, ani-digman-id, nat-dial-plan-id, noa-route-profile-id

Add Rules: None.

Change Rules: dial-plan-profile id must exist.

Delete Rules:

- ID does not exist in any dial-plan::id.
- ID does not exist in any sub-profile::dial-plan-id.
- ID does not exist in any pop::lnp-dp-id.
- ID does not exist in any trunk-grp::dial-plan-id.
- ID does not exist in any carrier::dial-plan-id.

Syntax Description

* ID	Primary key. Specifies the dial plan profile. A dial plan id is required before a dial plan can be provisioned. VARCHAR(16): 1–16 ASCII characters.
ANI-DIGMAN-ID	Foreign key: Digman Profile table. ANI (calling party number) digit manipulation ID. VARCHAR(16): 1–16 ASCII characters.
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
DESCRIPTION (EMS-only field)	Service provider-defined description. VARCHAR(64): 1–64 ASCII characters.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
DNIS-DIGMAN-ID	Foreign key: Digman Profile table. DNIS (called party number) digit manipulation ID. VARCHAR(16): 1–16 ASCII characters.

INTL-DIAL-PLAN-ID	Foreign key: International Dial Plan Profile table. Specifies which international dial plan ID to use with the dial plan ID. If this field is null, the Call Agent uses the default intl-dial-plan-id values from Appendix A, "Configurable Parameters and Values" in the Call Agent Configuration table. VARCHAR(16): 1–16 ASCII characters.
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
NANP-DIAL-PLAN	Specifies whether the dial plan is in North American Number Plan (NANP) format. If it is an NANP dial plan, the EMS enforces NANP rules—the digit string must be in the format NXX-NXX-XXXX. CHAR(1): Y/N (Default = Y). **Note** If this token is set to N, then the NOA token in the Dial Plan table defaults to UNKNOWN.
NAT-DIAL-PLAN-ID	Foreign key: Dial Plan table. National dial plan ID to use to retranslate dialed digits. This token is used only if the dial plan ID is different from the dial plan profile ID. VARCHAR(16): 1–16 ASCII characters (Default = dial-plan-profile-id).
NOA-BASED-ROUTING (Release 4.5)	Specifies whether Nature of Address based routing is required. CHAR(1): Y/N (Default = N)
NOA-ROUTE-PROFILE-ID (Release 4.5)	Mandatory if noa-based-routing=Y. Foreign key: NOA Route Profile table. Specifies the NOA-specific route id to use for routing. When NOA-based-routing is specified, the NOA is used to index the NOA Route table. If a NOA-specified record is found, processing continues based on the Destination ID specified in the NOA Route table. If no record is found, then the Called Number is translated in the current Dial Plan. VARCHAR(16): 1–16 ASCII characters.
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
OVERDECADIC-DIGITS-SUPP (Release 4.5)	Controls provisioning of overdecadic digits in a dial plan. This token can only be set to Y if the nanp-dial-plan token is set to N. CHAR(1): Y/N (Default = N).
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).

Digit Manipulation

The Digit Manipulation (digman) table is used to perform digit and nature of address (NOA) manipulation.

Table Name: DIGMAN

Table Containment Area: Call Agent

Command Types

Show, add, change, and delete

Examples

```
show digman id=ndc10;
add digman id=ndc10; rule=1; match-string=010; replace-string=none;
change digman id=ndc10; rule=1; match-noa=any; replace-noa=subscriber;
delete digman id=ndc10; rule=1;
```

Usage Guidelines

Primary Key Token(s): id, rule

Foreign Key Token(s): id

Add Rules:

- digman profile id must exist.
- if match-string is not equal to NULL; then replace-string is not equal to NULL.
- if match-noa is not equal to NULL; then replace-noa is not equal to NULL.

Change Rules:

- id must exist.
- if match-string is not equal to NULL; then replace-string is not equal to NULL.
- if match-noa is not equal to NULL; then replace-noa is not equal to NULL.

Delete Rules: None.

Match-string Rules:

- Consist of digits - 0-9, *, #, ^, $, dot(.), question mark (?), Percent (%) or Phrase “none”.
- Caret (^) if specified, can only be 1st character of the string.
- Dollar Sign ($) if specified, can only be the last character of the string.
- Percent (%) if specified, can only be 1st character of the string.
- Phrase “none” or “NONE” can only appear by itself.

Syntax Description

* ID	Primary key. Foreign key: Digman Profile table. The digit manipulation ID. Must match ID in the Digit Manipulation Profile table. VARCHAR(16): 1–16 ASCII characters.
* RULE	Primary key. A rule specifies the order in which the rules must be applied. INTEGER: 1–20 numeric characters.
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
DESCRIPTION	Service provider-defined description. VARCHAR(64): 1–64 ASCII characters.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.

MATCH-NOA	Used to match against an input NOA. VARCHAR(16): 1–16 ASCII characters. VARCHAR(40): 1–40 ASCII characters. (Release 4.5) Permitted values are: 950—950 Call ABBR—Abbreviated number ANY—Any NOA CUT-THRU—No number present, cut-thru call INTL—International number INTL-OPR—International Number, Operator Requested (Valid for Called Party Number only) INTL—Unique International Number NATIONAL—Unique National Number NAT-OPR—National Number, Operator Requested (Valid for Called Party Number only) NETWORK—Network NON-UNIQUE-INTL—Non-unique international number (valid for Calling Party number). (Release 4.5) NON-UNIQUE-NATIONAL—Non-unique national number (valid for Calling Party number). (Release 4.5) NON-UNIQUE-SUBSCRIBER—Non-unique subscriber number (valid for Calling Party number). (Release 4.5) NS0—Network specific (111 1000) NS0—Network specific (111 1000) NS1—Network specific (111 1001) NS1—Network specific (111 1001) NS2—Network specific (111 1010) NS2—Network specific (111 1010) NS3—Network specific (111 1011) NS3—Network specific (111 1011) NS4—Network specific (111 1100) NS4—Network specific (111 1100) NS5—Network specific (111 1101) NS5—Network specific (111 1101) NS6—Network specific (111 1110) NS6—Network specific (111 1110) OPERATOR—No Number, Operator Call (Valid for Called Party Number only) PORTED-NUMBER-WITHOUT-RN—The Ported Number maybe prefixed with the network id, or may not be prefixed with anything (DN or NTWK-ID+DN), but does not include the Switch ID. (Release 4.5) PORTED-NUMBER-WITH-RN—The Ported Number is prefixed with the network id and switch id (RN+DN). (Release 4.5) PRIVATE—Private Numbering Plan RESERVED—Reserved NOA SPARE0/SPARE2—Spare. Not Used. SUB-OPR—Subscriber Number, Operator Requested (Valid for Called Party Number only) SUBSCRIBER—Unique Subscriber Number TEST-LINE—Test Line UNKNOWN—Nature of Address is Unknown. VSC—Vertical Service Code

MATCH-STRING	Used to match against the input-string. VARCHAR(40): 1–40 ASCII characters. The characters can be one of the following: Digits (0–9, *, #)—Digits found on a keypad. Dot (.)—Used to indicate the string position at which to perform the match operation. If a dot is specified as the 1st character of the match-string, the digits specified by each dot are skipped until a question mark or a digit is encountered. Can also be used to check the length of the input string. Question mark (?)—Used to specify a wild card character based on its position in the match-string. Each question mark (?) represents 1 digit character. Multiple question marks must be used with another question mark. Percent (%)—Used to specify the Match and Replace function. That is, if a match occurs, replace the matched string with the replace-string. Also used as a wild card character. Caret (^)—Used to specify beginning of a string when specific leading digits are to be deleted or replaced. Also used when prefixing digits to the input string. Dollar sign ($)—Used to search from the end of a string backwards instead of from the beginning. Also used when digits are to be appended to the end of the string; deleted or replaced from the end of the string. NONE—the actual word.
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.

REPLACE-NOA	If a match on NOA is found, the input NOA is replaced with the NOA specified in this token. VARCHAR(16): 1–16 ASCII characters. VARCHAR(32): 1–32 ASCII characters. (Release 4.5) Permitted values are: 950—950 Call ABBR—Abbreviated number CUT-THRU—No number present, cut-thru call INTL—International number INTL-OPR—International Number, Operator Requested (Valid for Called Party Number only) INTL—Unique International Number NATIONAL—Unique National Number NAT-OPR—National Number, Operator Requested (Valid for Called Party Number only) NETWORK—Network NON-UNIQUE-INTL—Non-unique international number (valid for Calling Party number). (Release 4.5) NON-UNIQUE-NATIONAL—Non-unique national number (valid for Calling Party number). (Release 4.5) NON-UNIQUE-SUBSCRIBER—Non-unique subscriber number (valid for Calling Party number). (Release 4.5) NS0—Network specific (111 1000) NS0—Network specific (111 1000) NS1—Network specific (111 1001) NS1—Network specific (111 1001) NS2—Network specific (111 1010) NS2—Network specific (111 1010) NS3—Network specific (111 1011) NS3—Network specific (111 1011) NS4—Network specific (111 1100) NS4—Network specific (111 1100) NS5—Network specific (111 1101) NS5—Network specific (111 1101) NS6—Network specific (111 1110) NS6—Network specific (111 1110) OPERATOR—No Number, Operator Call (Valid for Called Party Number only) PORTED-NUMBER-WITHOUT-RN—The Ported Number maybe prefixed with the network id, or may not be prefixed with anything (DN or NTWK-ID+DN), but does not include the Switch ID. (Release 4.5) PORTED-NUMBER-WITH-RN—The Ported Number is prefixed with the network id and switch id (RN+DN). (Release 4.5) PRIVATE—Private Numbering Plan RESERVED—Reserved NOA SPARE0/SPARE2—Spare. Not Used. SUB-OPR—Subscriber Number, Operator Requested (Valid for Called Party Number only) SUBSCRIBER—Unique Subscriber Number TEST-LINE—Test Line UNKNOWN—Nature of Address is Unknown. VSC—Vertical Service Code

REPLACE-STRING	If a match is found, the matched string is replaced with the replace-string. VARCHAR(40): 1–40 ASCII characters. The characters can be one of the following: Digits (A–F, 0–9, *, #) Ampersand (&) NONE (the actual word)
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).

Digit Manipulation Profile

The Digit Manipulation Profile (digman-profile) table is used to create unique IDs for digit manipulation. This ID must be created before provisioning the Digit Manipulation table.

Table Name: DIGMAN-PROFILE

Table Containment Area: Call Agent

Command Types

Show, add, change, and delete

Examples

```
show digman-profile id=ndc10;
add digman-profile id=ndc10; description=Subscriber ANI manipulation digman id;
change digman-profile id=ndc10; description=Subscriber ANI manipulation digman id for
ndc10;
delete digman-profile id=ndc10;
```

Usage Guidelines

Primary Key Token(s): id

Add Rules: digman-profile id cannot exist.

Change Rules: digman-profile id must exist.

Delete Rules: digman-profile id must exist.

Syntax Description

* ID	Primary key. The digit manipulation ID. VARCHAR(16): 1–16 ASCII characters.
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.

DESCRIPTION	Service provider-defined description. VARCHAR(64): 1–64 ASCII characters.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).

Digit Map

The Digit Map (digit-map) table tells a media gateway (MGW) how to collect and report dialed digits. The Call Agent uses a default digit-map id for normal digit collection unless a specific digit map ID is assigned to the subscriber. There are two types of subscribers:

- POTS (individual/residential)
- Centrex (business group)

POTS subscribers use a public dialing plan. Centrex subscribers use a customized dialing plan.

Example:

```
add digit-map id=default;
digit-pattern=0T|00|[2-9]11|[2-9]xx[2-9]xxxxxx|1[2-9]xx[2-9]xxxxxx|
0[2-9]xx[2-9]xxxxxx|011xxxxxx.T|01xxxxxx.T|101xxxx|#|*xx|xxxxxxxxxxxxxxxxxxxx;
```

Table 3-2 describes the components of a digit map that is created by issuing the add digit-map command.

Table 3-2 Component Breakdown of Add Digit Map Command

Component	Description
# 0T	Operator call (0-)
# 00	Carrier operator (00)
# [2-9]11	N11 dialing
# 0[2-9]11	0+N11 dialing (0+911)
# 1[2-9]11	1+N11 dialing (1+911, 1+411)

Table 3-2 Component Breakdown of Add Digit Map Command

Component	Description
# [2-9]xx[2-9]xxxxxx	10-digit Local in HNPA (972, 973)
# 1[2-9]xx[2-9]xxxxxx	1+ 10 digit
# 0[2-9]xx[2-9]xxxxxx	0+ 10 digit
# 011xxxxxx.T	IDDD, minimum 6 digits
# 01xxxxxx.T	Operator-assisted IDDD, minimum 6 digits
# 101xxxx	Casual dialing
# "#"	End of dialing or cut-through
# *xx	Vertical service code
# xxxxxxxxxxxxxxxxxx	Maximum digit string (19 digits = 011+16 digits for international call)

Digit-pattern = 0T

T starts 4-second timing. But if digits are dialed within that 4 seconds, that digit pattern is skipped. If no digits are dialed within 4 seconds, or the pound sign (#) is pressed, then end-of-dial is assumed and a match occurs with the specified digit pattern. The collected digits are reported to the Call Agent.

Example: 0T indicates that match occurs only if user only dials digit 0 (with 4-second time out) or user dials 0#. A # indicates to cancel 4-second timing and report digits immediately.

Digit-pattern = x.T

In this table, T also starts 4-second timing. The dot represents any number of digits. The gateway keeps collecting digits until either 4 seconds elapses between digits or until the pound sign (#) is pressed.

Table Name: DIGIT-MAP

Table Containment Area: Call Agent

Command Types

Show, add, change, and delete

Examples

```
show digit-map id=default;
add digit-map id=default;
digit-pattern=0T|00|[2-9]11|[2-9]xx[2-9]xxxxxx|1[2-9]xx[2-9]xxxxxx|
0[2-9]xx[2-9]xxxxxx|011xxxxxx.T|01xxxxxx.T|101xxxx|#|*xx|11xx|xxxxxxxxxxxxxxxxxxx;
change digit-map id=default; digit-pattern=1xxx|0T|[2-9]11;
delete digit-map id=default;
```

Usage Guidelines

Primary Key Token(s): id

Add Rules: None.

Change Rules: None.

Delete Rules:

- ID does not exist in any pop::digit-map-id.
- ID does not exist in any sub-profile::digit-map-id.

Note This table is case-sensitive.

Syntax Description

* ID	Primary key. Assigned by service provider to identify a specific digit map. VARCHAR(16): 1–16 ASCII characters.
* DIGIT-PATTERN	Specifies all possible digit patterns. Each digit pattern is separated by a vertical line (|). See Media Gateway Control Protocol (MGCP) RFC 2705 for further details. VARCHAR(1023): 1–1023 ASCII characters. VARCHAR(2048): 1–2048 ASCII characters. (Release 4.5)
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
DESCRIPTION (EMS-only field)	Service provider-defined description. VARCHAR(64): 1–64 ASCII characters.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).

Directory Number to Gateway Number (Release 4.5)

The Directory Number (DN) to Gateway Number (GN) (dn2gn) table defines the DN to GN LNP database on the Cisco BTS 10200 Softswitch.

Table Name: DN2GN

Table Containment Area: AIN-FS

Command Types

Show, add, and delete

Examples

```
show dn2gn dn=022-233-1234;
add dn2gn dn=022-233-1234; gn=099-991-5000;
delete dn2gn dn=022-233-1234;
```

Usage Guidelines

Primary Key Token(s): dn

Unique Key (UK): gn

Add Rules: None.

Delete Rules: None.

Syntax Description

* DN	Primary key. Specifies the DN of the ported subscriber. VARCHAR(14): 1–14 ASCII characters.
* GN	Unique key. Specifies the GN associated with the ported subscriber. The format of GN is similar to a DN and must be unique per DN. VARCHAR(14): 1–14 ASCII characters.
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.

ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).

Directory Number to Routing Number (Release 4.5)

The Directory Number (DN) to Routing Number (RN) (dn2rn) table defines the DN to RN LNP Database on the Cisco BTS 10200 Softswitch. If Centralized Routing Data supports a range of DNs, the Cisco BTS 10200 Softswitch generates individual records per DN.

Table Name: DN2RN

Table Containment Area: AIN-FS

Command Types

Show, add, change, and delete

Examples

```
show dn2rn dn=022-233-1234;
show dn2rn from-dn=022-233-1100; to-dn=022-233-1199;
show dn2rn start-time=yyyy-mm-dd; end-time=yyyy-mm-dd; (causes all records where valid-to
is with the specified date or earlier to be displayed)
add dn2rn dn=022-233-1234; valid-from=2005-8-3 18:00:00; rn=d9012;
add dn2rn from-dn=022-233-1100; to-dn=022-233-1199; rn=d9012;
change dn2rn dn=022-233-1234; rn=d9012; valid-to=2005-12-31 18:00:00;
change dn2rn dn=022-233-1234; rn=d9012; forced=y;
change dn2rn from-dn=022-233-1100; to-dn=022-233-1199; rn=d111;
delete  dn2rn dn=022-233-1234; rn=d9012;
delete dn2rn from-dn=022-233-1100; to-dn=022-233-1199; rn=d111;
delete dn2rn start-time=2004-1-1; end-time=12-31-2004; forced=y;
```

Usage Guidelines

Primary Key Token(s): dn; rn

Add Rules: forced is not allowed during add.

Change Rules: forced is allowed only for change.

Delete Rules: None.

Note When a range is specified, the range is restricted to 100 or 1000 DNs at a time. Throttling is done by the mediation device.

Syntax Description

* DN	Primary key. Specifies the DN of the ported subscriber. VARCHAR(14): 1–14 ASCII characters.
* RN	Primary key. Specifies the Routing Number associated with the ported subscriber. VARCHAR(14): 1–14 ASCII characters.
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
END-TIME	Allowed only for show and delete. Specifies an end time to show or delete a range of records that were created or modified based on the valid-to token. DATE: YYYY-MM-DD.
FORCED	Allowed only for change. Adds a record if it does not exist or changes an existing record.. CHAR(1): Y/N (Default = N). Y—Adds a record that does not exist; changes an existing record. N—Does not add a record that does not exist; does not change an existing record.
FROM-DN	Used for range provisioning. When specified, all DNs in the from-dn and to-dn range are provisioned in the DN2RN table. VARCHAR(14): 1–14 ASCII characters.
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).

START-TIME	Allowed only for show and delete. Delete allowed only if valid-to toke is <> null. Specifies a start time to show or delete a range of records that were created or modified based on the valid-to token. Start-time must occur before end-time. DATE: YYYY-MM-DD.
TO-DN	Used for range provisioning. When specified, all DNs in the from-dn and to-dn range are provisioned in the DN2RN table. VARCHAR(14): 1–14 ASCII characters.
VALID-FROM	Specifies the start time of the porting window when the subscriber is considered ported. DATE The DN2RN record is active if: the valid-from is less than or equal to the current-time less than or equal to the valid-to or the valid-from equals the null and the current-time is less than the valid-to or the valid-from is less than the current-time and the valid-to is equal to null or the valid-from is equal to the valid-to equal to null.
VALID-TO	Specifies the end time that this record expires or is invalid. DATE The DN2RN record is active if: the valid-from is less than or equal to the current-time less than or equal to the valid-to or the valid-from equals null and the current-time equals the valid-to or the valid-from equals the current-time and the valid-to equals null or the valid-from equals the valid-to equals null.

International Dial Plan

The International Dial Plan (intl-dial-plan) table holds international dial plan information for calls to regions outside the North American Numbering Plan (NANP). It contains the country code, minimum and maximum digits, the country name, and the route-grp-id.

Table Name: INTL-DIAL-PLAN

Table Containment Area: Call Agent

Command Types

Show, add, change, and delete

Examples

```
show intl-dial-plan id=intldp1; cc=122;
add intl-dial-plan id=intldp1; cc=122; min-digits=7; max-digits=10;
change intl-dial-planid=intldp1; cc=122; description=France;
delete intl-dial-plan id=intldp1;cc=122;
```

Usage Guidelines

Primary Key Token(s): id, cc

Foreign Key Token(s): id, dest-id

Add Rules: intl-dial-plan-profile id must exist.

Change Rules: id must exist.

Delete Rules: None.

Syntax Description

* ID	Primary key. Foreign key: International Dial Plan Profile table. International dial plan profile ID. VARCHAR(16): 1–16 ASCII characters.
* CC	Primary key. Country code digits. Country code as defined in ITU-T Recommendation E.164. Service provider must determine and enter accordingly. This information is often found in the front of some telephone directories. See Recommendation E.164. VARCHAR(5): 1–5 numeric characters.
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
DESCRIPTION (EMS-only field)	Service provider-defined description. VARCHAR(64): 1–64 ASCII characters.
DEST-ID	Foreign key: Destination table. Used only if the service provider is also a carrier and wants to route the international call to the appropriate gateway. VARCHAR(16): 1–16 ASCII characters.

DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
MAX-DIGITS	Maximum number of digits allowed. Maximum number of digits for any phone number in the country being added. SMALLINT: 3–64 (Default = 16).
MIN-DIGITS	Minimum number of digits required for a call to this country. Minimum number of digits for any phone number in the country being added. SMALLINT: 3–16 (Default = 6). SMALLINT: 3–64 (Default = 6). (Release 4.5)
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
PADDED-CC (Release 4.5.1)	Used to pad country code (cc) digits. Automatically generated by EMS if not provisioned. If 1 digit cc, pad cc with 2 zeros (2 becomes 002) If 2 digit cc, pad cc with 1 zero (44 becomes 044). If 3 digit cc, no padding required, copy as is. If cc > 3 digits, copy the first 3 digits. STRING: 3 numeric characters.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).

International Dial Plan Profile

The International Dial Plan Profile (intl-dial-plan-profile) table is used to create unique IDs for international dial plans. This ID must be created before provisioning the International Dial Plan table.

Table Name: INTL-DIAL-PLAN-PROFILE

Table Containment Area: Call Agent

Command Types Show, add, change, and delete

Examples

```
show intl-dial-plan-profile id=pop1;
add intl-dial-plan-profile id=pop1; description=default International Dialing plan for
Call Agent;
change intl-dial-plan-profile id=pop1; description=International Dialing plan for POP1;
delete intl-dial-plan-profile id=pop1;
```

Usage Guidelines

Primary Key Token(s): id

Add Rules: None.

Change Rules: None.

Delete Rules: Id does not exist in any: dial-plan::id; sub-profile::dial-plan-id; pop::lnp-dp-id; trunk-grp::dial-plan-id; or carrier::dial-plan-id.

Syntax Description

* ID	Primary key. Unique ID for this international dial plan profile. VARCHAR(16): 1–16 ASCII characters.
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
DESCRIPTION (EMS-only field)	Service provider-defined description. VARCHAR(64): 1–64 ASCII characters.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).

Local Number Portability Profile (Release 4.4.0)

The Local Number Portability (LNP) Profile (lnp-profile) table defines an LNP Profile supported by the Cisco BTS 10200 Softswitch.

Table Name: LNP-PROFILE

Table Containment Area: Call Agent, FSAIN

Command Types

Show, add, change and delete

Examples

```
show lnp-profile id=default;
add lnp-profile id=default; lnp-db-type=GN; internal-lnp-db=Y; all-call-query=N;
onward-call-routing=Y;
change lnp-profile id=default; all-call-query=Y; onward-call-routing=N;
delete lnp-profile id=default;
```

Usage Guidelines

Primary Key Token(s): id

Add Rules: None.

Change Rules: None.

Delete Rules: None.

Syntax Description

* ID	Primary key. The LNP Profile ID. The LNP Profile id to use as defined in the Call Agent Configuration table. VARCHAR(16): 1–16 ASCII characters.
* LNP-DB-TYPE	Specifies the LNP database type supported on the Cisco BTS 10200 Softswitch. VARCHAR(16): 1–16 ASCII characters. Permitted values are: LRN—LRN-based LNP support. The call is routed based on the LRN, but the called number is carried in the GAP parameter. **Note** If lnp-db-type=LRN, then internal-lnp-db=N and external-lnp-db=Y. GN—GN (Gateway Number)-based LNP as used in Hong Kong. Each ported number is assigned a unique number based on the network the call is ported to. When the call reaches a recipient switch, a reverse lookup is made from the GN to find the actual DN to terminate the call. RN—Routing Number (RN)-based LNP. The call to the ported-out subscriber is routed to a specified network by prefixing the RN to the called number or by signaling it in the ISUP message. (Release 4.5) CF—Call Forwarding-based LNP. The Donor switch looks up the new number assigned to the ported-out subscriber and the call is forwarded to the new number.

ALL-CALL-QUERY	Specifies whether to perform an LNP query on all calls. CHAR(1): Y/N (Default = N). Y—An LNP query is required for all calls. N—An LNP query is not required for all calls.
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
EXTERNAL-LNP-DB	Specifies the Cisco BTS 10200 Softswitch external LNP Database where an external LNP query is required. CHAR(1): Y/N (Default = N). **Note** If both the internal-lnp-db and external-lnp-db are set to Y, then the internal-lnp-db lookup occurs first. If an entry is not found, it then performs an external-lnp-db lookup. **Note** If lnp-db-type=RN, then external-lnp-db=N. (Release 4.5)
INTERNAL-LNP-DB	Specifies the Cisco BTS 10200 Softswitch local LNP database. CHAR(1): Y / N (Default = N). **Note** If both the internal-lnp-db and external-lnp-db are set to Y, then the internal-lnp-db lookup occurs first. If an entry is not found, it then performs an external-lnp-db lookup. **Note** If lnp-db-type=RN, then internal-lnp-db=Y. (Release 4.5)
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
ONWARD-CALL-ROUTING (Not used in Release 4.4.0/1.)	Specifies whether the LNP type is Onward Call Routing (OCR). CHAR(1): Y/N (Default = N). Y—When the call reaches the donor switch, the switch performs an LNP lookup and routes the call towards recipient switch based on the LNP type. N—The LNP type is not OCR.

ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
QUERY-ON-RELEASE	Specifies whether the LNP type is Query On Release (QOR). CHAR(1): Y/N (Default = N). Y—If release-cause=ported number is received at the originating Cisco BTS 10200 Softswitch, then LNP Query is to be performed. N—The LNP type is not QOR.
RELEASE-CAUSE	Specifies whether to use a release cause when a called number is ported-out. In the United States, when a call to a ported number is received, the switch sends a release cause of 26 indicating a “misrouted ported number” call. In the EMEA market, when an LNP using QOR is deployed, a release cause (usually 14 but can be different depending on the country variant) indicating “call to a ported number” is sent. INTEGER: 0–255 (Default = 26) **Note** If lnp-db-type=LRN, this token defaults to 26. If lnp-db-type is not LRN, this token defaults to 14. (Release 4.5) 26—Misrouted call to a ported number. 14—Ported number.
RN-SIGNALING-METHOD (Release 4.5)	Specifies the RN signaling between networks. This field is not used when a signaling call is within the network. VARCHAR(32): 1–32 ASCII characters. Permitted values are: NA (Default)—Not Applicable. If lnp-db-type=RN you cannot set method to NA. PREFIX-METHOD—The RN is prefixed to the Called Party Number. The call is routed based on the RN+DN. SEPARATE-RN (Not used)—The RN and DN are sent separately. Similar to U.S., where the LRN is sent as a Called Party Number while the Ported Number is signaled in the GAP.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).

Local Service Area

The Local Service Area (lsa) table provides extended local service. If a North American Numbering Plan (NANP) dialed call results in an intraLATA toll or an interLATA call, and the subscriber has an lsa-id associated in either the Subscriber Profile or POP table, the LSA table is screened to check if the dialed digits appear in the subscriber LSA area. If the dialed digits are found in the LSA table, the call is converted to a local call.



Note If an lsa-id is defined in the Subscriber Profile table, it is used. If an lsa-id is not defined, then the lsa-id assigned in the POP table is used.

Table Name: LSA

Table Containment Area: Call Agent

Command Types

Show, add, and delete

Examples

```
show lsa id=1; digit-string=972-671;
add lsa id=1; digit-string=972-671;
delete lsa id=1; digit-string=972-671;
```

Usage Guidelines

Primary Key Token(s): id, digit-string

Foreign Key Token(s): id

Add Rules: lsa-profile id must exist.

Delete Rules: None.

Syntax Description

* ID	Primary key. Foreign key: LSA Profile table. Specifies the LSA ID. VARCHAR(16): 1–16 ASCII characters.
* DIGIT-STRING	Primary key. Digit string to be converted to a local call. VARCHAR(14): 1–14 numeric digits. Format NPA, NPA-NXX, NPA-NXX-X, or NPA-NXX-XX.
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.

DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).

Local Service Area Profile

The Local Service Area (LSA) Profile (lsa-profile) table defines new LSA IDs before they are assigned to subscribers. An ID must be created in this table before entries can be added to the Local Service Area table.

Table Name: LSA-PROFILE

Table Containment Area: EMS

Command Types

Show, add, change, and delete

Examples

```
show lsa-profile id=1;lsa=atlantalsa;
add lsa-profile id=1; lsa=atlantalsa; lsa-id=1; description=local service area for
atlanta;
change lsa-profile id=1;description=local service area for atlanta and near suburbs;
delete lsa-profile id=1
```

Usage Guidelines

Primary Key Token(s): id

Add Rules: None.

Change Rules: None.

Delete Rules: None.

Syntax Description

* ID	Primary key. Specifies the LSA ID. Assigned by service provider. VARCHAR(16): 1–16 ASCII characters.
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
DESCRIPTION (EMS-only field)	Service provider-defined description. VARCHAR(64): 1–64 ASCII characters.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).

Nature of Address Route (Release 4.5)

The Nature of Address (NOA) Route (noa-route) table defines NOA-based routing on the Cisco BTS 10200 Softswitch. When the NOA-based routing is specified in the Dial Plan Profile table the Cisco BTS 10200 Softswitch uses the received NOA to index the NOA Route table and determine the destination id for further routing. The destination id can point to a specific route based on the NOA or it can point to a dial plan. When a destination id points to a dial plan, the received called party number is translated using the dial plan.

Table Name: NOA-ROUTE

Table Containment Area: Call Agent

Command Types

Show, add, change and delete

Examples

```
show noa-route;
add noa-route id=NoaRt; noa=ported-number; dest-id=lnpDP
change noa-route id=NoaRt; noa=ported-number; dest-id=RnDp
delete noa-route id=NoaRt; noa=ported-number;
```

Usage Guidelines

Primary Key Token(s): id, noa

Foreign Key Token(s): id, dest-id

Add Rules: None.

Change Rules: None.

Delete Rules: None.

Syntax Description

* ID	Primary key. Foreign key: NOA Route Profile table. The NOA Route Profile id. VARCHAR(16): 1–16 ASCII characters.
* NOA	Primary key. The Nature of Address. VARCHAR(32): 1–32 ASCII characters. Permitted values are: PORTED-NUMBER-WITH-RN—The ported number is prefixed with Network ID and Switch ID (RN+DN). PORTED-NUMBER-WITHOUT-RN—The ported number may be prefixed with a Network ID, or may not be prefixed with anything (DN or NTWK-ID plus the DN), but does not include the switch id.
* DEST-ID	Foreign key: Destination table. The destination id associated with the received NOA. VARCHAR(16): 1–16 ASCII characters.

AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).

Nature of Address Route Profile (Release 4.5)

The Nature of Address (NOA) Route Profile (noa-route-profile) table is used to support NOA-based routing on the Cisco BTS10200 Softswitch. This profile defines the NOA route id. The id can be assigned to a single Dial Plan Profile table or multiple Dial Plan Profile tables.

Table Name: NOA-ROUTE-PROFILE

Table Containment Area: Call Agent

Command Types

Show, add, change and delete

Examples

```
show noa-route-profile;
add noa-route-profile id=NoaRt;
change noa-route-profile id=NoaRt; description=noa specific route profile ID
delete noa-route-profile id=NoaRt;
```

Usage Guidelines

Primary Key Token(s): id

Add Rules: None.

Change Rules: None.

Delete Rules: None.

Syntax Description

* ID	Primary key. The NOA Route Profile id. VARCHAR(16): 1–16 ASCII characters.
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
DESCRIPTION	Service provider-defined description. VARCHAR(64): 1–64 ASCII characters.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).

Policy NXX

The Policy NXX (policy-nxx) table is used when a number services call results in a translated number, carrier ID, translated number and a carrier ID, or a route ID.

Table Name: POLICY-NXX

Table Containment Area: Call Agent (Not used), AIN Feature Server

Command Types

Show, add, change, and delete

Examples

```
show policy-nxx id=normalroute;
add policy-nxx id=normalroute;
change policy-nxx id=normalroute; carrier=1234;
delete policy-nxx id=normalroute;
```

Usage Guidelines

Primary Key Token(s): id

Add Rules: policy-id exists in policy-<policy-type>::id if entered.

Change Rules: policy-id exists in policy-<policy-type>::id if entered.

Delete Rules: ID cannot exist in any <route-guide, policy-odr, policy-region, policy-percent, policy-tod, policy-prefix, policy-oli, or policy-pop>::policy-id where policy-type = nxx.

Note Both the carrier and the translated-dn can be entered; however, if route is entered, neither the carrier-id nor the translated-dn can be entered.

Syntax Description

* ID	Primary key. Policy-nxx identification field. VARCHAR(16): 1–16 ASCII characters.
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
CARRIER	Carrier identification code (CIC). Used for routing a call. CHAR(4): 0000–9999. See Carrier, page 3-7.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.

LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
ROUTE	Defines a list of trunk groups. VARCHAR(16): 1–16 ASCII characters.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).
TRANSLATED-DN	The call is routed to the translated DN. VARCHAR(14): 1–14 numeric digits.

Policy Origin Dependent Routing

The Policy Origin Dependent Routing (policy-odr) table is used for origin-dependent routing. The NPA (or NPA-NXX) of the calling party number selects a route. If no match is found based on the calling party number, the route marked as *default* routes the call.

Table Name: POLICY-ODR

Table Containment Area: Call Agent, AIN Feature Server

Command Types

Show, add, change, and delete

Examples

```
show policy-odr id=ca200; digit-string=512;
add policy-odr id=ca200; digit-string=512; policy-type=tod; policy-id=tod101;
change policy-odr id=ca200; digit-string=512; policy-type=tod; policy-id=tod102;
delete policy-odr id=ca200; digit-string=512;
```

Usage Guidelines

Primary Key Token(s): id, digit-string

Add Rules: policy-id exists in policy-<policy-type>::id if entered.

Change Rules: policy-id exists in policy-<policy-type>::id if entered.

Delete Rules: id does not exist in any <route-guide, policy-region, policy-percent, policy-tod, policy-prefix, policy-oli, or policy-pop>::policy-id where policy-type = odr.

Syntax Description

* ID	Primary key. Policy-odr identification field. Assigned by service provider. VARCHAR(16): 1–16 ASCII characters.
* POLICY-TYPE	Points to the next policy type table to use in the sequence. Policy routing continues until policy-type=route or policy-nxx is reached. All policy-types except route point to the Policy-$type table where $type = odr | tod | percent | prefix | oli | pop | nxx. If policy-type = route, the Route table is used for routing. The policy-id indexes the Policy or Route table, whatever the case may be. VARCHAR(7): 1–7 ASCII characters. Permitted values are: TOD—Time-of-day routing. PERCENT—Percent allocation. PREFIX—Prefix-based routing. OLI —Originating line information. POP—Point of presence. ROUTE—Go to Route table. NXX—Use translated DN. REGION—Region-based routing.
* POLICY-ID	ID of the Policy or Route table that matches the policy type. Indexes the ID to the type. VARCHAR(16): 1–16 ASCII characters.
DIGIT-STRING	Primary key. Longest match based on the calling party number. VARCHAR(10): 1–10 ASCII characters in the format NDC+EC+DN or DEFAULT. Use the character string *default* to define a default route for the specified ID. If a record based on the calling party number is not found, the Call Agent searches for the *default* record.
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.

ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).

Policy Originating Line Information

The Policy Originating Line Information (policy-oli) table performs routing based on the originating line information of the calling party number.

Table Name: POLICY-OLI

Table Containment Area: Call Agent, AIN Feature Server

Command Types

Show, add, change, and delete

Examples

```
show policy-oli id=normalroute; oli=00;
add policy-oli id=normalroute; oli=00; policy-type=tod; policy-id=holiday;
change policy-oli id=normalroute; oli=00; policy-type=tod; policy-id=regular;
delete policy-oli id=normalroute; oli=00;
```

Usage Guidelines

Primary Key Token(s): id, oli

Add Rules: policy-id exists in policy-<policy-type>::id if entered.

Change Rules: policy-id exists in policy-<policy-type>::id if entered.

Delete Rules: id does not exist in any <route-guide, policy-odr, policy-region, policy-percent, policy-tod, policy-prefix, or policy-pop>::policy-id where policy-type = oli.

Syntax Description

* ID	Primary key. Originating line information identification field. Assigned by service provider. VARCHAR(16): 1–16 ASCII characters.
* OLI	Primary key. Originating line information parameter. SMALLINT: 0–99 or 255. OLI = 255 defines default route for the specified ID. If a record based on the calling party OLI is not found, the Call Agent searches for the default record based on OLI = 255.
* POLICY-ID	ID of the Policy or Route table that matches the policy type. Indexes the ID to the type. VARCHAR(16): 1–16 ASCII characters.

* POLICY-TYPE	Points to the next policy type table to be used in the sequence. Policy routing continues until policy-type=route or policy-nxx is reached. All policy-types except route point to the Policy-$type table where $type = odr | tod | percent | prefix | oli | pop | nxx. If policy-type = route, the Route table is used for routing. The policy-id indexes the Policy or Route table, whatever the case may be. Examples: If policy-type=tod, then the policy-tod table is indexed with policy-id. If policy-type=route, then the route table is indexed with policy-id. VARCHAR(7): 1–7 ASCII characters. Permitted values are: ODR—Origin dependent routing. TOD—Time-of-day routing. PERCENT—Percent allocation. PREFIX—Prefix-based routing. POP—Point of presence. ROUTE—Go to Route table. NXX—Use translated DN. REGION—Region-based routing.
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).

Policy Percent

The Policy Percent (policy-percent) table distributes traffic based on percent allocation. This type of traffic distribution is used primarily for local 8XX routing and Tandem applications.

Table Name: POLICY-PERCENT

Table Containment Area: Call Agent, AIN Feature Server

Command Types

Show, add, change, and delete

Examples

```
show policy-percent id=texaspercent;
add policy-percent id=texaspercent; begin-range1=1; end-range1=90; policy-type1=tod;
policy-id1=tod001;
change policy-percent id=texaspercent; begin-range2=91; end-range2=100; policy-type1=tod;
policy-id1=tod002;
delete policy-percent id=texaspercent;
```

Usage Guidelines

Primary Key Token(s): id

Add Rules: policy-id exists in policy-<policy-type>::id if entered.

Change Rules: policy-id exists in policy-<policy-type>::id if entered.

Delete Rules: id does not exist in any <route-guide, policy-odr, policy-region, policy-tod, policy-prefix, policy-oli, or policy-pop>::policy-id where policy-type = percent.

Syntax Description

* ID	Primary key. Unique identifier for this policy-percent. Assigned by service provider. VARCHAR(16): 1–16 ASCII characters.
* BEGIN-RANGE1	At least one range must be specified. Defines the beginning percent range (beginning and ending percents) for the first destination. SMALLINT: 1–100.
* END-RANGE1	Defines the end of the percent range (beginning and ending percents) for the first destination. SMALLINT: 1–100.

* POLICY-TYPE1	Points to the next policy type table to be used in the sequence. Policy routing continues until policy-type=route or Policy-nxx is reached. All policy-types except route point to the Policy-$type table where $type = odr | tod | percent | prefix | oli | pop | nxx. If policy-type = route, the Route table is used for routing. The policy-id indexes the Policy or Route table, whatever the case may be. Examples: If policy-type=tod, then the policy-tod table is indexed with policy-id. If policy-type=route, then the route table is indexed with policy-id. VARCHAR(7): 1–7 ASCII characters. Permitted values are: ODR—Origin-dependent routing. TOD—Time-of-day routing. PREFIX—Prefix-based routing. OLI—Originating line information. POP—Point of presence. ROUTE—Go to Route table. NXX—Use translated DN. REGION—Region-based routing.
* POLICY-ID1	ID of the Policy or Route table matching the policy type. Indexes the ID to the type. VARCHAR(16): 1–16 ASCII characters.
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
BEGIN-RANGE2	Defines the beginning percent range (beginning and ending percents) for the second destination. SMALLINT: 1–100.
BEGIN-RANGE3	Defines the beginning percent range (beginning and ending percents) for the third destination. SMALLINT: 1–100.
BEGIN-RANGE4	Defines the beginning percent range (beginning and ending percents) for the fourth destination. SMALLINT: 1–100.
BEGIN-RANGE4	Defines the beginning percent range (beginning and ending percents) for the fourth destination. SMALLINT: 1–100.
BEGIN-RANGE5	Defines the beginning percent range (beginning and ending percents) for the fifth destination. SMALLINT: 1–100.

DEFAULT-POLICY-ID	ID of a Policy or Route table matching the policy type. Indexes the ID to the type. Assigned by service provider. VARCHAR(16): 1–16 ASCII characters.
DEFAULT-POLICY-TYPE	See policy-type1. If default treatment is not specified, CLI copies the range1 information here. VARCHAR(7): 1–7 ASCII characters.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
END-RANGE2	Defines the end of the percent range (beginning and ending percents) for the second destination. SMALLINT: 1–100.
END-RANGE3	Defines the end of the percent range (beginning and ending percents) for the third destination. SMALLINT: 1–100.
END-RANGE4	Defines the end of the percent range (beginning and ending percents) for the fourth destination. SMALLINT: 1–100.
END-RANGE5	Defines the end of the percent range (beginning and ending percents) for the fifth destination. SMALLINT: 1–100.
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
POLICY-ID2	See policy-id1. VARCHAR(16): 1–16 ASCII characters.
POLICY-ID3	See policy-id1. VARCHAR(16): 1–16 ASCII characters.
POLICY-ID4	See policy-id1. VARCHAR(16): 1–16 ASCII characters.
POLICY-ID5	See policy-id1. VARCHAR(16): 1–16 ASCII characters.
POLICY-TYPE2	See policy-type1. VARCHAR(7): 1–7 ASCII characters.

POLICY-TYPE3	See policy-type1. VARCHAR(7): 1–7 ASCII characters.
POLICY-TYPE4	See policy-type1. VARCHAR(7): 1–7 ASCII characters.
POLICY-TYPE5	See policy-type1. VARCHAR(7): 1–7 ASCII characters.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).

Policy Point of Presence

The Policy Point of Presence (policy-pop) (POP) based policy routing routes a call to the nearest trunk group when there are multiple trunk groups. There are several situations where a policy POP can be used. If a Call Agent serves several POPs, each POP can have its own announcement server. A POP-specific announcement server can be more efficient than a centralized announcement server. InterLATA carriers also have a point of presence in each POP. Route interLATA or international calls to the nearest carrier location using policy POP routing.

Table Name: POLICY-POP

Table Containment Area: Call Agent, AIN Feature Server

Command Types

Show, add, change, and delete

Examples

```
show policy-pop id=car9999; pop-id=dallaspop;
add policy-pop id=car9999; pop-id=dallaspop; policy-type=tod; policy-id=tod101;
change policy-pop id=car9999;pop-id=dallaspop;policy-type=oli;policy-id=tod101;
delete policy-pop id=car9999;
```

Usage Guidelines

Primary Key Token(s): id, pop-id

Add Rules: policy-id exists in policy-<policy-type>::id if entered.

Change Rules: policy-id exists in policy-<policy-type>::id if entered.

Delete Rules: id does not exist in any <route-guide, policy-odr, policy-region, policy-percent, policy-tod, policy-prefix, or policy-oli>::policy-id where policy-type = pop.

Syntax Description

* ID	Primary key. Policy POP identifier. VARCHAR(16): 1–16 ASCII characters.
* POP-ID	Primary key. The pop-id assigned to the subscriber profile or the incoming trunk group to be used. VARCHAR(16): 1–16 ASCII characters.

* POLICY-TYPE	Points to the next policy type table to be used in the sequence. Policy routing continues until policy-type=route or policy-nxx is reached. All policy-types except route point to the policy-$type table where $type = odr | tod | percent | prefix | oli | pop | nxx. If policy-type = route, the Route table is used for routing. The policy-id indexes the Policy or Route table, whatever the case may be. Examples: If policy-type=tod, then the Policy TOD table is indexed with policy-id. If policy-type=route, then the Route table is indexed with policy-id. VARCHAR(7): 1–7 ASCII characters. Permitted values are: ODR—Origin dependent routing. TOD—Time of day routing. PERCENT—Percent allocation. PREFIX—Prefix-based routing. OLI—Originating line information. ROUTE—To Route table. NXX—Use translated DN. REGION—Region-based routing.
* POLICY-ID	ID of the Policy or Route table that matches the next policy type. Indexes the ID to the type. VARCHAR (16): 1–16 ASCII characters.
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.

ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).

Policy Prefix

The Policy Prefix (policy-prefix) table provides information for call routing based on prefix (type of call). Typical call types include 1+ dialing, international calls, toll-free, and so on. This table is used mainly for carrier routing.

Table Name: POLICY-PREFIX

Table Containment Area: Call Agent

Command Types

Show, add, change, and delete

Examples

```
show policy-prefix id=standard;
add policy-prefix id=standard; prefix1=national; policy-type1=tod; policy-id1=tod01;
change policy-prefix id=standard; prefix2=da; policy-type=tod; policy-id=tod99;
delete policy-prefix id=standard;
```

Usage Guidelines

Primary Key Token(s): id

Add Rules: policy-id exists in policy-<policy-type>::id if entered.

Change Rules: policy-id exists in policy-<policy-type>::id if entered.

Delete Rules: id does not exist in any <route-guide, policy-odr, policy-region, policy-percent, policy-tod, policy-oli, or policy-pop>::policy-id where policy-type = prefix.

Syntax Description

* ID	Primary key. Unique identifier for this policy prefix. VARCHAR(16): 1–16 ASCII characters.

* PREFIX1	Type of call being provisioned. VARCHAR(10): 1–10 ASCII characters. Permitted values are: NATIONAL—National call (1+) INTL—International call (011+) OPERATOR—Operator call (0-, 00) NAT-OPR—National operator call (0+ call) INTL-OPR—International operator call (01+ call) TOLL-FREE—Toll free call (8XX) CUT-THRU—Cut-through call (101XXXX+#) DA—Directory assistance call
* POLICY-TYPE1	Points to the next policy type table to be used in the sequence. Policy routing continues until policy-type=route or policy-nxx is reached. All policy-types except route point to the Policy-$type table where $type = odr | tod | percent | prefix | oli | pop | nxx. If policy-type = route, the Route table is used for routing. The policy-id indexes the Policy or Route table, whatever the case may be. Examples: If policy-type=tod, then the Policy-tod table is indexed with policy-id. If policy-type=route, then Route table is indexed with policy-id. VARCHAR(7): 1–7 ASCII characters. Permitted values are: ODR—Origin-dependent routing. TOD—Time of day routing. PERCENT—Percent allocation. OLI—Originating line information. POP—Point of presence. ROUTE—Go to Route table. NXX—Use translated DN. REGION—Region-based routing.
* POLICY-ID1	ID of the Policy or Route table that matches the policy type. Indexes the ID to the type. VARCHAR(16): 1–16 ASCII characters.
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
DEFAULT-POLICY-ID	Assigned by service provider. VARCHAR(16): 1–16 ASCII characters.

DEFAULT-POLICY-TYPE	Use default policy type/ID if the prefix does not match any of the above prefixes. Assigned by service provider. VARCHAR(7): 1–7 ASCII characters.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
POLICY-ID2	See policy-id1. VARCHAR(16): 1–16 ASCII characters.
POLICY-ID3	See policy-id1. VARCHAR(16): 1–16 ASCII characters.
POLICY-ID4	See policy-id1. VARCHAR(16): 1–16 ASCII characters.
POLICY-ID5	See policy-id1. VARCHAR(16): 1–16 ASCII characters.
POLICY-ID6	See policy-id1. VARCHAR(16): 1–16 ASCII characters.
POLICY-ID7	See policy-id1. VARCHAR(16): 1–16 ASCII characters.
POLICY-ID8	See policy-id1. VARCHAR(16): 1–16 ASCII characters.
POLICY-ID9	See policy-id1. VARCHAR(16): 1–16 ASCII characters.
POLICY-ID10	See policy-id1. VARCHAR(16): 1–16 ASCII characters.
POLICY-TYPE10	See policy-type1. VARCHAR(7): 1–7 ASCII characters.
POLICY-TYPE2	See policy-type1. VARCHAR(7): 1–7 ASCII characters.

POLICY-TYPE3	See policy-type1. VARCHAR(7): 1–7 ASCII characters.
POLICY-TYPE4	See policy-type1. VARCHAR(7): 1–7 ASCII characters.
POLICY-TYPE5	See policy-type1. VARCHAR(7): 1–7 ASCII characters.
POLICY-TYPE6	See policy-type1. VARCHAR(7): 1–7 ASCII characters.
POLICY-TYPE7	See policy-type1. VARCHAR(7): 1–7 ASCII characters.
POLICY-TYPE8	See policy-type1. ARCHAR(7): 1–7 ASCII characters.
POLICY-TYPE9	See policy-type1. VARCHAR(7): 1–7 ASCII characters.
PREFIX10	See prefix1. VARCHAR(10): 1–10 ASCII characters.
PREFIX2	See prefix1. VARCHAR(10): 1–10 ASCII characters.
PREFIX3	See prefix1. VARCHAR(10): 1–10 ASCII characters.
PREFIX4	See prefix1. VARCHAR(10): 1–10 ASCII characters.
PREFIX5	See prefix1. VARCHAR(10): 1–10 ASCII characters.
PREFIX6	See prefix1. VARCHAR(10): 1–10 ASCII characters.
PREFIX7	See prefix1. VARCHAR(10): 1–10 ASCII characters.
PREFIX8	See prefix1. VARCHAR(10): 1–10 ASCII characters.
PREFIX9	See prefix1. VARCHAR(10): 1–10 ASCII characters.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).

Policy Region

The Policy Region (policy-region) table performs region-based routing. The region is derived using the Region Profile table from the Route Guide table and the calling party number automatic number identification (ANI). If ANI is not available or the Region Profile table is not provisioned, the region assigned to the trunk group is used for trunk origination. If a record cannot be found based on the region, the record with region=default (if provisioned) is used for routing.

Table Name: POLICY-REGION

Table Containment Area: Call Agent, AIN Feature Server

Command Types

Show, add, change, and delete

Examples

```
show policy-region id=ca200; region=sanantonio;
add policy-region id=ca200; region=sanantonio; policy-type=tod; policy-id=tod101;
change policy-region id=ca200; region=sanantonio; policy-type=tod; policy-id=tod102;
delete policy-region id=ca200; region=sanantonio;
```

Usage Guidelines

Primary Key Token(s): id, region

Add Rules: region-profile id must exist; policy-id exists in policy-<policy-type>::id if entered.

Change Rules: id must exist; policy-id exists in policy-<policy-type>::id if entered.

Delete Rules: id does not exist in any <route-guide, policy-odr, policy-percent, policy-tod, policy-prefix, policy-oli, or policy-pop>::policy-id where policy-type = region.

Syntax Description

* ID	Primary key. Identifier of the policy region. VARCHAR(16): 1–16 ASCII characters.
* REGION	Primary key. Region is derived from the Region Profile table based on the ANI. If the region cannot be derived from the region-profile, use the region assigned to the incoming trunk group. If a region is not available, use the default region to route the call. VARCHAR(16): 1–16 ASCII characters. The character string *default* defines the default route for the specified ID. If a record based on the region based on the calling party number or incoming trunk group is not found, the Call Agent searches for the *default* record.

* POLICY-TYPE	Points to the next policy type table to be used in the sequence. Policy routing continues until policy-type=route or policy-nxx is reached. All policy-types except route point to the Policy-$type table where $type = odr | tod | percent | prefix | oli | pop | nxx. If policy-type = route, the Route table is used for routing. The policy-id indexes the Policy or Route table, whatever the case may be. Examples: If policy-type=tod, then the Policy TOD table is indexed with the policy-id. If policy-type=route, then the Route table is indexed with the policy-id. VARCHAR(7): 1–7 ASCII characters. Permitted values are: ODR—Origin-dependent routing. TOD—Time of day routing. PERCENT—Percent allocation. PREFIX—Prefix-based routing. OLI—Originating line information. POP—Point of presence. ROUTE—Go to Route table. NXX—Use translated DN.
* POLICY-ID	ID of the Policy or Route table that matches the policy type. Indexes the ID to the type. VARCHAR(16): 1–16 ASCII characters.
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.

START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).

Policy Time of Day

The Policy Time of Day (policy-tod) table provides routing information based on the following values, in order of preference (highest preference to lowest):

- day of year
- day of week
- time of day

Table Name: POLICY-TOD

Table Containment Area: Call Agent, AIN Feature Server

Command Types

Show, add, change, and delete

Examples

```
show policy-tod id=basictime;
add policy-tod id=basictime; doy1=03-01; doy1-policy-type=route;
doy1-policy-id=dallasaustin; start-dow1=mon;
stop-dow1=fri; start-time1=07:00; stop-time1=17:00; policy-type1=per;
policy-id1=texaspercent;
default-policy-type=route; default-policy-id=dallasaustin;
change policy-tod id=basictime; doy2=07-04;
delete policy-tod id= basictime;
```

Usage Guidelines

Primary Key Token(s): id

Add Rules: policy-id exists in policy-<policy-type>::id if entered.

Change Rules: policy-id exists in policy-<policy-type>::id if entered.

Delete Rules: id does not exist in any <route-guide, policy-odr, policy-region, policy-percent, policy-tod, policy-prefix, policy-oli, or policy-pop>::policy-id where policy-type = tod.

Syntax Description

* ID	Primary key. Unique identifier for this policy-tod. Assigned by service provider. VARCHAR(16): 1–16 ASCII characters.
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.

DEFAULT-POLICY-ID	Use default policy ID when there is no match with the above schedule. Assigned by service provider. VARCHAR(16): 1–16 ASCII characters.
DEFAULT-POLICY-TYPE	Use default policy type when there is no match with the above schedule. VARCHAR(7): 1–7 ASCII characters.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
DOY1	Month and day (day of year provisioning). CHAR(5): 5 characters in the format mm-dd.
DOY10	Month and day (day of year provisioning). CHAR(5): 5 characters in the format mm-dd.
DOY10-POLICY-ID	See DOY1-POLICY-ID. VARCHAR(16): 1–16 ASCII characters.
DOY10-POLICY-TYPE	See DOY1-POLICY-TYPE. VARCHAR(7): 1–7 ASCII characters.
DOY1-POLICY-ID	ID of the Policy or Route table that matches the policy type. Indexes the ID to the type. Points to the next policy type table to be used in the sequence. Policy routing continues until policy-type=route or policy-nxx is reached. All policy-types except route point to the policy-$type table where $type = odr | tod | percent | prefix | oli | pop | nxx. If policy-type = route, the route table is used for routing. The policy-id indexes the Policy or Route table, whatever the case may be. Examples: If policy-type=tod, then policy-tod table is indexed with policy-id. If policy-type=route, then Route table is indexed with policy-id. VARCHAR(16): 1–16 ASCII characters.

DOY1-POLICY-TYPE	Points to the next policy type table to be used in the sequence. Policy routing continues until policy-type=route or policy-nxx is reached. All policy-types except route point to the policy-$type table where $type = odr | tod | percent | prefix | oli | pop | nxx. If policy-type = route, the route table is used for routing. The policy-id indexes the Policy or Route table, whatever the case may be. Examples: If policy-type=tod, then policy-tod table is indexed with policy-id. If policy-type=route, then Route table is indexed with policy-id. VARCHAR(7): 1–7 ASCII characters. Permitted values are: ODR—Origin-dependent routing. TOD—Time of day routing. PERCENT—Percent allocation. PREFIX—Prefix-based routing. OLI—Originating line information. POP—Point of presence. ROUTE—Go to Route table. NXX—Use translated DN. REGION—Region-based routing.
DOY2	Month and day (day of year provisioning). CHAR(5): 5 characters in the format mm-dd.
DOY2-POLICY-ID	See DOY1-POLICY-ID. VARCHAR(16): 1–16 ASCII characters.
DOY2-POLICY-TYPE	See DOY1-POLICY-TYPE. VARCHAR(7): 1–7 ASCII characters.
DOY3	Month and day (day of year provisioning). CHAR(5): 5 characters in the format mm-dd.
DOY3-POLICY-ID	See DOY1-POLICY-ID. VARCHAR(16): 1–16 ASCII characters.
DOY3-POLICY-TYPE	See DOY1-POLICY-TYPE. VARCHAR(7): 1–7 ASCII characters.
DOY4	Month and day (day of year provisioning). CHAR(5): 5 characters in the format mm-dd.
DOY4-POLICY-ID	See DOY1-POLICY-ID. VARCHAR(16): 1–16 ASCII characters.
DOY4-POLICY-TYPE	See DOY1-POLICY-TYPE. VARCHAR(7): 1–7 ASCII characters.
DOY5	Month and day (day of year provisioning). CHAR(5): 5 characters in the format mm-dd.

DOY5-POLICY-ID	See DOY1-POLICY-ID. VARCHAR(16): 1–16 ASCII characters.
DOY5-POLICY-TYPE	See DOY1-POLICY-TYPE. VARCHAR(7): 1–7 ASCII characters.
DOY6	Month and day (day of year provisioning). CHAR(5): 5 characters in the format mm-dd.
DOY6-POLICY-ID	See DOY1-POLICY-ID. VARCHAR(16): 1–16 ASCII characters.
DOY6-POLICY-TYPE	See DOY1-POLICY-TYPE. VARCHAR(7): 1–7 ASCII characters.
DOY7	Month and day (day of year provisioning). CHAR(5): 5 characters in the format mm-dd.
DOY7-POLICY-ID	See DOY1-POLICY-ID. VARCHAR(16): 1–16 ASCII characters.
DOY7-POLICY-TYPE	See DOY1-POLICY-TYPE. VARCHAR(7): 1–7 ASCII characters.
DOY8	Month and day (day of year provisioning). CHAR(5): 5 characters in the format mm-dd.
DOY8-POLICY-ID	See DOY1-POLICY-ID. VARCHAR(16): 1–16 ASCII characters.
DOY8-POLICY-TYPE	See DOY1-POLICY-TYPE. VARCHAR(7): 1–7 ASCII characters.
DOY9	Month and day (day of year provisioning). CHAR(5): 5 characters in the format mm-dd.
DOY9-POLICY-ID	See DOY1-POLICY-ID. VARCHAR(16): 1–16 ASCII characters.
DOY9-POLICY-TYPE	See DOY1-POLICY-TYPE. VARCHAR(7): 1–7 ASCII characters.
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
POLICY-ID1	ID of the Policy or Route table that matches the policy type. Indexes the ID to the type. VARCHAR(16): 1–16 ASCII characters.

POLICY-ID10	ID of the Policy or Route table that matches the policy type. Indexes the ID to the type. VARCHAR(16): 1–16 ASCII characters.
POLICY-ID2	ID of the Policy or Route table that matches the policy type. Indexes the ID to the type. VARCHAR(16): 1–16 ASCII characters.
POLICY-ID3	ID of the Policy or Route table that matches the policy type. Indexes the ID to the type. VARCHAR(16): 1–16 ASCII characters.
POLICY-ID4	ID of the Policy or Route table that matches the policy type. Indexes the ID to the type. VARCHAR(16): 1–16 ASCII characters.
POLICY-ID5	ID of the Policy or Route table that matches the policy type. Indexes the ID to the type. VARCHAR(16): 1–16 ASCII characters.
POLICY-ID6	ID of the Policy or Route table that matches the policy type. Indexes the ID to the type. VARCHAR(16): 1–16 ASCII characters
POLICY-ID7	ID of the Policy or Route table that matches the policy type. Indexes the ID to the type. VARCHAR (16): 1–16 ASCII characters.
POLICY-ID8	ID of the Policy or Route table that matches the policy type. Indexes the ID to the type. VARCHAR(16): 1–16 ASCII characters.
POLICY-ID9	ID of the Policy or Route table that matches the policy type. Indexes the ID to the type. VARCHAR(16): 1–16 ASCII characters.
POLICY-TYPE1	Points to the next policy type table to be used in the sequence. Policy routing continues until policy-type=route or policy-nxx is reached. All policy-types except route point to the policy-$type table where $type = odr | tod | percent | prefix | oli | pop | nxx. If policy-type = route, the route table is used for routing. The policy-id indexes the Policy or Route table, whatever the case may be. Examples: If policy-type=tod, then policy-tod table is indexed with policy-id. If policy-type=route, then Route table is indexed with policy-id. VARCHAR(7): 1–7 ASCII characters.
POLICY-TYPE10	See POLICY-TYPE1. VARCHAR(7): 1–7 ASCII characters.
POLICY-TYPE2	See POLICY-TYPE1. VARCHAR(7): 1–7 ASCII characters.
POLICY-TYPE3	See POLICY-TYPE1. VARCHAR(7): 1–7 ASCII characters.

POLICY-TYPE4	See POLICY-TYPE1. VARCHAR(7): 1–7 ASCII characters.
POLICY-TYPE5	See POLICY-TYPE1. VARCHAR(7): 1–7 ASCII characters.
POLICY-TYPE6	See POLICY-TYPE1. VARCHAR(7): 1–7 ASCII characters.
POLICY-TYPE7	See POLICY-TYPE1. VARCHAR(7): 1–7 ASCII characters.
POLICY-TYPE8	See POLICY-TYPE1. VARCHAR(7): 1–7 ASCII characters.
POLICY-TYPE9	See POLICY-TYPE1. VARCHAR(7): 1–7 ASCII characters.
START-DOW1	Day of week that this policy begins (day of week provisioning). Start-dow1 and stop-dow1 define a range of days. The DOW begins on MON and ends on SUN, such as when specifying range, START-DOW*n* ≤STOP-DOW*n*. CHAR(3). Permitted values are: MON—Monday TUE—Tuesday WED—Wednesday THU—Thursday FRI—Friday SAT—Saturday SUN—Sunday Examples: START-DOW1=MON; STOP-DOW1=FRI; is valid. START-DOW1=FRI; STOP-DOW1=MON; is invalid.
START-DOW10	See START-DOW1.
START-DOW2	See START-DOW1.
START-DOW3	See START-DOW1.
START-DOW4	See START-DOW1.
START-DOW5	See START-DOW1.
START-DOW6	See START-DOW1.
START-DOW7	See START-DOW1.
START-DOW8	See START-DOW1.
START-DOW9	See START-DOW1.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).

START-TIME1	The time in hours and minutes (24-hour clock) that this policy starts (time of day provisioning). CHAR(5): HH:MM.
START-TIME10	The time in hours and minutes (24-hour clock) that this policy starts (time of day provisioning). CHAR(5): HH:MM.
START-TIME2	The time in hours and minutes (24-hour clock) that this policy starts (time of day provisioning). CHAR(5): HH:MM
START-TIME3	The time in hours and minutes (24-hour clock) that this policy starts (time of day provisioning). CHAR(5): HH:MM
START-TIME4	The time in hours and minutes (24-hour clock) that this policy starts (time of day provisioning). CHAR(5): HH:MM
START-TIME5	The time in hours and minutes (24-hour clock) that this policy starts (time of day provisioning). CHAR(5): HH:MM
START-TIME6	The time in hours and minutes (24-hour clock) that this policy starts (time of day provisioning). CHAR(5): HH:MM
START-TIME7	The time in hours and minutes (24-hour clock) that this policy starts (time of day provisioning). CHAR(5): HH:MM
START-TIME8	The time in hours and minutes (24-hour clock) that this policy starts (time of day provisioning). CHAR(5): HH:MM
START-TIME9	The time in hours and minutes (24-hour clock) that this policy starts (time of day provisioning). CHAR(5): HH:MM

STOP-DOW1	Day of week that this policy ends. Start-dow1 and stop-dow1 define a range of days. The DOW begins on MON and ends on SUN, such as when specifying range, START-DOW*n* ≤STOP-DOW*n*. CHAR(3). Permitted values are: MON—Monday TUE—Tuesday WED—Wednesday THU—Thursday FRI—Friday SAT—Saturday SUN—Sunday Examples: START-DOW1=MON; STOP-DOW1=FRI; is valid. START-DOW1=FRI; STOP-DOW1=MON; is invalid.
STOP-DOW10	See STOP-DOW1.
STOP-DOW2	See STOP-DOW1.
STOP-DOW3	See STOP-DOW1.
STOP-DOW4	See STOP-DOW1.
STOP-DOW5	See STOP-DOW1.
STOP-DOW6	See STOP-DOW1.
STOP-DOW7	See STOP-DOW1.
STOP-DOW8	See STOP-DOW1.
STOP-DOW9	See STOP-DOW1.
STOP-TIME1	The time in hours and minutes (24-hour clock) that this policy ends (time of day provisioning). CHAR(5): HH:MM
STOP-TIME10	The time in hours and minutes (24-hour clock) that this policy ends (time of day provisioning). CHAR(5): HH:MM.
STOP-TIME2	The time in hours and minutes (24-hour clock) that this policy ends (time of day provisioning). CHAR(5): HH:MM
STOP-TIME3	The time in hours and minutes (24-hour clock) that this policy ends (time of day provisioning). CHAR(5): HH:MM
STOP-TIME4	The time in hours and minutes (24-hour clock) that this policy ends (time of day provisioning). CHAR(5): HH:MM

STOP-TIME5	The time in hours and minutes (24-hour clock) that this policy ends (time of day provisioning). CHAR(5): HH:MM
STOP-TIME6	The time in hours and minutes (24-hour clock) that this policy ends (time of day provisioning). CHAR(5): HH:MM
STOP-TIME7	The time in hours and minutes (24-hour clock) that this policy ends (time of day provisioning). CHAR(5): HH:MM
STOP-TIME8	The time in hours and minutes (24-hour clock) that this policy ends (time of day provisioning). CHAR(5): HH:MM
STOP-TIME9	The time in hours and minutes (24-hour clock) that this policy ends (time of day provisioning). CHAR(5): HH:MM

Region Profile

The Region Profile (region-profile) table groups North American Numbering Plan (NANP) digits to an originating region. You can have many ID and digit-string combinations for a given region. In this conceptual relationship, a number of digit patterns (digit-string) can belong to a given region and a number of originating regions comprise a region profile (id). Use the value specified in the ca-config record as the default region where type=default-region.

Table Name: REGION-PROFILE

Table Containment Area: Call Agent, AIN Feature Server

Command Types

Show, add, change, and delete

Examples

```
show region-profile id=e911; digit-string=210-470;
add region-profile id=e911; digit-string=210-470; region=sanantonio;
change region-profile id=e911; digit-string=210-470; region=sanantonio;
delete region-profile id=e911; digit-string=210-470;
```

Usage Guidelines

Primary Key Token(s): id, digit-string

Add Rules: None.

Change Rules: None.

Delete Rules: None.

Syntax Description

* ID	Primary key. Region profile ID. VARCHAR(16): 1–16 ASCII characters.
* DIGIT-STRING	Primary key. NDC-EC-XXXX to be assigned to a region. VARCHAR(14): 1–14 numeric characters.
* REGION	Region assigned to the calling party number. VARCHAR(16): 1–16 ASCII characters.
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).

Route

The Route (route) table contains a list of up to ten trunk groups to route a call. If all the trunk groups are busy or not available, call processing uses the alt-route-id (if specified) to route the call. The Element Management System (EMS) provisions the Call Agent ID field based on the Trunk Group table.

Note This table allows the service provider to provision a list of up to10 trunk groups (TG1 to TG10), and a parameter for selecting the priority of the TGs for routing (TG-SELECTION). The system attempts to route the call on the highest priority TG. If the call cannot be completed on the highest priority TG, the system attempts to use the next (lower priority) TG, a process known as route advance. The system attempts route advance to lower priority TGs up to five times. (Any TG in the list that is administratively out of service is not counted as an attempt.) If all five attempts fail, the call is released, and the system provides a release announcement.

Table Name: ROUTE

Table Containment Area: Call Agent

Command Types

Show, add, change, and delete

Examples

```
show route id=dallas1;
add route id=dallas1; tgn1-id=dallas-tg; pfx-digits1=972; del-digits1=0;
change route id=dallas1; del-digits1=3;
delete route id=dallas1;
```

Usage Guidelines

Primary Key Token(s): id

Foreign Key Token(s): alt-route-id, call-agent-id1, tgn1-id, dnis-digman-id1, ani-digman-id1, call-agent-id2, tgn2-id, dnis-digman-id2, ani-digman-id2, call-agent-id3, tgn3-id, dnis-digman-id3, ani-digman-id3, call-agent-id4, tgn4-id, dnis-digman-id4, ani-digman-id4, call-agent-id5, tgn5-id, dnis-digman-id5, ani-digman-id5, call-agent-id6, tgn6-id, dnis-digman-id6, ani-digman-id6, call-agent-id7, tgn7-id, dnis-digman-id7, ani-digman-id7, call-agent-id8, tgn8-id, dnis-digman-id8, ani-digman-id8, call-agent-id9, tgn9-id, dnis-digman-id9, ani-digman-id9, call-agent-id10, tgn10-id, dnis-digman-id10, ani-digman-id10

Add Rules: None.

Change Rules: None.

Delete Rules: id does not exist in any <route-guide, policy-odr, policy-region, policy-percent, policy-tod, policy-prefix, policy-oli, or policy-pop>::policy-id where policy-type = route.

Syntax Description

* ID	Primary key. The route identification. VARCHAR(16): 1–16 ASCII characters.

ALT-ROUTE-ID	Foreign key: Route table. An alternate route to be used if all the trunk groups in this route are busy. VARCHAR(16): 1–16 ASCII characters. **Note** This token is mandatory in Release 4.5 if next-action=alt-route.
ANI-DIGMAN-ID1	Foreign key: Digman Profile table. ANI (calling party number) digit manipulation ID. VARCHAR(16): 1–16 ASCII characters.
ANI-DIGMAN-ID10	Foreign key: Digman Profile table. ANI (calling party number) digit manipulation ID. VARCHAR(16): 1–16 ASCII characters.
ANI-DIGMAN-ID2	Foreign key: Digman Profile table. ANI (calling party number) digit manipulation ID. VARCHAR(16): 1–16 ASCII characters.
ANI-DIGMAN-ID3	Foreign key: Digman Profile table. ANI (calling party number) digit manipulation ID. VARCHAR(16): 1–16 ASCII characters.
ANI-DIGMAN-ID4	Foreign key: Digman Profile table. ANI (calling party number) digit manipulation ID. VARCHAR(16): 1–16 ASCII characters.
ANI-DIGMAN-ID5	Foreign key: Digman Profile table. ANI (calling party number) digit manipulation ID. VARCHAR(16): 1–16 ASCII characters.
ANI-DIGMAN-ID6	Foreign key: Digman Profile table. ANI (calling party number) digit manipulation ID. VARCHAR(16): 1–16 ASCII characters.
ANI-DIGMAN-ID7	Foreign key: Digman Profile table. ANI (calling party number) digit manipulation ID. VARCHAR(16): 1–16 ASCII characters.
ANI-DIGMAN-ID8	Foreign key: Digman Profile table. ANI (calling party number) digit manipulation ID. VARCHAR(16): 1–16 ASCII characters.
ANI-DIGMAN-ID9	Foreign key: Digman Profile table. ANI (calling party number) digit manipulation ID. VARCHAR(16): 1–16 ASCII characters.
ANNC-ID (Release 4.5)	Mandatory if next-action=annc. Foreign key: Announcement table. Announcement id. INTEGER: 1–1000 numeric digits.
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.

CALL-AGENT-ID1 (Not used)	Foreign key: Call Agent table. Valid home Call Agent ID for the dialed NPA or NPA-NXX. VARCHAR(8): 1–8 ASCII characters.
CALL-AGENT-ID2 (Not used)	Foreign key: Call Agent table. Home Call Agent ID for the dialed NPA or NPA-NXX. VARCHAR(8): 1–8 ASCII characters.
CALL-AGENT-ID3 (Not used)	Foreign key: Call Agent table. Valid home Call Agent ID for the dialed NPA or NPA-NXX. VARCHAR(8): 1–8 ASCII characters.
CALL-AGENT-ID4 (Not used)	Foreign key: Call Agent table. Valid home Call Agent ID for the dialed NPA or NPA-NXX. VARCHAR(8): 1–8 ASCII characters.
CALL-AGENT-ID5 (Not used)	Foreign key: Call Agent table. Home Call Agent ID for the dialed NPA or NPA-NXX. VARCHAR(8): 1–8 ASCII characters.
CALL-AGENT-ID6 (Not used)	Foreign key: Call Agent table. Home Call Agent ID for the dialed NPA or NPA-NXX. VARCHAR(8): 1–8 ASCII characters.
CALL-AGENT-ID7 (Not used)	Foreign key: Call Agent table. Valid home Call Agent ID for the dialed NPA or NPA-NXX. VARCHAR(8): 1–8 ASCII characters.
CALL-AGENT-ID8 (Not used)	Foreign key: Call Agent table. Valid home Call Agent ID for the dialed NPA or NPA-NXX. VARCHAR(8): 1–8 ASCII characters.
CALL-AGENT-ID9 (Not used)	Foreign key: Call Agent table. Valid home Call Agent ID for the dialed NPA or NPA-NXX. VARCHAR(8): 1–8 ASCII characters.
CALL-AGENT-ID10 (Not used)	Foreign key: Call Agent table. Valid home Call Agent ID for the dialed NPA or NPA-NXX. VARCHAR(8): 1–8 ASCII characters.
DEL-DIGITS1	Number of digits to delete. SMALLINT: 0–16 (Default = 0).
DEL-DIGITS10	Number of digits to delete. SMALLINT: 0–10 (Default = 0).
DEL-DIGITS2	Number of digits to delete. SMALLINT: 0–16 (Default = 0).
DEL-DIGITS3	Number of digits to delete. SMALLINT: 0–16 (Default = 0).
DEL-DIGITS4	Number of digits to delete. SMALLINT: 0–16 (Default = 0).
DEL-DIGITS5	Number of digits to delete. SMALLINT: 0–16 (Default = 0).

DEL-DIGITS6	Number of digits to delete. SMALLINT: 0–16 (Default = 0).
DEL-DIGITS7	Number of digits to delete. SMALLINT: 0–16 (Default = 0).
DEL-DIGITS8	Number of digits to delete. SMALLINT: 0–16 (Default = 0)
DEL-DIGITS9	Number of digits to delete. SMALLINT: 0–16 (Default = 0).
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
DNIS-DIGMAN-ID1	Foreign key: Digman Profile table. DNIS (called party number) digit manipulation ID. VARCHAR(16): 1–16 ASCII characters.
DNIS-DIGMAN-ID10	Foreign key: Digman Profile table. DNIS (called party number) digit manipulation ID. VARCHAR(16): 1–16 ASCII characters.
DNIS-DIGMAN-ID2	Foreign key: Digman Profile table. DNIS (called party number) digit manipulation ID. VARCHAR(16): 1–16 ASCII characters.
DNIS-DIGMAN-ID3	Foreign key: Digman Profile table. DNIS (called party number) digit manipulation ID. VARCHAR(16): 1–16 ASCII characters.
DNIS-DIGMAN-ID4	Foreign key: Digman Profile table. DNIS (called party number) digit manipulation ID. VARCHAR(16): 1–16 ASCII characters.
DNIS-DIGMAN-ID5	Foreign key: Digman Profile table. DNIS (called party number) digit manipulation ID. VARCHAR(16): 1–16 ASCII characters.
DNIS-DIGMAN-ID6	Foreign key: Digman Profile table. DNIS (called party number) digit manipulation ID. VARCHAR(16): 1–16 ASCII characters.
DNIS-DIGMAN-ID7	Foreign key: Digman Profile table. DNIS (called party number) digit manipulation ID. VARCHAR(16): 1–16 ASCII characters.
DNIS-DIGMAN-ID8	Foreign key: Digman Profile table. DNIS (called party number) digit manipulation ID. VARCHAR(16): 1–16 ASCII characters.

DNIS-DIGMAN-ID9	Foreign key: Digman Profile table. DNIS (called party number) digit manipulation ID. VARCHAR(16): 1–16 ASCII characters.
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
NEXT-ACTION (Release 4.5)	Specifies what action to perform after all trunk groups within a route are exhausted. VARCHAR(16): 1–16 ASCII characters. Permitted values are: NONE (Default)—No next action. Play standard no route to destination announcement. ALT-ROUTE—Use alternate route. ANNC—Use the specific announcement ID OVERFLOW-DN (Not used)—Reroute the call using the overflow DN. ENUM-REROUTE—Reroute the call if the route is based on ENUM.
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
OVERFLOW-DN (Not supported)	Mandatory if next-action=overflow-dn. Specifies using the overflow DN to reroute a call if no trunk groups are available. VARCHAR(14): 1–14 ASCII characters.
PFX-DIGITS1	Digits to be prefixed. Digits are prefixed after the number of specified digits are deleted. VARCHAR(16): 1–16 ASCII characters.
PFX-DIGITS10	Digits to be prefixed for tgn10-id. Digits are prefixed after the number of digits specified have been deleted. VARCHAR(16): 1–16 ASCII characters.
PFX-DIGITS2	Digits to be prefixed for tgn2-id. Digits are prefixed after the number of specified digits are deleted. VARCHAR(16): 1–16 ASCII characters.
PFX-DIGITS3	Digits to be prefixed for tgn3-id. Digits are prefixed after the number of specified digits are deleted. VARCHAR(16): 1–16 ASCII characters.
PFX-DIGITS4	Digits to be prefixed for tgn4-id. Digits are prefixed after the number of specified digits are deleted. VARCHAR(16): 1–16 ASCII characters.
PFX-DIGITS5	Digits to be prefixed for tgn5-id. Digits are prefixed after the number of specified digits are deleted. VARCHAR(16): 1–16 ASCII characters.

PFX-DIGITS6	Digits to be prefixed for tgn6-id. Digits are prefixed after the number of specified digits are deleted. VARCHAR(16): 1–16 ASCII characters.
PFX-DIGITS7	Digits to be prefixed for tgn7-id. Digits are prefixed after the number of specified digits are deleted. VARCHAR(16): 1–16 ASCII characters.
PFX-DIGITS8	Digits to be prefixed for tgn8-id. Digits are prefixed after the number of specified digits are deleted. VARCHAR(16): 1–16 ASCII characters.
PFX-DIGITS9	Digits to be prefixed for tgn9-id. Digits are prefixed after the number of specified digits are deleted. VARCHAR(16): 1–16 ASCII characters.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).
TGN1-ID (or TG1)	Foreign key: Trunk Group table. The first trunk group within the route. The trunk groups are searched in the order specified unless least cost routing (LCR) applies. If LCR is applied, the Call Agent reads the cost for each trunk group from the trunk-grp table and selects trunks from the least expensive trunk group to the most expensive one. This field can also be provisioned using tg instead of tgn-id. The EMS looks up the tgn-id based on the trunk group and then provisions it. INTEGER: 1–99999999.
TGN2-ID (or TG2)	Foreign key: Trunk Group table. The second trunk group within the route. This field can also be provisioned using tg instead of tgn-id. The EMS looks up the tgn-id based on the trunk group and then provisions it. INTEGER: 1–99999999.
TGN3-ID (or TG3)	Foreign key: Trunk Group table. The third trunk group within the route. This field can also be provisioned using tg instead of tgn-id. The EMS looks up the tgn-id based on the trunk group and then provisions it. INTEGER: 1–99999999.
TGN4-ID (or TG4)	Foreign key: Trunk Group table. The fourth trunk group within the route. This field can also be provisioned using tg instead of tgn-id. The EMS looks up the tgn-id based on the trunk group and then provisions it. INTEGER: 1–99999999.
TGN5-ID (or TG5)	Foreign key: Trunk Group table. The fifth trunk group within the route. This field can also be provisioned using tg instead of tgn-id. The EMS looks up the tgn-id based on the trunk group and then provisions it. INTEGER: 1–99999999.
TGN6-ID (or TG6)	Foreign key: Trunk Group table. The sixth trunk group within the route. This field can also be provisioned using tg instead of tgn-id. The EMS looks up the tgn-id based on the trunk group and then provisions it. INTEGER: 1–99999999.

TGN7-ID (or TG7)	Foreign key: Trunk Group table. The seventh trunk group within the route. This field can also be provisioned using tg instead of tgn-id. The EMS looks up the tgn-id based on the trunk group and then provisions it. INTEGER: 1–99999999.
TGN8-ID (or TG8)	Foreign key: Trunk Group table. The eighth trunk group within the route. This field can also be provisioned using tg instead of tgn-id. The EMS looks up the tgn-id based on the trunk group and then provisions it. INTEGER: 1–99999999.
TGN9-ID (or TG9)	Foreign key: Trunk Group table. The ninth trunk group within the route. This field can also be provisioned using tg instead of tgn-id. The EMS looks up the tgn-id based on the trunk group and then provisions it. INTEGER: 1–99999999.
TGN10-ID (or TG10)	Foreign key: Trunk Group table. The tenth trunk group within the route. This field can also be provisioned using tg instead of tgn-id. The EMS looks up the tgn-id based on the trunk group and then provisions it. INTEGER: 1–99999999.
TG-SELECTION	Trunk group selection policy. VARCHAR(3). Permitted values are: LCR—Least cost routing LS—Load sharing (Not used) RR—Round robin SEQ (Default)—Sequential order

Route Guide

The Route Guide (route-guide) table holds routing information based on policy-type.

Table Name: ROUTE-GUIDE

Table Containment Area: Call Agent, AIN Feature Server

Command Types

Show, add, change, and delete

Examples

```
show route-guide id=rg200;
add route-guide id=rg200; policy-type=tod; policy-id=tod101;
change route-guide id=rg200; policy-type=tod; policy-id=tod102;
delete route-guide id=rg200;
```

Usage Guidelines

Primary Key Token(s): id

Add Rules: policy-id exists in policy-<policy-type>::id if entered.

Change Rules: policy-id exists in policy-<policy-type>::id if entered.

Delete Rules: None.

Syntax Description

* ID	Primary key. Route guide identification. VARCHAR(16): 1–16 ASCII characters.
* POLICY-ID	ID of the Policy or Route table that matches the policy type. Indexes the ID to the type. VARCHAR(16): 1–16 ASCII characters.
* POLICY-TYPE	Points to the next policy type table to be used in the sequence. Policy routing continues until policy-type=route or policy-nxx is reached. All policy-types except route point to the Policy-$type table where $type = odr | tod | percent | prefix | oli | pop | nxx. If policy-type = route, the Route table is used for routing. The policy-id indexes the Policy or Route table, whatever the case may be. Examples: If policy-type=tod, then policy-tod table is indexed with policy-id. If policy-type=route, then Route table is indexed with policy-id. VARCHAR(7). Permitted values are: ODR—Origin-dependent routing. TOD—Time of day routing. PERCENT—Percent allocation. PREFIX—Prefix-based routing. OLI—Originating line information. POP—Point of presence. ROUTE—Go to Route table. NXX—Use translated DN. REGION—-based routing.
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.

ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
REGION-PROFILE-ID	The region profile ID is used to convert an ANI (calling party number) to a region if region-based policy routing is encountered. VARCHAR(16): 1–16 ASCII characters.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).

Script (Release 4.5)

The Script (script) table defines the attributes of a script. A script is sent to the gateway for IVR functions.

Table Name: SCRIPT

Table Containment Area: Call Agent

Command Types

Show, add, change, and delete

Examples

```
show script id=prepaid;
add script id=prepaid; type=vxml; url=tftp://prepaid-script.vxml;
language=English;pin-length=12;
change script id=DallasAustin; route-guide-id=rg11;
delete script id=DallasAustin;
```

Usage Guidelines

Primary Key Token(s): id

Foreign Key Token(s): language-id

Add Rules: None.

Change Rules: None.

Delete Rules: FK constraints.

Syntax Description

* ID	Primary key. Identifies the script. A script id is required if route-type=script. The specified script is executed on the end point to perform IVR functions. VARCHAR(16): 1–16 ASCII characters.
* TYPE	Defines the script type. VARCHAR(8): 1–8 ASCII characters. Permitted values are: TCL VXML PERL XML TYPE1 (spare) TYPE2 (spare)
* URL	The URL of the script. VARCHAR(128): 1–128 ASCII characters.
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
DESCRIPTION (EMS-only field)	Service provider-defined description. VARCHAR(64): 1–64 ASCII characters.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
LANGUAGE-ID	Foreign key: Language table. Language in which the script is to be played. For language abbreviations, refer to ISO standard ISO 639.2. VARCHAR(3): 1–3 ASCII characters.
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.

PIN-LENGTH	Number of PIN digits to collect. 0 indicates no PIN is collected. SMALLINT: 0–24.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).

Special Call Type

The Special Call Type (special-call-type) table specifies special call types based on special NXX such as 976, 555, and so on.

For example, a service provider who needs to change *all* NPA-555 call types to DA or DA-TOLL defines the changes in this table.

If only a limited number of Numbering Plan Areas (NPAs) or specific NPAs must be assigned a call type of DA, they are provisioned using the Destination table.

This table is preprovisioned during installation with the parameters described in Table 3-3.

Table 3-3 Special Call Type Preprovisioned Parameters

Digit String	Call Type	Description
5551212	DA-TOLL	Directory assistance (DA) toll calls.
976	976	Information services call types.

Table Name: SPECIAL-CALL-TYPE

Table Containment Area: Call Agent

Command Types

Show, add, change, and delete

Examples

```
show special-call-type digit-string=976;
add special-call-type digit-string=976; call-type=976; description=976 call type;
change special-call-type digit-string=976; call-type=INFO; description=change call type to
a generic call type;
delete special-call-type digit-string=976; call-type=INFO
```

Usage Guidelines

Primary Key Token(s): digit-string

Add Rules: None.

Change Rules: None.

Delete Rules: None.

Syntax Description

* DIGIT-STRING	Primary key. The digit string to compare. A digit string begins with NXX, the NPA string is omitted. VARCHAR(10): 1–10 numeric characters.
* CALL-TYPE	Call type based on the dialed number. VARCHAR(9): 1–9 ASCII characters. Permitted values are: DA—NPA-555-1212 calls. DA-TOLL—1+NPA-555-1212 calls. 976—Information services calls. INFO—Information services calls. TW—Time and temperature service.
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
DESCRIPTION (EMS-only field)	Service provider-defined description. VARCHAR(64): 1–64 ASCII characters.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).



CHAPTER 4

Signaling System 7 Provisioning

Revised: July 24, 2009, OL-3743-42

This chapter describes the Signaling System 7 Provisioning commands and their associated tables.

Note In this chapter, an asterisk preceding a token name means the token is mandatory. A token without an asterisk is optional.

Call Control Route

The Call Control Route (call-ctrl-route) table identifies the call control routes defined between various origination point codes (OPCs), destination point codes (DPCs), and signaling gateway (SG) groups.

Table Name: CALL-CTRL-ROUTE

Table Containment Area: Call Agent

Command Types Show, add, and delete

Examples

```
show call-ctrl-route id=routeset1;
add call-ctrl-route id=routeset1; routing-key-id=rk1; dpc-id=dpc1;
user-part-variant-id=standardansiss7;si=isup
delete call-ctrl-route id= routeset1;
```

Usage Guidelines Primary Key Token(s): id

Foreign Key Token(s): dpc-id, routing-key-id, user-part-variant-id

Add Rules: None.

Delete Rules: ID cannot exist in any dependency table.

Syntax Description

* ID	Primary key. Unique call control route identifier. VARCHAR(16): 1–16 ASCII characters.
* DPC-ID	Foreign key: DPC table. Unique destination point code identifier. VARCHAR(16): 1–16 ASCII characters.
* ROUTING-KEY-ID	Foreign key: Routing Key table. Unique routing key identifier. VARCHAR(16): 1–16 ASCII characters.
* USER-PART-VARIANT-ID	Foreign key: User Part Variant table. Name of the SS7 variant. VARCHAR(16): 1–16 ASCII characters.
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
DESCRIPTION	Described by the service provider. VARCHAR(64): 1–64 ASCII characters.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
SI	Service indicator. VARCHAR(16): 1–16 ASCII characters. Permitted values are: ISUP–ISDN User Part TUP–Telephone User Part SCCP–Signal Connection Control Part
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).

Destination Point Code

The Destination Point Code (dpc) table holds the destination point codes used in SS7 provisioning.

Command Types

Show, add, change, and delete

Examples

```
show dpc id=dpc1;
add dpc id=dpc1; point-code=1-1-1; point-code-type=ITU; net-ind=national;
description=destination point code;
change dpc id=dpc1;description=destination point code 1-1-1
delete dpc id=dpc1;
```



Note See the section "Destination Point Code Status Command" in Chapter 1, "Administration, Diagnostic, and Maintenance Commands" for the Destination Point Code status command.

Usage Guidelines

Primary Key Tokens: id

Unique Key Tokens: The combination of point-code and net-ap equals a unique index key.

Add Rules: Id cannot exist.

Change Rules: Id must exist. Only the description token can be changed.

Delete Rules: Id cannot exist in any dependency table, such as the Call Control Route table.

Syntax Description

* ID	Primary key. The destination point code id. VARCHAR(16): 1–16 ASCII characters.
* POINT-CODE	Point code value. VARCHAR(16): 1–16 ASCII characters.
* POINT-CODE-TYPE	Point code type. VARCHAR(16): 1–16 ASCII characters. Permitted values are: ANSI-CHINA ITU THAILAND (Release 4.2)
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
DESCRIPTION	Described by the service provider. VARCHAR(64): 1–64 ASCII characters.

DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
NET-AP	Unique key. Not provisionable. INTEGER: 0–32767 (Default = 0).
NET-IND	Network indicator. VARCHAR(16): 1–16 ASCII characters. Permitted values are: NATIONAL (Default) INTERNATIONAL RESERVED SPARE
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).

Origination Point Code

The Origination Point Code (opc) table contains the SS7 point codes used by signaling points within the SS7 network (PSTN) to send messages to the Cisco BTS 10200 Softswitch. These codes are also used by the Cisco BTS 10200 Softswitch to identify itself when sending messages to the PSTN network. The OPC identifies the sender of a message. It is used in conjunction with a destination point code (DPC), which identifies the signaling point in the PSTN that the message is being sent to. For example, the Cisco BTS 10200 Softswitch sends an OPC to identify itself as the originator of a message, while other signaling points use this code to identify the Cisco BTS 10200 Softswitch when they want to send messages to it.



Note In Release 4.5, for medium and large configurations, up to 30 OPCs can be provisioned per Cisco BTS 10200 Softswitch. For small configurations, up to 8 OPCs can be provisioned per Cisco BTS 10200 Softswitch.

Table Name: OPC

Table Containment Area: Call Agent, FSPTC, FSAIN

Command Types

Show, add, and delete

Examples

```
show opc id=opc1;
add opc id=opc1; point-code=2-2-1;
delete opc id=opc1;
```

Usage Guidelines

Primary Key Tokens: id

Unique Index Token(s): point-code, net-ap (Release 4.5)

Add Rules: Id cannot exist.

Change Rules: Id must exist. Only the description token can be changed.

Delete Rules: Id cannot exist in any dependency table.

Syntax Description

* ID	Primary key. The OPC id. VARCHAR(16): 1–16 ASCII characters.
* POINT-CODE	Point code value. VARCHAR(16): 1–16 ASCII characters.
* POINT-CODE-TYPE	Point code type. VARCHAR(16): 1–16 ASCII characters. Permitted values are: ANSI_CHINA ITU THAILAND (Release 4.2)
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
DESCRIPTION	Described by the service provider. VARCHAR(64): 1–64 ASCII characters.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.

LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).

Routing Key

The Routing Key (routing-key) table holds the information for all the MTP3-User Adaptation Layer (M3UA) and SCCP-User Adaptation Layer (SUA) routing keys.

Table Name: ROUTING-KEY

Table Containment Area: Call Agent, FSPTC, FSAIN

Command Types

Show, add, change, and delete

Examples

```
show routing-key id=rk1;
add routing-key id=rk1; opc-id=opc1;sg-grp-id=sggrp1;rc=5;si=isup; platform-id=ca146
change routing-key id=rk1; description=ISUP routing key
delete routing-key id=rk1;
```

Usage Guidelines

Primary Key Token(s): id

Foreign Key Token(s): sg-grp-id, opc-id, dpc-id, ssn-id, subsystem-grp-id (Release 4.5)

Unique Key Token(s): The combination of sg-grp-id and rc equals a unique index key.

Add Rules:

- The same destination point code (DPC) cannot cross multiple SG-GRPs.
- The ssn-id is required if si=sccp.
- The subsystem-grp-id is required if si=sccp. (Release 4.5)
- Cross-check the opc-id and ssn-id across the Subsystem table when the routing-key is added with si=sccp.
- Cross-check the opc-id and subsystem-grp-id across the Subsystem table when the routing-key is added with si=sccp. (Release 4.5)
- The opc-id and ssn-id combine to make a unique key if si=sccp.
- The opc-id and subsystem-grp-id combine to make a unique key if si=sccp. (Release 4.5)
- The platform-id must exist in the Call Agent table if si=tup | isup, or else the platform-id must exist in the Feature Server table when si=sccp.
- Cross-check the platform-id across the Routing Key and Subsystem Profile tables if si=sccp.

Change Rules: Only the description token can be changed.

Delete Rules: id cannot exist in any dependency table.

Syntax Description

* ID	Primary key. Routing key ID. VARCHAR(16): 1–16 ASCII characters.
* OPC-ID	Foreign key: OPC table. Origination point code. VARCHAR(16): 1–16 ASCII characters.
* PLATFORM-ID	Platform ID (must be a valid Call Agent or Feature Server ID). VARCHAR(16): 1–16 ASCII characters.
* RC	Unique key. Routing context. INTEGER: 1–65535 (Default = 0).
* SG-GRP-ID	Unique key. Foreign key: Signaling Gateway Group table. Signaling gateway group id. VARCHAR(16): 1–16 ASCII characters.
* SI	Service indicator. VARCHAR(4): 1–4 ASCII characters. Permitted values are: SCCP TUP ISUP
SUBSYSTEM-GRP-ID (Release 4.5)	Mandatory if si=sccp. Subsystem Group ID. Foreign key: Subsystem Group table. VARCHAR(16): 1–16 ASCII characters.

AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
DESCRIPTION	Described by service provider. VARCHAR(64): 1–64 ASCII characters.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
DPC-ID	Foreign key: Destination Point Code table. The destination point code. VARCHAR(16): 1–16 ASCII characters.
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
SSN-ID (Obsolete in Release 4.5)	Mandatory if si=sccp. Subsystem ID. Foreign key: Subsystem Profile table. VARCHAR(16): 1–16 ASCII characters.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).

Signal Connection Control Part Network

The Signal Connection Control Part (SCCP) Network (sccp-nw) table contains the attributes associated with an SS7 network. Although an SCCP network can support multiple point codes, each SCCP network is associated with one point code. When an OPC-ID is specified, it is used as the primary key to search the SCCP network.

Table Name: SCCP-NW

Table Containment Area: FSPTC, FSAIN

Command Types

Show, add, change and delete

Examples

```
show sccp-nw id=1;
add sccp-nw id=1; sub-svc=NATIONAL; description=SCCP network;
change sccp-nw id=1; NET-IND=NATIONAL;
delete sccp-nw id=1;
```

Usage Guidelines

Primary Key Token(s): id

Add Rules: None.

Change Rules: None.

Delete Rules: The id of the SCCP network must not exist in any dependent table(s).

Syntax Description

* ID	Primary key. Network identifier. SMALLINT (1-255).
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
DESCRIPTION	Described by the service provider. VARCHAR(64): 1–64 ASCII characters.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
HOP-COUNT	Provides the hop count with a value from 1 to 15. SMALLINT.

LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
NET-IND	Specifies the network indicator. VARCHAR(16): 1–16 ASCII characters. Permitted values are: • INTERNATIONAL • SPARE • NATIONAL (Default) • RESERVED
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).
SUB-SVC	Specifies the subservice. VARCHAR(16): 1–16 ASCII characters. Permitted values are: • INTERNATIONAL • SPARE • NATIONAL • RESERVED

Signal Connection Control Part Route (Release 4.5)

The Signal Connection Control Part (SCCP) Route (sccp-route) table specifies the route from a subsystem on the Cisco BTS 10200 Softswitch to a subsystem in the SS7 network

Table Name: SCCP-Route

Table Containment Area: FSPTC, FSAIN

Command Types

Show, add, change and delete

Examples

```
show sccp-route subsystem-grp-id=SSN1;
add sccp-route subsystem-grp-id=ssn1; opc-id=opc1; rk-id=rk1; dpc-id=dpc1;
description=SCCP Route 1;
change sccp-route subsystem-grp-id=SSN1; OPC-ID=opc1; dpc-id=dpc1;
delete sccp-route subsystem-grp-id=SSN1; OPC-ID=opc1; dpc-id=dpc1;
```

Usage Guidelines

Primary Key Token(s): subsystem-grp-id+opc-id+dpc-id

Foreign Key Token(s): dpc-id, opc-id, rk-id, subsystem-grp-id

Add Rules: The OPC in the Routing Key table must be the same as the OPC of the network in the SCCP Route table.

Change Rules: None.

Delete Rules: The id of the SCCP route cannot exist in any dependent table(s).

Syntax Description

* DPC-ID	Primary key. Foreign key: Destination Point Code table. VARCHAR(16): 1–16 ASCII characters.
* OPC-ID	Primary key. Foreign key: Origination Point Code table. The originating point code VARCHAR(16): 1–16 ASCII characters.
* RK-ID	Foreign key: Routing Key table. The routing key id associated with the route to DPC. VARCHAR(16): 1–16 ASCII characters.
* SUBSYSTEM-GRP-ID	Primary key. Foreign key: Subsystem table. The Subsystem group id. VARCHAR(16): 1–16 ASCII characters.
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
DESCRIPTION	Described by the service provider. VARCHAR(64): 1–64 ASCII characters.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.

ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).

Service Logic Host Route

The Service Logic Host Route (slhr) table contains the information necessary to route a Trigger Detection Point (TDP) request message to a Service Control Point (SCP).

Table Name: SLHR

Table Containment Area: FSPTC, FSAIN

Command Types

Show, add, change, and delete

Examples

```
show slhr id=1; opc-id=opc1;
add slhr id=slhr1; opc-id=opc1; dpc-id=dpc1;
change slhr id=slhr1; remote-ssn=254; opc-id=opc1;
delete slhr id=slhr1; opc-id=opc1;
```

Usage Guidelines

Primary Key Token(s): id plus the opc-id

Unique Key Token(s): opc-id plus the ssn-id, opc-id plus the subsystem-grp-id (Release 4.5)

Foreign Key Token(s): id, dpc-id, bpc-id, brk-id, opc-id, ssn-id, subsystem-grp-id (Release 4.5)

Add Rules: Id must exist in the SLHR Profile table.

Delete Rules: Id cannot exist in any dependency tables.

Other Rules:

- tt is mandatory if gtt-req=Y
- gtt-addr-type is mandatory if gtt-req=Y
- gtt-addr is mandatory if gtt-addr-type=DN

Syntax Description

* ID	Primary key. Foreign key: SLHR Profile table. Service Logic Host Route id. VARCHAR(16): 1–16 ASCII characters.
* DPC-ID	Foreign key: Destination Point Code table. The destination point code. This token is for the STP or SCP where the query is processed. VARCHAR(16): 1–16 ASCII characters.

* OPC-ID	Primary key. Unique key. Foreign key: Subsystem table. Originating point code. VARCHAR(16): 1–16 ASCII characters.
* SSN-ID (Obsolete in Release 4.5)	Unique key. Foreign key: Subsystem table. Subsystem profile id. VARCHAR(16): 1–16 ASCII characters.
* SUBSYSTEM-GRP-ID (Release 4.5)	Unique key. Foreign key: Subsystem Group table. Subsystem group id. VARCHAR(16): 1–16 ASCII characters.
BPC-ID (Obsolete)	Foreign key: Destination Point Code table. The backup point code. VARCHAR(16): 1–16 ASCII characters.
BRK-ID (Obsolete)	Foreign Key: Routing Key table. The routing key ID associated with the route to BPC, this must be present when a BPC is present. VARCHAR(16): 1–16 ASCII characters.
DESCRIPTION	Described by the service provider. VARCHAR(64): 1–64 ASCII characters.
GTT-ADDR	Specifies the global title translation (GTT) address. VARCHAR(10): 3, 6 or 10 digits.
GTT-ADDR-TYPE	Specifies the GTT address type (the called, calling, or network-defined DN). VARCHAR(4): 1–4 ASCII characters. Permitted values are: CDPN (Default)—Called party number CLGN–Calling number DN—Directory number
GTT-REQ	Specifies whether global title translation is required. CHAR(1): Y/N (Default = Y).
TT	Specifies the translation type. SMALLINT: 1–255 numeric digits.
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.

LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).

Service Logic Host Route Profile

The Service Logic Host Route Profile (slhr-profile) table identifies an SLHR. An slhr-profile id must be created in this table before entries can be added to the SLHR table.

Table Name: SLHR-PROFILE

Table Containment Area: EMS

Command Types

Show, add, and delete

Examples

```
show slhr-profile id=1;
add slhr-profile id=slhr1;
delete slhr-profile id=slhr1;
```

Usage Guidelines

Primary Key Token(s): id

Add Rules: Id cannot exist.

Delete Rules: slhr-profile id cannot exist in any dependency table.

Syntax Description

* ID	Primary key. Unique identifier of the SLHR. VARCHAR(16): 1–16 ASCII characters.
DESCRIPTION	Described by the service provider. VARCHAR(64): 1–64 ASCII characters.

AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).

Signaling Gateway

The Signaling Gateway (sg) table identifies all signaling gateways managed by a Call Agent. A signaling gateway passes signaling messages between an SS7 network and associated IP nodes.

Table Name: SG

Table Containment Area: Call Agent, FSPTC, FSAIN

Command Types

Show, add, change, delete, get-trace, and set-trace

Examples

```
show sg id=sg1;
add sg id=sg1;
change sg id=sg1;description=Signaling Gateway 1;
delete sg id=sg1;
```

Note See the section "Signaling Gateway Get and Set Trace Commands" in Chapter 1, "Administration, Diagnostic, and Maintenance Commands" for the signaling gateway get-trace and set-trace commands.

Usage Guidelines

Primary Key Token(s): id

Unique Key Token(s): id

Add Rules: None.

Change Rules: ID must exist; only changeable token is description.

Delete Rules: ID cannot exist in any dependency table.

Syntax Description

* ID	Primary key. Unique key. Unique signaling gateway identifier. VARCHAR(16): 1–16 ASCII characters.
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
DESCRIPTION	Described by the service provider. VARCHAR(125): 1–125 ASCII characters.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
PRIORITY	Specifies the priority. If signaling gateways are set to the same priority, the gateways load share. If the signaling gateways are set to different priorities, the higher priority is used. INTEGER: 1 or 2 (Default = 1). Permitted values are: 1—HIGH (Default) 2—LOW

START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).

Signaling Gateway Group

The Signaling Gateway Group (sg-grp) table associates paired signaling gateways for redundancy and load sharing.

Table Name: SG-GRP

Table Containment Area: Call Agent, FSPTC, FSAIN

Command Types

Show, add, change, and delete

Examples

```
show sg-grp id=sgpair1;
add sg-grp id=sgpair1; sg1-id=sg1; sg2-id=sg2;
change sg-grp id=sgpair1; description=Signaling Gateway 1;
delete sg-grp id=sgpair1;
```

Usage Guidelines

Primary Key Token(s): id

Foreign Key Token(s): sg1-id, sg2-id

Unique Key Token(s): sg1-id, sg2-id

Add Rules:

- ID cannot exist; sg1-id and sg2-id cannot be the same.
- Cannot have more than two Skips per sg-grp.

Change Rules:

- ID must exist
- Only changeable token is description.

Delete Rules: ID cannot exist in any dependency table.

Syntax Description

* ID	Primary key. Unique SG group identifier. VARCHAR(16): 1–16 ASCII characters.
* SG1-ID	Unique key. Foreign key: Signaling Gateway table. First signaling gateway ID. VARCHAR(16): 1–16 ASCII characters.

AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
DESCRIPTION	Described by the service provider. VARCHAR(64): 1–64 ASCII characters.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
SG2-ID	Second signaling gateway ID. Unique key. Foreign key: Signaling Gateway table. VARCHAR(16): 1–16 ASCII characters.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).

Signaling Gateway Process

The Signaling Gateway Process (sgp) table identifies all the signaling gateway processes associated with each signaling gateway.

Table Name: SGP

Table Containment Area: Call Agent, FSPTC, FSAIN

Command Types Show, add, and delete

Examples

```
show sgp id=sgp1;
add sgp id=sgp1;
delete sgp id=sgp1;
```

Note See the section "Signaling Gateway Process Status, Get-Trace and Set Trace Commands" in Chapter 1, "Administration, Diagnostic, and Maintenance Commands" for the signaling gateway process status get-trace and set-trace commands.

Usage Guidelines

Primary Key Token(s): id

Foreign Key Tokens(s): id

Add Rules:

- ID cannot exist.
- Cannot add more than 2 SGP per SG.

Change Rules: ID must exist; only description can be modified.

Delete Rules: ID cannot exist in any dependency table.

Syntax Description

* ID	Primary key. Foreign key: Signaling Gateway table. Unique signaling gateway process identifier. VARCHAR(16): 1–16 ASCII characters.
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
DESCRIPTION	Described by the service provider. VARCHAR(64): 1–64 ASCII characters.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.

ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).

Signaling System 7 ANSI Trunk Group Profile

The Signaling System 7 ANSI Trunk Group Profile (ss7-ansi-tg-profile) table holds common information regarding an SS7 trunk group such as continuity test (COT). This table can be shared by multiple SS7 trunk groups.

Table Name: SS7-ANSI-TG-PROFILE

Table Containment Area: Call Agent

Command Types

Show, add, change, and delete

Examples

```
show ss7-ansi-tg-profile id=ss7pf1;
add ss7-ansi-tg-profile id=ss7pf1; type=a7; hop-counter=20; cot-orig=y;
change ss7-ansi-tg-profile id=ss7pf1; hop-counter=10;
delete ss7-ansi-tg-profile id=ss7pf1;
```

Usage Guidelines

Primary Key Token(s): id

Add Rules: None.

Change Rules: None.

Delete Rules: ID does not exist in any trunk-grp::tg-profile-id where tg-type=ss7.

Syntax Description

* ID	Primary key. SS7 trunk group profile ID. VARCHAR(16): 1–16 ASCII characters.
ALARM-CARRIER	Indicates the type of alarm detection implemented on the spans that form the trunk group. The value of this token populates the Alarm Carrier Indicator field within the Circuit Group Characteristic Indicators parameter of the circuit validation response (CVR) message. VARCHAR(16): 1–16 ASCII characters. Permitted values are: UNKNOWN (Default)—It is unknown what type of alarm carrier the trunk group supports. SOFTWARE—The trunk group supports software carrier group alarm. HARDWARE—The trunk group supports hardware carrier alarm.

ALLOW-CRMCRA	Specifies if a circuit reservation message/circuit reservation acknowledgment (CRMCRA) indicator is allowed. CHAR(1): Y/N (Default = Y).
ALLOW-EXM	Specifies whether to allow sending an exit message (EXM) indicator if data is available in the call. CHAR(1): Y/N (Default = Y).
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
CCT-GRP-CARRIER	Indicates the type of voice carrier used on the spans of the trunk group. The value of this token populates the Circuit Group Carrier Indicator field within the Circuit Group Characteristic Indicators parameter. VARCHAR(32): 1–32 ASCII characters. Permitted values are: ANALOG DIGITAL (Default) DIGITAL-ANALOG UNKNOWN
CFN-SUPP	Confusion message support indicator. CHAR(1): Y/N (Default = N). Y—Far-end switch supports confusion message. N—Far-end switch does not support confusion message.
CONGEST-PROC	Specifies a congestion procedure to apply. SMALLINT: 0.
COT-DURATION	Specifies the duration of the continuity test in seconds. SMALLINT: 1–60 (Default = 1).
COT-FREQ	Specifies whether to perform a continuity test on outgoing SS7 calls. The specified value indicates the number of calls that occur before the continuity test is performed. For example, if cot-freq is set to the value 1, a COT test is performed for every call. The value 7 indicates that the test is performed for every 7th call. If cot-freq is set to 100 (the maximum), a COT test is performed for 1 call out of 100 calls. SMALLINT: 0–100 (Default = 7). **Note** Implementation is on a per trunk basis, not a per trunk group basis.
COT-ORIG	Continuity test indicator on originating (outgoing) SS7 calls. CHAR(1): Y/N (Default = Y).

COT-TONE	Continuity tone.
Note The Cisco BTS 10200 Softswitch does not support 2-wire side emulation in transponder COT testing.	CHAR(8): 1–8 characters. Permitted values are: 4W-TO-2W (Default)—Tx Low (1780 Hz), Rx High (2010 Hz). 2W-TO-2W—Tx High (2010 Hz), Rx Low (1780 Hz). Not supported. 2W-TO-4W—Tx High (2010 Hz), Rx Low (1780 Hz). Not supported. 4W-TO-4W—Tx High (2010 Hz), Rx High (2010 Hz).
DEFAULT-BC	Specifies the default bearer capability used in USI parameter. VARCHAR(6): 1–6 ASCII characters. Permitted values are: SPEECH 3-1KHZ
DEFAULT-CHGNOA	Provides a default automatic number identification (ANI) nature of address (NOA) used to populate the charge number sent to the basic call module (BCM) if none is received from the line. VARCHAR(32): 1–32 ASCII characters. Permitted values are: NOTUSED (Default) ANI-CGSUB-SUB-NUM—ANI of the calling party; subscriber number. ANI-NOT-AVAIL—ANI not available. ANI-CGSUB-NAT-NUM—ANI of the calling party; national number. ANI-CDSUB-SUB-NUM—ANI of the called party; subscriber number. ANI-CDSUB-NO-NUM—ANI of the called party; no number present. ANI-CDSUB-NAT-NUM—ANI of the called party; national number.
DEFAULT-CHGNPI	Provides a default Numbering Plan indicator to populate the charge number sent to the BCM if none is received from the line. VARCHAR(32): 1–32 ASCII characters. Permitted values are: NOTUSED (Default) NONE—None. E164—E.164 numbering plan. DATA—Data numbering plan. TELEX—Telex numbering plan. PNP—Private numbering plan. NATIONAL—National numbering plan. TELEPHONY—Telephony numbering plan. MARITIME-MOBILE—Maritime mobile numbering plan. LAND-MOBILE—Land mobile numbering plan. ISDN-MOBILE—Integrated Services Digital Network numbering plan

DEFAULT-OLI	Provides a default Originating Line Information (OLI) indicator to populate the OLI sent to the BCM if none is received from the line. VARCHAR(32): 1–32 ASCII characters. Permitted values are: NOTUSED (Default) 800-SERVICE-CALL—800 Service. ACCESS-FOR-VPN-TYPES-OF-SVC—Access for Virtual Private Network (VPN) types of service. AIOD—Automatic Identified Outward Dialing. CELLULAR-SVC-1—Cellular service 1. CELLULAR-SVC-2—Cellular service 2. CELLULAR-SVC-ROAMING—Cellular service roaming. COIN—Coin box pay phone. COIN-DATABASE—Coin database. CUSTOMER-SPECIFIC-1—Customer specific 1. CUSTOMER-SPECIFIC-2—Customer specific 2. INTERCEPT-BLANK—Intercept blank. INTERCEPT-REGULAR—Intercept regular. INTERCEPT-TROUBLE—Intercept trouble. INTERLATA-RESTRICTED—Interlata restricted. INTERLATA-RESTRICTED-COINLESS—Interlata restricted coinless. INTERLATA-RESTRICTED-HOTEL—Interlata restricted hotel. MULTIPARTY-LINE—Multiparty line. NI-FAILURE—Network interface failure OUTWATS—Outward wide area telephony service. POTS—Plain old telephone service. PRISON-INMATE-SERVICE—Prison inmate service. PRIVATE-PAYSTATIONS—Private pay phone. SPECIAL-OPERATOR-REQ—Special operator request. STATION-LEVEL-RATING—Station level rating. TELCO-OPERATOR-CALL—Telco operator call. TESTCALL—Test call. TOLLFREE-FROM-PAYSTATION—Toll free call from pay phone. TRS-1—Telephone relay service 1. TRS-2—Telephone relay service 2. TRS-3—Telephone relay service 3.
DESCRIPTION (EMS-only field)	Described by the service provider. VARCHAR(64): 1–64 ASCII characters.

DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
ECHO-SUPP-REQUIRED (Not supported)	Specifies if echo suppression is required. CHAR(1): Y/N (Default = N).
FAST-ANSWER-SUPP	Specifies whether fast answer is supported. It is used when a call is being terminated to a NAS server. CHAR(1): Y/N (Default = N). Y—Fast answer is supported. N—Fast answer is not supported.
HOP-COUNTER	Number of SS7 hops allowed. The hop counter field is the number of contiguous SS7 interchange circuits remaining before the call must be completed. If the call is not completed within the required number of circuits, the call is released. SMALLINT: 0, 10–20 (Default = 20). **Note** 0 = Not supported
INBAND-INFO	Specifies whether to send a release, provide a tone, or provide an announcement if data is available in the call. CHAR(1): Y/N (Default = N).
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
REDIR-MAX	Specifies maximum number of redirections. SMALLINT: 1–10 (Default = 5).
SATELLITE-CIRCUIT (Not supported)	Satellite circuit indicator. CHAR(1): Y/N (Default = N).
SEND-ATP	Specifies whether to allow sending an access transport parameter indicator if data is available in the call. CHAR(1): Y/N (Default = Y).

SEND-CHN-NONGEO	Specifies whether to allow sending a charge number nongeographic indicator if data is available in the call. CHAR(1): Y/N (Default = N). **Note** Set this token to Y to send the charge number when the billing DN is different than the DN in subscriber and you are using PIC routing.
SEND-CHNOLIP	Specifies whether to allow sending a charge number originating line information if data is available in the call. Presentation indicator. CHAR(1): Y/N (Default = N). **Note** Both SEND-CHNOLIP and SEND-CIP must be set to Y to send a CIP.
SEND-CIP	Specifies whether to send a carrier information parameter (CIP). CHAR(1): Y/N (Default = N). Y—Send a CIP. N—Do not send a CIP. **Note** Both SEND-CHNOLIP and SEND-CIP must be set to Y to send a CIP.
SEND-CIP-NONGEO	Carrier information. Specifies whether to send a parameter nongeographic indicator (carrier information parameter (GR-394)). CHAR(1): Y/N (Default = N). **Note** Set this token to Y to send a CIP.
SEND-CPN	Specifies whether to allow sending a calling party number in the IAM (should always be included) if data is available in the call. CHAR(1): Y/N (Default = Y).
SEND-CPN-PRES	Specifies whether to allow sending calling party number presentation information if data is available in the call. CHAR(1): Y/N (Default = N).
SEND-GAP	Specifies whether to allow sending a generic address parameter indicator if data is available in the call. CHAR(1): Y/N (Default = Y).
SEND-GN	Specifies whether to allow sending a generic name indicator if data is available in the call. CHAR(1): Y/N (Default = N).
SEND-HOPCOUNTER	Specifies whether to allow sending a hop counter indicator if data is available in the call. CHAR(1): Y/N (Default = Y).
SEND-JIP	Specifies whether to allow sending a jurisdiction information parameter if data is available in the call. CHAR(1): Y/N (Default = Y).
SEND-NOTIFICATION (Not supported)	Specifies whether to allow sending a notification indicator if data is available in the call. CHAR(1): Y/N (Default = N).

SEND-OCN	Specifies whether to allow sending an original called number indicator if data is available in the call. CHAR(1): Y/N (Default = Y).
SEND-REDIRCAP (Not supported)	Specifies whether to allow sending a redirection capability information indicator if data is available in the call. CHAR(1): Y/N (Default = N).
SEND-REDIRCOUNTER (Not supported)	Specifies whether to allow sending a redirection counter indicator if data is available in the call. CHAR(1): Y/N (Default = N).
SEND-REDIRINFO	Specifies whether to allow sending a redirecting information indicator if data is available in the call. CHAR(1): Y/N (Default = Y).
SEND-REDIR-NUM	Specifies whether to allow sending a redirecting number indicator if data is available in the call. CHAR(1): Y/N (Default = Y).
SEND-SERVICECODE (Not supported)	Specifies whether to allow sending a service code indicator if data is available in the call. CHAR(1): Y/N (Default = N).
SEND-TRANSREQ (Not supported)	Specifies whether to allow sending a transaction request parameter indicator if data is available in the call. CHAR(1): Y/N (Default = N).
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).
T-14	Timer to specify whether to send an unblocking (UBL) before receiving an unblocking acknowledgment (UBA). SMALLINT: 4–6 seconds (Default = 6).
T-18	Timer to specify whether to send a UBL before receiving a UBA. SMALLINT: 4–15 seconds (Default = 15).
T-20	Timer to specify whether to send a circuit group unblocking (CGU) before receiving a circuit group unblocking acknowledgment (CGUA). SMALLINT: 4–15 seconds (Default = 15).
T-8	Timer for when receipt of initial address message (IAM) indicating previous or incoming continuity check, awaiting continuity (COT). SMALLINT: 10–15 seconds (Default = 15).
T-9	Ring No Answer Timer. SMALLINT: 0–255 seconds (Default = 255).
T-BLO	Timer for when sending a blocking (BLO) or UBL, awaiting a blocking acknowledgment (BLA) or UBA; shorter timer used for retransmission. SMALLINT: 4–6 seconds (Default = 6).

T-CCR-R	Timer for when responding to a continuity check request (CCR), awaiting a COT or REL. SMALLINT: 10–12 seconds (Default = 12).
T-CGB	Timer for when sending a second circuit group blocking (CGB) or first circuit group unblocking (CGU), awaiting a circuit group blocking acknowledgment (CGBA) or circuit group unblocking acknowledgment (CGUA); shorter timer used for retransmission. SMALLINT: 4–15 seconds (Default = 15).
T-COT-L	Timer for when receiving second COT coded “failed,” awaiting receipt of CCR. SMALLINT: 240–300 seconds (Default = 300).
T-COT-R	Timer for when receiving first COT coded “failed,” awaiting receipt of CCR. SMALLINT: 16–20 seconds (Default = 20).
T-GRS	Timer for when sending a second circuit group reset (GRS), awaiting circuit group reset acknowledgment (GRA); shorter timer used for retransmission. SMALLINT: 4–15 seconds (Default = 15).
T-IAM	Timer for when sending initial address message (IAM), awaiting an address complete message (ACM), answer message (ANM), or release message (REL). SMALLINT: 20–30 seconds (Default = 30).
T-REL	Timer for when sending a release (REL), awaiting a release complete (RLC); shorter timer used for retransmission. SMALLINT: 4–6 seconds (Default = 6).
T-RSC	Timer for when sending a reset circuit (RSC), awaiting an RLC; shorter timer used for retransmission. SMALLINT: 4–15 seconds (Default = 15).
TYPE	SS7 trunk group type. CHAR(2). Permitted values are: A7 (Default)—ANSI variant of SS7. E7—Not used. C7—Not used.
UNAVAIL-PROC	Specifies an unavailable procedure to apply. SMALLINT: 0.

Signaling System 7 Circuit Identification Code

The Signaling System 7 CIC (ss7-cic) table is not provisionable. It is created and populated when SS7 trunks are provisioned. It holds the SS7 CIC list.

Command Types

Show

Examples

```
show ss7-cic
```

Usage Guidelines

Primary Key Token(s): opc, dpc, trunk-id

Primary Key Token(s): trunk-id + opc + dpc + net-ap (Release 4.5)

Foreign Key Token(s): opc, dpc, trunk-id, tgn-id, call-ctrl-route-id

Foreign Key Token(s) trunk-id, tgn-id (Release 4.5)

Syntax Description

AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
CALL-CTRL-ROUTE-ID	Foreign key: Route Set table. Automatically provisioned from the Trunk Group table. **Note** As of Release 4.5, this token is no longer a Foreign key.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
DPC	Primary key. Foreign key: DPC table. The destination point code. VARCHAR(16): 1–16 ASCII characters. **Note** As of Release 4.5, this token is no longer a Foreign key.
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
NET-AP	The network application. Automatically provisioned from DPC. INTEGER.

OPC	Primary key. Foreign key: OPC table. The origination point code. Automatically provisioned from the Route Set table, which is referenced by the Trunk Group table. VARCHAR(16): 1–16 ASCII characters. **Note** As of Release 4.5, this token is no longer a Foreign key.
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).
TGN-ID (or TG)	Mandatory if term-type=term. Foreign key: Trunk Group table. Trunk group ID. This field can also be provisioned using tg instead of tgn-id. The EMS looks up the tgn-id based on the trunk group and then provisions it. INTEGER: 1–99999999.
TRUNK-ID (System generated)	Primary key. Foreign key: Trunk table. Identifies the trunk ID. Constructed from the CIC start and CIC end tokens. INTEGER.

Signaling System 7 Q761 Trunk Group Profile

The Signaling System 7 Q761 Trunk Group Profile (ss7-q761-tg-profile) table holds common information regarding an SS7 Q761 trunk group such as continuity test (COT). This table can be shared by multiple SS7 Q761 trunk groups.

Table Name: SS7-Q761-TG-PROFILE

Table Containment Area: Call Agent

Command Types

Show, add, change, and delete

Examples

```
show ss7-q761-tg-profile id=q761-tg-prof1;
add ss7-q761-tg-profile id=q761-tg-prof1; cot-duration=20;
change ss7-q761-tg-profile id=q761-tg-prof1; cot-duration=3;
delete ss7-q761-tg-profile id=q761-tg-prof1;
```

Usage Guidelines

Primary Key Token(s): id

Add Rules: Id cannot exist.

Change Rules: Id must exist.

Delete Rules: Id cannot exist in any dependency table.

Syntax Description

* ID	Primary key. The Q761 trunk group profile ID. VARCHAR(16): 1–16 ASCII characters.
ALARM-CARRIER	Specifies whether the trunk group is an alarm carrier. VARCHAR(16): 1–16 ASCII characters. Permitted values are: UNKNOWN (Default)—It is unknown what type of alarm carrier the trunk group supports. SOFTWARE—The trunk group supports software carrier group alarm. HARDWARE—The trunk group supports hardware carrier alarm.
AOC-ENABLED (Release 4.5.1)	Specifies whether to generate or validate CRG messages. CHAR(1): Y/N (Default = N). Y—Generate of a CRG message for incoming trunks or validate a CRG message for outgoing trunks when a message is received by the Cisco BTS 10200 Softswitch. N—Do not generate a CRG message for incoming trunks or validate a CRG message for outgoing trunks when a message is received by the Cisco BTS 10200 Softswitch.
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
CHARGE-ORIG	Specifies the charge origin. INTEGER: 0–9999 (Default = 0). INTEGER: 0–9999 (Default = 20). (Release 4.5)
CLDPTY-CTRL-REL-SUPP	Specifies whether called party controlled release is supported. CHAR(1): Y/N (Default = N).
CLI-DEFAULT-ALLOWED	Sets the presentation restricted field in the calling line identity (CLI). CHAR(1): Y/N (Default = N). Y—When set to Y and an incoming Q931 setup message has the presentation restricted indicator absent, then the presentation restricted indicator in the outgoing message (IAM or setup) is set to presentation allowed. N—When set to N and an incoming Q931 setup message has the presentation restricted indicator absent, then the presentation restricted indicator in the outgoing message (IAM or setup) is set to presentation restricted.
CLIP-ESS	Specifies whether to force a request of a calling line identity if not automatically provided. CHAR(1): Y/N (Default = N).

COL-DEFAULT-ALLOWED	Sets the presentation restricted field in the connected line identity. CHAR(1): Y/N (Default = N). Y—When set to Y and an incoming Q931 setup message has the presentation restricted indicator absent, then the presentation restricted indicator in the outgoing message (IAM or setup) is set to presentation allowed. N—When set to N and an incoming Q931 setup message has the presentation restricted indicator absent, then the presentation restricted indicator in the outgoing message (IAM or setup) is set to presentation restricted.
COT-DURATION	Duration of continuity test. SMALLINT: 1–60 (Default = 1).
COT-FREQ	Specifies whether to perform a continuity test on outgoing SS7 calls. The specified value indicates the number of calls that occur before the continuity test is performed. For example, if COT-FREQ is set to the value 1, a COT test is performed for every call. The value 7 indicates that the test is performed for every 7th call. If COT-FREQ is set to 100 (the maximum), a COT test is performed for 1 call out of 100 calls. SMALLINT: 0–100 (Default = 7). **Note** Implementation is on a per trunk basis—not a per trunk group basis.
COT-ORIG	Continuity test indicator on originating (outgoing) SS7 calls. CHAR(1): Y/N (Default = Y).
COT-TONE **Note** The Cisco BTS 10200 Softswitch does not support 2-wire side emulation in transponder COT testing.	Continuity tone. CHAR(8): 1–8 characters. Permitted values are: 4W-TO-2W (Default)—Tx Low (1780 Hz), Rx High (2010 Hz). 2W-TO-2W—Tx High (2010 Hz), Rx Low (1780 Hz). Not supported. 2W-TO-4W—Tx High (2010 Hz), Rx Low (1780 Hz) Not supported. 4W-TO-4W—Tx High (2010 Hz), Rx High (2010 Hz)
CPC-ESS	Set to Y to force request of calling party category if the calling party number is not provided in the IAM and the calling party category is required to override the original calling party category received in the IAM. CHAR(1): Y/N (Default = N).
CRG-ABILITY (Release 4.5.1)	Specifies whether a switch can generate a CRG message. CHAR(1): Y/N (Default = N). N—(Default) the succeeding switch cannot generate a CRG message. Y—the succeeding switch can generate a CRG message.
DESCRIPTION (EMS-only field)	Described by the service provider. VARCHAR(64): 1–64 ASCII characters.

DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
ECHO-SUPP-REQUIRED (Not supported)	Not supported in this release. Echo suppression required indicator. CHAR(1): Y/N (Default = N).
EXCHANGE-TYPE (Release 4.4.0)	Specifies the signaling originating and destination local exchange type. CHAR(1): A, B. Permitted values are: A—An End-to-End exchange. B—An exchange that acts as a transit node. NULL (Default)—Uses the value specified in the Call Agent Configuration table.
FORWARD-CLI-IN-IAM	Presence of CLI in outgoing IAM indicator. CHAR(1): Y/N (Default = N).
HOP-COUNTER	Number of SS7 hops allowed. The hop counter field is the number of contiguous SS7 interchange circuits remaining before the call must be completed. If the call is not completed within the required number of circuits, the call is released. SMALLINT: 0, 10–20 (Default = 20). **Note** 0—Not supported
INBAND-INFO	Specifies whether to send a release, provide a tone, or provide an announcement if data is available in the call. CHAR(1): Y/N (Default = N).
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
OUTGOING-OVERLAP-MAX-DIGITS (Not supported)	Not supported in this release. Maximum number of overlap digits. SMALLINT: 0–24 (Default = 24).
OUTGOING-OVERLAP-MIN-DIGITS (Not supported)	Not supported in this release. Minimum number of overlap digits. SMALLINT: 0–24 (Default = 24).

OVERDECADIC-DIGIT-SUPP	Overdecadic digits support indicator. CHAR (1): Y/N (Default = N).
OVERLAP-SUPP	Overlap signaling for call origination support indicator. VARCHAR(16): 1–16 ASCII characters. Permitted values are: NONE (Default) OUTGOING INCOMING BOTH
PASS-UNREC-PARAM-WITH OUT-PCI (Release 4.5)	Specifies the handling of unrecognized parameters in ISUP messages without a corresponding PCI. CHAR(1): Y/N (Default = N). Y—if the Cisco BTS10200 Softswitch receives an ISUP message with an unrecognized parameter without a corresponding PCI, it passes on the parameter if the exchange type is B. The Cisco BTS 10200 Softswitch drops the parameter if the exchange type is A and sends a PCN back to the preceding switch (if PCN is supported in the protocol). N—if the Cisco BTS 10200 Softswitch receives a parameter without PCI, it sends a CFN to the sending exchange and drops the parameter (if CFN is supported in the protocol).
REDIR-MAX	Specifies the maximum number of redirections. SMALLINT: 1–10 numeric digits (Default = 5).
ROUTE-ID	Route ID to overwrite the ID received in RIN parameter in the IAM from the OCC side. INTEGER: 0–65355 (Default = 0).
SATELLITE-CIRCUIT (Not supported)	Not supported in this release. Satellite circuit indicator. CHAR(1): Y/N (Default = N).
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).
SUPPRESS-CLI-DIGITS	Suppresses the calling party number indicator. CHAR(1): Y/N (Default = N).
T1	Timer if sending release (REL), awaiting RLC; shorter timer used for retransmission. SMALLINT: 4–15 seconds (Default = 4).
T2	Suspend user message timer. SMALLINT: 0–180 seconds (Default = 180).
T4 (Release 4.5)	The interval in seconds between sending UPT messages when a UPU has been received. It stops when the BTS 10200 receives a UPA or any other ISUP Layer 4 message indicating that the UPU condition is over. SMALLINT: 5–15 (Default = 5).

T5	Release message repeat timer. SMALLINT: 300–900 seconds (Default = 300).
T6	Suspend network message timer. SMALLINT: 2–120 seconds (Default = 120).
T8	CCR in IAM timer. SMALLINT: 10–15 seconds (Default = 10).
T9	Ring no answer timer. SMALLINT: 60–180 seconds (Default = 120).
T7	Sent IAM, waiting for ACM/ANM/REL. SMALLINT: 20–30 seconds (Default = 30).
T12	Timer when sending BLO or UBL, awaiting BLA or UBA; shorter timer used for retransmission. SMALLINT: 4–15 seconds (Default = 15).
T13	Blocking message repeat timer. SMALLINT: 300–900 seconds (Default = 360).
T14	Unblocking message timer. SMALLINT: 4–15 seconds (Default = 15).
T15	Unblocking message repeat timer. SMALLINT: 300–900 seconds (Default = 300).
T16	Reset circuit message timer. SMALLINT: 4–15 seconds (Default = 5).
T17	Reset circuit message repeat timer. SMALLINT: 300–900 seconds (Default = 300).
T18	Group blocking message timer. SMALLINT: 4–15 seconds (Default = 15).
T19	Group blocking message repeat timer. SMALLINT: 300–900 seconds (Default = 300).
T20	Group unblocking message timer. SMALLINT: 4–15 seconds (Default = 15).
T21	Group unblocking message repeat timer. SMALLINT: 300–900 seconds (Default = 300).
T22	Timer for when sending second GRS, awaiting GRA. SMALLINT: 4–15 seconds (Default = 15).
T23	GRS message repeat timer. SMALLINT: 300–900 seconds (Default = 300).
T24	Check tone message timer. SMALLINT: 0–2 seconds (Default = 2).
T25	Initial COT failure message timer. SMALLINT: 1–10 seconds (Default = 2).

T26	Second or subsequent COT failure message timer. SMALLINT: 60–180 seconds (Default = 180).
T27	CCR failure received message timer. SMALLINT: 180–240 seconds (Default = 240).
T28	CQM message timer. SMALLINT: 0–15 seconds (Default = 10).
T33	INR message timer. SMALLINT: 12–15 seconds (Default = 12).
T35	Timer for the receipt of latest digit (<> stop digit) and before the minimum or fixed number of digits have been received. SMALLINT: 15–20 seconds (Default = 15).
T36	Continuity request check message received. SMALLINT: 10–15 seconds (Default = 10).
T38	Suspend message timer. SMALLINT: 0–180 seconds (Default = 130).
T39	Identification request message timer. SMALLINT: 4–15 seconds (Default = 15).

Signaling System 7 Q767 Trunk Group Profile

The Signaling System 7 Q767 Trunk Group Profile (ss7-q767-tg-profile) table holds common information regarding an SS7 Q767 trunk group. This table can be shared by multiple Q767 trunk groups.

Table Name: SS7-Q767-TG-PROFILE

Table Containment Area: Call Agent

Command Types

Show, add, delete, and change

Examples

```
show ss7-q767-tg-profile id=q767-prof1;
add ss7-q767-tg-profile id=q767-prof1; cot-duration=21;
change ss7-q767-tg-profile id=q767-prof1; cot-duration=4;
delete ss7-q767-tg-profile id=q767-prof1
```

Usage Guidelines

Primary Key Token(s): id

Add Rules: id must not exist.

Change Rules: id must exist.

Delete Rules: id must exist; it must not be referenced by any trunk group table.

Syntax Description

* ID	Primary key. The SS7 Q767 trunk group profile ID. VARCHAR(16): 1–16 ASCII characters.
T17	Reset circuit message repeat timer. SMALLINT: 300–900 seconds (Default = 300).
T39	Identification Request message timer. SMALLINT: 4–15 seconds (Default = 15).
ALARM-CARRIER	Alarm Carrier. VARCHAR(16): 1–16 ASCII characters. Permitted values are: UNKNOWN (Default) SOFTWARE HARDWARE
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
CHARGE-ORIG	Specifies the charge origin. The service provider specifies the value of charge origin. INT: 0–9999 (Default = 0). INTEGER: 0–9999 (Default = 20). (Release 4.5)
CLDPTY-CTRL-REL-SUPP	Enables called party controlled release support. CHAR(1): Y/N (Default = N).
CLI-DEFAULT-ALLOWED	Sets the presentation restricted field in the calling line identity (CLI). CHAR(1): Y/N (Default = N). Y—When set to Y and an incoming Q931 setup message has the presentation restricted indicator absent, then the presentation restricted indicator in the outgoing message (IAM or setup) is set to presentation allowed. N—When set to N and an incoming Q931 setup message has the presentation restricted indicator absent, then the presentation restricted indicator in the outgoing message (IAM or setup) is set to presentation restricted.
CLIP-ESS	Set to Y to force request of calling line identity if not automatically provided. CHAR(1): Y/N (Default = N).

COL-DEFAULT-ALLOWED	Sets the presentation restricted field in the connected line identity. CHAR(1): Y/N (Default = N). Y—When set to Y and an incoming Q931 setup message has the presentation restricted indicator absent, then the presentation restricted indicator in the outgoing message (IAM or setup) is set to presentation allowed. N—When set to N and an incoming Q931 setup message has the presentation restricted indicator absent, then the presentation restricted indicator in the outgoing message (IAM or setup) is set to presentation restricted.
COT-DURATION	Duration of continuity test. SMALLINT: 1–60 (Default = 1).
COT-FREQ	COT percentage. SMALLINT: 0–100 (Default = 7). **Note** Implementation is on a per trunk basis—not a per trunk group basis.
COT-ORIG	Continuity test indicator on originating (outgoing) SS7 calls. CHAR(1): Y/N (Default = Y).
COT-TONE	Continuity Tone. VARCHAR(8): Permitted values are: 4W-TO-4W (Default) 2W-TO-2W 2W-TO-4W 4W-TO-2W
CPC-ESS	Set to Y to force request of calling party category if the calling party number is not provided in the IAM and the calling party category is required to override the original calling party category received in the IAM. CHAR(1): Y/N (Default = N).
DESCRIPTION	Described by the service provider. VARCHAR(64): 1–64 ASCII characters.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
ECHO-SUPP-REQUIRED	Echo suppression required indicator. CHAR(1): Y/N (Default = N).
EXCHANGE-TYPE (Release 4.5)	Specifies the signaling originating and destination local exchange type. CHAR(1): A, B. Permitted values are: A—An End-to-End exchange. B—An exchange that acts as a transit node. NULL (Default)—Uses the value specified in the Call Agent Configuration table.

FORWARD-CLI-IN-IAM	Presence of CLI in outgoing IAM indicator. CHAR(1): Y/N (Default = N).
HOP-COUNTER	Number of SS7 hops allowed. SMALLINT: 0, 10–20 (Default = 20). **Note** 0 = Not supported.
INBAND-INFO	Specifies whether to send a release, provide a tone, or provide an announcement if data is available in the call. CHAR(1): Y/N (Default = N).
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
OUTGOING-OVERLAP-MAX-DIGITS	Maximum number of overlap digits. SMALLINT: 0–24 (Default = 24).
OUTGOING-OVERLAP-MIN-DIGITS (Not supported)	Minimum number of overlap digits. SMALLINT: 0–24 (Default = 0).
OVERDECADIC-DIGIT-SUPP	Overdecadic digits support indicator. CHAR (1): Y/N (Default = N).
OVERLAP-SUPP	Overlap signaling for call origination support indicator. VARCHAR(16): 1–16 ASCII characters. Permitted values are: NONE (Default) OUTGOING INCOMING BOTH
REDIR-MAX	Specifies the maximum number of redirections. SMALLINT: 1–10 (Default = 5).
ROUTE-ID	Route ID to overwrite the ID received in the RIN parameter in the IAM from the OCC side. INT: 0–65355 (Default = 0).
SATELLITE-CIRCUIT (Not supported)	Satellite circuit indicator. CHAR(1): Y/N (Default = N).

START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).
SUPPRESS-CLI-DIGITS	Suppresses the calling party number indicator. CHAR(1): Y/N (Default = N).
T1	When sending REL (release), awaiting RLC; shorter timer used for retransmission. SMALLINT: 15–60 seconds (Default = 15).
T2	Suspend user message timer. SMALLINT: 0–180 seconds (Default = 180).
T5	Release message repeat timer. SMALLINT: 300–900 seconds (Default = 300).
T6	Suspend network message timer. SMALLINT: 2–120 seconds (Default = 120).
T7	Sent IAM, waiting for ACM/ANM/REL. SMALLINT: 20–30 seconds (Default=30).
T8	CCR in IAM timer. SMALLINT: 10–15 seconds (Default = 10).
T9	Ring no answer timer. SMALLINT: 60–180 seconds (Default = 120).
T12	When sending BLO (Blocking) or UBL, awaiting BLA or UBA; shorter timer used for retransmission. SMALLINT: 15–60 seconds (Default = 15).
T13	Blocking message repeat timer. SMALLINT: 300–900 seconds (Default = 360).
T14	Unblocking message timer. SMALLINT: 4–15 seconds (Default = 15).
T15	Unblocking message repeat timer. SMALLINT: 300–900 seconds (Default = 300).
T16	Reset circuit message timer. SMALLINT: 4–15 seconds (Default = 5).
T18	Group blocking message timer. SMALLINT: 4–15 seconds (Default = 15).
T19	Group blocking message repeat timer. SMALLINT: 300–900 seconds (Default = 300).
T20	Group unblocking message timer. SMALLINT: 4–15 seconds (Default = 15).
T21	Group unblocking message repeat timer. SMALLINT: 300–900 seconds (Default = 300).

T22	When sending second GRS (circuit group reset), awaiting GRA. SMALLINT: 15–60 seconds (Default = 15).
T23	GRS message repeat timer. SMALLINT: 300–900 seconds (Default = 300).
T24	Check tone message timer. SMALLINT: 0–2 seconds (Default = 2).
T25	Initial COT failure message timer. SMALLINT: 1–10 seconds (Default = 2).
T26	Second or subsequent COT failure message timer. SMALLINT: 60–180 seconds (Default = 180).
T27	CCR failure received message timer. SMALLINT: 180–240 seconds (Default = 240).
T28	CQM message timer. SMALLINT: 0–15 seconds (Default = 10).
T33	INR message timer. SMALLINT: 12–15 seconds (Default = 12).
T35	At receipt of latest digit (<> STOP DIGIT) and before the minimum or fixed number of digits have been received. SMALLINT: 15–20 seconds (Default = 15).
T36	Continuity Request Check message received timer. SMALLINT: 10–15 seconds (Default = 10).
T38	Suspend message timer. SMALLINT: 0–120 seconds (Default = 120).

Stream Control Transmission Protocol Association

The Stream Control Transmission Protocol (SCTP) Association (sctp-assoc) table identifies the association between local and remote signaling gateway platforms (SGPs).

Table Name: SCTP-ASSOC

Table Containment Area: Call Agent, FSPTC, FSAIN

Command Types

Show, add, change, and delete

Examples

```
show sctp-assoc id=sctpassoc1;
add sctp-assoc id=sctpassoc1; sgp-id=sg1;
change sctp-assoc id=sctpassoc1; sgp-id=sg2;
delete sctp-assoc id=sctpassoc1;
```

Note See the section "Stream Control Transmission Protocol Association Control and Status Commands" in Chapter 1, "Administration, Diagnostic, and Maintenance Commands" for the SCTP status and control commands.

Usage Guidelines

Primary Key Token(s): id

Unique Index Token(s): remote-port, remote-tsap-addr1, remote-tsap-addr2

Foreign Key Token(s): sctp-assoc-profile-id, http-feature-server-id, sgp-id

Add Rules:

- The id cannot exist.
- The SGP-ID must exist.
- Provisioning multiple SCTP associations to the same SGP over the same port/tsap-address combination is not allowed. (Release 4.5)
- The DSCP token and IP-TOS-PRECEDENCE tokens in this table are interdependent (Obsolete in Release 4.5):
  - If DSCP is set to NONE (= 0, best effort), and IP-TOS-PRECEDENCE is set to ROUTINE (= 0), the system uses the TOS precedence value of 0.
  - If DSCP is set to NONE (= 0, best effort), and IP-TOS-PRECEDENCE is set to a value other than ROUTINE, the system uses the provisioned IP-TOS-PRECEDENCE value.
  - If IP-TOS-PRECEDENCE is set to ROUTINE (= 0), and DSCP is set to a value other than NONE, the system uses the provisioned DSCP value.

Change Rules:

- The id must exist. The SCTP association must be in OOS state when being modified.
- Id, platform-id, ulp, http-feature-server-id and status cannot be changed.
- The sgp-id cannot be changed.

Delete Rules: id cannot exist in any dependency table.

Other Rules:

- If a DNS name is used instead of specifying a discrete local IP address, validation is done to make sure that DNS name corresponds to an actual IP address.

Note This validation is not an EMS or CLI function. The validation is done by the application. That is, an invalid DNS (or IP) can be successfully provisioned for the http-feature-server, remote-tsap-addr1 and remote-tsap-addr2 tokens since validation does not occur at provisioning time. The validation is done when sctp-assoc functions are called by a user application.

- If a DNS name is used instead of specifying a discrete local IP address, validation is done to make sure that DNS name corresponds to an actual IP address.

Note This validation is not an EMS or CLI function. The validation is done by the application. That is, an invalid DNS (or IP) can be successfully provisioned for the http-feature-server, remote-tsap-addr1 and remote-tsap-addr2 tokens since validation does not occur at provisioning time. The validation is done when sctp-assoc functions are called by a user application.

- If the user chooses to enter IP addresses instead of host names for remote-tsap-addr1 and remote-tsap-addr2, they must be in valid IP address format.

- The remote-tsap-addr1 and remote-tsap-addr2 cannot be the same.
- If the DSCP is not N/A, ip-tos-precedence must be set to routine. If ip-tos-precedence is not routine, then the DSCP must be set to N/A.

Syntax Description

* ID	Primary key. SCTP association id. VARCHAR(16): 1–16 ASCII characters.
* PLATFORM-ID	Specifies the platform id (must be a valid Call Agent or Feature Server ID). VARCHAR(8): 1–8 ASCII characters.
* REMOTE-PORT	Unique key. Specifies the remote port. SMALLINT: 1024–65535. **Note** REMOTE_TSAP_ADDR1 and REMOTE_PORT should be unique.
* REMOTE-TSAP-ADDR1	Unique key. Specifies the first remote TSAP address. VARCHAR(64): 1–64 ASCII characters.
* SCTP-ASSOC-PROFILE-ID	Foreign key: SCTP Association Profile table. The SCTP association profile id. VARCHAR(16): 1–16 ASCII characters.
* ULP	Specifies the upper layer protocol. VARCHAR(16): 1–16 ASCII characters. Permitted values are: XUA (Default) HTTP
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
DESCRIPTION	Described by the service provider. VARCHAR(64): 1–64 ASCII characters.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.

DSCP (Obsolete in Release 4.5. Use the Call Agent Configuration parameter SCTP-DSCP instead.)	The differentiated services code point. This value is placed in the DSCP portion of the type of service field for outgoing SCTP datagrams. VARCHAR(16): 1–16 ASCII characters. Permitted values are: **Note** NONE, AFxx, and EF are as shown in the following list. DSCP values and service levels are provided here for information purposes only. NONE (Default)—DSCP = 0, Best effort AF11—DSCP = 10, Class 1 gold AF12—DSCP = 12, Class 1 silver AF13—DSCP = 14, Class 1 bronze AF21—DSCP = 18, Class 2 gold AF22—DSCP = 20, Class 2 silver AF23—DSCP = 22, Class 2 bronze AF31—DSCP = 26, Class 3 gold AF32—DSCP = 28, Class 3 silver AF33—DSCP = 30, Class 3 bronze AF41—DSCP = 34, Class 4 gold AF42—DSCP = 36, Class 4 silver AF43—DSCP = 38, Class 4 bronze EF—DSCP = 40, Express forwarding
HTTP-FEATURE-SERVER-ID	Mandatory if ulp=http. Foreign key: HTTP Feature Server table. The HTTP feature server id. VARCHAR(8): 1–8 ASCII characters. (Release 4.5)
IP-TOS-PRECEDENCE (Obsolete in Release 4.5.)	The Internet protocol precedence. This value is placed in the IP precedence portion of the type of service field for outgoing SCTP datagrams. VARCHAR(16): 1–16 ASCII characters. Permitted values are: FLASH (= 3, Default) ROUTINE (= 0) PRIORITY (= 1) IMMEDIATE (= 2) FLASHOVERRIDE (= 4) CRITICAL (= 5) INTERNETCONTROL (= 6) NETCONTROL (= 7)

LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
LOCAL-RCVWIN	Number of bytes to advertise for the local receive window. INTEGER: Range 1500–65535 bytes (Default = 3000).
MAX-INIT-RETRANS	Maximum number of times to retransmit an SCTP INIT message. SMALLINT: 1–5 (Default = 3).
MAX-INIT-RTO	Maximum initial timer retransmission value in milliseconds. SMALLINT: 500–3000 (Default = 500). SMALLINT:1000–3000 (Default = 1000). (Release 4.5)
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
REMOTE-TSAP-ADDR2	Unique key. Specifies the second remote TSAP address. VARCHAR(64): 1–64 ASCII characters.
SGP-ID	Mandatory if ulp=xua. Foreign key: SGP table. Signaling Gateway Process ID. VARCHAR(16): 1–16 ASCII characters.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).
STATUS (System generated)	Administrative status of the SCTP. VARCHAR(5): 1–5 ASCII characters. Permitted values are: OOS (Default)—Out-of-Service. INS—In-Service. OOS-PENDING—The request to put SGP in OOS state is pending.

Stream Control Transmission Protocol Association Profile

The Stream Control Transmission Protocol (SCTP) Association Profile (sctp-assoc-profile) table stores the configuration parameters that can be referenced by an SCTP association.

Table Name: SCTP-ASSOC-PROFILE

Table Containment Area: Call Agent

Command Types

Show, add, change, and delete

Examples

```
show sctp-assoc-profile id=sctpassocprof1;
add sctp-assoc-profile id=sctpassocprof1;
change sctp-assoc-profile id=sctpassocprof1;
delete sctp-assoc-profile id=sctpassocprof1;
```

Usage Guidelines

Primary Key Token(s): id

Add Rules: ID cannot already exist.

Change Rules: ID must exist.

Delete Rules: ID must exist.

Syntax Description

* ID	The SCTP association profile identifier. VARCHAR(16): 1–16 ASCII characters.
BUNDLE-TIMEOUT	Maximum time, in milliseconds, that an SCTP waits for outgoing datagrams for bundling. INTEGER: 0–600 (Default = 0).
DESCRIPTION	Described by the service provider. VARCHAR(64): 1–64 ASCII characters.
HB-TIMEOUT	Time, in milliseconds, between heartbeats. The heartbeat will be this value plus the current retransmission timeout value. This token cannot be changed. INTEGER: 0–10000 (Default = 2000); 0 = Disabled.
MAX-ASSOC-RETRANS	Maximum number of retransmissions over all destination addresses before the association is declared failed. SMALLINT: (Default = 4). **Note** This value cannot exceed max-path-retrans=x, where x is number of destinations.
MAX-PATH-RETRANS	Maximum number of retransmissions to either remote TSAP address1 or TSAP address2 before the association is declared failed. This token cannot be changed. INTEGER: 2–6 (Default = 3).

MAX-RTO	Maximum value, in milliseconds, for the retransmission timer. INTEGER: 1000–10000 (Default = 3000). INTEGER: 1000–10000 (Default = 2000). (Release 4.5)
MIN-RTO	Minimum value, in milliseconds, configurable for the retransmission timer. INTEGER: 300–60000 (Default = 300).
RETRIEVE-FLAG	Indicates if the ULP wants to be able to retrieve datagrams after the association fails. CHAR(1): Y/N (Default = Y).
SACK-TIMEOUT	Maximum time, in milliseconds, after a datagram is received before an SCPT SACK is sent. INTEGER: 100–500 (Default = 200).
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).

Subsystem

The Subsystem (subsystem) table holds the information for all the subsystems using signaling connection control part (SCCP). The Subsystem table also defines all local and remote SSNs at the OPC level. Because the Cisco BTS 10200 Softswitch supports multiple origination point codes (OPCs), the combined OPC-ID and SSN-ID is used as a primary key to determine subsystem information.

Table Name: SUBSYSTEM

Table Containment Area: FSPTC, FSAIN

Command Types

Show, add, and delete

Examples

```
show subsystem id=SSN1;
add subsystem id=SSN1;opc-id=dallas-pc; local-ssn=251; remote-ssn=251; sccp-nw-id=1;
tcap-version=ANS92; application-version=AIN01
delete subsystem id=SSN1; opc-id=dallas-pc;
```

Note See the section "Subsystem Group Status and Control Commands (Release 4.5)" in Chapter 1, "Administration, Diagnostic, and Maintenance Commands" for the status and control commands.

Usage Guidelines

Primary Key Token(s): id, opc-id

Foreign Key Token(s): id, sccp-nw-id, opc-id

Unique Key Token(s): opc-id plus the local-ssn

Add Rules: Id must exist in the Subsystem Profile table.

Change Rules: Change for all fields (except description) is allowed only if status=OOS.

Delete Rules: The id of the subsystem cannot exist in any dependency table.

Syntax Description

* ID	Primary key. Foreign key: Subsystem Group table. Subsystem ID. VARCHAR(16): 1–16 ASCII characters.
* OPC-ID	Primary key. Unique key with local-snn. Foreign key: OPC table. OPC ID from the OPC table. VARCHAR(16): 1–16 ASCII characters.
* LOCAL-SSN	Unique key with opc-id. Local subsystem number. SMALLINT: 1–255.
* REMOTE-SSN	Remote subsystem number. SMALLINT: 1–255.
* SCCP-NW-ID	Foreign key: SCCP-NW table. SCCP network ID. SMALL INT: 1–255.

* TCAP-VERSION (Obsolete in Release 4.5)	Specifies the Transaction Capability Application Part (TCAP) version to use. VARCHAR(8): 1–8 ASCII characters. Permitted values are: ANS88 ANS92 ANS96 ITU88 ITU92 ITU96 CHINA ETSI96
* APPLICATION-VERSION	Specifies the TCAP protocol version to use in the query message. VARCHAR(16): 1–16 ASCII characters. Permitted values are: AIN02 (Not used) QWEST-AIN02 (Not used) AIN01 IN1 ETSI-INAP (Not used) ITU-INAP (Not used)
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
OPER-STATUS (DBM only)	Operating status of the subsystem. VARCHAR(16): 1–16 ASCII characters. Permitted values are: SSA—Subsystem allowed. SSP—Subsystem prohibited.

ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
SCCP-VERSION	Specifies the SCCP version to use. VARCHAR(5): 1–5 ASCII characters (Default = ANS92). Permitted values are: ANS88 ANS92 (Default) ITU88 (Not supported) ITU92 (Not supported) ITU96 (Not supported) CHINA (Not supported)
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).
STATUS	Administrative status of the subsystem. VARCHAR(3): 1–3 ASCII characters. Permitted values are: UIS—User in service. UOS (Default)—User out of service. VIA—Via control command. **Note** The value VIA can only be changed using the control command.

Subsystem Group (Release 4.5)

The Subsystem Group (subsystem-grp) table defines all the valid subsystem group ids at a global (Cisco BTS 10200 Softswitch) level. A subsystem group id must be created in this table before entries can be added to the Subsystem table.

Table Name: SUBSYSTEM-GRP

Table Containment Area: FSPTC, FSAIN

Command Types

Show, add, change, and delete

Examples

```
show subsystem-grp id=LNP-SSN;
add subsystem-grp id=LNP-SSN; platform-id=FSAIN123; tcap-version=ITU92;
change subsystem-grp id=LNP-SSN; platform-id=FSAIN321;tcap-version=ITU96;
delete subsystem-grp id=LNP-SSN; tcap-version=ITU962;
```

Usage Guidelines

Primary Key Token(s): id

Foreign Key Token(s): platform-id

Add Rules: Id cannot exist.

Change Rules: None.

Delete Rules: The id of the subsystem cannot exist in any dependency table.

Syntax Description

* ID	Primary key. Subsystem group ID. VARCHAR(16): 1–16 ASCII characters.
* PLATFORM-ID	Foreign key: Feature Server table. Platform ID (must be a valid Call Agent or Feature Server ID). VARCHAR(16): 1–16 ASCII characters.
* TCAP-VERSION	Specifies the Transaction Capability Application Part (TCAP) version to use. VARCHAR(8): 1–8 ASCII characters. Permitted values are: ANS88 ANS92 ANS96 ITU88 ITU92 ITU96 CHINA ETSI96

AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
DESCRIPTION	Described by the service provider. VARCHAR(64): 1–64 ASCII characters.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
OPER-STATUS	The operating status. VARCHAR(16): 1–16 ASCII characters. Permitted values are: SSA—Subsystem Allowed SSP—Subsystem Prohibited
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).
STATUS	Administrative status of the subsystem group. VARCHAR(3): 1–3 ASCII characters. Permitted values are: UIS—User in service. UOS (Default)—User out of service. VIA—Via control command. **Note** The value VIA can only be changed using the control command.

Subsystem Profile (Obsolete in Release 4.5)

The Subsystem Profile (subsystem-profile) table defines the valid SSN-IDs at a global (Cisco BTS 10200 Softswitch) level for multiple origination point code (OPC) support. A subsystem profile id must be created in this table before entries can be added to the Subsystem table.

Table Name: SUBSYSTEM-PROFILE

Table Containment Area: FSPTC, FSAIN

Command Types

Show, add, change, and delete

Examples

```
show subsystem-profile id=LNP-SSN;
add subsystem-profile id=LNP-SSN; platform-id=FSAIN123;
change subsystem-profile id=LNP-SSN; platform-id=FSAIN321;
delete subsystem-profile id=LNP-SSN;
```

Usage Guidelines

Primary Key Token(s): id

Foreign Key Token(s): platform-id

Add Rules: Id cannot exist.

Change Rules: Only the description token can be changed.

Delete Rules: The id of the subsystem cannot exist in any dependency table.

Syntax Description

* ID	Primary key. Subsystem profile ID. VARCHAR(16): 1–16 ASCII characters.
* PLATFORM-ID	Foreign key: Feature Server table. Platform ID (must be a valid Call Agent or Feature Server ID). VARCHAR(16): 1–16 ASCII characters.
DESCRIPTION	Described by the service provider. VARCHAR(64): 1–64 ASCII characters.

User Part Variant

The User Part Variant (user-part-variant) table defines the ISUP variants. It is a two-part table. The User Part Variant Base table defines all the supported variants and the values of the optional parameters. When a variant is added, the values of the optional parameters are populated from the User Part Variant Base table.

Table Name: USER-PART-VARIANT

Table Containment Area: Call Agent

Command Types

Show, add, and delete

Examples

```
show user-part-variant id=Q761-CHINA
add user-part-variant id=ANSISS7-GR317;
delete user-part-variant id=ANSISS7-GR317;
```

Usage Guidelines

Primary Key: id

Add Rules: Id cannot exist.

Delete Rules: Id cannot exist in any dependency table.

Syntax Description

* ID	Primary key. The variant id in the format: <protocol family>-<variant-name>. The Message Definition Language (MDL) uses this id as part of the message definition object (MDO) filename. VARCHAR(32): 1–32 ASCII characters. Permitted values are: ANSISS7-GR317 Q761-BASE Q761-CHINA Q761-STANDARD (Release 4.4.1) Q761-ETSIV2-POLAND (Release 4.5.1) Q761-ETSIV3-FRENCH (Release 4.5.1) Q761-ETSIV3 (Base ETSI v3 variant) (Release 4.5) Q761-ETSIV3-HUNGARY (Hungarian variant) (Release 4.5) Q761-STANDARD97 (Q.761 base variant—97 version) (Release 4.5) Q767-BASE-Q7674.1 Q767-MEXICO-Q7674.1 (Release 4.5.1) Q767-COLOMBIA (Q.767 variant) (Release 4.5.1)

AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
MAX-BLOCK-MASTER-RANGE (Not provisionable—provisioned in the User Part Variant Base table)	Maximum number of masters (or individuals) calls in a block at one time. INTEGER: 1–32767 (Default = 1).
MAX-BLOCK-SLAVE-RANGE (Not provisionable—provisioned in the User Part Variant Base table)	Maximum number of slave calls in a block at one time. INTEGER: 1–32767 Default = 23 (ANSISS7_GR317). Default = 30 (Q761-ETSIV2-ISRAEL) (Not supported) Default = 31 (Q761-ARGENTINA) Default = 31 (Q761-ARGENTINA-C2) Default = 31 (Q761-AUSTRALIAN) (Not supported) Default = 31 (Q761-CHILE) (Not supported) Default = 31 (Q761-CHINA) Default = 31 (Q761-ETSIV2) Default = 31 (Q761-ETSIV3) Default = 31 (Q761-ETSIV3-HUNGARY) Default = 31 (Q761-HONGKONG) Default = 31 (Q761-STANDARD) Default = 31 (Q761-STANDARD97) Default = 31 (Q761-THAILAND) Default = 31 (Q767-BRAZIL) Default = 31 (Q767-MEXICO) Default = 31 (Q767-STANDARD)

MAX-PARALLEL-JOBS (Not provisionable—provisioned in the User Part Variant Base table)	Number of parallel channel management jobs that can be signaled by subsequent passes through the channel management queue. INTEGER: 1–32767 (Default = 10).
MAX-RESET-MASTER-RANGE (Not provisionable—provisioned in the User Part Variant Base table)	Maximum number of masters (or individuals) calls in reset at one time. INTEGER: 1–32767 (Default = 1).
MAX-RESET-SLAVE-RANGE (Not provisionable—provisioned in the User Part Variant Base table)	Maximum number of slave calls in reset at one time. INTEGER: 1–32767 Default = 23 (ANSISS7_GR317). Default = 30 (Q761-ETSIV2-ISRAEL) (Not supported) Default = 31 (Q761-ARGENTINA) Default = 31 (Q761-ARGENTINA-C2) Default = 31 (Q761-AUSTRALIAN) (Not supported) Default = 31 (Q761-CHILE) (Not supported) Default = 31 (Q761-CHINA) Default = 31 (Q761-ETSIV2) Default = 31 (Q761-ETSIV3) Default = 31 (Q761-ETSIV3-HUNGARY) Default = 31 (Q761-HONGKONG) Default = 31 (Q761-STANDARD) Default = 31 (Q761-STANDARD97) Default = 31 (Q761-THAILAND) Default = 31 (Q767-BRAZIL) Default = 31 (Q767-MEXICO) Default = 31 (Q767-STANDARD)
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
PROTO-FAM (Not provisionable—provisioned in the User Part Variant Base table)	The protocol family. VARCHAR(16): 1–16 ASCII characters. Permitted values are: SS7-ANSI (Default) SS7-Q761 SS7-Q767 (Q7674.1)

RESET-SUPPORTED (Not provisionable—provisioned in the User Part Variant Base table)	Specifies whether the protocol supports sending or receiving reset messages to the line. It determines if a reset event can be signaled to the protocol. CHAR(1): Y/N (Default = Y).
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).

User Part Variant Base

The User Part Variant Base (user-part-variant-base) table contains all the supported ISUP variants and the token values associated with each variant. This table is used by the Element Management System (EMS) to populate the token values in the User Part Variant table. Each ISUP variant defines the protocol and procedures used to set up, manage, and release trunk circuits carrying voice and data calls over a public switched telephone network (PSTN). ISUP is used for both ISDN and non-ISDN calls. Calls that originate and terminate on the same switch do not use ISUP signaling.

Table Name: USER-PART-VARIANT-BASE

Table Containment Area: EMS

Command Types

Show

Examples

```
show user-part-variant-base id=Q761-CHINA
```

Usage Guidelines

Primary Key: id

Syntax Description

* ID	Primary key. The variant id in the format: <protocolfamily>-<variant-name>. MDL uses this id as part of the MDO filename. VARCHAR(32): 1–32 ASCII characters. Permitted values are: ANSISS7-GR317 Q761-BASE Q761-CHINA Q767-BASE—Q7674.1 Q767-MEXICO—Q7674.1 Q761-ETSIV2-ISRAEL (Release 4.4.0) (Not supported) Q761-AUSTRALIAN (Release 4.4.0) (Not supported)

AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
MAX-BLOCK-MASTER-RANGE	Maximum number of masters (or individuals) calls in a block at one time. INTEGER: 1–32767 (Default = 1).
MAX-BLOCK-SLAVE-RANGE	Maximum number of slave calls in a block at one time. INTEGER: 1–32767 Default = 23 (ANSISS7_GR317). Default = 30 (Q761-ETSIV2-ISRAEL) (Not supported) Default = 31 (Q761-ARGENTINA) Default = 31 (Q761-ARGENTINA-C2) Default = 31 (Q761-AUSTRALIAN) (Not supported) Default = 31 (Q761-CHILE) (Not supported) Default = 31 (Q761-CHINA) Default = 31 (Q761-ETSIV2) Default = 31 (Q761-ETSIV3) Default = 31 (Q761-ETSIV3-HUNGARY) Default = 31 (Q761-HONGKONG) Default = 31 (Q761-STANDARD) Default = 31 (Q761-STANDARD97) Default = 31 (Q761-THAILAND) Default = 31 (Q767-BRAZIL) Default = 31 (Q767-MEXICO) Default = 31 (Q767-STANDARD)
MAX-PARALLEL-JOBS	Number of parallel channel management jobs that can be signaled by subsequent passes through the channel management queue. INTEGER: 1–32767 (Default = 10).

MAX-RESET-MASTER-RANGE	Maximum number of masters (or individuals) calls in reset at one time. INTEGER: 1–32767 (Default = 1).
MAX-RESET-SLAVE-RANGE	Maximum number of slave calls in reset at one time. INTEGER: 1–32767 Default = 23 (ANSISS7_GR317). Default = 30 (Q761-ETSIV2-ISRAEL) (Not supported) Default = 31 (Q761-ARGENTINA) Default = 31 (Q761-ARGENTINA-C2) Default = 31 (Q761-AUSTRALIAN) (Not supported) Default = 31 (Q761-CHILE) (Not supported) Default = 31 (Q761-CHINA) Default = 31 (Q761-ETSIV2) Default = 31 (Q761-ETSIV3) Default = 31 (Q761-ETSIV3-HUNGARY) Default = 31 (Q761-HONGKONG) Default = 31 (Q761-STANDARD) Default = 31 (Q761-STANDARD97) Default = 31 (Q761-THAILAND) Default = 31 (Q767-BRAZIL) Default = 31 (Q767-MEXICO) Default = 31 (Q767-STANDARD)
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
PROTO-FAM	The protocol family. VARCHAR(16): 1–16 ASCII characters. Permitted values are: SS7-ANSI (Default) SS7-Q761 SS7-Q767 (Q7674.1)
RESET-SUPPORTED	Specifies whether the protocol supports sending or receiving reset messages to the line. It determines if a reset event can be signaled to the protocol. CHAR(1): Y/N (Default = Y).
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).



CHAPTER 5

Subscriber Provisioning

Revised: July 24, 2009, OL-3743-42

This chapter describes the Call Agent Subscriber Provisioning commands and their associated tables.

Note In this chapter, an asterisk preceding a token name means the token is mandatory. A token without an asterisk is optional.

Note If a subscriber is a plain old telephone service (POTS) subscriber, then the Vertical Services table must be provisioned, or star code features will not work. POTS refers to the basic service supplying standard single line telephones, telephone lines, and access to the public switched telephone network (PSTN). There are no added features such as call waiting or call forwarding; POTS consists of just receiving and placing calls. All POTS lines work on loop start signaling.

Note Call Forwarding No Answer (CFNA) limitation for inbound calls—If a call originates on a phone connected to a Cisco CallManager (CCM) toward a directory number (DN) subscribed to the Cisco BTS 10200 Softswitch, the Cisco BTS 10200 Softswitch cannot forward that call over an H.323 network to a third party using the CFNA feature. The Cisco BTS 10200 Softswitch can forward a CCM-originated call over a SIP or MGCP-based network to a third party using CFNA.

Address of Record to Subscriber

The Address of Record (AOR) to Subscriber (aor2sub) table is automatically provisioned when a subscriber is created. If a URL-based AOR is required, it can be manually provisioned using this table. This table is used for provisioning Session Initiation Protocol (SIP) telephones as subscribers.

Table Name: AOR2SUB

Table Containment Area: CA, EMS

Command Types

Show, add, change, and delete

Show, change (Release 4.5)

Examples 4.x

```
show aor2sub aor-id=joe@cisco.com;
add aor2sub aor-id=joe@cisco.com; sub-id=sub1; (Obsolete in Release 4.5)
change aor2sub aor-id=joe@cisco.com; sub-is=sub2;
change aor2sub status=INS; aor-id=4167940001@sia-SYS21CA146.ipclab.cisco.com;
```

Note In Release 4.5, the change command is used to control an aor2sub status. The control command is not supported.

```
delete aor2sub aor-id=joe@cisco.com; (Obsolete in Release 4.5)
```

Examples 4.5

```
show aor2sub aor-id=joe@cisco.com;
change aor2sub aor-id=joe@cisco.com; status=INS;
```

Usage Guidelines

Primary Key Token(s): aor-id

Foreign Key Token(s): sub-id

Unique Key Token(s): secure-fqdn (Release 4.5)

Unique Key Token(s): aor-id (Release 4.5.1)

Add Rules: None

Delete Rules: aor-id can only be deleted if status=OOS

Syntax Description

* AOR-ID	Primary key. The AOR ID for the subscriber. VARCHAR(64): 1–64 ASCII characters.
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.

DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
SECURE-FQDN (Release 4.5)	Unique key. Specifies the secure-fqdn assigned to the AOR. Use a secure-fqdn to resolve an IP address and compare it with the IP address received from an endpoint during registration or during call setup (INVITE). VARCHAR(64): 1–64 ASCII characters. **Note** A static contact cannot be specified for a SECURE-FQDN subscriber. Any existing static contact record for an AOR must be deleted before the subscriber can be made a SECURE-FQDN SIP endpoint.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).
STATUS (System generated)	Status of the AOR. VARCHAR(16): 1–16 ASCII characters. INS—The AOR is in service. OOS—(Default) The AOR is out of service. **Note** This field is not provisionable. Use the status or control commands to change AOR status to INS or OOS. In Release 4.5, use the change command instead of the control command.
SUB-ID	Foreign key: Subscriber table. Subscriber ID. VARCHAR(30): 1–30 ASCII characters.

Authorization Code

The Authorization Code (auth-code) table defines the authorization codes used within the Feature Server. Authorization code groups allow multiple authorization codes to be shared by multiple users. One user can also have multiple authorization codes.

Table Name: AUTH-CODE

Table Containment Area: FSPTC

Command Types

Show, add, change, and delete

Examples

```
show auth-code id=210; auth-code-grp-id=cisco;
add auth-code id=210; auth-code-grp-id=cisco;
change auth-code id=210; auth-code-grp-id=cisco; active=n;
delete auth-code id=210;
```

Usage Guidelines

Primary Key Token(s): auth-code-grp-id, id

Foreign Key Token(s): auth-code-grp-id, cos-restrict-id

Add Rules: None.

Change Rules: None.

Delete Rules: None.

Syntax Description

* ID	Primary key. Dialed authorization code. VARCHAR(23): 1–23 numeric characters.
* AUTH-CODE-GRP-ID	Primary key. Foreign key: Authorization Code Group table. Authorization code group ID. VARCHAR(16): 1–16 ASCII characters.
ACTIVE	Indicates status of the authorization code. CHAR(1): Y/N (Default = Y). Y—Status is active. N—Status is blocked.
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
COS-RESTRICT-ID	Foreign key: COS Restrict table. Class of service restriction ID from the COS Restrict table. VARCHAR(16): 1–16 ASCII characters.

DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).

Authorization Code Group

The Authorization Code Group (auth-code-grp) table defines valid authorization code groups. It is only required in the Element Management System (EMS).

Table Name: AUTH-CODE-GRP (EMS only)

Table Containment Area: Tandem Feature Server

Command Types

Show, add, change, and delete

Examples

```
show auth-code-grp id=cisco;
add auth-code-grp id=cisco; description=cisco sales;
change auth-code-grp id=cisco; description=cisco accounting;
delete auth-code-grp id=cisco;
```

Usage Guidelines

Primary Key Token(s): id

Add Rules: None.

Change Rules: None.

Delete Rules: None.

Syntax Description

* ID	Primary key. Authorization code group ID. VARCHAR(16): 1–16 ASCII characters.
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
DESCRIPTION (EMS-only field)	Described by the service provider. VARCHAR(64): 1–64 ASCII characters.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).

Casual White Black List

The Casual White Black List (casual-wb-list) table identifies the class of service restricted by ID and by carrier. It is used either as a White List or as a Black List. A White List contains Carrier Identification Codes (CICs) that the subscriber can access. A Black List contains CICs the subscriber is blocked from using. To use the Casual White Black List as a White List, use the COS Restrict table. Enter *use-white-list* for the *casual-restrict-type* token, and similarly for a Black List.

Table Name: CASUAL-WB-LIST

Table Containment Area: FSPTC

Command Types

Show, add, and delete

Examples

```
show casual-wb-list cos-restrict-id=basic; carrier=9999;
add casual-wb-list cos-restrict-id=basic; carrier=9999;
delete casual-wb-list cos-restrict-id=basic; carrier=9999;
```

Usage Guidelines

Primary Key Token(s): cos-restrict-id, carrier

Foreign Key Token(s): cos-restrict-id

Add Rules: None.

Delete Rules: None.

Syntax Description

* COS-RESTRICT-ID	Primary key. Foreign key: COS Restrict table. ID assigned to subscriber in the COS Restrict table. Class of service (COS) blocking of certain calls. VARCHAR(16): 1–16 ASCII characters.
* CARRIER	Primary key. Carrier Identification Code (CIC). CHAR(4): 4 digits.
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.

LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).

Changed Number

The Changed Number (changed-number) table tracks old and new directory numbers (DNs) when a subscriber changes a DN.

Table Name: CHANGED-NUMBER

Table Containment Area: Call Agent

Command Types

Show, add, change, and delete

Examples

```
show changed-number old-dn=972-671-2355;
show changed-number start-time=yyyy-mm-dd; END-TIME=yyyy-mm-dd;; (Release 4.5: displays
all records with the specified date or earlier.)
add changed-number old-dn=972-671-2355; new-dn=469-255-2055;
change changed-number old-dn=972-671-2355; new-dn=469-255-2355;
delete changed-number old-dn=972-671-2355;
delete changed-number start-time=yyyy-mm-dd; END-TIME=yyyy-mm-dd; (Release 4.5): deletes
all records within the specified range.)
```

Usage Guidelines

Primary Key Token(s): old-dn

Add Rules: None.

Change Rules: None.

Delete Rules: None.

Syntax Description

* OLD-DN	Primary key. The old subscriber directory number (DN). VARCHAR(14): 1–14 ASCII characters in the format NDC-ED-DN, where: NDC—National Destination Code EC—Exchange Code DN—Directory Number
* NEW-DN	The changed or new subscriber DN. VARCHAR(14): 1–14 ASCII characters in the format NDC-ED-DN, where: NDC—National Destination Code EC—Exchange Code DN—Directory Number
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
END-TIME (Release 4.5)	Valid only for show and delete. Shows or deletes a range of records created or modified based on the last-changed token. DATE: YYYY-MM-DD
LAST-CHANGED (EMS only) (Release 4.5)	Not provisionable. Specifies the system time the changed-number record was added or modified. DATE: For example: 2004-FEB-12 11:10:23 in AM/PM or 24-hour format.
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.

START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).
START-TIME (Release 4.5)	Valid only for show and delete. Shows or deletes a range of records created or modified based on the last-changed token. DATE: YYYY-MM-DD

DN2Subscriber

The Element Management System (EMS) automatically generates this table. A user can show data or change the Status field to VACANT if it is in the disconnected (DISC) or connected (CN) state.

The DN2Subscriber table determines the subscriber ID of a DN during termination processing. The table is populated when a subscriber DN is added to the Subscriber table. The table is queried when the called number is translated using the dial plan and the type of subscriber field indicates “Subscriber,” that is, it takes a DN and maps it to a subscriber.

The DN2Subscriber table also consists of the administrative status of the DN. The DN can be in one of the states described in Table 5-1.

Table 5-1 DN States

State	Definition
VACANT	The DN is unassigned. An Unassigned DN announcement is played. A typical announcement is “The number you dialed is not in service. Please check the number and try again.” The cause code for this state is #1.
ASSIGNED	The DN is assigned to a subscriber.
CN	The DN status is marked as changed number (CN) when the subscriber requests a new number. A Changed Number announcement is played in this state. A typical announcement is “The called number has changed, the new number is ….” The cause code for this state is #22.
DISC	The DN is disconnected. A Disconnected Number announcement plays. A typical announcement is “We’re sorry, you have reached a number that has been disconnected or is no longer in service…” The cause code for this state is #27.
LRN	The DN has been reserved as an Location Routing Number (LRN) on this Call Agent.
RACF-DN	The DN has been reserved for remote activation of call forwarding (RACF) feature.
TEST-LINE	The DN has been assigned to a test line.
ANNC	The DN points to an announcement (ANNC) ID.
PORTED-OUT	The subscriber ported (moved) out of the Call Agent and chose to keep their DN (local number portability).

Table Name: DN2SUBSCRIBER

Table Containment Area: Call Agent

Command Types

Show, add, change, and delete

Examples

Note For the following commands, enter all 10 digits of the subscriber DN. While the DN token in this table uses only the last four digits for DN purposes, the first six are converted for the office-code-index.

```
show dn2subscriber office-code-index=6; dn=2355;
show dn2subscriber start-time=yyyy-mm-dd; end-time=yyyy-mm-dd; (shows all records with the
specified date or earlier)
add dn2subscriber office-code-index=6; dn=2355; status=annc; annc-id=250;
change dn2subscriber office-code-index=6; dn=2355; status=vacant
delete dn2subscriber office-code-index=6; dn=2355;
delete dn2subscriber status=disc; start-time=yyyy-mm-dd; end-time=yyyy-mm-dd; (deletes all
records within the specified range)
```

Usage Guidelines

Primary Key Token(s): office-code-index, dn

Foreign Key Token(s): office-code-index, annc-id, sub-id

Add Rules: ported-out status only if npa-nxx appears in the ported-office-code table.

Change Rules: None.

Delete Rules: office-code-index must exist.

Other Rules:

- When fdn, from-dn, and to-dn are specified, office-code-index and dn are not required.
- Use fdn to specify a single DN.
- Use from-dn and to-dn to specify a range of up to 100 DNs.

Note

PBX-DID Provisioning

To provision PBX-DID subscribers, the DN2Subscriber table must be manually provisioned. The DN2Subscriber table can support groups of 10, 100, 1000, or 10,000 directory numbers. The format of the DN is nnnn where n = 0–9. To provide a range of DNs, replace n with a lowercase x. If the last digit is replaced with an x, it represents a group of 10 DNs. An xx represents 100 DNs, xxx represents 1000 DNs, and xxxx represents 10,000 DNs.

Examples:

add dn2subscriber office-code-index=1; DN=xxxx; sub-id=pbx1@ca1.cisco.com; (10,000 DNs
add dn2subscriber office-code-index=1; DN=2xxx; sub-id=pbx1@ca1.cisco.com; (1,000 DNs)
add dn2subscriber office-code-index=1; DN=23xx; sub-id=pbx1@ca1.cisco.com; (100 DNs)
add dn2subscriber office-code-index=1; DN=235x; sub-id=pbx1@ca1.cisco.com; (10 DNs)

Syntax Description

* OFFICE-CODE-INDEX	Primary key. Foreign key: Office Code table. First six digits of the DN are converted to office-code-index. SMALLINT: 1–65535.
* DN	Primary key. Last one to four digits of the directory number assigned to a subscriber in the Subscriber table. These become the DNs for that particular Call Agent. CHAR(4): 1–4 characters in one of the following formats: For one digit: n or x. For two digits: nn, nx, or xx. For three digits: nnn, nnx, nxx, or xxx. For four digits: nnnn, nnxx, nxxx, or nxxx. Where n = numeric digit 0–9, and x (x is lowercase) is used as a wildcard representing a group of 10, 100, or 1000 DNs.
* STATUS	Status can only be changed to vacant (unassigned). The rest of the values are system-generated by the EMS. Changing a status to unassigned links it to an announcement. The following tokens can be added, changed, or deleted: DISC LRN TEST-LINE ANNC PORTED-OUT The CN token can only be changed. VARCHAR(11): 1–11 ASCII characters. Permitted values are: VACANT—Unassigned DN. ASSIGNED (System generated)—DN is assigned; check the subscriber data to see the status. CN—Changed number. DISC—Disconnected number. LRN—Location Routing Number. If DN is assigned as an LRN, use GAP parameter to complete the call. RACF-DN—DN is for remote activation of call forwarding. TEST-LINE—DN assigned to test lines. ANNC—DN points to an announcement. PORTED-OUT—DN has ported out of the Call Agent. Ported-out status occurs only if NPA-NXX appears in the ported-office-code table.

ADMIN-DN	Specifies an administrative DN. This token is set if the subscriber category is IVR or RACF. If the token is set, it is considered an administrative DN. Used for Number Resource Utilization and Forecast (NRUF) reporting. DNs whose status in the DN2 Subscriber table is one of the following are considered administrative DNs: LRN—Location Routing Number. DN is assigned as an LRN. TEST-LINE—DN is assigned to a test line. ANNC—DN is assigned to an announcement. CHAR(1): Y/N (Default = N).
ANNC-ID	Mandatory if status = annc. Foreign key: Announcement table. Announcement ID associated with the dialed DN. Must match ID in the Announcement table. SMALLINT: 1–1000.
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
END-TIME (Release 4.5)	Valid only for show and delete commands. Used to show or delete a range of records that were created or modified based on the LAST-CHANGED token. DATE: YYYY-MM-DD
FDN	The full DN. VARCHAR(14): 1–14 numeric digits. This token can be entered only from the CLI. VARCHAR(16): 1–16 numeric digits. (Release 4.5)
FROM-DN	The *from* DN. Used with the to-dn token to provision a range of DNs. VARCHAR(14): 1–14 numeric digits in the format NDC+EC+DN. VARCHAR(16): 1–16 numeric digits. (Release 4.5)
LAST-CHANGED (Release 4.5)	Specifies the time the dn2subscriber record was added or modified. DATE: Not provisionable. The Cisco BTS 10200 Softswitch uses the system time when a record is provisioned or changed. For example, 2004-FEB-12 11:10:23 (AM/PM or 24 hour format).

LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
LNP-TRIGGER	If set (Y), perform LNP query. CHAR(1): Y/N (Default = N).
NP-RESERVED (Not supported)	Supports LNP and number pooling. CHAR(1): Y/N (Default = N). If a call is received with the switch LRN and the GAP parameter containing a DN for which the dn2subscriber status is VACANT, the switch provides the following treatment: • If NP-RESERVED is Y, send release cause 1 (vacant or unallocated number treatment). • If NP-RESERVED is N, send release cause 26 (misrouted ported number).
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
PORTED-IN (EMS only) (Release 4.5)	Automatically provisioned when the subscriber is provisioned as ported-in=Y. Not provisionable in this table. CHAR(1): Y/N (Default = N).
RING-TYPE (System Generated)	Specifies the ring type based on the dialed DN. CHAR(1): 1, 2 or 3 (Default = 1). CHAR(1): 1–7 (Default = 1). (Release 4.5) Values are: 1—2 seconds ringing, 4 seconds off 2—.5 seconds ringing,.5 seconds ringing, 4 seconds off 3—.5 seconds ringing,.5s ringing,.5 seconds ringing, 4 seconds off 4—.3 seconds ringing,.2 seconds ringing,.3 seconds ringing, 4 seconds off (Release 4.5) 5—.5 seconds ringing, 6 seconds off (Release 4.5) 6—.5 seconds ringing, 1 second ringing,.5 seconds ringing, 4 seconds off (Release 4.5) 7—.5 seconds ringing, 6 seconds off (Release 4.5)
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).

START-TIME (Release 4.5)	Valid only for show and delete commands. Delete command is valid only if status = CN | DISC. Used to show or delete a range of records that were created or modified based on the LAST-CHANGED token. DATE: YYYY-MM-DD.
SUB-ID	Mandatory if status = assigned. Foreign key: Subscriber table. Subscriber ID of the calling DN. VARCHAR(30): 1–30 ASCII characters.
TO-DN	The *to* DN. Used with the from-dn token to provision a range of DNs. VARCHAR(14): 1–14 numeric digits in the format NDC+EC+DN. VARCHAR(16): 1–16 numeric digits. (Release 4.5)

International White Black List

The International White Black List (intl-wb-list) table is used if White Black List screening for international calls is specified in the COS Restrict table. Country code (CC) or CC and national number (NN) can also be specified in the table.

Table Name: INTL-WB-LIST

Table Containment Area: FSPTC

Command Types

Show, add, and delete

Examples

```
show intl-wb-list cos-restrict-id=basic; cc-nn=345011234;
add intl-wb-list cos-restrict-id=basic; cc-nn=345011234;
delete intl-wb-list cos-restrict-id=basic; cc-nn=345011234;
```

Usage Guidelines

Primary Key Token(s): cos-restrict-id, cc-nn

Foreign Key Token(s): cos-restrict-id

Add Rules: None.

Delete Rules: None.

Syntax Description

* COS-RESTRICT-ID	Primary key. Foreign key: COS Restrict table. Class of service restriction ID from the COS Restrict table. VARCHAR(16): 1–16 ASCII characters.
* CC-NN	Primary key. Country code (CC) and national number (NN). VARCHAR(16): 1–16 numeric characters. Enter digits only. Do not enter dashes.

AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).

MAC to Subscriber

The MAC to Subscriber (mac2sub) table links the MAC Address of a device to a subscriber ID. This table is automatically provisioned when a MAC device is associated with a subscriber. This table is used primarily for Session Initiation Protocol (SIP) provisioning.

Table Name: MAC2SUB

Table Containment Area: PTC Feature Server

Command Types

Show, add, change, and delete

Examples

```
show mac2sub mac-id=SIP0002B9A74E4C;
add mac2sub mac-id=SIP0002B9A74E4C; sub-id=sub1;
delete mac2sub mac-id=SIP0002B9A74E4C;
change mac2sub MAC_ID=SIP000BBE3718A0; sub-id=sub9
```

Usage Guidelines

Primary Key Token(s): mac-id

Foreign Key Token(s): sub-id

Add Rules: None.

Delete Rules: None.

Syntax Description

* MAC-ID	Primary key. MAC ID (Mac Address) of the IP Phone or device. VARCHAR(16): 1–16 ASCII characters. VARCHAR(16): 3–16 ASCII characters. (Release 4.5.1)
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).
SUB-ID	Foreign key: Subscriber table. Subscriber ID. Assigned by service provider. VARCHAR(30): 1–30 ASCII characters.

Nature of Dial White Black List

The Nature of Dial White Black List (nod-wb-list) table is used when the COS Restrict table indicates nature of dial (NOD)-based white or black list screening. NOD is a combination of Call Type and Nature of Address.

Table Name: NOD-WB-LIST

Table Containment Area: FSPOTS

Command Types

Show, add, and delete

Examples

```
show nod-wb-list cos-restrict-id=basic;
add nod-wb-list cos-restrict-id=basic; nod=intl;
delete nod-wb-list cos-restrict-id=basic; nod=intl;
```

Usage Guidelines

Primary Key Token(s): cos-restrict-id, nod

Foreign Key Token(s): cos-restrict-id, nod

Add Rules: None.

Delete Rules: None.

Syntax Description

* COS-RESTRICT-ID	Primary key. Foreign key: COS Restrict table. Class of service restriction ID from the COS Restrict table. VARCHAR(16): 1–16 ASCII characters.
* NOD	Primary key. Foreign key: Nature of Dial table. Nature of dial. VARCHAR(16): 1–16 ASCII characters.
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.

ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).

National White Black List

The National White Black List (national-wb-list) table is used if the COS Restrict table indicates National White Black List screening.

Table Name: NATIONAL-WB-LIST

Table Containment Area: FSPTC

Command Types

Show, add, and delete

Examples

```
show national-wb-list cos-restrict-id=basic; digit-string=800-555-0101;
add national-wb-list cos-restrict-id=basic; digit-string=800-555-0101;
delete national-wb-list cos-restrict-id=basic; digit-string=800-555-0101;
```

Usage Guidelines

Primary Key Token(s): cos-restrict-id, digit-string

Foreign Key Token(s): cos-restrict-id

Add Rules: None.

Delete Rules: None.

The National White Black list table checks telephone numbers only for the following call types: local, intralatatoll, interlatatoll, national (ITU only), toll, intl-wz1, international, casual, 900, premium, 976, da, da-toll, 0-plus, 0-minus, 01-plus, tw, info and non-emergency. The system does not check this list if the NOD is not one of these call types. For example, if an 800 number is added to this table, the number is not checked, since an 800 number is call type toll-free, and toll-free is not a supported call type.

Syntax Description

* COS-RESTRICT-ID	Primary key. Foreign key: COS Restrict table. Class of service restriction ID from the COS Restrict table. VARCHAR(16): 1–16 ASCII characters.
* DIGIT-STRING	Primary key. Digits in NDC-EC-XXXX format. VARCHAR(14): 1–14 numeric digits. Enter the digit-string using dashes.

AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).

Screening List Editing

The Screening List Editing (sle) table defines screening lists for a subscriber. A screening list identifies calls a subscriber does or does not wish put through.

Table Name: SLE

Table Containment Area: FSPTC

Command Types

Show, add, change, and delete

Examples

```
show sle sub-id=joe-smith@cisco.com; fname=scf;
add sle sub-id=joe-smith@cisco.com; fname=scf; dn=972-222-1234; anonymous=n;
change sle sub-id=joe-smith@cisco.com; fname=scf; dn=972-222-1234; anonymous=y;
delete sle sub-id=joe-smith@cisco.com; fname=scf; dn=972-222-1234; dn-type=fdn; (deletes
one record) (you must include dn-type, even if dn-type=fdn (the default value))
delete sle sub-id=joe-smith@cisco.com; fname=scf; FORCED=Y (deletes all SLE records for
the subscriber where fname=SCF)
delete sle sub-id=joe-smith@cisco.com; forced=Y; (deletes all SLE records for the
subscriber)
```

```
delete sle sub-id=joe-smith@cisco.com; forced=Y; (deletes all SLE records for the
subscriber) (Release 4.5)
delete sub-id=joe-smith@cisco.com; fname=scf; forced=Y; (deletes all SLE records for the
subscriber where fname=SCF) (Release 4.5)
```

Usage Guidelines

Primary Key Token(s): sub-id, fname, dn

Foreign Key Token(s): sub-id, fname

Add Rules: None.

Change Rules: The fname token is required.

Delete Rules: None.

Syntax Description

* SUB-ID	Primary key. Foreign key: Subscriber table. Subscriber ID from the Subscriber table. VARCHAR(30): 1–30 ASCII characters.
* FNAME	Primary key. Foreign key: Feature table. Type of screening feature. VARCHAR(16): 1–16 ASCII characters. Permitted values are: SCR—Selective call rejection SCF—Selective call forwarding SCA—Selective call acceptance DRCW—Distinctive ringing **Note** The DRCW feature is only for playing a distinctive ringing or distinctive call-waiting tone, and does not affect the activation of the call-waiting features (CW, CWD, or CIDCW). A subscriber must have CW, CWD, or CIDCW provisioned and activated in order to receive call-waiting treatment. NSA—No Solicitation (Release 4.5)
* DN	Primary key. Directory number entry. VARCHAR(16): 1–16 numeric characters. **Note** Only numeric digits are allowed.
ANONYMOUS	If the entry is marked anonymous, it is not voiced back to the subscriber during list-review. CHAR(1): Y/N (Default = N). Y—Treat entry as anonymous. N—Do not treat entry as anonymous.
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.

DN-TYPE	Primary key. The directory number type. The system performs the longest possible match between the number of the calling party and the provisioned DN when determining whether the calling party number matches the DN. VARCHAR(16): 1–16 ASCII characters. FDN (Default)—The full DN. If the full DN of the calling party matches the provisioned DN, the system treats this as a match and allows the incoming call to bypass the NSA announcement. PARTIAL—The partial DN. Uses the longest match to find the record. If the prefix of the calling party DN matches the provisioned DN, the system treats this as a match and allows the incoming call to bypass the NSA announcement. EXTENSION—The extension. If the full extension of the calling party matches the provisioned DN, the system treats this as a match and allows the incoming call to bypass the NSA announcement.
FORCED (Release 4.5)	Use to delete multiple entries. CHAR(1): Y/N (Default = N).
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).

Speed Call—One Digit

The Speed Call—One Digit (sc1d) table defines subscriber-specific, one-digit speed call lists.

Note

Provisioning for Multiline Hunt Groups (MLHG)
If a group speed call is allowed for an individual MLHG (Subscriber table: GRP=N), the group speed call feature must be explicitly provisioned against each MLHG line. If the Subscriber table is provisioned with GRP=Y, then only the main subscriber is provisioned with the group speed call feature.
Provisioning for Centrex
Provision Centrex speed calling using the Custom Dial Plan (CDP) table and setting NOD=speed-call, where NOD is nature of dial.

Table Name: SC1D

Table Containment Area: FSPTC

Show, add, change, and delete

Command Types

Show, add, change and delete

Examples

```
show sc1d sub-id=joe-smith@cisco.com;
add sc1d sub-id= joe-smith@cisco.com; dn2=800-555-0103 972-222-1234; dn3=1-800-555-0105;
change sc1d sub-id=joe-smith@cisco.com; dn2=800-555-0103; dn3=null
delete sc1d sub-id=joe-smith@cisco.com; dn2=800-555-0103;
```

Usage Guidelines

Primary Key Token(s): sub-id

Foreign Key Token(s): sub-id

Add Rules: None.

Change Rules: None.

Delete Rules: None.

Syntax Description

* SUB-ID	Primary key. Foreign key: Subscriber table. ID from Subscriber table. VARCHAR(30): 1–30 ASCII characters.
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.

DN[2...9]	DN entry. In the case of casual calls, digits are collected in two stages. 101xxxx is collected in the first stage, and the rest in the second stage. For example: 1010xxxx=7 digits + 19 = 26 digits. VARCHAR(26): 1–26 ASCII characters, including prefix.
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).

Speed Call—Two Digit

The Speed Call—Two Digit (sc2d) table defines subscriber-specific, two-digit speed call lists. This enables a user to dial a speed call using only two digits.

Note **Provisioning for Multiline Hunt Groups** (MLHG)
If speed call is allowed for an MLHG (Subscriber table: GRP=N), provision it against each MLHG line. If the Subscriber table is provisioned with GRP=Y, then only the main subscriber is provisioned with the group speed call feature.
Provisioning for Centrex
Provision Centrex speed calling using the Custom Dial Plan (CDP) table and setting NOD=speed-call.

Table Name: SC2D

Table Containment Area: PTC (or ptc) Feature Server

Command Types Show, add, change, and delete

Examples

```
show sc2d sub-id=joe-smith@cisco.com;
add sc2d sub-id=joe-smith@cisco.com; dn20=800-555-0106; dn30=1-800-555-0107;
change sc2d sub-id=joe-smith@cisco.com; dn20=800-555-0106;
delete sc2d sub-id=joe-smith@cisco.com; dn20=800-555-0106;
```

Usage Guidelines

Primary Key Token(s): sub-id

Foreign Key Token(s): sub-id

Add Rules: None.

Change Rules: None.

Delete Rules: None.

Syntax Description

* SUB-ID	Primary key. Foreign key: Subscriber table. ID from Subscriber table. VARCHAR(30): 1–30 ASCII characters.
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
DN[20...49]	DN entry. In the case of casual calls, digits are collected in two stages. 101xxxx is collected in the first stage, and the rest in the second stage. For example: 1010xxxx=7 digits + 19 = 26 digits. VARCHAR(26): 1–26 ASCII characters.
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).

Subscriber

The Subscriber (subscriber) table defines the characteristics of a subscriber or group of subscribers in a Call Agent. All termination numbers reached by a directory number (DN) must be set up as a subscriber. Any termination that can originate in the primary Call Agent must be set up as a subscriber (Residential, PBX, Business, Centrex, and so on). All terminations to customers, such as multiline hunt (MLH), Centrex, must be defined as well. Table 5-2 lists the required tokens for each category of subscribers.

Table 5-2 Required Subscriber Tokens

Token	Value	Required Tokens
Category	INDIVIDUAL	TERM-ID, MGW-ID, AOR-ID (if TERM-TYPE = SIP) or H323-TERM-ID (if TERM-TYPE = H323)
	MLHG	MLHG-ID
	MLHG-INDIVIDUAL	TERM-ID, MGW-ID, MLHG-ID
	MLHG-PREF-INDIV	TERM-ID, MGW-ID, MLHG-ID, MLHG-PREF-LIST-ID
	CTXG-MLHG	MLHG-ID, CTXG-ID
	CTXG	CTXG-ID
	CTXG-INDIVIDUAL	TERM-ID, MGW-ID, CTXG-ID
	CTXG-TG	CTXG-ID, TGN-ID
	PBX	TGN-ID
	RACF	None
	IVR	None

Table Name: SUBSCRIBER

Table Containment Area: Call Agent, FSPOTS

Command Types

Show, add, change, and delete

Examples

```
show subscriber id=cisco-main-number;
add subscriber id=cisco-main-number; name=wilmerwabash; dn1=800-555-0108;
sub-profile-id=richardson;
change subscriber id=cisco-main-number; category=ctxg-individual; name=wilmerwabashjr;
status=temp-disconnected; privacy=full;
delete subscriber id=cisco-main-number;
```

Note Deleting a subscriber does not automatically delete any DN2Subscriber table entries for that subscriber. Any DN2Subscriber table entries must be manually deleted after deleting a subscriber.

In Release 4.5, the delete subscriber command deletes all subscriber related records such as those in the Subscriber Feature Data table and the Subscriber Service Profile table.

Usage Guidelines

Primary Key Token(s): id

Foreign Key Token(s): aor-id, cos-restrict-id, ctxg-id, mac-id, mgw-id, mlhg-id, mlhg-pref-list-id, qos-id, sub-profile-id, term-id, tgn-id, h323-term-id

Foreign Key Token(s): privacy-manager-id, voice-mail-id (Release 4.5)

Unique Key Token(s): dn1

Unique Key Token(s): secure-fqdn, voice-mail-id, term-id (Release 4.5)

Unique Key Token(s): term-id, mgw-id (Release 4.5.1)

Add Rules:

- term-id, mgw-id are required if category=mlhg-pref-indiv | ctxg-individual | mlhg-individual | individual.
- no term-id, mgw-id if category= pbx | ctxg-tg; term-id, mgw-id optional if category=mlhg | ctxg-mlhg | ctxg.
- mlhg-pref-list-id is required if category=mlhg-pref-indiv.
- mlhg-id is required and exists if category=mlhg | mlhg-pref-indiv | mlhg-individual | ctxg-mlhg; ctxg-id is required and exists if category=ctxg | ctxg-individual | ctxg-mlhg | ctxg-tg; tgn-id is required and exists if category=pbx | ctxg-tg.
- During split-npa, if ani-update-status=completed, subscriber provisioning should not allow dn1, dn2, dn3 that are in the old-npanxx.
- if subscriber category=individual | pbx, then mlhg-id and ctxg-id are not provisionable.
- if subscriber category=mlhg | mlhg-individual | mlhg-pref-indiv, then ctxg-id is not provisionable.
- if subscriber category=ctxg | ctxg-individual | ctxg-tg, then mlhg-id is not provisionable.
- The forced token is optional for add subscriber command. When forced is specified, the system allows assigning a DN to a subscriber even if its status is ported-out. (Release 4.5)
- If forced=Y; subscriber add command can assign a DN1 to a subscriber where status of dn1=ported-out; (Release 4.5)

Change Rules:

- During split-npa, if ani-update-status=completed, subscriber provisioning does not allow a dn1 that is in the old-npanxx.

The following tokens are not required for change command. However, they are enforced during the change command, so that if someone tries to make them NULL—the rules will enforce that the command is rejected.

- term-id, mgw-id are required if category=mlhg-pref-indiv | ctxg-individual | mlhg-individual | individual.
- no term-id, mgw-id if category=ctxg-tg | pbx term-id, mgw-id optional if category=mlhg | ctxg-mlhg | ctxg.
- mlhg-id is required and exists if category=mlhg | mlhg-pref-indiv | mlhg-individual | ctxg-mlhg.
- mlhg-pref-list-id is required if category=mlhg-pref-indiv.
- ctxg-id is required and exists if category=ctxg | ctxg-individual | ctxg-mlhg | ctxg-tg; tgn-id is required and exists if category=pbx | ctxg-tg.

Delete Rules:

- ID cannot exist in any ctxg::main-sub-id if category=ctxg.

- ID cannot exist in any mlhg::main-sub-id if category=mlhg.
- ID cannot exist in any tgn-id::main-sub-id if category=pbx | ctxg-tg.
- ID cannot exist in any subscriber-service-profile::sub-id.
- ID cannot exist in any subscriber-feature-data::sub-id.
- ID cannot match a default-office-service-id in the Call Agent Configuration table. (Release 4.5)
- If forced = Y, the delete subscriber command deletes all subscriber related records such as the subscriber-feature-data and subscriber-service-profile information. (Release 4.5)

Note If subscribers have full privacy enabled, any calls they originate will be rejected by subscribers who have anonymous call rejection (ACR) enabled.

Syntax Description

* ID	Primary key. Subscriber ID. Assigned by service provider. VARCHAR(30): 1–30 ASCII characters.
* SUB-PROFILE-ID	Foreign key: Subscriber Profile table. Subscriber profile ID. VARCHAR(16): 1–16 ASCII characters.
ACCOUNT-ID (Release 4.5)	Specifies a subscriber account ID for one or more subscribers. An account id is only for identification purposes. The account id is not associated with any feature grouping behavior during call processing, although it is included in a billing record. VARCHAR(20): 1–20 ASCII characters.
ADDRESS1	Street name, apartment number. VARCHAR(32): 1–32 ASCII characters.
ADDRESS2	Street name, apartment number. VARCHAR(32): 1–32 ASCII characters.
AOR-ID	Foreign key: Address of record. AOR = USER +@+DOMAIN-NAME. VARCHAR(64): 1-64 ASCII characters. Uses the domain name parser. Domain name portion of the AOR-ID must exist in the Serving Domain Name table.
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
BILLING-DN	Mandatory if billing-dn and DN1 are different. Assigned by service provider; DN that is billed. VARCHAR(14): 1–14 numeric digits in the format NDC-EC-XXXX.

BILLING-TYPE (Release 4.5)	Specifies the subscriber billing type. VARCHAR(16): 1–16 ASCII characters (Default = NONE). Permitted values are: FR1—Flat Rate Billing 1 FR2—Flat Rate Billing 2 MR1—Measured Rate Billing 1 MR2—Measured Rate Billing 2 NONE (Default)—Billing type is not used.
CATEGORY	Subscriber category. VARCHAR(15): 1–15 ASCII characters. Permitted values are: INDIVIDUAL (Default)—Individual subscriber. CTXG—Assigned to the main subscriber ID of a Centrex group. CTXG-INDIVIDUAL—Assigned to a Centrex subscriber. CTXG-MLHG—Assigned to a Centrex MLHG (for example, attendant). CTXG-TG—Assigned to a Centrex trunk group. IVR—Access DN for IVR. MLHG-INDIVIDUAL— Subscriber within an MLHG. MLHG—Main subscriber ID of an MLHG. MLHG-PREF-INDIV—Main subscriber ID of a preferential hunt list. PBX—Assigned to the main subscriber ID of a PBX. RACF—Access DN for remote activation of call forwarding. TEST-LINE—Test line. (Obsolete as of Release 4.5)
CITY	Subscriber's city. VARCHAR(16): 1–16 ASCII characters.
COS-RESTRICT-ID	Foreign key: COS Restrict table. COS restriction ID. VARCHAR(16): 1–16 ASCII characters.
COUNTRY	Country of subscriber. VARCHAR(16): 1–16 ASCII characters (Default = USA). **Note** As of Release 4.5, there is no default for this token.
CTXG-ID	Foreign key: Centrex Group table. Same as ID in Centrex Group table. VARCHAR(16): 1–16 ASCII characters.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
DN1	Unique key. Subscriber directory number (DN). VARCHAR(14): 14 numeric digits in the format NDC-EC-XXXX.

DN-STATUS (Release 4.5)	Valid only for the delete subscriber command. Specifies a new DN status. If the dn-status is specified during the delete subscriber command, the status field in the DN2Subscriber table is set to the specified value. VARCHAR(16): 1–16 ASCII characters (Default = DISC). Permitted values are: DISC (Default)—Disconnected number. PORTED-OUT—DN has ported out of the Call Agent.
FORCED (Release 4.5)	Use to bypass rule checking during add or change operations. When used in a delete command, the Cisco BTS 10200 Softswitch deletes all the information associated with the subscriber from the Subscriber table as well as all associated tables such as the Subscriber Service Profile table, the Subscriber Feature Data table, and so forth. CHAR(1): Y/N (Default = N).
GRP	Specifies whether a subscriber is an individual or a group. Applies to Multiline Hunt or Centrex subscribers. CHAR(1): Y/N (Default = N). Y—Group N—Individual
H323-TERM-ID (Release 4.2)	Mandatory if term-type = H323. Foreign key: H.323 Termination table. The termination ID for an H.323 terminal. VARCHAR(16): 1–16 ASCII characters.
IMMEDIATE-RELEASE	Specifies whether to apply the immediate release procedure when a calling party hangs up. VARCHAR(1): Y/N (Default = N).
LANGUAGE	Subscriber's preferred spoken language. No rule checking. VARCHAR(16): 1–16 ASCII characters.
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
LNP-TRIGGER (Release 4.5)	Sets the lnp-trigger in the DN2Subscriber table when the DN is porting-in or porting-out. CHAR(1): Y/N (Default = N).
MAC-ID (EMS only)	A MAC-ID is allowed only if term-type=sip. This token is case sensitive—enter in uppercase. Foreign key: MAC to Subscriber table. MAC-ID of SIP (IP) Phone. Specifies the MAC address of the subscriber's SIP phone from which services to control features are invoked. VARCHAR(16): 1-16 ASCII characters.
MGW-ID	Mandatory if term-type = term. Foreign key: Media Gateway, Termination tables. Media Gateway ID. The mgw-id is used as a termination ID as well as a combined foreign key to the termination table. VARCHAR(32): 1–32 ASCII characters.

MLHG-ID	Foreign key: Multiline Hunt Group (MLHG) table. Same as ID in Multiline Hunt Group table. VARCHAR(16): 1–16 ASCII characters.
MLHG-PREF-LIST-ID	Foreign key: MLGH Preference List table. Same as ID in MLGH Preference List table. VARCHAR(16): 1–16 ASCII characters.
NAME	Mandatory for CNAM feature. Subscriber name. VARCHAR(16): 1–16 ASCII characters. **Caution** Do not use double quotes (“ ”), single quotes (’), dashes (-), or underscores (_) in subscriber names. Although dashes and underscores are allowed, using a dash causes errors when sending it as part of a caller name feature.
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
PIC1	Specifies the preferred interLATA carrier (PIC). If numeric digits are not provisioned, the value NONE can be used for both interLATA and international calls. If numeric digits are provisioned, the value NONE is used for interLATA calls only. CHAR(4). Permitted values are: NONE (Default)—No PIC specified. NPIC—Do not use a PIC. XXXX (Numeric digits)—Use the 4-digit carrier ID.
PIC2	Preferred intraLATA carrier (PIC). CHAR(4). Permitted values are: NONE (Default)—No PIC specified. NPIC—Do not use a PIC. XXXX (Numeric digits)—Use the 4-digit carrier ID.
PIC3	International preferred interLATA carrier (PIC). CHAR(4). Permitted values are: NONE (Default)—No PIC specified. NPIC—Do not use a PIC. XXXX (Numeric digits)—Use the 4-digit carrier ID.
POLICY-ID	Specifies the route policy ID. This token is mandatory and permitted only if TERM-TYPE=ROUTE or RG VARCHAR(16): 1–16 ASCII characters. Policy-id = route-id if term-type = route. Policy-id = route-guide-id if term-type = rg.

PORTED-IN (Release 4.5)	Specifies whether the subscriber DN is ported in. CHAR(1): Y/N (Default = N).
PRIVACY	Specifies how calling party information (Name, DN) is displayed to the called party. CHAR(4): 1–4 ASCII characters. Permitted values are: NONE (Default)—Name and number. FULL—Do not display name or number. NAME—Do not display name. USER—Use user-provided privacy information. Applies only to SIP endpoints that can include privacy information. If information is not received for either name or number, then privacy is indicated as "unspecified." (Release 4.2) **Note** PRIVACY = USER is not valid if term-type = term | none in Release 4.2.
PRIVACY-MANAGER-ID (Release 4.5)	Foreign key: Application Server table. The privacy manager id. VARCHAR(16): 1–16 ASCII characters.
QOS-ID	Foreign key: QOS table. Specifies whether to use QOS index for codec selection. VARCHAR(16): 1–16 ASCII characters.
RING-TYPE-DN1	Ring type for DN1. CHAR(1): 1, 2, or 3 (Default = 1). CHAR(1): 1–7 (Default = 1). (Release 4.5) Permitted values are: 1—2 seconds ringing, 4 seconds off 2—.5 seconds ringing, .5 seconds ringing, 4 seconds off 3—.5 seconds ringing, .5s ringing, .5 seconds ringing, 4 seconds off 4—.3 seconds ringing, .2 seconds ringing, .3 seconds ringing, 4 seconds off (Release 4.5) 5—.5 seconds ringing, 6 seconds off (Release 4.5) 6—.5 seconds ringing, 1 second ringing, .5 seconds ringing, 4 seconds off (Release 4.5) 7—.5 seconds ringing, 6 seconds off (Release 4.5) **Note** When the MDN feature is provisioned, ring-type-dn1 is still alterable. Note that MDN lines use the ring order 2, 3, 4, 5, 6, 7. As a result, the primary ring type may be the same as the ring type used by the secondary lines—causing multiple DNs to have indistinguishable rings.
SDT-MWI (Release 4.5)	Specifies whether a stutter tone is provided as a Message Waiting Indication. CHAR(1): Y / N (Default = Y). Y—A stutter dial tone is provided to a user when the subscriber goes off-hook and subscriber has Message Waiting. N—A stutter dial tone is not provided.

SECURE-FQDN (EMS ONLY) (Release 4.5)	Unique key. Use to resolve an IP address and compare it with the IP address received from an endpoint during registration or during call setup (INVITE). A secure-fqdn is assigned to the AOR. VARCHAR(64): 1–64 ASCII characters. Also provisioned in the AOR2SUB table. **Note** This token is valid only if term-type=sip. If secure-fqdn is provisioned, the AOR token is required.
SEND-BDN-AS-CPN (Release 4.2)	Specifies whether to send the billing DN for all calls (EMG, LOCAL, ON-NET, OFF-NET) as the calling party number (CPN) in the outgoing setup messages. If a billing DN is not provisioned, the billing DN (present) or the DN1 of the main subscriber (for PBX/MLHG subscribers) is sent as the CPN in the outgoing setup message. If none of them are found, the DN1 is sent. CHAR(1): Y/N (Default = N). Y—Send the billing DN of a subscriber as a CPN in the outgoing setup message. N—Send the DN1 of a subscriber as a CPN in the outgoing setup message.
SEND-BDN-FOR-EMG (Release 4.2)	Specifies whether to send the billing DN value of emergency calls for PBX over PRI, or CAS and ANALOG, subscribers as the CPN in the outgoing setup messages. Applies to subscribers (including ISDN with a main subscirber id provisioned). Activate by setting the send-bdn-as-cpn token to N. CHAR(1): Y/N (Default = N). Y—Send the billing DN of the subscriber as a CPN in the outgoing setup message. N—Send the received calling party number of the subscriber as a CPN in the outgoing setup message.
SEND-BILLING-DN (Obsolete in Release 4.5)	Specifies whether the billing DN is sent as the calling party number instead of DN1. CHAR(1): Y/N (Default = N).
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).
STATE	State designation. VARCHAR(16): 1–16 ASCII characters.

STATUS	Indicates the subscriber status. VARCHAR(17): 1–17 ASCII characters (Default = ACTIVE). Permitted values are: ACTIVE (Default)—The subscriber is active. TEMP-OOS—The subscriber is temporarily Out of Service. TEMP-DISCONNECTED—The subscriber is temporarily disconnected (for example, nonpayment of bill). A typical announcement is “The party you are calling has temporarily disconnected their service.” The cause code for this state is #151. TEMP-UNAVAILABLE—The subscriber is temporarily unavailable. This state allows a subscriber to route calls to an announcement without actually disconnecting the number (for example, during summer vacation). A typical announcement is “The party you are calling has temporarily disconnected their service.” The cause code is for this state is #151.
TERM-ID	Unique key. Foreign key: Termination table. Termination ID. Required if term-type=term. The term-id is used as a termination ID as well as a combined foreign key to the termination table. VARCHAR(32): 1–32 ASCII characters.
TERMINATING-IMMEDIATE-REL	Specifies whether to release a call immediately when a called party releases a call. CHAR(1): Y/N (Default = N).
TERM-TYPE	Specifies the termination type. VARCHAR(5): 1–5 ASCII characters. Permitted values are: TERM (Default)—MGCP termination TG—Trunk group ROUTE—Route RG—Route guide (Not supported) SIP—SIP termination NONE—There is no termination associated with the subscriber. H323—H.323 virtual termination (Release 4.2)
TGN-ID (or TG)	Mandatory if term-type=term. Foreign key: Trunk Group table. Trunk group ID. This field can also be provisioned using tg instead of tgn-id. The EMS looks up the tgn-id based on the trunk group and then provisions it. SMALLINT: 1–99999999.

USAGE-SENS	Specifies if usage-sensitive features are allowed. Usage-sensitive features are not subscribed but are available for use. The subscribers are charged per usage. The following features are available as usage-sensitive: • AR (automatic recall) • AC (automatic callback) • USTWC (three-way calling) CHAR(1): Y/N (Default = Y). Y—Usage-sensitive features are allowed. N—Usage-sensitive features are not allowed.
USE-GRP-DN (Release 4.5)	Specifies whether a group billing DN is sent as the calling party number. CHAR(1): Y/N (Default = N). N—Propagates the calling party number to the terminating call leg. Y—Replaces the calling party number with the group DN (main subscriber DN).
VMWI (Release 4.5)	The Visual Message Waiting Indication. This indication is sent when a message waiting indicator (MWI) Notify is received from the voice-mail system. CHAR(1): Y/N (Default = Y).
VOICE-MAIL-ID (Release 4.5)	Foreign key: Application Server table. Specifies the default voice-mail id for all subscribers belonging to a subscriber profile. VARCHAR(16): 1–16 ASCII characters.
ZIPCODE	Subscriber's zip code. VARCHAR(10): 1–10 ASCII characters.

Subscriber Feature Data

The Subscriber Feature Data (subscriber-feature-data) table specifies subscriber-specific feature data. It also specifies if a feature is active—and if active, it also provides additional data as required. See Table 5-3 for the valid combinations of FNAME, TYPE and VALUE. See also Appendix C, "Vertical Service Codes" for other specific feature information.

Table Name: SUBSCRIBER-FEATURE-DATA

Table Containment Area: FSPTC

Command Types

Show, add, change, and delete

Examples

```
show subscriber-feature-data sub-id=wilmerwabash; fname=CFU;
add subscriber-feature-data sub-id=wilmerwabash; fname=CFU; type1= fdn1;
value1=9726712355;
change subscriber-feature-data sub-id=wilmerwabash; fname=CFNA; type2=to; value2=24;
delete subscriber-feature-data sub-id=wilmerwabash; fname=CFU; type= fdn1;
value1=9726712355;
```

Note Deleting a subscriber does not automatically delete any DN2Subscriber table entries for that subscriber. Any DN2Subscriber table entries must be manually deleted after deleting a subscriber.

Usage Guidelines

Primary Key Token(s): sub-id, fname

Foreign Key Token(s): sub-id, fname

Foreign Key Token(s): voice-mail-id (Release 4.5)

Add Rules: Both type/value tokens are required as a pair. See Table 5-3 for more information.

Change Rules: Both type/value tokens are required as a pair. See Table 5-3 for more information.

Delete Rules: None.

Note Only certain type selections are permitted based on fname. The value fields are dependent on the type field.

Other Rules:

- FDN1 cannot be provisioned for the MDN feature from this table. FDN1 (DN1) is retrieved from the Subscriber table.
- As of Release 4.2, use Table B-1"List of Features" to determine the correct tokens to provision features. For example, when provisioning CFU to allow forwarding to international numbers, you must provision TYPE3 and VALUE3.

Syntax Description

* SUB-ID	Primary key. Foreign key: Subscriber table. ID from Subscriber table. It must match an ID in the Subscriber table. VARCHAR(30): 1–30 ASCII characters.
* FNAME	Primary key. Foreign key: Feature table. Feature name. VARCHAR(8): 1–8 ASCII characters. Permitted values are: AC—Usage-sensitive automatic callback ACR—Anonymous call rejection feature AR—Usage-sensitive automatic recall BLV—Busy line verification CFB—Call forwarding busy CFNA—Call forwarding no answer CFU—Call forwarding unconditional COT—Usage-sensitive customer originated trace DND—Do not disturb DNH—DN hunt DRCW—Distinctive ringing **Note** The DRCW feature is only for playing a distinctive ringing or distinctive call-waiting tone, and does not affect the activation of the call-waiting features (CW, CWD, or CIDCW). A subscriber must have CW, CWD, or CIDCW provisioned and activated in order to receive call-waiting treatment. HOTLINE—Hot line MDN—Multiple directory numbers (teen service) NSA—No Solicitation Announcement (Release 4.5) NSA_ACT—No Solicitation Announcement Activation (Release 4.5) OCB—Outgoing call barring PM—Privacy Manager (Release 4.5) RACF—Remote activation of call forwarding SCA—Selective call acceptance SCF—Selective call forwarding SCR—Selective call rejection USTWC—Usage-sensitive three-way calling VM—Voice Mail (Release 4.5) VMU—Voice Mail Unconditional (Release 4.5) WARMLINE—Warm line

ACTIVE	Specifies if the sub-id is activated. CHAR(1): Y/N or T (Default = N). Y—Sub-id is activated. N—Sub-id is not activated. T—Indicates feature is active during the times specified in the Time of Day Schedule. See Subscriber Time of Day Schedule (Release 4.5).
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).

TYPE (1...4)	Defines the type of feature data. Up to four type/value pairs can be assigned to a feature. For Remote Activation of Call Forwarding (RACF): • New subscriber—If a subscriber is new, and is allowed to change the password, both the PIN value and the PINTYPE must be entered. Set the PIN first, then qualify as NEWPIN with the PINTYPE value. • Subscriber group—If the PIN is shared among a group (for example, CTX), a PIN is not entered. Set the value PINTYPE as AUTHCODE. This prevents an individual subscriber in the group from changing the PIN. Do not set a PIN for a subscriber group. VARCHAR(7): 1–7 ASCII characters. Permitted values are: • COUNT—Used for OCB to keep track of the number of consecutive activation, or deactivation, failures. • DENIED—Denies usage-sensitive features (USTWC, COT, AC, AR) and Busy Line Verification (BLV) to a subscriber. • FDN1—Feature-specific DN. Used if fname = CFU, CFB, CFNA, SCF, SCA, MDN, HOTLINE or WARMLINE. • FDN2—Feature-specific DN. Used if fname = CFB, CFNA, MDN. • FDN3—Feature-specific DN. Used if fname = MDN. • FWD—Forward indicator. Used if fname = SCA. If type = FWD, and value = Y, the calls that do not match the SCA screening list are forwarded, else they are given rejection announcement. • INTL—Used with call forwarding to indicate if call forwarding to international numbers are allowed. • K-VALUE—K-value is used by the OCB feature. • MCF (Multiple call forwarding)—Used if fname = CFU, CFB, CFNA, SCF, SCA. • PASSWD—Password. Used if fname = OCB. • PIN—Used if fname = RACF or NSA_ACT. The value is the initial PIN number of the subscriber assigned by the service provider. • PINTYPE—Used if fname = RACF or NSA_ACT. • RR—Ring reminder. Used if fname = CFU. A short ring given when a call is forwarded. It informs the user that call forwarding is active and all calls are forwarded. • TIME—Timestamp. Used by the OCB feature to track the first failure attempt to activate, or deactivate, the OCB, or if the feature is locked out, to track the time at which the lockout period began. • TO—Timeout. Used if fname = CFNA and no FDN2. Number of seconds to ring phone before forwarding. Six seconds is equivalent to one ring.
VALUE[1..4]	Defines the value associated with data type defined in TYPE1. VARCHAR(26): 1–26 ASCII characters.

Table 5-3 identifies the valid combinations of FNAME, TYPE (1, 2, 3 or 4) and VALUE (1, 2, 3 or 4).

Note FDN1 cannot be provisioned. FDN1 (DN1) is automatically provisioned from the Subscriber table.

Table 5-3 Feature Data Provisioning Rules Tokens

FNAME	Type	Value	Description
BLV	DENIED	Y/N	Indicates if BLV request can be performed on the line.
CFB	FDN1	DIGITS	Required if CFB is active. Forward to DN if a busy condition is encountered. FDN1 applies to both POTS and Centrex subscribers. FDN2 applies to only Centrex subscribers. If both FDN1 and FDN2 are assigned, FDN1 is used as the *forward to number for DID calls* while FDN2 is used as the *forward to number for all intercom calls*. If Centrex, FDN1/FDN2 can be either POTS or an intercom number.
	FDN2	DIGITS	Optional parameter for Centrex subscribers (see FDN1 above). Cannot be changed using handset provisioning.
	INTL	Y/N	Specifies if international call forwarding is allowed.
	MCF	Y/N	Specifies if multiple call forwarding is allowed.
CFNA	FDN1	DIGITS	Required if CFNA is active. Forward to DN if a no answer condition is encountered. FDN1 applies to both POTS and Centrex subscribers. FDN2 applies to only Centrex subscribers. If both FDN1 and FDN2 are assigned, FDN1 is used as the *forward to number for DID calls* while FDN2 is used as the *forward to number for all intercom calls*. If Centrex, FDN1/FDN2 can be either POTS or an intercom number.
	FDN2	DIGITS	Optional parameter for Centrex subscribers (see FDN1 above). CFNA cannot be changed using handset provisioning.
	INTL	Y/N	Specifies if international call forwarding is allowed.
	MCF	Y/N	Specifies if multiple call forwarding is allowed.
	TO	TIME IN SECONDS	TimeOut (TO) parameter—Optional for CFNA feature. If not specified, TO defaults to whatever value was specified in the Feature table. TimeOut—The number of seconds to ring a phone before forwarding. Six seconds is equivalent to one ring. **Note** Only four tokens are allowed per record, so only four of these five tokens can be applied to the CFNA feature
CFU	FDN1	DIGITS	Required if CFU is active. Forward to DN. If Centrex, the FDN1 can be either POTS or an intercom number.
	INTL	Y/N	Specifies if international call forwarding is allowed.
	MCF	Y/N	Specifies if multiple call forwarding is allowed.
	RR	Y/N	Ring reminder (optional). A ring reminder is a short ring a user is given when a call is being forwarded. It tells the user that call forwarding is active on the line and all calls are being forwarded.
COT	DENIED	Y/N	Indicates if usage-sensitive COT request is allowed from the line.
DNH (Not used)	FDN1	DIGITS	Next hunt DN.
HOTLINE	FDN1	DIGITS	Hotline Number

Table 5-3 Feature Data Provisioning Rules Tokens (continued)

FNAME	Type	Value	Description
MDN	TYPE=FDN1 TYPE2=FDN2 TYPE3=FDN3	DIGITS	Up to three DNs can be assigned for the MDN feature. The ring types and call waiting tones are available based on the type. If type=FDN1, ring type 1 and call waiting tone type 1 is given. If type=FDN2, ring type 1 and call waiting tone type 2 is given. If type=FDN3, ring type 1 and call waiting tone type 3 is given. **Note** Dashes are not allowed when entering a DN during MDN feature data provisioning. FDN1 cannot be provisioned. changed, or be null.
OCB	K-VALUE	1, 2, or 3	K value can be 1, 2, or 3.
	PASSWD	DIGITS	4–8 digits for a PASSWD value.
	COUNT	INTEGER	Number of consecutive failure attempts to activate or deactivate OCB. Once the COUNT value reaches the threshold, the time value is updated to the time of the last failure attempt. The OCB activation or deactivation is now locked out for the duration of the lockout period.
	TIME	INTEGER	Time of first failure attempt at OCB activation or deactivation—or the time of the last failure attempt at OCB activation or deactivation once the fail count threshold is reached.
RACF	PINTYPE	STRING	VALUE1 can be one of the following: NEWPIN—Indicates a new or reset PIN. A pin change is required before the RACF can be accessed. PIN—Actual PIN value is stored in TYPE2. AUTHCODE—Use the authcode feature.
	PIN	DIGITS	PIN number.
SCA	FDN1	DIGITS	Required if FWD=YES.
	FWD	Y/N	SCA treatment—forward calls or provide rejection announcement. Y—Forward calls. N—Provide rejection announcement.
USTWC	DENIED	Y/N	Indicates if USTWC request is allowed from the line.
VMA (Not used)	VMDN	DIGITS	Voice-mail access (VMA). VMDN—Voice-mail DN. If Centrex, the VMDN can be either POTS or an intercom number.
WARMLINE	FDN1	DIGITS	Warmline number.

Subscriber Profile

The Subscriber Profile (subscriber-profile) table groups properties that are shared by a group of subscribers. For example, a Centrex group consisting of several subscribers can share a subscriber-profile. Because a Call Agent consists of several point of presences (POPs), and POP is one of the tokens in the subscriber profile, POP-specific subscriber profiles must be created.

Table Name: SUBSCRIBER-PROFILE

Table Containment Area: Call Agent, FSPOTS

Command Types

Show, add, change, and delete

Examples

```
show subscriber-profile id=NorthDallas;
add subscriber-profile id=NorthDallas; dial-plan-id=dp1; local-pfx1-opt=rq;
toll-pfx1-opt=nr;
change subscriber-profile id=NorthDallas; pop-id=dallaspop; ea-use-pic1=y;
delete subscriber-profile id=NorthDallas;
```

Usage Guidelines

Primary Key Token(s): id

Foreign Key Token(s): dial-plan-id, pop-id, cos-restrict-id, digit-map-id, qos-id, service-id, lsa-id

Foreign Key Token(s): policy-server-id, privacy-manager-id, voice-mail-id (Release 4.5)

Add Rules: None.

Change Rules: None.

Delete Rules: None.

Syntax Description

* ID	Primary key. Subscriber profile ID. VARCHAR(16): 1–16 ASCII characters.
* DIAL-PLAN-ID	Foreign key: Dial Plan Profile table. ID number assigned to subscriber in the Dial Plan Profile table. VARCHAR(16): 1–16 ASCII characters.
* POP-ID	Foreign key: Point of Presence table. Point of presence (POP) ID. Used during call processing to perform digit collection, analysis, and screening. VARCHAR(16): 1–16 ASCII characters.
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
COS-RESTRICT-ID (Not used)	Foreign key: COS Restrict table. Class of service restriction ID. VARCHAR(16): 1–16 ASCII characters.
DIGIT-MAP-ID	Foreign key: Digit Map table. ID number assigned to subscriber in the Digit Map table. VARCHAR(16): 1–16 ASCII characters.

DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
EA-USE-PIC1	Specifies treatment of interLATA calls from presubscribed lines for equal access. If the ea-use-pic1 flag is set to N, the call is routed to the local exchange carrier (LEC) operations support systems (OSS). CHAR(1): Y/N (Default = Y). Y—Route to PIC1. N—Route to LEC OSS.
INTERLATA-PFX1-OPT (Release 4.5)	Specifies the prefix options for an interLATA call. VARCHAR(3): 1–3 ASCII characters (Default = RQ). Permitted values are: RQ (Default)—Prefix 1 required. NR—Prefix 1 not required. OPT—Prefix 1 is optional (ok to dial).
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
LOCAL-PFX1-OPT	Prefix options for a local call. VARCHAR(3): 1–3 ASCII characters. Permitted values are: NR (Default)—Prefix 1 is not required. RQ—Prefix 1 is required. OPT—Prefix 1 is optional (OK to dial).
LSA-ID	Foreign key: LSA Profile table. Default local service area for the POP. Must match a valid ID in the LSA Profile table. VARCHAR(16): 1–16 ASCII characters.
OLI	Originating line information. SMALLINT: 0–99 (Default = 0).
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
POLICY-SERVER-ID (Release 4.5)	Foreign key: Aggregation table. Specifies the policy server to use for calls requiring Quality of Service using the PacketCable Multimedia model. VARCHAR(16): 1–16 ASCII characters.
PRIVACY-MANAGER-ID (Release 4.5)	Foreign key: Application Server table. Specifies the default privacy manager id for all subscribers belonging to the subscriber profile. VARCHAR(16): 1–16 ASCII characters.

QOS-ID	Foreign key: QoS table. Specifies whether to use QOS index for codec selection. VARCHAR(16): 1–16 ASCII characters.
REGION	Specifies the default region assigned to all subscribers in this subscriber profile. Region is used when region-based policy routing is required. This token is used when no region can be determined from the Region Profile table. VARCHAR(16): 1–16 ASCII characters.
SERVICE-ID	Foreign key: Service table. Specifies the default service ID assigned to the subscriber profile. All subscribers defined within the Subscriber Profile inherit the same service ID. VARCHAR(16): 1–16 ASCII characters.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).
TOLL-PFX1-OPT	Toll prefix options. Specifies whether dialing prefix 1 for 500, 900, toll and toll free calls is required. As of Release 4.5.1 MR1, if prefix 1 is required and not dialed, an announcement is played. VARCHAR(3): 1–3 ASCII characters (Default = RQ). Permitted values are: RQ (Default)—Prefix 1 required. NR—Prefix 1 not required. OPT—Prefix 1 is optional (OK to dial).
VOICE-MAIL-ID (Release 4.5)	Foreign key: Application Server table. Specifies the default voice-mail id for all subscribers belonging to the subscriber profile. VARCHAR(16): 1–16 ASCII characters.

Subscriber Service Profile

The Subscriber Service Profile (subscriber-service-profile) table links services to subscribers.

Table Name: SUBSCRIBER-SERVICE-PROFILE

Table Containment Area: Call Agent, FSPOTS

Command Types

Show, add, change, and delete

Examples

```
show subscriber-service-profile sub-id=wilmerwabash; service-id=basic;
add subscriber-service-profile sub-id=wilmerwabash; service-id=basic;
change subscriber-service-profile sub-id=wilmerwabash; service-id=basic;
delete subscriber-service-profile sub-id=wilmerwabash; service-id=basic;
```

Usage Guidelines

Primary Key Token(s): sub-id, service-id

Foreign Key Token(s): sub-id, service-id

Add Rules: None.

Change Rules: None.

Delete Rules: None.

Syntax Description

* SUB-ID	Primary key. Foreign key: Subscriber table. ID of the subscriber, as assigned in the Subscriber table. Must match the ID in the Subscriber table. VARCHAR(30): 1–30 ASCII characters.
* SERVICE-ID	Primary key. Foreign key: Service table. ID number assigned by the service provider to this subscriber service. The number of service-ids that can be assigned to a sub-id is limited to 50. VARCHAR(16): 1–16 ASCII characters.
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).

Subscriber Time of Day Schedule (Release 4.5)

The Subscriber Time of Day Schedule (subscriber-tod-schedule) activates certain features on a Time of Day (TOD) schedule. The feature activation is based on the TOD schedule and is based on the following values, in order of preference (highest preference to lowest):

- day of week

- time of day

Note The Subscriber Time of Day Schedule is available only for the no solicitation announcement (NSA) feature in Releases 4.5 and 4.5.1.

Table Name: SUBSCRIBER-TOD-SCHEDULE

Table Containment Area: FSPTC, FSAIN

Command Types

Show, add, change, and delete

Examples

```
show subscriber-tod-schedule sub-id=sub1;
add subscriber-tod-schedule sub-id=sub1; fname=NSA; begin-dow=MON;
end-dow=FRI; begin-tod=07:00; end-tod=17:00;
change subscriber-tod-schedule sub-id=sub1; fname=NSA;
delete subscriber-tod-schedule sub-id=sub1; fname=NSA;
```

Usage Guidelines

Primary Key Token(s): id

Add Rules: END-TOD must be greater than BEGIN-TOD

Change Rules: END-TOD must be greater than BEGIN-TOD

Delete Rules: None.

Syntax Description

* SUB-ID	Primary key. Foreign key: Subscriber table. Id from Subscriber table. VARCHAR(30): 1–30 ASCII characters.
* FNAME	Primary key. Foreign key: Feature table. Feature name. VARCHAR(16): 1–16 ASCII characters.
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.

BEGIN-DOW	Specifies the day of week that this policy begins (day of week provisioning). Begin-dow and end-dow define a range of days. VARCHAR(3): 1–3 ASCII characters (Default = SUN). Permitted values are: SUN (Default) MON TUE WED THU FRI SAT
BEGIN-TOD	Specifies the time in hours and minutes (24-hour clock) that this policy begins (time of day provisioning). If the Cisco BTS 10200 Softswitch and the subscriber are not in the same time zone, the system interprets the time-of-day settings based on the time-zone of the POP of the subscriber. VARCHAR(5): HH:MM (Default = 00:00)
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
END-DOW	Specifies the day of week that this policy ends. begin-dow and end-dow define a range of days. VARCHAR(3): 1–3 ASCII characters (Default = SAT). Permitted values are: SUN MON TUE WED THU FRI SAT (Default)
END-TOD	Specifies the time in hours and minutes (24-hour clock) that this policy ends (times of day provisioning). VARCHAR(5): HH:MM (Default = 23:59).
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.

ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).



CHAPTER 6

ISDN Provisioning

Revised: July 24, 2009, OL-3743-42

This chapter describes the Integrated Services Digital Network (ISDN) Provisioning commands and their associated tables.

Note In this chapter, an asterisk preceding a token name means the token is mandatory. A token without an asterisk is optional.

Backhaul Set

The Backhaul Set (backhaul-set) table defines an entity for IP communication between a Call Agent and a media gateway for ISDN signaling. It is used to group entries in the Reliable User Datagram Protocol Backhaul Session table.

Table Name: BACKHAUL-SET

Table Containment Area: Call Agent

Command Types

Show, add, change, and delete

Examples

```
show backhaul-set set-id=backset1;
add backhaul-set set-id=isdn1; mgw-id=mgw_isdn; set-name=set1;
change backhaul-set set-id=isdn1; set-name=set3;
delete backhaul-set set-id=isdn1;
```

Usage Guidelines

Primary Key Token(s): set-id

Foreign Key Token(s): mgw-id

Add Rules: None.

Change: Control trunk groups using this set to admin-oos.

Delete Rules: Foreign key constraints.

Note If using these commands after a system upgrade, use the mgw-id as the set-id. There is one entry for each ISDN media gateway. The hard code set-name = ISDN1.

Syntax Description

* SET-ID	Primary key. Specifies the entity to use for ISDN communication. Unique name for the Call Agent. VARCHAR(16): 1–16 ASCII characters.
* MGW-ID	Foreign key: Media Gateway table. The media gateway ID. VARCHAR(32): 1–32 ASCII characters.
* SET-NAME	Unique name for the gateway (see H.323 Gateway to Gatekeeper, page 7-18, for group information). VARCHAR(16): 1–16 ASCII characters.
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.

SIG-TOS-LOWDELAY	Specifies whether to set low delay. Low delay refers to the waiting time, or latency involved in sending and receiving a packet. You can set various options on the TCP socket to tune or optimize for certain performance parameters. CHAR(1): Y/N (Default = N). Y—Set low delay to 1. N—Set low delay to 0. **Caution** Cisco does not recommend using any value other than the specified default. Changing this value from its default may significantly impact network performance. Contact Cisco TAC for further information.
SIG-TOS-PRECEDENCE	Specifies the designation assigned to a phone call by the caller to indicate the relative urgency (and thus the order of handling) of a call. It also sends an indication to the called party of the order in which the call is answered. VARCHAR(16): 1–16 ASCII characters. Permitted values are: CRITICAL (=5)—Default NETCONTROL (=7) INTERNETCONTROL (=6) FLASHOVERRIDE (=4) FLASH (=3) IMMEDIATE (=2) PRIORITY (=1) ROUTINE (=0) **Caution** Cisco does not recommend using any value other than the specified default. Changing this value from its default may significantly impact network performance. Contact Cisco TAC for further information.
SIG-TOS-RELIABILITY	Specifies whether to set reliability. Reliability refers to the dependability of packet delivery. CHAR(1): Y/N (Default = N). Y—Set reliability to 1. N—Set reliability to 0. **Caution** Cisco does not recommend using any value other than the specified default. Changing this value from its default may significantly impact network performance. Contact Cisco TAC for further information.

SIG-TOS-SUPP	Specifies whether to send TOS information, because not all gateways support the TOS parameter. CHAR(1): Y/N (Default = N).
SIG-TOS-THROUGHPUT	Specifies whether to set throughput. Throughput refers to the actual amount of useful and nonredundant information that is transmitted or processed. CHAR(1): Y/N (Default = N). Y—Set throughput to 1. N—Set throughput to 0. **Caution** Cisco does not recommend using any value other than the specified default. Changing this value from its default may significantly impact network performance. Contact Cisco TAC for further information.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).

ISDN B-Channel

The ISDN B-Channel (isdn-bchan) table specifies which interface a B channel is on. This table is not provisionable. It is created and populated when ISDN trunks are provisioned.

Table Name: ISDN-BCHAN

Command Types

Show

Examples

```
show isdn-bchan
```

Usage Guidelines

Primary Key Token(s): bchan, intf, tgn-id

Foreign Key Token(s): intf, tgn-id, trunk-id

Syntax Description

* BCHAN	Primary key. The B-channel number for ISDN PRI. INTEGER: 1–24.
AUTO-REFRESH	Specifies whether to display cached data on the screen. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.

DISPLAY	Specifies what token information to display on the screen. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
INTF	Primary key. Foreign key: ISDN Interface table. Interface number. INTEGER: 0–31 (Default = 0).
LIMIT	Specifies the number of rows to display on the screen. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
ORDER	Specifies whether to display data on the screen in a sorted order. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
START-ROW	Specifies to begin displaying data on the screen at a specific row. INTEGER: 1–100000000 (Default = 1).
TGN-ID (or TG)	Primary key. Foreign key: Trunk Group table. Identifies the trunk group ID. This field can also be specified using tg instead of a tgn-id. INTEGER: 1–99999999.
TRUNK-ID (System generated)	Foreign key: Trunk table. Identifies the trunk ID. Constructed from the CIC start and CIC end tokens. INTEGER.

ISDN D-Channel

The ISDN D-Channel (isdn-dchan) table is used to provision ISDN D channels on trunk groups.

Table Name: ISDN-DCHAN

Table Containment Area: Call Agent

Command Types

Show, add, change, and delete

Examples

```
show isdn-dchan tgn-id=1;
add isdn-dchan tgn-id=1; dchan-type=primary; dchan-slot=0; dchan-port=4; dchan-intf=0;
add isdn-dchan tgn-id=1; dchan-type=backup; dchan-slot=0; dchan-port=4; dchan-intf=8;
add isdn-dchan tgn-id=1; dchan-type=backup; dchan-port=4;
change isdn-dchan tgn-id=1; dchan-type=primary; dchan-format=SLOT-SUBSLOT-PORT;
dchan-slot=0; dchan-port=1; dchan-subslot=1; dchan-intf=0;
delete isdn-dchan tgn-id=1; dchan-type=backup;
```

Usage Guidelines

Primary Key Token(s): tg, dchan-type, tgn-id

Foreign Key Token(s): tgn-id, set-id, dchan-intf

Unique Key Token(s): set-id, dchan-slot, dchan-port

Note Set-id, slot, and port are used as primary keys to find a record. That is why the primary and backup are different records.

Add Rules:

- No backup if nfas=n in isdn-tg-profile.
- Intf=0; if nfas=n in isdn-tg-profile.
- Cannot create a backup D channel without a primary.
- The chan-intf number cannot be the same for primary and backup (same trunk group number), such as:

```
uk on tg and dchan-intf;
```

- Tgn-id+dchan-intf is a foreign key to the isdn-intf table.
- Set-id must be the same for primary and backup.

Delete Rules: Trunk-grp must be in admin-oos state.

Syntax Description

* TGN-ID (or * TG)	Primary key. Foreign key: Trunk Group table. Identifies the trunk group ID. This field can also be provisioned using tg instead of a tgn-id. The EMS looks up the tgn-id based on the trunk group and then provisions it. INTEGER: 1–99999999.
* SET-ID	Unique key. Foreign key: Backhaul Set table. Specifies which backhaul-set-to-gateway to use for communication. Must match a set-id in the Backhaul Set table. VARCHAR(16): 1–16 ASCII characters.
* DCHAN-SLOT	Unique key. D-channel slot (board) number at the gateway. Required for ISDN trunk group (see the MGW vendor's documentation). Do not confuse with Time Slot. SMALLINT: 0–255. **Note** Cisco recommends using 0 for this token. When 0 is used, The Cisco BTS 10200 Softswitch will automatically select whatever slot is not used as the B-channel as the D-channel.
* DCHAN-PORT	Unique key. D-channel port (T1/DS1 span on the board) number. Required for ISDN Trunk Group. SMALLINT: 0–255. Use 0–3 for the Cisco AS5300. *Port* is 0, 1, 2, 3. The leftmost T1 is 0. The rightmost T1 is 3. SMALLINT: 0–32768. Use 0–3 for the Cisco AS5350. Port is 0, 1, 2, 3. The leftmost T1 is 0. The rightmost T1 is 3. (Release 4.4.0) **Note** When interfacing with a voice switch service module (VXSM), the Cisco BTS 10200 Softswitch sets the slot to 0 if the port is greater than 255.

AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
DCHAN-FORMAT (Release 4.5)	Specifies how to encode a channel id in the backhaul message. VARCHAR(16): 1–16 ASCII characters. Permitted values are: PORT—Include only the dchan-port in the channel id. SLOT-PORT (DEFAULT)—Include both the dchan-slot and dchan-port in the channel id. SLOT-SUBSLOT-PORT—Include the slot, subslot, and port number in the channel id.
DCHAN-INTF	Foreign key: the tgn-id+dchan-intf is the foreign key to the ISDN Interface table. The default interface number is 0 for the primary D channel, but can be any number for the backup D channel. SMALLINT: 0–31 (Default = 0).
DCHAN-SUBSLOT (Release 4.5)	Specifies the D-channel subslot. Valid only if dchan-format=slot-subslot-port. INTEGER: 0–7 (Default = 0).
DCHAN-TYPE	Primary key. Specifies whether the D-channel type is primary or backup. VARCHAR(7): 1–7 ASCII characters. Permitted values are: PRIMARY (Default)—First D channel set to provide signaling. BACKUP—Reserve D channel. Use for nonfacility associated signaling (NFAS) only.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).

ISDN Interface

The ISDN Interface (isdn-intf) table defines the number of T1s per primary rate interface (PRI). This table is provisioned before the Trunk table. The number of entries for a trunk group is dependent on whether it is nonfacility associated signaling (NFAS) and facility associated signaling (FAS). FAS trunk groups have only one entry in this table, and with an INTF value of zero (0). NFAS trunk groups have multiple entries in this table; one for each T1.

Table Name: ISDN-INTF

Table Containment Area: EMS, CA

Command Types

Show, add, and delete

Examples

```
show isdn-intf;
add isdn-intf tgn-id=1; intf=3;
delete isdn-intf tgn-id=1; intf=3;
```

Usage Guidelines

Primary Key Token(s): tgn-id; intf

Foreign Key Token(s): tgn-id

Add Rules: intf = 0, if nfas = n (non-zero intf is not allowed if nfas=n).

Delete Rules: tg+intf is not used in any trunk or isdn-dchan tables.

Syntax Description

* TGN-ID (or * TG)	Primary key. Foreign key: Trunk Group table. Identifies the trunk group ID. This field can also be provisioned using tg instead of a tgn-id. The EMS looks up the tgn-id based on the trunk group and then provisions it. INTEGER: 1–99999999.
* INTF (Mandatory in Release 4.5.1)	Primary key. Specifies which T1 on the PRI to use. INTEGER: 0–31 (Default = 0).
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.

LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).

ISDN Trunk Group Profile

The ISDN Trunk Group Profile (isdn-tg-profile) table holds common information regarding an ISDN trunk group. This table is used to configure the Cisco BTS 10200 Softswitch to interact with various types of private branch exchanges (PBXs) having different configurations (such as NFAS, FAS, and so forth), initialization procedures (service or restart), or supporting different call control or maintenance timer values. The isdn-tg-profile record can be shared by multiple ISDN trunk groups. The table tokens configure the Call Agent to communicate with a particular PBX.

Table Name: ISDN-TG-PROFILE

Table Containment Area: Call Agent

Command Types

Show, add, change, and delete

Examples

```
show isdn-tg-profile id=dallas1;
add isdn-tg-profile id=dallas1; type=swv-us-ni2-pri;
change isdn-tg-profile id=dallas1;
delete isdn-tg-profile id=dallas1;
```

Usage Guidelines

Primary Key Token(s): id

Add Rules: None.

Change Rules: None.

Delete Rules: ID cannot exist in any trunk-grp::tg-profile-id where tg-type=isdn.

Other Rules:

- playtone=Y is allowed only if inband-info=Y
- T310 must be greater than T303
- proprietary-supp token must be set to 8 when provisioning NI2, DMS, 4ESS or 5ESS. (Release 4.4.0)

- send-group-dn token sends the main billing-dn for emergency calls that originate on the same trunk.
- Release 4.4.x:
  - if an ISDN PBX has the main-sub-id provisioned with send-group-dn=Y, send-bdn-for-emg=N, send-bdn-as-cpn=N, and it is an EMG call, then the DN1 of the main-sub-id is sent as the calling party number.
  - if an ISDN PBX has the main-sub-id provisioned with send-group-dn=Y, send-bdn-for-emg=Y, send-bdn-as-cpn=N, and it is an EMG call, then the billing-dn of the main-sub-id is sent as the calling party number.
  - if an ISDN PBX has the main-sub-id provisioned with send-group-dn=N, send-bdn-for-emg=N, send-bdn-as-cpn=N, and it is an EMG call, then the DN1 of the individual subscriber is sent as the calling party number.
  - if an ISDN PBX has the main-sub-id provisioned with send-group-dn=N, send-bdn-for-emg=Y, send-bdn-as-cpn=N, and it is an EMG call, then the billing-dn of the individual subscriber is sent as the calling party number.
- Release 4.5
  - if an ISDN PBX has the main-sub-id provisioned with send-bdn-for-emg=N, send-bdn-as-cpn=N, and it is an EMG call, then the DN1 of the main-sub-id is sent as the calling party number. The system does not check the provisioned value for send-group-dn.
  - if an ISDN PBX has the main-sub-id provisioned with send-bdn-for-emg=Y, send-bdn-as-cpn=N, and it is an EMG call, then the billing-dn of the main-sub-id is sent as the calling party number. The system does not check the provisioned value for send-group-dn.

Syntax Description

* ID	Primary key. Unique ID for this trunk group profile. Assigned by service provider. VARCHAR(16): 1–16 ASCII characters.
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
BCHAN-NEG-SUPP	Specifies whether B-channel negotiation is supported. The B-channel availability procedure can be turned on or off using the isdn-service-supp token. CHAR(1): Y/N (Default = N). N—The PBX will not perform the B-channel negotiation procedure. Y—The PBX will perform the B-channel negotiation procedure.
CHRG-NUM-SUPP	Specifies whether a calling party number is transported with a charge number, if available. CHAR(1): Y/N (Default = N). N—Calling party number IE is transported as is. Y—Calling party number IE is populated with a charge number if available.

CNAME-SUPP	Specifies how the calling name parameter is conveyed to an ISDN PBX. The main subscriber must be subscribed to the calling name feature. VARCHAR(16): 1–16 ASCII characters. Permitted values are: PROTOCOL (Default)—Calling, or Connected, name is supported as specified by the switch type configured in the trunk group profile. RAW-DISP—Calling, or Connected, name is carried in a raw display IE.
CUT-THRU-BEFORE-ANSWER	Used to cut through a both-way voice path on the first backward message. CHAR(1): Y/N (Default = N).
DESCRIPTION (EMS-only field)	Described by the service provider. VARCHAR(64): 1–64 ASCII characters.
DISP-IE-CODESET	Determines the codeset in which a display IE is sent out in any message. SMALLINT: 0–7 numeric characters (Default = 0).
DISP-IE-SUPP	Specifies whether the display information element (IE) is supported. CHAR(1): Y/N (Default = Y). Y—Display IE is supported on the trunk group. N—Display IE is not supported on the trunk group.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
FACIL-IE-CODESET	Determines the codeset in which a facility IE is sent out in any message other than a facility message. SMALLINT: 0–7 numeric characters (Default = 0).
FACIL-IE-SUPP	Specifies whether facility IE is supported. CHAR(1): Y/N (Default = N). Y—Facility IE is supported on the trunk group. N—Facility IE is not supported on the trunk group.
FLIP-CHAN-EXT-BIT	Specifies whether the channel ID octet carrying the channel number has the most significant bit set or coded as zero. CHAR(1): Y/N (Default = N). N—The channel ID octet carrying the channel number has the most significant bit set. Y—The channel ID octet carrying the channel number has the most significant bit coded as zero.
GENDIGIT-IE-CODESET (Release 4.4.0)	Determines what codeset a Generic Digits IE is sent out in. On the receiving side, the Cisco BTS 10200 Softswitch can accept any codeset. SMALLINT: 0–7 (Default = 6).

GENDIGIT-IE-SUPP (Release 4.4.0)	Specifies whether sending of Generic Digits IE is supported on this trunk group. CHAR(1): Y/N (Default = N). **Note** Only supported if type=swv-dms-pri.
GENDIGIT-TOD-INFODIGIT (Release 4.4.0)	Specifies the type of digit for sending Info Digits in a Generic Digits IE. SMALLINT: 0–31 (Default = 4). **Note** Used only when gendigit-ie-supp=Y. If this token is configured as 31, sending of Info Digits is disabled on the outgoing trunk group.
INBAND-INFO	Specifies whether to send a release, or provide a tone or announcement. CHAR(1): Y/N (Default = N). Y—Provide announcement or tone locally. N—Send release if not a specialized announcement.
INTERFACE-TYPE	Interface type. Specifies whether the Call Agent is operating as the network side or the user side. VARCHAR(7): 1–7 ASCII characters. Permitted values are: NETWORK (Default)—Call Agent operates as a network. USER (Release 4.4.0)—Call Agent operates as a PBX. SYMMETRIC (Not used) (Release 4.4.0)
ISDN-FAREND-INIT	Specifies whether the PBX sends restart/service messages to bring B channels in-service. CHAR(1): Y/N (Default = N). N—Call Agent performs the initialization (rest oral) procedure, and sends restart and service messages. Y—Call Agent sets B channels to remote block and waits for the remote PBX to send restart and service messages.
ISDN-QUERY-SUPP	Specifies whether to query if a PBX supports sending an appropriate status back on receiving a status inquiry. CHAR(1): Y/N (Default = N). N—Call Agent does not initiate a status inquiry (audit) procedure for every active call. Y—Call Agent initiates a status inquiry (audit) procedure for every active call.
ISDN-RESTART-CHAN-SUPP	Specifies whether restart (initialization) on a channel basis is supported. CHAR(1): Y/N (Default = Y). N—Not supported. Call Agent does not send a single restart message for an individual channel (restart class 0). Y—Supported. Call Agent sends a single restart message for an individual channel (restart class 0).

ISDN-RESTART-INTERFACE-SUPP	Specifies if restart (initialization) on interface is supported for a particular PBX. CHAR(1): Y/N (Default = Y). Y—Supported. The Call Agent sends a restart message for all interfaces (restart class 6). N—The PBX does not support restart messaging for all interfaces (restart class 6) and the Call Agent will not send the message "restart all interfaces."
ISDN-RESTART-PRI-SUPP	Specifies if restart (initialization) on PRI is supported for a particular PBX. Used for NFAS. CHAR(1): Y/N (Default = N). N—Supported. The Call Agent sends a restart message for all interfaces (restart class 7). Y—The PBX does not support restart messaging for all interfaces (restart class 7) and the Call Agent will not send the message *restart all interface*.
ISDN-SERVICE-SUPP	Specifies if a far-end PBX supports receiving service message. CHAR(1): Y/N (Default = Y). N—The PBX supports service messages (B-channel availability) Y—The PBX does not support service messages (B-channel availability); the Call Agent sends a single service message for an individual channel.
IW-SPEC	Specifies the interworking specification supported by the PBX. TR-NWT-444 is only partially implemented in this release. VARCHAR(16): 1–16 ASCII characters. Permitted values are: T1-609 (Default)—The PBX supports the T1-609 specification. TR-NWT-444—The PBX supports the Bellcore TR-NWT-444 specification.
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
MAX-RESTART-COUNT (Release 4.4.0)	Limits the number of ISDN restarts sent by the Cisco BTS 10200 Softswitch, in case the peer switch does not respond with a RESTART ACK. SMALLINT: 0–7 (Default = 3).
MAX-SERVICE-COUNT (Release 4.4.0)	Limits the number of ISDN service messages sent by the Cisco BTS 10200 Softswitch, in case the peer switch does not respond with a SERVICE ACK. SMALLINT: 0–7 (Default = 3).
NFAS-SUPP	Specifies if nonfacility associated signaling (NFAS) is supported. CHAR(1): Y/N (Default = N). N—The configuration in use is not NFAS. Only a single interface is configured. Y—The configuration in use is NFAS. The number of interfaces controlled by the D channel is more than one.

ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
OVERLAP-RECEIVING-SUPP (Release 4.4.0)	Specifies whether overlap receiving procedures are supported on the trunk group. CHAR(1): Y/N (Default = N).
OVERLAP-SENDING-SUPP (Release 4.4.0)	Specifies whether overlap sending procedures are supported on the trunk group. CHAR(1): Y/N (Default = N).
PROPRIETARY-SUPP	Used to deal with proprietary issues encountered in the field. This is a generic 8-bit field. Any usage of the field is a candidate for a token in the next release explicitly defined to deal with the discovered proprietary issue. SMALLINT: 0–255 numeric characters (Default = 0). Permitted values for Release 4.4 and higher are: 1—Disables sending status messages except in response to a Status Enquiry message. 3—Trunk is set to the TRANS state due to a Restart Timer expiration after a Restart message is sent the maximum number of times. 4—Trunk is set to the TRANS state due to a Restart Timer expiration after a Restart message is sent the maximum number of times. 5—Disables sending a Calling Party IE when presentation is restricted. 6—Passes a NOA transparently. Indicates whether to change the NOA to "unknown" or use the NOA as received when a SETUP is received with the called party number as 0+ or 1+. (Release 4.5.1) 8—Disables sending a Suspend or Resume indication in a Notify message. If the NI2 variant is used, this value must be set. 16—Disables sending a Calling Party IE when presentation is restricted. **Note** These values can be combined together. For example, to use the NI2 variant and disable sending a Calling Party IE when presentation is restricted, then set the value of this token to 24 (8 + 16 = 24).
SEND-GROUP-DN	Specifies whether a group DN is sent for billing the call instead of sending an individual billing DN. CHAR(1): Y/N (Default = N). Y—Puts the main-sub DN1 in the billing chargenumber field and populates the orignumber field with the subscriber DID. For EMG calls that originate on the trunk, the DN1 in the main-sub id is sent as the calling party number. N—Send individual DN for billing.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).

T-301 (ALERTING)	Alert Timer. The layer 3 parameter, T301, is the maximum time the stored program control switching system (SPCS) waits for a connect message after receiving an alerting message from the called user equipment. SMALLINT: 180–420 seconds (Default = 300).
T-302 (OVERLAPPED SENDING) (Release 4.4.0)	Overlapped Sending Timer. Upon receipt of a setup message, the network starts timer T302, sends a setup acknowledge message to the user, and enters the overlap sending state. The network restarts timer T302 on receipt of every information message not containing a sending complete indication. SMALLINT: 10–15 seconds (Default = 10).
T-303 (SETUP RETRY)	Setup Retry Timer. Not provisionable. The layer 3 parameter, T303, is the maximum time the SPCS waits for a response to the setup message sent to the user equipment. SMALLINT: 1–4 seconds (Default = 4).
T-304 (OVERLAPPED RECEIVING) (Release 4.4.0)	Overlapped Receiving Timer. The layer 3 parameter T034, is the maximum time, in seconds, the SPCS waits for any additional dialed digits. SMALLINT: 2–60 (Default = 20).
T-305 (DISCONNECT)	Disconnect Timer. The layer 3 parameter, T305, is the maximum time the SPCS waits for a response to the disconnect message sent to the user equipment. SMALLINT: 2–60 seconds (Default = 30).
T-306	Specifies the maximum time, in seconds, the SPCS waits for a RELease message while applying inband tones. SMALLINT: 2–60 (Default = 60). SMALLINT: 2–150 (Default = 60). (Release 4.5.1)
T-307 (Release 4.4.0) (Not used)	Suspend timer. The layer 3 parameter T307, is the maximum time, in minutes, that the SPCS waits for a RESUME message. SMALLINT: 1–10 (Default = 3).
T-308 (RELEASE)	Release Timer. The layer 3 parameter, T308, is the maximum time the SPCS waits for a response to the disconnect message sent to the user equipment. SMALLINT: 2–10 seconds (Default = 4).
T-309 (DL FAILURE)	DL Failure Timer. The layer 3 parameter, T309, is started when the SPCS detects a data link malfunction during an active call. SMALLINT: 10–90 seconds (Default = 90).
T-310 (CALL PROCEEDING)	Incoming Call Proceeding Timer. The layer 3 parameter, T310, is the maximum time the SPCS waits for another response after receiving a call proceeding message from the user equipment. SMALLINT: 10–30 seconds (Default = 10).
T-316 (RESTART)	Restart Timer. The layer 3 parameter, T316, is the maximum time the SPCS waits for a reset acknowledge response to a restart message. SMALLINT: 10–120 seconds (Default = 30).
T-321	This timer is used in D-channel backup to allow a timeout after sending a service message to bring a particular D channel to in-service (active) state. SMALLINT: 10–40 seconds (Default = 20).

T-322 (STATUS ENQ)	Status Enquiry Timer. The layer 3 parameter, T322, is the maximum time the SPCS waits for a response to a status enquiry sent to the user equipment. SMALLINT: 2–10 seconds (Default = 4).
T-323	Service Timer. The layer 3 parameter, T323, is the maximum time the SPCS waits for a service acknowledge message in response to a service message. SMALLINT: 30–120 seconds (Default = 30).
TYPE	ISDN type. VARCHAR(16): 1–16 ASCII characters. Permitted values are: SWV-US-NI2-PRI (Default)—Complies to Telecordia SR-4994. SWV-4ESS SWV-5ESS-PRI SWV-DMS-PRI SWV-ETSI-PRI (Release 4.4.0) SWV-Q931-PRI (Release 4.4.0) SWV-VNX-PRI (Not used) (Release 4.4.0) SWV-AUS-PRI (Not used) (Release 4.4.0) SWV-QSIG-PRI (Not used) (Release 4.4.0) SWV-DPNSS-PRI (Not used) (Release 4.4.0)
USE-GRP-DN (Obsolete in Release 4.5)	Specifies whether a group billing DN is sent as the calling party number. CHAR(1): Y/N (Default = N). N—Propagates the calling party number to the terminating call leg. Y—Replaces the calling party number with the group DN (main subscriber DN).

Reliable User Datagram Protocol Backhaul Session

The Reliable User Datagram Protocol (RUDP) Backhaul Session (rudp-backhaul-session) table specifies the IP connections between a media gateway and the Call Agent for ISDN call processing.

Table Name: RUDP-BACKHAUL-SESSION

Table Containment Area: Call Agent

Command Types

Show, add, change, and delete

Examples

```
show rudp-backhaul-session set-id=isdn1;
add rudp-backhaul-session set-id=backset1; group-name=group1; session-name=session1;
mgw-tsap-addr=10.89.227.200; mgw-backhaul-port=9000; call-agent-tsap-addr=10.89.225.223;
call-agent-backhaul-port=9000;
change rudp-backhaul-session set-id=backset1; group-name=group1; session-name=session1;
call-agent-backhaul-port=17777;
delete rudp-backhaul-session set-id=isdn1;
```

Usage Guidelines

Primary Key Token(s): set-id, group-name, session-name

Foreign Key Token(s): set-id

Add Rules: None.

Change: Control trunk groups using this set to admin-oos.

Delete Rules:

- Foreign key: constraints
- Allowed only if the media gateway supports ISDN.

(Release 4.5.1) For medium configurations, if configuring 2000 D-channels, changes to the RUDP retransmission timeout value configured in the gateway can adversely affect link recovery times. Lost calls can occur on switchover. The retransmit timer value must be above 1000 in order to maintain all active calls during switchover. For example:

```
group group1 timer retransmit 2000
group group2 timer retransmit 2000
```

Syntax Description

* SET-ID	Primary key. Foreign key: Backhaul Set table. Specifies which backhaul set to gateway to use for communication. Must match a set-id in the Backhaul Set table. VARCHAR(16): 1–16 ASCII characters.
* CALL-AGENT-BACKHAUL-PORT	Specifies the Call Agent port connected to the MGW backhaul port. Only applicable if the MGW supports ISDN. SMALLINT: 1–65536.
* CALL-AGENT-TSAP-ADDR	DNS or IP address of the Call Agent. Domain names cannot begin with a number. VARCHAR(64): 1–64 ASCII characters.

* GROUP-NAME	Primary key. Name for a collection of sessions. VARCHAR(16): 1–16 ASCII characters.
* MGW-BACKHAUL-PORT	Media gateway port number is used to backhaul ISDN signaling. Used only if the MGW supports ISDN. SMALLINT: 1–65535.
* MGW-TSAP-ADDR	DNS or IP address of the media gateway. Domain names cannot begin with a number. VARCHAR(64): 1–64 ASCII characters.
* SESSION-NAME	Primary key. Name of the connection between a media gateway and the Call Agent. Usually specified as Session1, Session2, Session3, and Session4. VARCHAR(16): 1–16 ASCII characters.
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).



CHAPTER 7

Tandem Provisioning

Revised: July 24, 2009, OL-3743-42

This chapter describes the Call Agent Tandem Provisioning commands and their associated tables.

Note In this chapter, an asterisk preceding a token name means the token is mandatory. A token without an asterisk is optional.

Automatic Number Identification

The Automatic Number Identification (ANI) table is used for the ANI screening feature. The table keeps track of allowed/blocked status ANI. If the ANI status is blocked, the call is not allowed.

Table Name: ANI

Table Containment Area: FSPTC

Command Types

Show, add, change, and delete

Examples

```
show ani id=972-671-2355;
add ani id=972-671-2355;
change ani id=972-671-2355; active=N;
delete ani id=972-671-2355;
```

Usage Guidelines

Primary Key Token(s): id

Foreign Key Token(s): cos-restrict-id

Add Rules: None.

Change Rules: None.

Delete Rules: None.

Other: Impacts Split-NPA.

Syntax Description

* ID	Primary key. ANI of the calling party. VARCHAR(14): 1–14 numeric characters in the format NDC-EC-DN.
ACTIVE	Indicates status of ANI. CHAR(1): Y/N (Default = Y). Y—Active N—Blocked
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
COS-RESTRICT-ID	Foreign key: COS Restrict table. Use the cos-restrict-id assigned to the ANI if present, else use the cos-restrict-id assigned to the ANI profile. VARCHAR(16): 1–16 ASCII characters.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).

Automatic Number Identification Screening (Release 4.2)

The Automatic Number Identification (ANI) Screening (ani-screening) table performs ANI screening on calls received over a trunk group. Normally, ANI screening is performed on calls received from a PBX (ISDN, H.323, and SIP). This table allows performing ANI-based routing in addition to ANI screening. When a record is found that matches the incoming ANI, the subscriber ID associated with the record is used for further digit analysis and routing.

Table Name: ANI-SCREENING

Table Containment Area: Call Agent

Command Types

Show, add, change, and delete

Examples

```
show ani-screening id=xyz;
add ani-screening id=xyz; row-id=1; from-dn=972-222-1100; to-dn=972-222-1199;
main-sub-id=sub1;
change ani-screening id=xyz; row-id=1; to-dn=972-222-1299;
delete ani-screening id=xyz; row-id=1;
```

Usage Guidelines

Primary Key Token(s): id, row-id

Foreign Key Token(s): id

Add Rules:

- String lengths must match.
- From-dn must be less than or equal to the to-dn.
- No overlapping DN range is allowed across the table for the same ani-screening-profile-id.

Change Rules: Same as add rules. Row-id is required.

Delete Rules: Row-id is required.

Syntax Description

* ID	Primary key. Foreign key: ANI Screening Profile table. The ANI screening id. Must match the id in the ANI Screening Profile table. VARCHAR(16): 1–16 ASCII characters.
* ROW-ID	Primary key. Used to create multiple records against the same ani-screening-profile-id. When multiple records are assigned, the search is started with the lowest row-id value. INTEGER: 1–65535, automatically generated if not provisioned. Next ROW-ID value = MAX+1.
* FROM-DN	Lower range of DN. VARCHAR(14): 1–14 ASCII characters.
* TO-DN	Upper range of DN. VARCHAR(14): 1–14 ASCII characters.

AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
MAIN-SUB-ID	Main subscriber id for a PBX. The ANI-based routing feature uses this subscriber id for routing purposes instead of using the DN2subscriber table. VARCHAR(30): 1–30 ASCII characters.
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
REGION (Not used)	Specifies the region to use if a policy region is applied to calls using this screening id. VARCHAR(16): 1–16 ASCII characters.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).

Automatic Number Identification Screening Profile (Release 4.2)

The Automatic Number Identification (ANI) Screening Profile (ani-screening-profile) table defines an id to perform ANI screening. The ID is assigned to a trunk group when ANI screening is required or when ANI-based routing is required for calls originating over a trunk group.

Table Name: ANI-SCREENING-PROFILE

Table Containment Area: EMS, CA

Command Types

Show, add, change, and delete

Examples

```
show ani-screening-profile;
add ani-screening-profile id=xyz; description=This profile ID is used to validate
subscribers belonging to XYZ enterprise;
change ani-screening-profile id=xyz; description=This profile ID is used to validate ANIs
belonging to XYZ enterprise clients;
delete ani-screening-profile id=xyz;
```

Usage Guidelines

Primary Key Token(s): id

Add Rules: None.

Change Rules: None.

Delete Rules: None.

Syntax Description

* ID	Primary key. ANI screening profile id. VARCHAR(16): 1–16 ASCII characters.
ANI-SCREENING-ACTION	Specifies the type of ANI screening action. VARCHAR(16): 1–16 ASCII characters. Permitted values are: ALLOW (Default)—Use default trunk group routing if no match. REJECT—Reject Call if no match found in the ANI Screening table.
DESCRIPTION	Described by the service provider. VARCHAR(64): 1–64 ASCII characters.
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.

DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).

Cause Code Map

The Cause Code Map (cause-code-map) table processes cause codes received from an outgoing interface, and also when sending cause codes to a previous switch over an incoming interface. It also specifies why a call was released.

When used for an outgoing interface, this table serves the following purposes:

- Determines what action the Cisco BTS 10200 Softswitch takes for cause codes received over an outgoing interface.
- Maps received cause codes to normalized cause codes.

When used for an incoming interface, the table maps normalized cause codes to a cause code sent over the incoming interface. If no entry is found in the table, the Cisco BTS 10200 Softswitch uses the cause code as is.

Table Name: CAUSE-CODE-MAP

Table Containment Area: Call Agent

Command Types

Show, add, change, and delete

Examples

```
show cause-code-map id=ss7cca; recv-cause-code=31;
add cause-code-map id=ss7cca; recv-cause-code=31; std-cause-code=35; action=reattempt;
change cause-code-map id=ss7cca; recv-cause-code=31; action=redirect;
delete cause-code-map id=ss7cca; recv-cause-code=31;
```

Usage Guidelines

Primary Key Token(s): id, cause-code-type, recv-cause-code

Foreign Key Token(s): id

Add Rules: Foreign key constraints.

Change Rules: Foreign key constraints.

Delete Rules: Foreign key constraints.

Syntax Description

* ID	Primary key. Foreign key: Cause Code Map Profile table. Indicates the cause code received on the outgoing leg. VARCHAR(16): 1–16 ASCII characters.
* ACTION	Identifies an action to perform when a given cause code is received on the outgoing leg. VARCHAR(16): 1–16 ASCII characters. Permitted values are: REATTEMPT—Reattempt the call by re-querying the gatekeeper. RELEASE (Default)—Release the call with the appropriate cause value. REDIRECT—Reroute the call by retranslating the redirecting number. ROUTE-ADVANCE—Route advance the call to the next trunk group in the route if a next trunk group exists.

* CAUSE-CODE-TYPE	Primary key. Specifies the cause code type. The combination of cause code type and received cause code is used to map to a standard cause code. See the ITU-T Recommendation Q.850 for more information. VARCHAR(32): 1–32 ASCII characters. Permitted values are: ANSI-ISUP-BASE—ANSI ISUP Base Cause Codes ANSI-ISUP-GR317—ANSI ISUP GR317 Cause Codes GTD—GTD Cause Code H225—H225 Cause Code H323-RAS-ARJ—Admission Request Rejected (ARJ) Cause Code H323-RAS-BRJ—Bandwidth Request Rejected Cause Code ISDN-4ESS-PRI—ISDN 4ESS PRI Cause Code ISDN-5ESS-PRI—ISDN 5ESS PRI Cause Code ISDN-DMS-100—ISDN DMS 100 Cause Code ISDN-DMS-PRI—ISDN DMS PRI Cause Code ISDN-ITU-Q931-PRI—ISDN ITU Q931 PRI Cause Code ISDN-US-NI2-PRI—ISDN NI2 PRI Cause Code MGCP—MGCP Cause Codes Q761-ISUP-BASE—Q761 ISUP Base Cause Codes Q761-ISUP-CHINA—Q761 ISUP China Cause Codes SIP—SIP Cause Code **Note** For cause code mapping on ISDN trunk groups, set the cause-code-type as GTD. Note that other cause-code-type values are unusable for ISDN.
* RECV-CAUSE-CODE	Primary key. Indicates the received cause code. NUMERIC(4): 1–4 numeric digits.
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.

LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).
STD-CAUSE-CODE	Represents the standard cause code based on the received cause code. As a default, this cause code value is used for call processing. NUMERIC(4): 1–4 numeric digits (Default = 34).

Cause Code Map Profile

The Cause Code Map Profile (cause-code-map-profile) table defines cause code map IDs, defines default mappings to a standard cause code (Q.850), and defines default actions to take. These IDs must be provisioned before provisioning either the Cause Code table or the Trunk Group table.

Table Name: CAUSE-CODE-MAP-PROFILE

Table Containment Area: Call Agent

Command Types

Show, add, change, and delete

Examples

```
show cause-code-map-profile id=ss7cc;
add cause-code-map-profile id=ss7cca; description=h323 cause code mapping table;
change cause-code-map-profile id=ss7cca; description=ss7 cause code mapping table used in
service provider X network;
delete cause-code-map-profile id=ss7cca;
```

Usage Guidelines

Primary Key Token(s): id

Add Rules: None.

Change Rules: None.

Delete Rules: None.

Syntax Description

* ID	Primary key. Defines the IDs used in the Cause Code Map table. VARCHAR(16): 1–16 ASCII characters.
DESCRIPTION (EMS-only field)	Described by the service provider. VARCHAR(64): 1–64 ASCII characters.
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.

LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).

H.323 Gateway

The H.323 Gateway (h323-gw) table defines the capabilities of each H.323 protocol gateway. There can be four instances of an H.323 gateway running on the Call Agent at any one time.

Table Name: H323-GW

Table Containment Area: Call Agent

Command Types

Show, add, change, and delete

Examples

```
show h323-gw id=gw1@cisco.com
add h323-gw id=gw1@cisco.com; gw-h225-port=11;tgn-id=23; password=00ABCFFF;
security-level=ENDPOINT
change h323-gw id=gw1@cisco.com;gw-h225-port=10
delete h323-gw id=gw1@cisco.com;
```

Usage Guidelines

Primary Key Token(s): id

Foreign Key Token(s): tgn-id, tech-prefix-group-id

Unique Key Token(s): annexe-udp-port

Add Rules:

- low-water-mark must be less than or equal to high-water-mark, which must be less than or equal to max-voip-calls.
- status=OOS.

Change Rules: low-water-mark must be less than or equal to high-water-mark, which must be less than or equal to max-voip-calls.

The following tokens can be changed only if status=OOS: password, annexe-supp, annexe-udp-port, annexr-supp.

Delete Rules: Foreign key constraints, status must be OOS.

Note The Internet protocol type of signaling (IPTOS) tokens in the Syntax Description section allow setting various options on the TCP socket to tune, or optimize, certain performance parameters.

Syntax Description

* ID	Primary key. Name of the H.323 gateway. VARCHAR(16): 1–16 ASCII characters.
* TGN-ID (or * TG)	Foreign key: Trunk Group table. The tgn-id is used to hand off a call from H323 to call processing. A call from an H.323 network is treated as a call from another softswitch. This field can also be provisioned by specifying the trunk group instead of a tgn-id. The EMS looks up the tgn-id based on the trunk group and then provisions it. INTEGER: 1–99999999.
* GW-H225-PORT	This port number is used for the H.225 (H.323 is an umbrella protocol and H.225 is used for signaling control) interface. This is the port the Call Agent H.323 gateway is listening on—TCP port. Any number of ports can be specified, but only four are used at any one time. INTEGER: 0–65535.
ANNEXE-RETRANSMIT-ATTEMPTS	Specifies how many times to resend a message to the remote entity before dropping the message. INTEGER: 1–10 (Default = 8).
ANNEXE-RETRANSMIT-MULTIPLIER	The multiplication factor of the previous retransmit interval used for subsequent Annex E packet retransmissions. INTEGER: 1–10 (Default = 2).
ANNEXE-RETRANSMIT-TIMER	Initial value of the retransmit timer. Determines whether to resend Annex E packets if an ack is not received. All subsequent retransmissions are based on an exponential back-off algorithm using the annexe-retransmit-multiplier token. INTEGER: 1–30000 in milliseconds (Default = 500).
ANNEXE-SUPP	Specifies whether the gateway instance supports Annex E. CHAR(1): Y/N (Default = Y).
ANNEXE-UDP-PORT	Unique key. Specifies what port will receive incoming Annex E messages. INTEGER: 0–65535. Should be unique for each h323-gw entry.
ANNEXR-SUPP (Not used)	Specifies whether Annex R Redundancy procedures are supported. CHAR(1): Y/N (Default = N)
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.

CALL-START-MODE **Note** Obsolete in Release 4.2. Moved to the H.323 Trunk Group Profile and H.323 Terminal Profile tables.	Specifies the call start mode for outgoing H.323 calls. VARCHAR(10): 1–10 ASCII characters. Permitted values are: FAST-START (Default) SLOW-START
CODEC-NEG-ATTEMPTS (Release 4.2)	Total number of retries to renegotiate the codec in the case of an asymmetric codec condition. **Note** Used only when the code-neg-supp field in the H.323 Trunk Group Profile table or H.323 Termination Profile table is set to Y. INTEGER: 0–10 (Default = 4).
CODEC-NEG-TIMER (Release 4.2)	The amount of time in milliseconds that the H.245 slave waits for the H245 master to reoriginate an OLC. Used when two H.323 endpoints in the call end up with an asymmetric codec condition (different codecs for the forward and reverse logical channels). **Note** Used only when the code-neg-supp field in the H.323 Trunk Group Profile table or H.323 Termination Profile table is set to Y. INTEGER: 1–30,000 (Default = 200).
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
HIGH-WATER-MARK	Tells the H.323 gatekeeper that the maximum capacity of this instance has been reached and to not send any more calls. INTEGER: 1–65535 (Default = 0).
IPTOS-SIG-LOWDELAY	Specifies whether to set low delay. Low delay refers to the waiting time, or latency involved in sending and receiving a packet. You can set various options on the TCP socket to tune or optimize for certain performance parameters. The TOS provides an indication of the abstract parameters of the quality of service desired. These parameters guide the selection of the actual service parameters when transmitting a datagram through a particular network. See RFC 1349, RFC 791, and RFC 795 for detailed information. CHAR(1): Y/N (Default = Y). Y—(1) Set to low delay. N—(0) Set to normal delay. ⚠ **Caution** Cisco does not recommend using any value other than the specified default. Changing this value from its default may significantly impact network performance. Contact Cisco TAC for further information.

IPTOS-SIG-PRECEDENCE	Specifies the signaling precedence. VARCHAR(16): 1–16 ASCII characters. Permitted values are: NETCONTROL (=7) INTERNETCONTROL (=6) CRITICAL (=5) FLASHOVERRIDE (=4) FLASH (DEFAULT=3) IMMEDIATE (=2) PRIORITY (=1) ROUTINE (=0) **Caution** Cisco does not recommend using any value other than the specified default. Changing this value from its default may significantly impact network performance. Contact Cisco TAC for further information.
IPTOS-SIG-RELIABILITY	Specifies whether to set reliability. Reliability refers to the dependability of packet delivery. The TOS provides an indication of the abstract parameters of the quality of service desired. These parameters guide the selection of the actual service parameters when transmitting a datagram through a particular network. See RFC 1349, RFC 791, and RFC 795 for detailed information. CHAR(1): Y/N (Default = N). Y—(1) Set to high reliability. N—(0) Set to normal reliability. **Caution** Cisco does not recommend using any value other than the specified default. Changing this value from its default may significantly impact network performance. Contact Cisco TAC for further information.

IPTOS-SIG-THROUGHPUT	Specifies whether to set throughput. Throughput refers to the actual amount of useful and nonredundant information that is transmitted or processed. The relationship between what went in one end of the network and what came out the other is a measure of the efficiency of that communications network. Throughput is a function of bandwidth, error performance, congestion, and other factors. The TOS provides an indication of the abstract parameters of the quality of service desired. These parameters guide the selection of the actual service parameters when transmitting a datagram through a particular network. See RFC 1349, RFC 791, and RFC 795 for detailed information. CHAR(1): Y/N (Default = N). Y—(1) Set to high throughput. N—(0) Set to normal throughput. **Caution** Cisco does not recommend using any value other than the specified default. Changing this value from its default may significantly impact network performance. Contact Cisco TAC for further information.
IRR-BANDWIDTH-SUPP	Specifies if information received response (IRR) bandwidth support is available. CHAR(1): Y/N (Default = N). Y—IRR bandwidth support is available. N—IRR bandwidth support is not available.
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
LOW-WATER-MARK	Tells the H.323 gatekeeper that the lowest capacity of this instance has been reached and to start sending calls again. INTEGER: 1–65535 (Default = 0).
MAX-VOIP-CALLS	Maximum number of voice over IP calls allowed in this instance of the Call Agent. INTEGER: 1–65535 (Default = 65535).
H245-TUNNELING **Note** Obsolete in Release 4.2. Moved to the H.323 Trunk Group Profile and H.323 Terminal Profile tables.	Specifies whether H.245 tunneling is allowed. Tunneling allows using the Call Agent signaling channel for both connection and signaling control. Accelerates call setup time. VARCHAR(8): 1–8 ASCII characters. Permitted values are: DEFAULT—Default H245 tunneling operation. DISABLE—Disable H245 tunneling.

OPER-STATUS	Operational status of the gateway. VARCHAR(5): 1–5 ASCII characters. Permitted values are: NF (Default)—Nonfaulty. FA—Faulty.
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
PASSWORD	Mandatory only if security=Y. Subscription password. This is configured in the gateway; can be changed without taking the gateway out of service. VARCHAR(16): 1–16 ASCII characters. The ASCII characters are limited to HEX characters only.
SECURITY	Indicates if H.323 security is enabled on the gateway. CHAR(1): Y/N (Default = Y).
SECURITY-LEVEL	Mandatory only if security=Y. Security level can be either on a Call Agent H.323 gateway endpoint, on all calls, or both. VARCHAR(12): 1–12 ASCII characters. Permitted values are: ENDPOINT—Specifies whether to validate all RAS messages sent by the gateway using the cryptoTokens that are generated based on the security password configured for the gateway. PER-CALL (Not used)—Specifies whether to validate only the admission messages from the H.323 endpoints to the gateway (admission request [ARQ] messages). The gateway prompts the user for an account number and personal identification number (PIN). These two numbers are sent from the endpoint and are used to authenticate the originator of the call. ALL—Not used.

SOURCE-BASED-ROUTING (Release 4.2)	Used to perform source-based routing. The Cisco BTS 10200 Softswitch chooses either the incoming trunk-grp or the h323-term based on this token. When using any of the source (SRC) terminal-based routing methods, the AliasAddress field in the message is matched against the tsap-addr field of trunk-grp (if the incoming call is from an H.323 virtual trunk group) or the alias-addr field in the H.323 Terminal table (if the incoming call is from an H.323 terminal such as a phone). VARCHAR(25): 1–25 ASCII characters. Permitted values are: NONE (Default)—Do not use any source-based routing method. The default trunk-grp configured in the tgn-id field of the H.323 Gateway table is used as the incoming trunk group. SRC-TERMINAL-AUTO—Use source-based routing based on the availability of following parameters in the following preferential order: 1. SRC-TRANSPORT-ID 2. SRC-URL-ID 3. SRC-EMAIL-ID 4. SRC-H323-ID 5. NONE SRC-TSAP-ADDR—Use the source TSAP address of the incoming setup message for determining incoming the H.323 virtual trunk group. SRC-TERMINAL-H323-ID—Use the H323-ID sourceAddress (AliasAddress) field from the incoming setup message to determine the incoming the H.323 virtual trunk group. If not available, do not use source-based routing. SRC-TERMINAL-URL-ID—Use the url-ID sourceAddress (AliasAddress) field from the incoming setup message for determining the incoming H.323 virtual trunk group. If not available, do not use source based-routing. SRC-TERMINAL-EMAIL-ID—Use the email-ID sourceAddress (AliasAddress) field from the incoming setup message for determining the incoming H.323 virtual trunk group. If not available, do not use source-based routing. SRC-TERMINAL-TRANSPORT-ID—Use the transport-ID sourceAddress (AliasAddress) field from the incoming setup message for determining the incoming H.323 virtual trunk group. If not available, do not use source-based routing.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).
STATUS	Service state. VARCHAR(15): 1–15 ASCII characters. Permitted values are: OOS (Default)—Out-of-Service. INS—In-Service.

STATUS-ENQ-TIMER (Release 4.2)	The amount of time in seconds that a Cisco BTS 10200 Softswitch H.323 endpoint waits for a status message after sending a status enquiry message. INTEGER: 1–30 (Default = 4). INTEGER: 0–30 (Default = 4) (Release 4.4.1).
TCP-MAX-AGE	Maximum age of a call in seconds. INTEGER: 1–1800 (Default = 30).
TCP-MAX-LIMIT	Maximum number of allowed calls per TCP in this instance of the Call Agent. It is used for channel multiplexing. NUMERIC: 1–15 (Default = 5).
TECH-PREFIX-GRP-ID	Foreign key: Technical Prefix Group Profile table. Specifies the Tech Prefix Group to register with the gatekeeper. It is used to determine routing and must match a specific ID in the Technical Prefix Group table. VARCHAR(16): 1–16 ASCII characters.
TIME-TO-LIVE (Release 4.4.1)	Time to live, in seconds. INTEGER: 0–600 (Default = 60). 0 = infinite.

H.323 Gateway to Gatekeeper

The H.323 Gateway to Gatekeeper (h323-gw2gk) table describes gatekeeper characteristics for each gateway in an H.323 network. Multiple gateways can have the same gatekeeper, or there can be a different gatekeeper for each gateway. However, a gateway can be registered to one gatekeeper *at a time*. A gatekeeper identifies, controls, counts, and supervises gateway traffic, including, but not limited to, gateway registration, address resolution, bandwidth control, and admission control.

Table Name: H323-GW2GK

Table Containment Area: Call Agent

Command Types

Show, add, change, and delete

Examples

```
show h323-gw2gk h323-gw-id=gw1; gk-id=gk1;
add h323-gw2gk h323-gw-id=gw1; gk-id=gk1; gk-ip-addr=190.170.101.123
change h323-gw2gk h323-gw-id=gw1; gk-id=gk1; priority=1;
delete h323-gw2gk h323-gw-id=gw1; gk-id=gk1;
```

Usage Guidelines

Primary Key Token(s): h323-gw-id, gk-id

Foreign Key Token(s): h323-gw-id

Add Rules:

- gk-ip-addr is required if multicast=n
- gk-ras-port is required if multicast=n
- gk-ip-addr must be entered as an IP address (Release 4.4.1)

Change Rules: gk-ip-addr is required if multicast=n; gk-ras-port is required if multicast=n.

Delete Rules: Foreign key constraints.

Syntax Description

* H323-GW-ID	Primary key. Foreign key: H.323 Gateway table. The name of the Call Agent H.323 gateway. This token must match an ID in the H.323 Gateway table. VARCHAR(16): 1–16 ASCII characters.
* GK-ID	Primary key. Indicates the H.323 identification of the gatekeeper. The recommended format is domain name. This ID can be obtained using a discovery confirm (DCF), or a registration confirm (RCF) inquiry. VARCHAR(16): 1–16 ASCII characters.
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
DESCRIPTION (EMS-only field)	Described by the service provider. VARCHAR(64): 1–64 ASCII characters.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
GK-IP-ADDR	Mandatory if multicast=n. Defines the IP address that identifies the gatekeeper. This ID can be obtained using a discovery confirm (DCF), or a registration confirm (RCF) inquiry. VARCHAR(32): 1–32 ASCII characters. Value must be entered as an IP address as of Release 4.4.1. For example: 64.101.150.144
GK-RAS-PORT	Mandatory if multicast=n. Defines the gatekeeper (GK) request admission status (RAS) port number to use. INTEGER: 1–65535.

LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
MULTICAST	Indicates that the gateway will use the multicast address in the gateway to locate a gatekeeper. This sends out a request for a gatekeeper to a group of all the gatekeepers. CHAR(1): Y/N (Default = N).
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
PRIORITY	Use when there are multiple gatekeepers for a gateway. It sets the order for the gateway to attempt to register with a gatekeeper. 127 is the lowest priority. INTEGER: 0–127 (Default = 127).
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).
TIME-TO-LIVE (Obsolete in Release 4.4.1. Moved to H323 Gateway table in Release 4.4.1)	Time to live, in seconds. INTEGER: 0–600 (Default = 60). 0 = infinite.

H.323 Terminal (Release 4.2)

The H.323 Terminal (h323-term) table holds information about H.323 terminals (such as H.323 audio/video phones) managed by the Call Agent and known in advance. This table is specific to H.323 subscribers.

Table Name: H323-TERM

Table Containment Area: Call Agent

Command Types

Show, add, change, and delete

Examples

```
show h323-term id=video-phone1;
add h323-term; id=video-phone1; tsap-addr=64.101.150.50; h323-gw-id=gw1
change h323-term id=video-phone1, h323-gw-id=gw2; status=ueqp;
delete h323-term id=video-phone1,
```

Usage Guidelines

Primary Key Token(s): id

Foreign Key Token(s): h323-gw-id, h323-term-profile-id, sub-id

Unique Key Token(s): tsap-addr, alias-addr

Add Rules: None.

Change Rules: Cannot change a range of terminations.

Delete Rules: status=ueqp;

Syntax Description

* ID	Primary key. Identifies the H.323 terminal. VARCHAR(16): 1–16 ASCII characters.
* H323-TERM-PROFILE-ID	Mandatory if term-type=H323. Foreign key: H.323 Terminal Profile table. Specifies the id from the H.323 Terminal Profile table. VARCHAR(16): 1–16 ASCII characters.
* TSAP-ADDR	Unique key. Specifies the IP address and port number of an H.323 phone (termination). This is required for H.323 subscribers. **Note** Use the format: [a.b.c.d]:xyz. While the Domain name is supported, use with caution because the data is not internally cached. VARCHAR(128): 1–128 ASCII characters. Permitted values are: • IP address in the format of [a.b.c.d]:xyz. The port (xyz) is optional • FQDN
ALIAS-ADDR	Unique key. The alias address of the H.323 endpoint as received in the sourceAddress field of a setup message. Used for various types of source-based routing methods as configured in the H.323 Gateway table. VARCHAR(128): 1–128 ASCII characters. Permitted values are: H323-ID TRANSPORTID EMAIL-ID UK—Unknown
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.

H323-GW-ID	Foreign key: H.323 Gateway table. Id of H.323 Gateway table entry used to route the outgoing H.323 call for this H323 terminal. If this is not configured, the Cisco BTS 10200 Softswitch chooses which H323-GW instance to use based on a load distribution algorithm. VARCHAR(16): 1–16 ASCII characters (Default = NULL).
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).
STATUS	Status of the H.323 terminal. Used for inhibiting and allowing H.323 terminal calls. In Release 4.2 the control operation on an H.323 terminal does not impact H.323 external messaging to the phone or gatekeeper. VARCHAR(15): 1–15 ASCII characters. Permitted values are: UEQP (Default)—Unequipped OOS—Out-of-Service MAINT—Maintenance (Manual Override) INS—In-Service OOS-PENDING—Out of service state pending MAINT-PENDING—Maintenance State Pending
SUB-ID (System generated)	Foreign key: Subscriber table. Subscriber ID of the line termination. Same as the ID in the Subscriber table. VARCHAR(30): 1–30 ASCII characters.

H.323 Terminal Profile (Release 4.2)

The H.323 Terminal Profile (h323-term-profile) table defines the characteristics of group of H.323 terminals (or phones). An h323-term-profile id must be created in this table before any H.323 subscriber entries can be added. This table contains almost all the same fields as from the H.323 Trunk Group Profile table, except for some that are specific to trunk side (such as GTD).

Table Name: H323-TERM-PROFILE

Table Containment Area: Call Agent

Command Types

Show, add, change, and delete

Examples

```
show h323-term-profile id=ras-sub;
add h323-term-profile id= ras-sub; ras=N;
change h323-term-profile id= ras-sub; ras=Y;
delete h323-term-profile id= ras-sub;
```

Usage Guidelines

Primary Key Token(s): id

Add Rules: FK constraints

- If fax-pref-mode (in QOS table) = fax-t38-gwmode, then fax-t38-gwmode-supp=Y; (Obsolete in Release 4.5)
- If fax-pref-mode (in QOS table) = fax-t38-camode, then fax-t38-camode-supp=Y; (Obsolete in Release 4.5)
- If fax-pref-mode (in QOS table) = fax-inband, then fax- inband-supp=Y; (Obsolete in Release 4.5)
- If dtmf-pref-mode (in QOS table) = dtmf-cisco-rtp, then dtmf-cisco-rtp-supp=Y; (Obsolete in Release 4.5)
- If dtmf-pref-mode (in QOS table) = dtmf-h245-alpha, then dtmf-h245-alpha-supp=Y; (Obsolete in Release 4.5)
- If dtmf-pref-mode (in QOS table) = dtmf-h245-signal, then dtmf-h245-signal-supp=Y; (Obsolete in Release 4.5)
- If dtmf-pref-mode (in QOS table) = dtmf-rfc2833, then dtmf-rfc2833=Y; (Obsolete in Release 4.5)
- If transport-pref-mode = udp-mode, then annexe-supp=Y;
- If video-supp=Y, then H245-session-mode=AUTO or h245-flowaround.

Change Rules: None.

Delete Rules: None.

Syntax Description

* ID	Primary key. Unique id for this subscriber profile. VARCHAR(16): 1–16 ASCII characters.
ANNEXE-SUPP	Indicates whether the trunk group supports Annex E. CHAR(1): Y/N (Default = Y).
ANNEXR-SUPP (Not supported)	Flag indicates whether the trunk group supports AnnexR. CHAR(1): Y/N (Default = N).
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
CALL-CONNECT-MODE	Specifies the call setup method to use for outbound (for outbound trunk group) and inbound (for default inbound trunk group) H.323 calls. **Note** If this field is configured as fast-start and the far-end H.323 does not support fast-start, the Cisco BTS 10200 Softswitch falls back to the slow-start method. This token takes precedence over the call-start-mode in the H.323 Gateway table. VARCHAR(10): 1–10 ASCII characters. Permitted values are: AUTO (Default)—Use fast-start for calls originated from non-H.323 endpoints and outbound H.323 calls. For H.323 transit calls, use the same method for outbound H.323 calls as that of an inbound H.323 call. FAST-START—Use FastConnect method for outbound H.323 calls (except where an incoming call is slow-start), regardless of the originating (inbound) call protocol type. SLOW-START—Use the normal H.245 procedures during call setup, regardless of the originating (inbound) call protocol type.
CODEC-NEG-SUPP	Specifies whether a far-end H.323 device supports codec negotiation procedures to resolve an asymmetric codec condition. If this is configured as N, then the Cisco BTS 10200 Softswitch expects the far-end H.323 device (especially those not using a FastConnect procedure) to use the codec configured in the QOS entry in the Subscriber table. CHAR(1): Y/N (Default = Y).

CUT-THRU-PARAM	Specifies the message parameter to use to perform media cut-thru. This configuration is used only for an incoming leg. VARCHAR(10): 1–10 ASCII characters. Permitted values are: AUTO (Default)—Use appropriate mode (H245-ADDR or PROG-IND) automatically based on incoming device type. Use H245-ADDR for Cisco CallManager and PROG-IND for all other devices. H245-ADDR—The originating H.323 endpoint performs a media cut-thru on receipt of an H.245 address of an other-end (which is a Cisco BTS 10200 Softswitch for H.323 to non-H.323 calls, and a terminating H.323 endpoint for H.323 transit calls). PROG-IND—Perform media cut-thru based on the Progress Indicator value as per interworking standards.
DESCRIPTION	Described by the service provider. VARCHAR(64): 1–64 ASCII characters.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
DTMF-CISCO-RTP-SUPP (Not supported)	Forwards DTMF tones by using Realtime Transport Protocol (RTP) with a Cisco proprietary payload type. If all DTMF relay types are supported, the priority is as follows: 1. RFC2833 2. CISCO-RTP 3. H245-SIGNAL (Not used) 4. H245-ALPHA CHAR(1): Y/N (Default = N).
DTMF-H245-ALPHA-SUPP	Forwards DTMF tones using the H.245 alphanumeric User Input Indication (UII) method. Tones 0 through 9, *, #, and A through D are supported. Use this keyword to configure the DTMF relay. If all DTMF relay types are supported, the priority is as follows: 1. RFC2833 2. CISCO-RTP 3. H245-SIGNAL (Not supported) 4. H245-ALPHA CHAR(1): Y/N (Default = N).

DTMF-H245-SIGNAL-SUPP	Forwards DTMF tones using the H.245 signal UII method. Tones 0 through 9, *, #, and A through D for H.323 to H.323 calls are supported. If all DTMF relay types are supported, the priority is as follows: 1. RFC2833 2. CISCO-RTP 3. H245-SIGNAL (Not supported) 4. H245-ALPHA CHAR(1): Y/N (Default = N).
DTMF-RFC2833	Forwards DTMF tones using RFC 2833. If all DTMF relay types are supported, the priority is as follows: 1. RFC2833 2. CISCO-RTP 3. H245-SIGNAL (Not supported) 4. H245-ALPHA CHAR(1): Y/N (Default = Y).
ECS-METHOD	Specifies the type of call flow to use to initiate a media pause from the Cisco BTS 10200 Softswitch. **Note** According to specification, the H.323 device receiving an ECS message only closes its forward logical channel. The CCM, upon receiving an empty TCS message, assumes that a "reverse logical channel" will also be closed. But a later release can change this call flow to match standards. VARCHAR(10): 1–10 ASCII characters. Permitted values are: AUTO (Default)—For CCM, the Cisco BTS 10200 Softswitch uses the all-pause method. For all other types of H.323 devices, the Cisco BTS 10200 Softswitch uses the local-pause method. LOCAL-PAUSE—The far-end (H.323 device receiving the ECS message) closes the forward logical channel. ALL-PAUSE—The far-end (H.323 device receiving the ECS message) closes the forward logical channel. The local (Cisco BTS 10200 Softswitch) side also closes its forward logical channel.
FACILITY-SUPP	Specifies whether a far-end H.323 endpoint (for both incoming as well as outgoing leg) supports facility messages. **Note** Set to N for CCM. CHAR(1): Y/N (Default = Y).
FAX-T38-CAMODE-SUPP (Obsolete in Release 4.5)	Specifies if this is a Call Agent controlled (Call Agent instructs gateway to switch to T.38 mode) relay in real time. CHAR(1): Y/N (Default = Y).
FAX-T38-GWMODE-SUPP (Obsolete in Release 4.5)	Specifies if this is a gateway-controlled (using NSE to switch to T.38 mode) relay in real time. CHAR(1): Y/N (Default = N).

H245-SESSION-MODE	Specifies the type of H.245 channel establishment procedure to use for H.323 to H.323 calls. For H.323 to non-H.323 calls, H245-FLOWTHRU mode is used. VARCHAR(16): 1–16 ASCII characters. Permitted values are: AUTO (Default)—For H.323 to H.323 calls, with both sides supporting video, use the H245-FLOWAROUND mode; otherwise use H245-FLOWTHRU mode. H245-FLOWAROUND—The H.323 originating and terminating endpoints will establish the H.245 session without Cisco BTS 10200 involvement. Applies only to slow-start to show-start calls. **Caution** Cisco does not recommend using this value. Media information in the CDR is not accurate in this mode. H245-FLOWTHRU—Terminate and reoriginate the H.245 session for H.323 transit calls.
H245-TUNNELING	Specifies the H.245 tunneling mode to be used. When H.245 tunneling is enabled, all H.245 messages are tunneled inside a facility message instead of a separate H.245 TCP channel. VARCHAR(8): 1–8 ASCII characters. Permitted values are: AUTO (Default)—Default H.245 tunneling operation. Use H.245 tunneling for calls between H.323 and non-H.323 endpoints. For H.323 transit calls, use the same method for outgoing calls as that of incoming calls. ENABLE—Use H.245 tunneling for outgoing calls, without considering the type of incoming call leg protocol. DISABLE—Disable H.245 tunneling for the outgoing call leg and use a separate H.245 TCP channel.
H323-TCP-TIMER	The H.323 TCP timeout value in seconds. INTEGER: Range 1–30 (Default = 10).
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
MAX-CALLS	Specifies the maximum number of calls allowed on the H.323 terminal. When the current number of calls exceed this number, any call termination to this terminal results in a “busy” condition, and can trigger the CFB or CW feature if CFB or CW is configured for the subscriber. INTEGER: 1–6 (Default = 2).

MISC-UNSUPP (Release 4.2; Obsolete in Release 4.5)	Specifies whether to suppress sending of a FastStart element in a Call Proceeding message (SUPPRESS-CP-FS). This token is available for this purpose only in Releases 4.2, 4.4.0/1. As of Release 4.5, this field is replaced by the SEND-CALL-PROCEEDING token. NUMERIC: 0-65535 (Default = 0). To determine the correct value for this token, see Table 7-1: How to Determine Misc-unsupp Token Values.
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
RAS	Registration, Admission, and Status. CHAR(1): Y/N (Default = Y).
REMOTE-FAX-PORT-RETRIEVAL-MSG (Release 4.5)	Specifies whether the remote H.323 gateway reports a UDP Port for a T38 fax transmission in an H.245 Open Logical Channel (OLC) message or in an Open Logical Channel Acknowledge message (OLCAck). All Cisco IOS H.323 gateways report it in the OLC message itself. VARCHAR(16): 1–16 ASCII characters. Permitted values are: H245-OLC (Default) H245-OLC-ACK
SEND-CALL-PROCEEDING	Specifies when to send a call proceeding message in a backward direction on an incoming trunk group. **Note** Not applicable for incoming calls from an H.323 network to local a subscriber controlled by the Cisco BTS 10200 Softswitch that are being forwarded or transferred to an H.323 network. VARCHAR(10): 1–10 ASCII characters. AUTO—Send H.323 to non-H.323 calls locally; send end-to-end for H.323 to H.323 calls. LOCAL—Send locally regardless of outgoing call protocol type. DISABLE—Never send a call proceeding message.
SEND-DEST-CIRCUIT-ID	Specifies whether to send a destination circuit id in an outgoing H.323 call message and use a destination circuit id from an incoming message For outgoing H.323 calls, if this field is configured as Y, the Cisco BTS 10200 Softswitch sends an SP-ID configured for the outgoing trunk group in the destCircuitInfo field of the outgoing admission request (ARQ) and setup messages. CHAR(1): Y/N (Default = N).
SEND-FS-CALLP (Release 4.5)	Sends the FastStart element in a call proceeding message if available. Otherwise, sends the FastStart element in a call alerting or progress message depending on which is sent first. CHAR(1): Y/N (Default = N).

SEND-SRC-CIRCUIT-ID	Specifies whether to send an outgoing trunk subgroup or source circuit id in an outgoing H.323 call message and use the source circuit id from an incoming call. CHAR(1): Y/N (Default = N).
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).
TRANSPORT-PREF-MODE	Specifies what transport layer protocol to use to transmit H.323 signaling messages. VARCHAR(8): 1–8 ASCII characters. Permitted values are: TCP-MODE—Use TCP to transport messages. UDP-MODE (Default)—Use Annex E udp-based message transport facility. If the remote endpoint does not support UDP, the Cisco BTS 10200 Softswitch falls back to TCP.
VIDEO-SUPP	Specifies whether the H.323 subscriber phone is video capable. This field is also used to fill in the CDR. CHAR(1): Y/N (Default = N).

H.323 Trunk Group Profile

The H.323 Trunk Group Profile (h323-tg-profile) table defines the characteristics of each H.323 trunk. An h323-tg-profile id must be created in this table before H.323 trunk group entries can be added.

Table Name: H323-TG-PROFILE

Table Containment Area: Call Agent

Command Types

Show, add, change, and delete

Examples

```
show h323-tg-profile id=ras-tg;
add h323-tg-profile id= ras-tg; ras=n;
change h323-tg-profile id= ras-tg; ras=y;
delete h323-tg-profile id= ras-tg;
```

Usage Guidelines

Primary Key Token(s): id

Add Rules:

- If fax-pref-mode=FAX-T38-CAMODE, then fax-t38-camode-supp=Y; (Obsolete in Release 4.5)
- if transport-pref-mode=UDP-MODE, then annexe-supp=Y; (Obsolete in Release 4.5)
- if h245-tunneling = AUTO or ENABLE, then facility-supp=Y; (Obsolete in Release 4.5)
- if video-supp=Y, then h245-session-mode=AUTO or H245-FLOWAROUND
- if transport-pref-mode = UDP-MODE, then annexe-supp=Y; (Release 4.5)
- if h245-tunneling = AUTO or ENABLE, then facility-supp is Y. (Release 4.5)

- if video-supp = Y, then h245-session-mode=AUTO or H245-FLOWAROUND (Release 4.5)

Change Rules: None.

Delete Rules: None.

Misc-unsupp Rules:

Use Table 7-1 to determine the correct value for the misc-unsupp token.

Table 7-1 How to Determine Misc-unsupp Token Values

Scenario	Set to	Set to	Set to	Set to	Set to	Set to	Set to	Set to
SUPPRESS-CP-FS	N	Y	N	N	Y	Y	N	Y
SUPPRESS-CCM-BC	N	N	Y	N	Y	N	Y	Y
NO-INTERWORKING-ENCOUNTERED	N	N	N	Y	N	Y	Y	Y
Set the MISC-UNSUPP to:	0 (Default)	1	2	4	3	5	6	7

Syntax Description

* ID	Primary key. Unique ID for this trunk group profile. VARCHAR(16): 1–16 ASCII characters.
ECS-METHOD (Release 4.2)	Specifies the type of call flow to use for initiating a media pause from the Cisco BTS 10200 Softswitch. The CCM, upon receiving an empty TCS message, assumes that a "Reverse logical channel" will also be closed. **Note** According to specification, the H.323 device receiving an ECS message only closes its forward logical channel. VARCHAR(15): 1–15 ASCII characters. Permitted values are: AUTO (Default)—For CCM, the Cisco BTS 10200 Softswitch uses the ALL-PAUSE method and for all other types of H.323 devices, uses LOCAL-PAUSE method. LOCAL-PAUSE—The far-end (H.323 device receiving the ECS message) closes the forward logical channel. ALL-PAUSE—The far-end (H.323 device receiving the ECS message) closes the forward logical channel. **Note** The local (Cisco BTS 10200 Softswitch) side also closes its forward logical channel.
ANNEXE-SUPP	Specifies whether this trunk group supports Annex E. CHAR(1): Y/N (Default = Y).
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
CALL-CONNECT-MODE (Release 4.2)	Call setup method used for outbound (for outbound trunk group) and inbound (for default inbound trunk group) H.323 calls. **Note** If this field is configured as fast-start and the far-end H.323 endpoint does not support fast-start, the Cisco BTS 10200 Softswitch falls back to the slow-start method. This token takes precedence over the call-start-mode token in the H.323 Gateway table. VARCHAR(10): 1–10 ASCII characters. Permitted values are: AUTO (Default)—Use fast-start for calls originated from non-H.323 endpoint and outbound H.323 calls. For H.323 transit calls, use the same method for outbound H.323 calls as that of inbound H.323 call. FAST-START—Always use the fastConnect method for outbound H.323 calls (except where an incoming call is a slow-start), regardless of originating (inbound) call protocol type. SLOW-START—Always use the normal H.245 procedures during call setup, regardless of originating (inbound) call protocol type.

CODEC-NEG-SUPP (Release 4.2)	Specifies whether the far-end H.323 device supports codec negotiation procedures to resolve asymmetric codec conditions. If this is configured as N, then the Cisco BTS 10200 Softswitch expects the far-end H323 device (especially those not using a fastConnect procedure) to use a codec configured in the QOS table entry of the Trunk Group table. **Note** For all Cisco IOS gateways, set this token to Y. For older versions of CCM, set this token to N. CHAR(1): Y/N (Default = Y).
CUT-THRU-PARAM (Release 4.2)	Specifies what message parameter to use to perform a media cut-thru. This configuration is used only for an incoming leg. VARCHAR(10): 1–10 ASCII characters. Permitted values are: AUTO (Default)—Use appropriate mode (H245-ADDR or PROG-IND) automatically based on incoming device type. Uses H245-ADDR for Cisco Call Manager and PROG-IND for all other devices. H245-ADDR—The originating H.323 endpoint performs media cut-thru on receipt of H.245 address of other-end (the Cisco BTS 10200 Softswitch for H.323 to non-H.323 calls, and terminating H.323 endpoint for H.323 transit calls). PROG-IND—The media cut-thru is done based on the Progress Indicator value as per interworking standard.
DESCRIPTION (EMS-only field)	Described by the service provider. VARCHAR(64): 1–64 ASCII characters.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
DTMF-CISCO-RTP-SUPP (Not used)	Forwards DTMF tones using the Realtime Transport Protocol (RTP) with a Cisco proprietary payload type. CHAR(1): Y/N (Default = N). If all DTMF relay types are supported, the priority is: 1. RFC2833 2. CISCO-RTP 3. H245-SIGNAL (Not used) 4. H245-ALPHA

DTMF-H245-ALPHA-SUPP	Specifies if the trunk group forwards DTMF tones using the H.245 alphanumeric User Input Indication (UII) method. It supports tones 0 through 9, *, #, and A through D. Use this token to configure a DTMF relay. When this type of DTMF relay is supported, the Call Agent controls the relay. The originating trunk group reports to the Call Agent, which then passes the DTMF tones on to the terminating trunk group. CHAR(1): Y/N (Default = Y). If all DTMF relay types are supported, the priority is: 1. RFC2833 2. CISCO-RTP 3. H245-ALPHA
DTMF-H245-SIGNAL-SUPP (Release 4.2)	Specifies if the trunk group forwards DTMF tones using the H.245 *signal* UII method. It supports tones 0 through 9, *, #, and A through D. CHAR(1): Y/N (Default = N).
DTMF-RFC2833	Specifies if the trunk group forwards DTMF tones directly on the bearer path using RFC 2833. The DTMF tones do not go through the Call Agent. CHAR(1): Y/N (Default = N).
FACILITY-SUPP (Release 4.2)	Specifies whether the far-end H.323 endpoint (for both incoming as well as outgoing leg) supports facility messages. **Note** Set to N for CCM. CHAR(1): Y/N (Default = Y).
FAX-T38-CAMODE-SUPP (Obsolete in Release 4.5)	Default. Call Agent controlled (CA instructs GW to switch to T.38 mode), relay in real time. CHAR(1): Y/N (Default = N).
FAX-T38-GWMODE-SUPP (Obsolete in Release 4.5)	Gateway controlled (using NSE to switch to T.38 mode), relay in real time. CHAR(1): Y/N (Default = N).
H245-SESSION-MODE	Specifies the type of H.245 channel establishment procedure to use for H.323 to H.323 calls. For H.323 to non-H.323 calls the H245-FLOWTHRU mode is used. VARCHAR(16): 1–16 ASCII characters. Permitted values are: AUTO (Default)—For H.323 to H.323 calls both side supporting video, use the H245-FLOWAROUND mode; otherwise use H245-FLOWTHRU mode. H245-FLOWAROUND—The H.323 originating and terminating endpoints will establish the H.245 session without any Cisco BTS 10200 Softswitch involvement. This applies only to slow-start to show-start calls. ⚠ **Caution** Cisco does not recommend using this value. Media information in the CDR is not accurate in this mode. H245-FLOWTHRU (Not used)—Always terminate and reoriginate the H.245 session for H.323 transit calls. This is the default mode when the Cisco BTS 10200 Softswitch can perform H245-FLOWTHRU mode for video calls.

H245-TUNNELING (Release 4.2)	Specifies the H.245 tunneling mode to use. When H.245 tunneling is enabled, all H.245 messages are tunneled inside a facility message instead of through a separate H.245 TCP channel. VARCHAR(8): 1–8 ASCII characters. Permitted values are: AUTO (Default)—Default H.245 tunneling operation. Use H.245 tunneling for calls between H.323 and non-H.323. For H.323 transit calls, use same method for outgoing as that of incoming calls. ENABLE—Always use H.245 tunneling for outgoing calls, without considering the type of incoming call leg protocol. DISABLE—Always disable H.245 tunneling for outgoing call legs and use a separate H.245 TCP channel.
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
MISC-UNSUPP (Release 4.5)	This token is used in combination for the following scenarios: SUPPRESS-CP-FS—Specify whether to suppress sending of a FastStart element in a Call Proceeding message. This scenario is available only in Releases 4.2, 4.4.0/1. As of Release 4.5, this field is replaced by SEND-CALL-PROCEEDING field.) SUPPRESS-CCM-BC—Specify whether to suppress Bearer Capability information received in Setup message from Cisco Call Manager. (tg-profile) NO-INTERWORKING-ENCOUNTERED—Specify how to encode the “interworking encountered” parameter towards the incoming call leg when an ALERTING message is received from an H.323 trunk interface. Y—(None) the connection mode is “recvonly.” N—(Avail) the connection mode is “sendrecv.” Note that for H.323 terminals this field is always assumed to be Y (None) as per interworking specifications NUMERIC: 0-65535 (Default = 0). To determine the correct value for this token, see Table 7-1: How to Determine Misc-unsupp Token Values.
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.

RAS	Specifies whether this trunk (H.323 gateway) uses the gatekeeper for Registration, Administration, and Status (RAS). CHAR(1): Y/N (Default = Y). Y—All address resolution and translation is done by the gatekeeper. N—All address resolution and translation is done by the Call Agent. If this is used, configure the softsw-tsap-addr token in the Trunk Group table for the correct destination gateway.
REMOTE-FAX-PORT-RETRIEVAL-MSG (Release 4.5)	Specifies whether the remote H.323 gateway reports a UDP Port for a T38 fax transmission in an H.245 Open Logical Channel (OLC) message or in an Open Logical Channel Acknowledge message (OLCAck). All Cisco IOS H.323 gateways report it in the OLC message itself. VARCHAR(16): 1–16 ASCII characters. Permitted values are: H245-OLC (Default) H245-OLC-ACK
SEND-CALL-PROCEEDING (Release 4.2)	This configuration on an incoming trunk group controls the behavior of when to send a call proceeding message in a backward direction. **Note** Not applicable for incoming calls from an H.323 network to local a subscriber controlled by the Cisco BTS 10200 Softswitch that are being forwarded or transferred to an H.323 network. VARCHAR(15): 1–15 ASCII characters. Permitted values are: AUTO (Default)—Send locally for H.323 to non-H.323 calls; send end-to-end for H.323 to H.323 calls. LOCAL—Always send locally regardless of outgoing call protocol type. DISABLE—Never send a call proceeding message.
SEND-DEST-CIRCUIT-ID (Release 4.2)	Specifies whether to send the destination circuit id in the outgoing H.323 call message and use the destination circuit id from incoming H.323 call message. For outgoing H323 calls, if this field is set to Y, the Cisco BTS 10200 Softswitch sends the SP-ID configured for outgoing trunk group in the destCircuitInfo field of the outgoing ARQ and setup messages. CHAR(1): Y/N (Default = N).
SEND-FS-CALLP (Release 4.5)	Specifies what message to send a FastStart element in. CHAR(1): Y/N (Default = Y). Y—Send in a call proceeding message if available. If a call proceeding message is not available, element is sent in a call alerting or progress message. N—Send in a call alerting or progress message (depending on which is sent first).
SEND-SRC-CIRCUIT-ID (Release 4.2)	Specifies whether to send the outgoing trunk subgroup or source circuit id in the outgoing H.323 call message. CHAR(1): Y/N (Default = N).
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).

TRANSPORT-PREF-MODE	Specifies what transport layer protocol to use to transmit H.323 signaling messages. VARCHAR(8): 1–8 ASCII characters. Permitted values are: TCP-MODE (Default)—Use TCP to transport messages. UDP-MODE—Use the Annex E UDP-based message transport facility. If the remote endpoint does not support UDP, Cisco BTS 10200 falls back to TCP.
VIDEO-SUPP (Release 4.2)	Specifies whether the H.323 trunk-group is video capable or not. If the Cisco BTS 10200 Softswitch is connected to a far-end H.323 gateway in a video-enabled network, enable this field for both incoming and outgoing trunk groups. **Note** This field is also used to fill in the CDR. CHAR(1): Y/N (Default = N).

II White Black List

The II White Black List (ii-wb-list) table allows or blocks calls from certain types of lines. The COS Restrict ID specifies if the list is to be used as a White List or Black List.

Table Name: II-WB-LIST

Table Containment Area: FSPTC

Command Types

Show, add, and delete

Examples

```
show ii-wb-list cos-restrict-id=20;
add ii-wb-list cos-restrict-id=20;
delete ii-wb-list cos-restrict-id=20;
```

Usage Guidelines

Primary Key Token(s): cos-restrict-id

Foreign Key Token(s): cos-restrict-id

Add Rules: None.

Delete Rules: None.

Syntax Description

* COS-RESTRICT-ID	Primary key. Foreign key: COS Restrict table. Use for class of service (COS) blocking of certain calls. VARCHAR(16): 1–16 ASCII characters.
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
II1	The originating line information (OLI) to be screened as White Black List is specified. Specify up to 10 OLI tokens. Set a default value of 255 (invalid) if the OLI token is not used. SMALLINT: 0–99 (Default = 255).
II10	The OLI to be screened as White Black List is specified. Specify up to 10 OLI tokens. Set a default value of 255 (invalid) if the OLI token is not used. SMALLINT: 0–99 (Default = 255).

II2	The OLI to be screened as White Black List is specified. Specify up to 10 OLI tokens. Set a default value of 255 (invalid) if the OLI token is not used. SMALLINT: 0–99 (Default = 255).
II3	The OLI to be screened as White Black List is specified. Specify up to 10 OLI tokens. Set a default value of 255 (invalid) if the OLI token is not used. SMALLINT: 0–99 (Default = 255).
II4	The OLI to be screened as White Black List is specified. Specify up to 10 OLI tokens. Set a default value of 255 (invalid) if the OLI token is not used. SMALLINT: 0–99 (Default = 255).
II5	The OLI to be screened as White Black List is specified. Specify up to 10 OLI tokens. Set a default value of 255 (invalid) if the OLI token is not used. SMALLINT: 0–99 (Default = 255).
II6	The OLI to be screened as White Black List is specified. Specify up to 10 OLI tokens. Set a default value of 255 (invalid) if the OLI token is not used. SMALLINT: 0–99 (Default = 255).
II7	The OLI to be screened as White Black List is specified. Specify up to 10 OLI tokens. Set a default value of 255 (invalid) if the OLI token is not used. SMALLINT: 0–99 (Default = 255).
II8	The OLI to be screened as White Black List is specified. Specify up to 10 OLI tokens. Set a default value of 255 (invalid) if the OLI token is not used. SMALLINT: 0–99 (Default = 255).
II9	The OLI to be screened as White Black List is specified. Specify up to 10 OLI tokens. Set a default value of 255 (invalid) if the OLI token is not used. SMALLINT: 0–99 (Default = 255).
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).

Service Provider

The Service Provider (service-provider) table is used when there are multiple service providers providing service via a single logical Call Agent.

Table Name: SERVICE-PROVIDER

Table Containment Area: Call Agent

Command Types

Show, add, change, and delete

Examples

```
show service-provider id=grp1;
add service-provider id=grp1;dial-plan-id=dp1;
change service-provider id=grp1;dial-plan-id=gw1dp;
delete service-provider id=grp1;
```

Usage Guidelines

Primary Key Token(s): id

Foreign Key Token(s): dial-plan-id, route-guide-id

Add Rules: Foreign key constraints, dial-plan-id is required if sp-based-routing=y.

Change Rules: Foreign key constraints.

Delete Rules: Foreign key constraints.

Syntax Description

* ID	Primary key. Service provider ID: a unique identifier for this customer group. Assigned by service provider. VARCHAR(16): 1–16 ASCII characters.
ANI-WB-LIST (Not supported)	Indicates if White / Black List ANI screening is required. Defines how the ani-wb-list is to be used to screen the calling number: as a white list, black list, or not at all. CHAR(5): 1–5 characters. Permitted values are: NONE (Default)—No ANI screening is performed. WHITE—ani-wb-list is used as a white list. BLACK—ani-wb-list is used as a black list.
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
DESCRIPTION (EMS-only field)	Described by service provider. VARCHAR(64): 1–64 ASCII characters.

DIAL-PLAN-ID	Foreign key: Dial Plan Profile table. Use this dial plan ID for NANP routing and use the international dial plan ID defined in the Dial Plan Profile table for routing international calls. VARCHAR(16): 1–16 ASCII characters.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
ROUTE-GUIDE-ID	Foreign key: Route Guide table. Defines the default route for service provider. VARCHAR(16): 1–16 ASCII characters.
SP-BASED-ROUTING	Specifies whether routing is service-provider based. CHAR(1): Y/N (Default = N). Y—Use the dial plan specified in this table for routing (if no match is found, proceed as if service-provider based routing was set to N). N—Perform routing based on the use-dial-plan token in this table. **Note** To use service-provider routing, the set the traffic type specified in the trunk group table to TANDEM.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).
USE-DIAL-PLAN	Use this token when the service provider is acting as a long-distance carrier. If an on-net route exists to a dialed number based on the dial-plan-id, the route-guide pointing to the on-net route is provisioned in the Destination table. If an on-net route does not exist in the Dial Plan, the route is determined based on this flag. CHAR(1): Y/N (Default = Y). Y (Default)—Use the default dial plan for routing if there is no match in the SP dial plan, or if sp-based-routing = N. N—Use default route defined in this table for routing if there is no match in the SP dial plan, or if sp-based-routing = N.

Technical Prefix Group

The Technical Prefix Group (tech-prefix-grp) table provides a list of technical prefixes supported by a gateway. The same tech-prefix-list ID can be shared by multiple gateways. Each gateway must register the tech-prefixes supported to their respective gatekeepers.

Technical prefixes allow the inclusion of special characters in a called number. These special characters are commonly designated as a 1#, 2#, 3#, and so forth, and can be configured to prepend called number on the outgoing VoIP dial peer. The gatekeeper then checks its gateway technical prefix table for gateways registered with that particular tech prefix. Technology prefixes can also be used to identify a type, class, or pool of gateways.

The gatekeeper can be provisioned with technical prefixes in one of the following ways:

- Dynamically registered technical prefixes. The H.323 gateway registers one or more technical prefixes with the gatekeeper.
- Statically registered technical prefixes. The gatekeeper is provisioned with the technical prefixes and the gateways supporting them.
- Default technical prefixes also registered statically at the gatekeeper. If the gatekeeper does not receive a technical prefix in the ARQ, the gatekeeper uses the default technical prefixes.

A group of one or more of technical prefixes can be provisioned in Cisco BTS 10200 Softswitch and this group can be associated to an H.323 gateway. The Cisco BTS 10200 Softswitch H.323 gateway process instance registers the technical prefixes from its technical prefix group with its primary gatekeeper. The technical prefix is encoded in the terminalalias field of an RRQ message as E.164 addresses. The gatekeeper routes calls to the Cisco BTS 10200 Softswitch H.323 gateway based on the technical prefixes.

Table Name: TECH-PREFIX-GRP

Table Containment Area: Call Agent

Command Types

Show, add, change, and delete

Examples

```
show tech-prefix-grp id=grp1; tech-prefix=1#;
add tech-prefix-grp id=grp1; tech-prefix=1#; sp-id=sp1;
change tech-prefix-grp id=grp1; tech-prefix=1#; sp-id=sp2;
delete tech-prefix-grp id=grp1; tech-prefix=1#;
```

Usage Guidelines

Primary Key Token(s): id, tech-prefix

Foreign Key Token(s): id, tech-prefix

Add Rules: Foreign key constraints. Tech-prefix-grp id must exist.

Change Rules: Foreign key constraints.

Delete Rules: Foreign key constraints.

- Use tech-prefix based routing. If no tech prefix is received, use the dial plan id in the H.323 Gateway table.
- Use tech-prefix based SP-ID. If entry is found, continue.

- If no entry is found in the tech-prefix-grp table, use the dial plan id specified in the H.323 gateway table to route the call.

Syntax Description

* ID	Primary key. Foreign key: Technical Prefix Group Profile table. Technical prefix group ID. VARCHAR(16): 1–16 ASCII characters.
* SP-ID	Foreign key: Service Provider table. The service provider ID. VARCHAR(16): 1–16 ASCII characters.
* TECH-PREFIX	Primary key. Specifies carrier-sensitive routing for H.323 networks. VARCHAR(11): 1–11 ASCII characters. Valid characters are [0–9],*, #
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).

Technical Prefix Group Profile

The Technical Prefix Group Profile (tech-prefix-grp-profile) table identifies the IDs used for the Technical Prefix Group table. These IDs must be created in this table before entries can be added to the Technical Prefix Group table.

Table Name: TECH-PREFIX-GRP-PROFILE

Table Containment Area: EMS only

Command Types

Show, add, and delete

Examples

```
show tech-prefix-grp-profile id=grp1;
add tech-prefix-grp-profile id=grp1;
delete tech-prefix-grp-profile id=grp1;
```

Usage Guidelines

Primary Key Token(s): id

Add Rules: None.

Delete Rules: None.

Syntax Description

* ID	Primary key. Technical prefix group ID. Determined by service provider. VARCHAR(16): 1–16 ASCII characters.
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
DESCRIPTION (EMS-only field)	Described by service provider. VARCHAR(64): 1–64 ASCII characters.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.

ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).

Trunk Group Feature Data

The Trunk Group Feature Data (trunk-grp-feature-data) table performs class of service (COS) screening for Tandem calls. If the received automatic number identification (ANI) is not found in the ANI table, and the casual-call flag is set to Y, the call is allowed. If the casual-call flag is set to N, the call is blocked. The cos-restrict-id performs the COS screening.

Table Name: TRUNK-GRP-FEATURE-DATA

Table Containment Area: FSPTC

Command Types

Show, add, change, and delete

Examples

```
show trunk-grp-feature-data tgn-id=101;
add trunk-grp-feature-data tgn-id=101;
change trunk-grp-feature-data tgn-id=101; casual-call=n;
delete trunk-grp-feature-data tgn-id=101;
```

Usage Guidelines

Primary Key Token(s): tgn-id

Foreign Key Token(s): tgn-id

Add Rules: None.

Change Rules: None.

Delete Rules: None.

Syntax Description

* TGN-ID (or * TG)	Primary key. Foreign key: Trunk Group table. Trunk group ID. This field can also be provisioned using tg instead of tgn-id. The EMS looks up the tgn-id based on the trunk group and then provisions it. INTEGER: 1–99999999.
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
CASUAL-CALL	Specifies if casual calls are allowed over this trunk group. Used to block calls that arrive without an ANI. Customers can place casual calls by dialing a special 7-digit access code (101xxxx—where xxxx can be a 4-digit carrier code, or 0xxx for a 3-digit carrier code) before the area code and telephone number. CHAR(1): Y/N (Default = Y). Y—Casual calls are allowed. N—Casual calls are not allowed.
COS-RESTRICT-ID	Foreign key: COS Restrict table. ID from COS Restrict table. VARCHAR(16): 1–16 ASCII characters.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).

Trunk Group Service Profile

The Trunk Group Service Profile (trunk-grp-service-profile) table links a trunk group to services.

Table Name: TRUNK-GRP-SERVICE-PROFILE

Table Containment Area: Call Agent, Tandem Feature Server

Command Types

Show, add, change, and delete

Examples

```
show trunk-grp-service-profile tgn-id=101; service-id= 2;
add trunk-grp-service-profile tgn-id=101; service-id= 2; priority=1;
change trunk-grp-service-profile tgn-id=101; service-id= 2; priority=2;
delete trunk-grp-service-profile tgn-id=101; service-id= 2;
```

Usage Guidelines

Primary Key Token(s): tgn-id, service-id

Foreign Key Token(s): tgn-id, service-id

Add Rules: None.

Change Rules: None.

Delete Rules: None.

Syntax Description

* TGN-ID (or * TG)	Primary key. Foreign key: Trunk Group table. Trunk group ID. This field can also be provisioned using tg instead of tgn-id. The EMS looks up the tgn-id based on the trunk group and then provisions it. INTEGER: 1–99999999.
* SERVICE-ID	Primary key. Foreign key: Service table. The number of service-ids that can be assigned to a trunk-grp is limited to 50. Must match valid service-id in the Service table. VARCHAR(16): 1–16 ASCII characters.
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.

LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
PRIORITY	Priority is used if there are multiple services assigned to a trunk group. The service with higher priority is processed first before the service with a lower priority. Priority 1 being the highest. SMALLINT: 1–10 (Default = 1).
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).



CHAPTER 8

Features and Services

Revised: July 24, 2009, OL-3743-42

This chapter defines features and services and their associated tables for customers.

Note In this chapter, an asterisk preceding a token name means the token is mandatory. A token without an asterisk is optional.

Caution Feature tokens are always entered in uppercase, or you will receive the following message: “Reply: Database is void of entries.” For example, enter AC_ACT, not ac_act. Also, feature tokens must be typed with an underscore “_” or you will receive the following message: “Reply: Database is void of entries.” For example, enter AC_ACT, not AC-ACT.

Application Server (Release 4.5)

The Application Server (app-server) table is used for Voice Mail and Privacy Manager features.

Table Name: APP-SERVER

Table Containment Area: Call Agent, FSPTC

Command Types

Show, add, change, and delete

Examples

```
show app-server id=vm01;
add app-server id=vm01;app-server-dn=469-255-0001; app-server-access-number=469-255-0001;
description=Voice Mail ID 1;
change app-server id=vm01; app-server-dn=469-255-0000; app-server-access-dn=469-255-0000;
delete app-server id=vm01;
```

Usage Guidelines

Primary Key Token(s): id

Add Rules: None

Change Rules: None

Delete Rules: None

Syntax Description

* ID	Primary key. The application server id. VARCHAR(16): 1–16 ASCII characters.
* APP-SERVER-DN	Specifies whether to forward calls to an application server. For POTS subscribers, this token specifies a directory number (DN); for Centrex subscribers, this token specifies an extension. VARCHAR(14): 1–14 digits.
APP-SERVER-ACCESS-DN	Specifies the application server access DN if the DN is different from the application server DN. This DN is used by the Call Agent when a user dials a star code to access the application server. VARCHAR(14): 1–14 digits. **Note** If this token is not provisioned, this token defaults to the app-server-dn.
APP-SERVER-TYPE	Application server type. Example: Voice Mail, Privacy Manager. VARCHAR(16): 1–16 ASCII characters. Permitted values are: VM—Voice Mail PM—Privacy Manager
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
DESCRIPTION (EMS-only field)	Described by the service provider. VARCHAR(64): 1–64 ASCII characters.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.

ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).

Class of Service Restriction

Class of service (COS) screening allows subscribers, or a group of subscribers, to have different collections of privileges and features assigned to them.

The COS Restrict (cos-restrict) table identifies the restrictions on a subscriber's class of service, including restrictions on the calls the subscriber can make (screening).

Call type and casual call screening are not performed for North American Numbering Plan (NANP[1]) and international operator calls, even though NANP or casual call restrictions are requested for a calling party.

Account codes are not collected for:

- 0+, NANP operator calls
- 01+, international operators calls
- local calls

Table Name: COS-RESTRICT

Table Containment Area: FSPTC

Command Types

Show, add, change, and delete

Examples

```
show cos-restrict id=basic;
add cos-restrict id=basic;
change cos-restrict id=basic; acct-code-allow=y; auth-code-length=10;
auth-code-grp-id=cisco;
delete cos-restrict id=basic;
```

Usage Guidelines

Primary Key Token(s): id

Foreign Key Token(s): auth-code-grp-id

Add Rules: None.

Change Rules: None.

Delete Rules:

- ID does not exist in any casual-wb-list::cos-restrict-id.

1. In North America, national calls may be referred to as NANP calls.

- ID does not exist in any intl-wb-list::cos-restrict-id.
- ID does not exist in any national-wp-wb-list::cos-restrict-id.
- ID does not exist in any subscriber::cos-restrict-id.
- ID does not exist in any subscriber-profile::cos-restrict-id.
- ID does not exist in any ani::cos-restrict-id.
- ID does not exist in any trunk-grp::cos-restrict-id.

Note The auth-code is not collected if block-da or block-intl are used.

Syntax Description

* ID	Primary key. Class of service screening for a subscriber or trunk group. ID assigned to subscriber/trunk group by service provider. VARCHAR(16): 1–16 ASCII characters.
ACCT-CODE-ALLOW	Indicates whether the user must dial an account code. CHAR(1): Y/N (Default = N).
ACCT-CODE-LENGTH	Number of digits in account code. Determined by customer request. SMALLINT: 2–12.
ALLOW-CALLS-ON-IVR-FAILURE (Release 4.5)	Specifies whether to allow calls that fail to connect to the IVR during authorization code collection to go through. CHAR(1): Y/N (Default = N). Y—Call is allowed. N—Call is not allowed. **Note** This token can only be set to Y if prompt-method=IVR.
AUTH-CODE-ALLOW	Mandatory if acct-code-allow=Y. Indicates whether dialing party must enter a code to be connected. CHAR(1): Y/N (Default = N).
AUTH-CODE-GRP-ID	Mandatory if auth-code-allow=Y. Foreign key: Authorization Code Group table. ID number assigned in the Authorization Code Group table. Determined by customer request. VARCHAR(16): 1–16 ASCII characters.
AUTH-CODE-LENGTH	Mandatory if auth-code-allow=Y. Number of digits in authorization code. Determined by customer request. SMALLINT: 3–23.
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
BLOCK-900	Used to block 900 calls. CHAR(1): Y/ N (Default = N).

BLOCK-976	Used to block 976 calls. CHAR(1): Y/ N (Default = N).
BLOCK-DA	Used to block calls to Directory Assistance. CHAR(1): Y/ N (Default = N).
BLOCK-INFO	Used to block calls to information services. CHAR(1): Y/ N (Default = N).
BLOCK-INTL	Used to block International Calls CHAR(1): Y/ N (Default = N).
BLOCK-INTL-OPER-ASSIST	Used to block International Operator assistance. CHAR(1): Y/ N (Default = N).
BLOCK-NANP-OPER-ASSIST	Use to block Operator assistance with calls to NANP numbers. The restriction applies to both 0- and 0+ calls. CHAR(1): Y/ N (Default = N).
BLOCK-TW	Used to block calls to Time and Weather. CHAR(1): Y/ N (Default = N).
CASUAL-RESTRICT-TYPE	Specifies the 101XXXX (casual call) restriction type. VARCHAR(16): 1–16 ASCII characters. Permitted values are: ALL-CICS-ALLOWED (Default)— All casual calls are allowed. NO-CICS-ALLOWED—No casual calls are allowed. USE-WHITE-LIST—Calls to carriers appearing on the White List are allowed. USE-BLACK-LIST—Calls to carriers not appearing on the Black List are allowed.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
II-RESTRICT	Specifies originating line information (OLI) White Black List screening type. Used for Tandem call screening. VARCHAR(5): 1–5 ASCII characters. Permitted values are: NONE (Default)—No OLI screening. WHITE—Use screening list as a White List. BLACK—Use screening list as a Black List.
INTL-RESTRICT-TYPE	International restriction type. Determines level of restriction for international calls by country code. VARCHAR(16): 1–16 ASCII characters. Permitted values are: ALL-CC-ALLOWED (Default)—Calls to all countries allowed. NO-CC-ALLOWED—Restrict international calls. USE-WHITE-LIST—Use as a White List. USE-BLACK-LIST—Use as a Black List.

LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
NATIONAL-WB-LIST	National White Black List. Restricts access to lines according to White List, Black List, or neither (no restriction). VARCHAR(5): 1–5 ASCII characters. Permitted values are: NONE (Default)—No screening or restrictions on national calls. WHITE—Use as a White List. BLACK—Use as a Black List.
NATIONAL-RESTRICT-TYPE	National restriction type. Determines the level of restriction for national calls. Restriction type all-nanp-calls is specific only to North America. VARCHAR(16): 1–16 ASCII characters. Permitted values are: ALL-NANP-CALLS (Default)—All NANP/national dialed calls are allowed. NATIONAL-ONLY—Only national calls terminating within the country are allowed. INTRASTATE-ONLY—Only intrastate calls are allowed. INTRALATA-ONLY—Only intraLATA calls are allowed (restrict interLATA calls). LOCAL-ONLY—Only local calls are allowed.
NOD-WB-LIST	Specifies nature of dial White Black List screening type. VARCHAR(5): 1–5 ASCII characters. Permitted values are: NONE (Default)—No NOD screening. WHITE—Use screening list as a White List. BLACK—Use screening list as a Black List.
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
PROMPT-METHOD (Release 4.5)	Specifies whether to use a tone or IVR to prompt for an authorization or account code. VARCHAR(16): 1–16 ASCII characters. TONE (Default)—Use a tone to prompt for an authorization or account code. IVR—Use IVR to prompt for an authorization or account code.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).

Feature

The Feature (feature) table defines characteristics for the features supported by the Cisco BTS 10200 Softswitch.

Note To define features, you must specify a type/value pair. Therefore, to change the values for a feature, issue the **change** command according to the following example:

```
change feature fname=OCB; type1=pin-len; value1=5; type2=to; value2=2-; type3=fail-cnt;
value3=4; type4=lock-out; value4=60;
```

Table Name: FEATURE

Table Containment Area: FSPTC, FSAIN

Command Types

Show, add, change, and delete

Examples

```
show feature fname=CFU;
add feature fname=cfu; tdp1=termination-attempt-authorized;
tid1=termination-attempt-authorized; ttype1=R; tdp2=collected-information;
tid2=vertical-service-code; ttype2=R; feature-server-id=FSPTC203; fname1=cfua;
fname2=cfud;
change feature fname=cfu; type1=mcf; value1=n;
delete feature fname=cfu;
```

Usage Guidelines

Primary Key Token(s): fname

Foreign Key Token(s): tdp1, tid1, feature-server-id, f-name

Add Rules: Both type/value tokens are required as a pair.

Change Rules: Both type/value tokens are required as a pair.

Delete Rules: fname cannot exist in any service::fname^{n} where n = 1 to 10.

Syntax Description

* FNAME	Primary key. Foreign key: Feature Profile Base table. Feature name. See Appendix B, "Valid Features," for valid feature names. VARCHAR(16): 1–16 ASCII characters.
* FEATURE-SERVER-ID	Foreign key: Feature Server table. Identifies the Feature Server. VARCHAR(8): 1–8 ASCII characters.
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.

DESCRIPTION (EMS-only field)	Described by the service provider. VARCHAR(64): 1–64 ASCII characters.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
FNAME1	Feature name 1. Additional feature associated with FNAME. VARCHAR(16): 1–16 ASCII characters.
FNAME2	Feature name 2. Additional feature associated with FNAME. VARCHAR(16): 1–16 ASCII characters.
FNAME3	Feature name 3. Additional feature associated with FNAME. VARCHAR(16): 1–16 ASCII characters.
FNAME4	Feature name 4. Additional feature associated with FNAME. VARCHAR(16): 1–16 ASCII characters.
FNAME5 (Release 4.5)	Foreign key: Feature Profile Base table. Feature Name 5. Additional feature associated with FNAME. VARCHAR(16): 1–16 ASCII characters.
FS-SWITCHOVER-ON-CA-CONN-LOSS	Used when the Feature Server detects a connectivity loss with all associated Call Agents. This token determines if the Feature Server will switch over to its mate or keep trying for connection to Call Agent. CHAR(1): Y (Default = Y). **Note** Only the value of Y is allowed.
GRP-FEATURE	Specifies if this is a group feature. All members of a group have access to a feature by default. CHAR(1): Y/N (Default = N). Y—This is a group feature. N—This is not a group feature.
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
SK (Not used)	Service key. SMALLINT: 1–255.

START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).
TDP1 (EMS-only field)	Foreign key: TDP table. Trigger detection point. VARCHAR(32): 1–32 ASCII characters.
TDP2 (EMS-only field)	Additional trigger detection point if required. VARCHAR(32): 1–32 ASCII characters.
TDP3 (EMS-only field)	Additional trigger detection point if required. VARCHAR(32): 1–32 ASCII characters.
TID1 (EMS-only field)	Foreign key: TID table. Trigger ID. VARCHAR(32): 1–32 ASCII characters.
TID2 (EMS-only field)	Additional trigger ID if required. VARCHAR(32): 1–32 ASCII characters.
TID3 (EMS-only field)	Additional trigger ID if required. VARCHAR(32): 1–32 ASCII characters.
TTYPE1 (EMS-only field)	Trigger type. Reports an occurrence of an event in the Call Agent. Specifies whether a response regarding an event is required from the Feature Server. CHAR(1): R/N. R—Request. A response is required from the Feature Server. N—Notify. No response is required from the Feature Server.
TTYPE2 (EMS-only field)	Additional trigger type if required. Reports an occurrence of an event in the Call Agent. Specifies whether a response regarding an event is required from the Feature Server. CHAR(1): R/N. R—Request. A response is required from the Feature Server. N—Notify. No response is required from the Feature Server.
TTYPE3 (EMS only field)	Additional trigger type if required. Reports an occurrence of an event in the Call Agent. Specifies whether a response regarding an event is required from the Feature Server. CHAR(1): R/N. R—Request. A response is required from the Feature Server. N—Notify. No response is required from the Feature Server.

TYPE1 Defines feature-specific default values.

VARCHAR(8): 1–8 ASCII characters. Permitted values are:

0—Lock out indefinitely.
180—The service is locked out for activation or deactivation for the lockout period after the fail-cnt reaches the specified threshold. The lockout period begins after the last failed attempt.
CC—Courtesy call.

AN—Make courtesy call during call forwarding activation. Answer on CC is required to activate call forwarding.

NOANS—Make courtesy call during call forwarding activation. Answer on CC is not required to activate call forwarding.

N—No courtesy call during call forwarding activation.

Y—Make courtesy call during call forwarding activation.

FAIL-CNT—Number of consecutive failures allowed before service is locked.
FDT—Final dial tone.

N—Do not provide final dial tone
Y—Provide final dial tone
NO-TONE (Release 4.5)
DIAL-TONE (Release 4.5)
STUTTER-DIAL-TONE (Release 4.5)
CONFIRMATION-TONE (Release 4.5)
CONFIRMATION-DIAL-TONE (Release 4.5)

Caution As of Release 4.5, no validation is performed on the FDT values. Invalid values may be accepted, but the feature will not work correctly.

INTL—Specifies whether international call forwarding is allowed. Applies to CFUA, CFNAVA and CBVA features.
LOCK-OUT—Lockout period, in minutes, for the OCB feature. Range is 1–180 (Default = 30).
MCF—Multiple call forwarding. It determines if multiple call forwarding is allowed when call forwarding unconditional is encountered. By default, only one call at a time can be forwarded from any subscriber. If MCF is set to Y, multiple simultaneous calls can be forwarded.
PIN-LEN—Pin length for OCB feature. Range is 1–8 (Default = 4 digits).
RR (Default)—Ring reminder for call forwarding unconditional feature.
SDT—Provides a second dial tone after the access code.

N—Do not provide second dial tone.
Y—Provide second dial tone.
NO-TONE (Release 4.5)
DIAL-TONE (Release 4.5)
STUTTER-DIAL-TONE (Release 4.5)
CONFIRMATION-TONE (Release 4.5)
CONFIRMATION-DIAL-TONE (Release 4.5)

Caution As of Release 4.5, no validation is performed on the SDT values. Invalid values may be accepted, but the feature will not work correctly.

TO—Feature dependent. (1) Specifies default timeout period for call forwarding no answer feature. A timeout is the number of seconds to ring a phone before forwarding. Six seconds is equivalent to one ring. (2) Specifies the number of seconds for dial tone timeout for warmline feature. (3) Specifies the number of minutes before the OCB service is unlocked for activation and deactivation. (4) Specifies the default timeout period for call waiting feature. If call is not answered within the value, the incoming call is disconnected.
VALUE1 = 0 means features are ignored.
VALUE1 = 1–180 tracks the number of consecutive failures within the TO time span. The time span begins with the first failure.
VALUE2 = 0 means no service lockout.
VALUE2 = 1–10 is the number of unsuccessful attempts to activate or deactivate OCB before service is locked out.

TYPE2	Feature-specific data type2. VARCHAR(8): 1–8 ASCII characters.
TYPE3	Feature-specific data type3. VARCHAR(8): 1–8 ASCII characters.
TYPE4	Feature-specific data type4. VARCHAR(8): 1–8 ASCII characters.
VALUE1	Value for data type1. VARCHAR(5): 1–5 ASCII characters. VARCHAR(32): 1–32 ASCII characters. (Release 4.5) If this field is set to Y for RR, and the subscriber is SIP, there is no effect.
VALUE2	Value for data type2. VARCHAR(5): 1–5 ASCII characters. VARCHAR(32): 1–32 ASCII characters. (Release 4.5)
VALUE3	Value for data type3. VARCHAR(5): 1–5 ASCII characters. VARCHAR(32): 1–32 ASCII characters. (Release 4.5)
VALUE4	Value for data type4. VARCHAR(5): 1–5 ASCII characters. VARCHAR(32): 1–32 ASCII characters. (Release 4.5)

Table 8-1 lists the supported trigger detection points (TDPs) and trigger IDs (TIDs).

Table 8-1 Trigger Detection Points and Trigger IDs to Feature Mapping Tokens

Trigger Detection Point (TDP)	Trigger ID (TID)	Features
ANALYZED_INFORMATION		Not used
CALL_ACCEPTED	CALL_ACCEPTED	CFC, CFNA, VM
CALL_ACCEPTED	CALL_ACCEPTED_NOTIFY	ALERT_NOTIFY
COLLECTED_INFORMATION	911_TRIGGER	911
COLLECTED_INFORMATION	COS_TRIGGER	COS, OCB
COLLECTED_INFORMATION	CUSTOMIZE_DIALING_PLAN	CDP, DND_ACT, DND_DEACT
COLLECTED_INFORMATION	LCD_TRIGGER	LCD, LNP
COLLECTED_INFORMATION	LNP_TRIGGER	LNP
COLLECTED_INFORMATION	SC1D_TRIGGER	GSC1D, SC1D
COLLECTED_INFORMATION	SC2D_TRIGGER	GSC2D, SC2D
COLLECTED_INFORMATION	SPECIFIC_DIGIT_STRING	8XX

Table 8-1 Trigger Detection Points and Trigger IDs to Feature Mapping Tokens (continued)

Trigger Detection Point (TDP)	Trigger ID (TID)	Features
COLLECTED_INFORMATION	VERTICAL_SERVICE_CODE	AC, AR, AC_ACT, AC_DEACT, ACRA, ACR_ACT, ACRD, ACR_DEACT, AR_ACT, AR_DEACT, CBLK, CCW, CFBI, CFBVA, CFBVD, CFC_ACT, CFC_DEACT, CFC_DN_CHG_ACT, CFCI, CFCI_NO_DN_VRFY, CFNAI, CFNAVA, CFNAVD, CFUA, CFUD, CFUI, CFVABBG, CIDSD, CIDSS, CNAB, CNDB, COT, CWDA, CWDD, CWDI, DPN, DPU, DRCW_ACT, HOTVD, HOTVI, NSA_ACT, OCBA, OCBD, OCBI, PS_MANAGE, PS_O, RACF_PIN, SC1D_ACT, SC2D_ACT, SCA_ACT, SCF_ACT, SCR_ACT, SLE, VM_ACCESS, VM_ACT, VM_DEACT, VMA_ACT, VMA_DEACT
FACILITY_SELECTED_AND_AVAILABLE	TERMINATION_RESOURCE_AVAILABLE	CNAM, CND
O_ABANDON		Not used
O_ANSWER		Not used
O_ATTEMPT	ORIGINATION ATTEMPT	Not used
O_ATTEMPT_AUTHORIZED	O_ATTEMPT_AUTHD	HOTLINE, HOTV, WARMLINE
O_CALLED_PARTY_BUSY		Not used
O_DISCONNECT		Not used
O_EXCEPTION		Not used
O_MID_CALL	O_SWITCH_HOOK_FLASH_IMMEDIATE	CCW, CHD, CPRK, CT, TWC, TWCD, USTWC
O_MID_CALL	REFER_TRIGGER	REFER
O_NO_ANSWER		Not used
O_NOT_REACHABLE		Not used
O_NULL		Not used
O_RE_ANSWER		Not used
O_SUSPEND		Not used
O_TERM_SEIZED		Not used
ROUTE_SELECT_FAILURE		Not used
ROUTE_SELECTED	ROUTE_SELECTED	OSFG
T_ABANDON_DP	T_ABANDON_DP	Not used
T_ANSWER	T_ANSWER	IVR, RACF, RACF_PIN, SLE
T_BUSY	T_BUSY	CFB, CFC, CIDCW, CW, CWD, VM
T_DISCONNECT	T_DISCONNECT	Not used

Table 8-1 Trigger Detection Points and Trigger IDs to Feature Mapping Tokens (continued)

Trigger Detection Point (TDP)	Trigger ID (TID)	Features
T_EXCEPTION	ACCOUNT_CODE	Not used
T_EXCEPTION	D_OF_TRIGGER	Not used
T_EXCEPTION	T_EXCEPTION	Not used
T_EXCEPTION	T_NOT_REACHABLE	CFB
T_MID_CALL	T_SWITCH_HOOK_FLASH_ IMMEDIATE	CCW, CHD, CT, TWC, USTWC, CPRK
T_MID_CALL	REFER_TRIGGER	REFER
T_NO_ANSWER	T_NO_ANSWER	Not used
T_NOT_REACHABLE	T_NOT_REACHABLE	Not used
T_NULL		Not used
T_REANSWER	T_REANSWER	Not used
T_SUSPEND	T_SUSPEND	Not used
TERMINATION_ATTEMPT	TERMINATION_ATTEMPT	BLV
TERMINATION_ATTEMPT_ AUTHORIZED	TERMINATION_ATTEMPT_ AUTHORIZED	ACR, CFU, CFVBBG, DACWI, DND, DRCW, ISFG, MDN, NSA, PS, , RCF, SCA, SCF, SCR, VMA

Feature Configuration (Release 4.5)

The Feature Configuration (feature-config) table defines feature-specific configurable parameters. Valid parameters for this table are defined in the Feature Configuration Base table.

Table Name: FEATURE-CONFIG

Table Containment Area: FSPTC, FSAIN

Command Types

Show, add, change, and delete

Examples

```
show feature-config fname=ar;
add feature-config fname=ar; type=ARAC-NAME-VOICEBACK-OPTION; datatype=BOOLEAN; value=N;
change feature-config fname=ar; type=ARAC-NAME-VOICEBACK-OPTION; value=Y;
delete feature-config fname=ar; type=ARAC-NAME-VOICEBACK-OPTION;
```

Usage Guidelines

Primary Key Token(s): id, type

Foreign Key Token(s): id

Add Rules: None.

Change Rules: None.

Delete Rules: None.

Syntax Description

* FNAME	Primary key. Foreign key: Feature table. Feature Name. VARCHAR(16): 1–16 ASCII characters.
* TYPE	Primary key. Feature type. VARCHAR(50): 1–50 ASCII characters.
* VALUE	Feature value. VARCHAR(64): 1–64 ASCII characters.
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
DATATYPE	Not provisionable. Populated from the Feature Configuration Base table. VARCHAR(16): 1–16 ASCII characters. Permitted values are: BOOLEAN INTEGER STRING DIGITS
DESCRIPTION	Described by the service provider. VARCHAR(64): 1–64 ASCII characters.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).

Feature Configuration Base (Release 4.5)

The Feature Configuration Base (feature-config-base) table is a nonprovisionable table that performs constraint checks. This table is provisioned from the Feature Configuration table. See Appendix B, "Feature Configuration Base Types and Values (Release 4.5)" for the specific parameters of this table.

Table Name: FEATURE-CONFIG-BASE

Command Types

Show

Examples

```
show feature-config-base; fname=SLE; TYPE=T1-TIMER;
```

Usage Guidelines

Primary Key Token(s): id, type

Syntax Description

* FNAME	Primary key. Feature name. VARCHAR(16): 1–16 ASCII characters.
* TYPE	Primary key. Specifies the type of data. VARCHAR(50): 1 - 50 ASCII characters.
* DATATYPE	Specifies the data for the defined type. VARCHAR(8): 1–8 ASCII characters. Permitted values are: BOOLEAN—Value is BOOLEAN (Y, N, YES, NO). INTEGER—Value is an integer. STRING—Value is a character string. DIGITS—Value is a digit string.
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
CHK-POS-VAL	Specifies whether the EMS validates the to-value against one of the values provisioned in Table 8-2. CHAR(1): Y/N (Default = N).
DEFAULT-VALUE	The default value associated with data type defined in the type token. VARCHAR(64): 1–64 ASCII characters.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.

FROM-VALUE	Beginning value of the range for the type. Valid only if datatype=INTEGER. See Appendix B, "Feature Configuration Base Types and Values (Release 4.5)."
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).
TO-VALUE	Ending value of the range for the type. Valid only if datatype=INTEGER. See Appendix B, "Feature Configuration Base Types and Values (Release 4.5)."

Table 8-2 lists the permitted values for the chk-pos-val token and the Feature Configuration Base Possible Value table.

Table 8-2 Feature Configuration Base Possible Values

Fname	Type	Value
SLE	LIST-EDITING-RETURN-KEY	*
SLE	LIST-EDITING-RETURN-KEY	#
SLE	LIST-EDITING-RETURN-KEY	*#
PS	PRIVACY-UNKNOWN-TREATMENT	PUBLIC
PS	PRIVACY-UNKNOWN-TREATMENT	ANONYMOUS
ACR	PRIVACY-UNKNOWN-TREATMENT	PUBLIC
ACR	PRIVACY-UNKNOWN-TREATMENT	ANONYMOUS

Feature Configuration Base Possible Value (Release 4.5)

The Feature Configuration Base Possible Value (feature-config-base-pos-val) table is a nonprovisionable table that performs constraint checks on any possible value for any particular feature-config parameter.

Table Name: FEATURE-CONFIG-BASE-POS-VAL

Command Types Show

Examples

```
show feature-config-base-pos-val; fname=SLE; type=LIST-EDITING-RETURN-KEY; value=*;
```

Usage Guidelines

Primary Key Token(s): id, value

Foreign Key Token(s): fname

Syntax Description

* FNAME	Primary Key. Foreign key: Feature Configuration Base table. The feature name. VARCHAR(16): 1–16 ASCII characters.
* TYPE	The type of data. The value column in Table 8-2 defines the data for the defined type. VARCHAR(50): 1–50 ASCII characters.
* VALUE	Primary key. Defines the value associated with the type. VARCHAR(64): 1–64 ASCII characters. See Table 8-2 for permitted values. These values must be entered in UPPERCASE (Release 4.5.1)
AUTO-REFRESH	Specifies whether to display cached data on the screen. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
DISPLAY	Specifies what token information to display on the screen. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
LIMIT	Specifies the number of rows to display on the screen. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
ORDER	Specifies whether to display data on the screen in a sorted order. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
START-ROW	Specifies to begin displaying data on the screen at a specific row. INTEGER: 1–100000000 (Default = 1).

Feature Profile Base (Release 4.5)

The Feature Profile Base (feature-profile-base) table defines all valid type-value pairs that are associated with a feature. The table is not provisionable.

Command Types

Show

Examples

```
show feature-profile-base fname=CFU;
```

Usage Guidelines

Primary Key Token(s): fname

Syntax Description

* FNAME	Primary key. The feature name. VARCHAR(16): 1–16 ASCII characters.
* TYPE	Defines the feature-specific default values. VARCHAR(8): 1–8 ASCII characters.
* DATATYPE	The type of data. VARCHAR(16): 1–16 ASCII characters. Permitted values are: BOOLEAN INTEGER STRING
* DEFAULT-VALUE	The default value of the data type. VARCHAR(5): 1–5 ASCII characters.
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
DESCRIPTION	Described by the service provider. VARCHAR(64): 1–64 ASCII characters.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
FROM-VALUE	Beginning value of the range for the type. Valid only if datatype=INTEGER. See Appendix B, "Feature Configuration Base Types and Values (Release 4.5)."

LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).
TO-VALUE	Ending value of the range for the type. Valid only if datatype=INTEGER. See Appendix B, "Feature Configuration Base Types and Values (Release 4.5)."

Nature of Dial Restrict List

The Nature of Dial Restrict List (nod-restrict-list) table defines feature specific restrictions list based on the nature of dial (NOD). If a NOD exists in the table, the feature activation is denied. This table is checked during activation by the following features:

- HOTVA—Hotline Variable Activation
- CFUA—Call Forwarding Unconditional Activation
- CFNAVA—Call Forwarding No Answer Variable Activation
- CFBVA—Call Forwarding Busy Variable Activation

Table Name: NOD-RESTRICT-LIST

Table Containment Area: FSPTC

Command Types

Show, add, and delete

Examples

```
show nod-restrict-list fname=CFU;
add nod-restrict-list fname=CFU; nod=EMG;
delete nod-restrict-list fname=CFU; nod=EMG;
```

Usage Guidelines

Primary Key Token(s): fname, nod

Foreign Key Token(s): fname, nod

Add Rules: None.

Change Rules: None.

Delete Rules: None.

Syntax Description

* FNAME	Primary key. Foreign key: Feature table. The feature exception list ID. VARCHAR(16): 1–16 ASCII characters.
* NOD	Primary key. Foreign key: Nature of Dial table. The nature of the dial. VARCHAR(16): 1–16 ASCII characters.
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.

LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).

Valid NOD values are specified in Table 8-3.

Table 8-3 Valid NOD Values

Nature of Dial	Description
500	500 (PCS) Call
700	700 Call
900	900 (Premium Rate) Call
976	976 (Information) Call
AIRLINES	Airlines Information and Reservation
AMBULANCE	Ambulance
ANA	Automatic Number Announcement
ATTENDANT	Attendant Access (Centrex)
BLV	Busy Line Verification (Release 4.5)
BUSINESS	Business Office
CASUAL	Casual Call
CUT-THRU	Cut-thru Call
DA	Directory Assistance Call
DA-TOLL	Directory Assistance Toll Call
EMG	Emergency Call
EXTENSION	Extension Dialing
FIRE	Fire
INFO	Information Call (976)
INTERLATA	InterLATA Toll Call
INTL	International Call
INTL-OPR	International Operator Assisted
INTL-WZ1	International call within World Zone 1 (outside of contiguous 48 states)

Table 8-3 Valid NOD Values (continued)

Nature of Dial	Description
LB-TEST	Loopback Test Call (108 Test Line)
LNP	Local Number Portability Call (Release 4.5)
LOCAL	Local Call
LRN	Location Routing Number
MOBILE	Calls to Mobile Network
NAS	Network Access Server
NATIONAL	National Call
NAT-OPR	National Operator Assisted Call
NON-EMG	Non Emergency Number (311)
OPERATOR	Operator Call
PCS	PCS (500) Call
POLICE	Police
PREMIUM	Premium Rate Call (900)
RAILWAYS	Railways Information and Reservation
RELAY	Relay
REPAIR	Repair Bureau
SPEED-CALL	Speed Calling (Release 4.5)
SUBSCRIBER	Subscriber Call
SVC-CODE	Generic Service Code Call Type
TANDEM	Tandem Call
TEST-CALL	Test Call
TIME	Time
TOLL	IntraLATA Toll Call
TOLL-FREE	Toll-Free Call
TRAFFIC	Traffic Accident Report
TW	Time and Weather
WEATHER	Weather Report

Outgoing Call Barring Profile (Release 4.4.1)

The Outgoing Call Barring (OCB) Profile (ocb-profile) table defines an OCB Profile. The OCB Profile can be defined at a POP level by provisioning the ocb-profile-id in the Point of Presence (POP) table or at the Call Agent level by provisioning the default-ocb-profile-id in the Call Agent Configuration (CA-CONFIG) table. If an OCB Profile id is not provisioned in either the POP table or the CA-CONFIG table, then a default OCB behavior is used. If an ocb-profile-id is provisioned in the POP table and an ID is provisioned in the OCB Profile table, the ocb-profile-id in the POP table has precedence.

Table Name: OCB-PROFILE

Table Containment Area: FSPTC, EMS

Command Types

Show, add, change, and delete

Examples

```
show ocb-profile id=atlantaPop;
add ocb-profile id=atlantaPop;
change ocb-profile id=atlantaPop; all-calls-restrict-k-value=9;
delete ocb-profile id=atlantaPop;
```

Usage Guidelines

Primary Key Token(s): id

Add Rules: None.

Change Rules: None.

Delete Rules: None.

Syntax Description

* ID	Primary key. The OCB profile id. VARCHAR(16): 1–16 ASCII characters.
ALL-CALLS-RESTRICT-K-VALUE	The default k-value. The default k-value restricts all calls except emergency and other calls as defined by the COS Trigger Escape List. INTEGER: 0–9 (Default = 1). 0—Specifies that the all-call-restriction option does not apply.
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.

DEACTIVATION-OPTION	Specifies whether the k-value is required for OCB deactivation. VARCHAR(20): 1–20 ASCII characters. Permitted values are: NO-K-VALUE (Default)—K-value is not required for deactivation. K-VALUE-MATCH—K-value is required and must match the current K-value used during activation. K-VALUE-NO-MATCH—K-value is required but is not matched with the K-value used during activation.
DESCRIPTION (EMS-only field)	Described by the service provider. VARCHAR(64): 1–64 ASCII characters.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
FAIL-CNT	Fail count. Specifies the number of consecutive failures allowed before the service is locked. INTEGER: 0–10 (Default = 3). 0—No service lockout. 1–10—Specifies the number of invalid attempts to activate or deactivate OCB before service is locked out.
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
LOCK-OUT	Specifies the lockout period of time in minutes. The service is locked out for activation or deactivation during this lockout period after the fail-cnt reaches the specified threshold.The lockout period begins after the last failed attempt. INTEGER: 0–180 (Default = 30). 0—Lock out indefinitely. The service provider must reset the subscriber to unlock.
MAX-K-VALUES	Specifies the maximum number of k-values supported by the OCB feature. INTEGER: 1–9 (Default = 3).
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
PIN-LEN	Specifies the private identification number (PIN) length used by the OCB feature. INTEGER: 1–8 (Default = 4).

START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).
TO	Specifies a time span in minutes within which the number of consecutive failures is counted. The time span begins with the first failure. INTEGER: 0–180 (Default = 30). 0—Ignore all failures.

Outgoing Call Barring K Value (Release 4.4.1)

The Outgoing Call Barring K Value (ocb-k-value) table associates call types to a particular k-value. A k-value is an integer from 1 to 9 that is dialed by a user to select different levels of OCB restrictions. Multiple call types can be provisioned against each k-value. A call type can be associated with multiple k-values. Each call type/k-value combination generates one unique record in the Element Management System.

Note Multiple call types can be specified during add and delete commands. If multiple call types are specified in a command and one of the call types is invalid, then the whole command is rejected and must be reprovisioned.

Note Use the forced token to delete all records against a particular k-value or to delete all records for an ocb-profile-id.

Table Name: OCB-K-VALUE

Table Containment Area: FSPTC, EMS

Command Types

Show, add, and delete

Examples

```
show ocb-k-value ocb-profile-id=atlantaPop;
add ocb-k-value ocb-profile-id=atlantaPop; k-value=1; call-type=local, national, intl,
mobile;
delete ocb-k-value ocb-profile-id=atlantaPop; k-value=1; call-type=local;
delete ocb-k-value ocb-profile-id=atlantaPop; FORCED=Y; deletes all records associated
with the atlantaPop;
delete ocb-k-value ocb-profile-id=atlantaPop; k-value=3; FORCED=Y; deletes all records
associated with atlantaPop and k-value=3:
```

Usage Guidelines

Primary Key Token(s): ocb-profile-id, k-value, call-type

Foreign Key Token(s): ocb-profile-id, call-type

Add Rules: None.

Change Rules: None.

Delete Rules: None.

Syntax Description

* OCB-PROFILE-ID	Primary key. Foreign key: OCB Profile table. The OCB Profile id as specified in the OCB Profile table. VARCHAR(16) 1–16 ASCII characters.
* CALL-TYPE	Primary key. Foreign key: Call Type table. Specifies the call type to block for the associated k-value. VARCHAR(16): 1–16 ASCII characters. VARCHAR(1024): 1–1024 ASCII characters. (Release 4.5.1)
* K-VALUE	Primary key. The k-value associated with the call type. INTEGER: 1–9.
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
FORCED	Specifies whether to delete all records for a particular k-value. CHAR(1): Y/N (Default = N). N—Do not delete all records. Y—Delete all records. **Note** Valid only for the delete command. If an ocb-profile-id is provisioned in the POP table and an ID is provisioned in the OCB-PROFILE table, the ocb-profile-id in the POP table has precedence. If Y is specified, then the call-type token is not allowed.
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.

ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).

Service

The Service (service) table defines services and features. A service is a collection of one or more features. Each feature within a service can have one or more triggers. A service is invoked when a trigger is reached. Services can be dynamically created within the Cisco BTS 10200 Softswitch. The service provider defines a service and the features associated with it. Up to ten commonly used features can be grouped into a service and up to fifty services can be provisioned per subscriber. The subscriber is then provisioned with a service-id instead of individual features.



Note Limitation: Services are triggered based on the trigger detection point and the trigger ID. Some services share the same TDP/TID. In these situations, the Cisco BTS 10200 supports ten services per TDP/TID.

Table Name: SERVICE

Table Containment Area: FSPTC, FSAIN

Command Types

Show, add, change, and delete

Examples

```
show service id=basic;
add service id=basic; fname1= CFU; fname2=CFB; fname3=CFNA; fname4=CW;
change service id=basic; fname5=TWC;
delete service id=basic;
```

Usage Guidelines

Primary Key Token(s): id

Foreign Key Token(s): fname1, fname2, fname3, fname4, fname5, fname6, fname7, fname8, fname9, fname10

Add Rules: None.

Change Rules: None.

Delete Rules:

- id does not exist in any subscriber-service-profile::service-id.
- id does not exist in any trunk-grp-service-profile::service-id.
- id is allowed if id does not match the default-office-service-id in the Call Agent Configuration table. Id is not allowed if id matches the entry in the Call Agent Configuration table

Syntax Description.

* ID	Primary key. Unique identifier for the service. Assigned by service provider. VARCHAR(16): 1–16 ASCII characters.
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
DESCRIPTION (EMS-only field)	Described by the service provider. VARCHAR(64): 1–64 ASCII characters.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
FNAME1	Foreign key: Feature table. Feature name 1. Up to ten features can be assigned to a service. The feature name (fname) is defined in the Feature table. VARCHAR(16): 1–16 ASCII characters.
FNAME10	Foreign key: Feature table. Feature name 10. VARCHAR(16): 1–16 ASCII characters.
FNAME2	Foreign key: Feature table. Feature name 2. VARCHAR(16): 1–16 ASCII characters.
FNAME3	Foreign key: Feature table. Feature name 3. VARCHAR(16): 1–16 ASCII characters.
FNAME4	Foreign key: Feature table. Feature name 4. VARCHAR(16): 1–16 ASCII characters.
FNAME5	Foreign key: Feature table. Feature name 5. VARCHAR(16): 1–16 ASCII characters.
FNAME6	Foreign key: Feature table. Feature name 6. VARCHAR(16): 1–16 ASCII characters.
FNAME7	Foreign key: Feature table. Feature name 7. VARCHAR(16): 1–16 ASCII characters.
FNAME8	Foreign key: Feature table. Feature name 8. VARCHAR(16): 1–16 ASCII characters.
FNAME9	Foreign key: Feature table. Feature name 9. VARCHAR(16): 1–16 ASCII characters.

LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).

Service Trigger

The Service Trigger (service-trigger) table is automatically provisioned when services are defined in the Service table. Triggers are assigned to each fname^{n} (where n = 1–10) and are provisioned based on the Feature table. In addition, for each fname^{n}, triggers assigned to fname1 and fname2 (see Feature Table) must be provisioned. A trigger is an event that occurs at some point during a call. This table specifies what event is triggered at what point in the call. Triggers are feature-specific—if a subscriber does not have any features assigned to it, no triggers are generated.

Table Name: SERVICE-TRIGGER

Table Containment Area: Call Agent

Command Types

Show

Examples

```
show service-trigger service-id=basic; tid=vertical-service-code;
tdp=collected-information; ttype=R;
```

Usage Guidelines

Primary Key Token(s): service-id, tdp, tid, ttype

Foreign Key Token(s): service-id, tdp, tid, feature-server-id

Add Rules: None.

Change Rules: None.

Delete Rules: None.

Syntax Description

* SERVICE-ID	Primary key. Foreign key: Service table. Must match ID in Service table. VARCHAR(16): 1–16 ASCII characters.
* TDP	Primary key. Foreign key: Trigger Detection Point table. The trigger detection point, based on the CS2 call model. The Call Agent uses the trigger-dp to determine whether or not to report an event to the Feature Server. Populated when a service package is defined. VARCHAR(32): 1–32 ASCII characters.
* TID	Primary key. Foreign key: Trigger Identification table. Trigger ID. VARCHAR(32): 1–32 ASCII characters.
* FEATURE-SERVER-ID	Foreign key: Feature Server table. Same as ID in the Feature Server table. VARCHAR(8): 1–8 ASCII characters.
AUTO-REFRESH	Specifies whether to display cached data on the screen. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
DISPLAY	Specifies what token information to display on the screen. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
LIMIT	Specifies the number of rows to display on the screen. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
ORDER	Specifies whether to display data on the screen in a sorted order. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
SK (Not used)	Service Key. SMALLINT: 1–255.
START-ROW	Specifies to begin displaying data on the screen at a specific row. INTEGER: 1–100000000 (Default = 1).
TTYPE	Primary key. The trigger type. Also specifies whether a response regarding an event is required from the Feature Server. CHAR(1): R/N (Default = R). R—Request: report an occurrence of an event in the Call Agent. A response *is* required from the Feature Server. N—Notify: report an occurrence of an event in the Call Agent. No response is required from the Feature Server.

Timezone (Release 4.2.1)

The Timezone (timezone) table specifies the timezones used by the Cisco BTS 10200 Softswitch. Table 8-4 lists all supported timezones.

Note Use the local timezone for countries without a timezone entry.

Table Name: TIMEZONE

Table Containment Area: EMS

Command Types

Show

Examples

```
show timezone;
```

Usage Guidelines

Primary Key Token(s): id

Syntax Description

* ID	Primary key. Assigned by the service provider to identify a specific digit map timezone. VARCHAR(32): 1–32 ASCII characters.
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.

START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).
DESCRIPTION (EMS-only field)	Described by the service provider. VARCHAR(64): 1–64 ASCII characters.

Table 8-4 shows the timezones supported by the Cisco BTS 10200 Softswitch.

Table 8-4 Supported Timezones

EMS Value	Platform Value	Timezone Name
LOCAL		**Local System Time**
AFRICA_ABIDJAN	GOS_TZ_AFRICA_ABIDJAN	Africa/Abidjan
AFRICA_ACCRA	GOS_TZ_AFRICA_ACCRA	Africa/Accra
AFRICA_ADDIS_ABABA	GOS_TZ_AFRICA_ADDIS_ABABA	Africa/Addis_Ababa
AFRICA_ALGIERS	GOS_TZ_AFRICA_ALGIERS	Africa/Algiers
AFRICA_ASMERA	GOS_TZ_AFRICA_ASMERA	Africa/Asmera
AFRICA_BAMAKO	GOS_TZ_AFRICA_BAMAKO	Africa/Bamako
AFRICA_BANGUI	GOS_TZ_AFRICA_BANGUI	Africa/Bangui
AFRICA_BANJUL	GOS_TZ_AFRICA_BANJUL	Africa/Banjul
AFRICA_BISSAU	GOS_TZ_AFRICA_BISSAU	Africa/Bissau
AFRICA_BLANTYRE	GOS_TZ_AFRICA_BLANTYRE	Africa/Blantyre
AFRICA_BRAZZAVILLE	GOS_TZ_AFRICA_BRAZZAVILLE	Africa/Brazzaville
AFRICA_BUJUMBURA	GOS_TZ_AFRICA_BUJUMBURA	Africa/Bujumbura
AFRICA_CAIRO	GOS_TZ_AFRICA_CAIRO	Africa/Cairo
AFRICA_CASABLANCA	GOS_TZ_AFRICA_CASABLANCA	Africa/Casablanca
AFRICA_CEUTA	GOS_TZ_AFRICA_CEUTA	Africa/Ceuta
AFRICA_CONAKRY	GOS_TZ_AFRICA_CONAKRY	Africa/Conakry
AFRICA_DAKAR	GOS_TZ_AFRICA_DAKAR	Africa/Dakar
AFRICA_DAR_ES_SALAAM	GOS_TZ_AFRICA_DAR_ES_SALAAM	Africa/Dar_es_Salaam
AFRICA_DJIBOUTI	GOS_TZ_AFRICA_DJIBOUTI	Africa/Djibouti
AFRICA_DOUALA	GOS_TZ_AFRICA_DOUALA	Africa/Douala
AFRICA_EL_AAIUN	GOS_TZ_AFRICA_EL_AAIUN	Africa/El_Aaiun
AFRICA_FREETOWN	GOS_TZ_AFRICA_FREETOWN	Africa/Freetown
AFRICA_GABORONE	GOS_TZ_AFRICA_GABORONE	Africa/Gaborone
AFRICA_HARARE	GOS_TZ_AFRICA_HARARE	Africa/Harare
AFRICA_JOHANNESBURG	GOS_TZ_AFRICA_JOHANNESBURG	Africa/Johannesburg
AFRICA_KAMPALA	GOS_TZ_AFRICA_KAMPALA	Africa/Kampala
AFRICA_KHARTOUM	GOS_TZ_AFRICA_KHARTOUM	Africa/Khartoum
AFRICA_KIGALI	GOS_TZ_AFRICA_KIGALI	Africa/Kigali

Table 8-4 Supported Timezones (continued)

EMS Value	Platform Value	Timezone Name
AFRICA_KINSHASA	GOS_TZ_AFRICA_KINSHASA	Africa/Kinshasa
AFRICA_LAGOS	GOS_TZ_AFRICA_LAGOS	Africa/Lagos
AFRICA_LIBREVILLE	GOS_TZ_AFRICA_LIBREVILLE	Africa/Libreville
AFRICA_LOME	GOS_TZ_AFRICA_LOME	Africa/Lome
AFRICA_LUANDA	GOS_TZ_AFRICA_LUANDA	Africa/Luanda
AFRICA_LUBUMBASHI	GOS_TZ_AFRICA_LUBUMBASHI	Africa/Lubumbashi
AFRICA_LUSAKA	GOS_TZ_AFRICA_LUSAKA	Africa/Lusaka
AFRICA_MALABO	GOS_TZ_AFRICA_MALABO	Africa/Malabo
AFRICA_MAPUTO	GOS_TZ_AFRICA_MAPUTO	Africa/Maputo
AFRICA_MASERU	GOS_TZ_AFRICA_MASERU	Africa/Maseru
AFRICA_MBABANE	GOS_TZ_AFRICA_MBABANE	Africa/Mbabane
AFRICA_MOGADISHU	GOS_TZ_AFRICA_MOGADISHU	Africa/Mogadishu
AFRICA_MONROVIA	GOS_TZ_AFRICA_MONROVIA	Africa/Monrovia
AFRICA_NAIROBI	GOS_TZ_AFRICA_NAIROBI	Africa/Nairobi
AFRICA_NDJAMENA	GOS_TZ_AFRICA_NDJAMENA	Africa/Ndjamena
AFRICA_NIAMEY	GOS_TZ_AFRICA_NIAMEY	Africa/Niamey
AFRICA_NOUAKCHOTT	GOS_TZ_AFRICA_NOUAKCHOTT	Africa/Nouakchott
AFRICA_OUAGADOUGOU	GOS_TZ_AFRICA_OUAGADOUGOU	Africa/Ouagadougou
AFRICA_PORTO_NOVO	GOS_TZ_AFRICA_PORTO_NOVO	Africa/Porto-Novo
AFRICA_SAO_TOME	GOS_TZ_AFRICA_SAO_TOME	Africa/Sao_Tome
AFRICA_TIMBUKTU	GOS_TZ_AFRICA_TIMBUKTU	Africa/Timbuktu
AFRICA_TRIPOLI	GOS_TZ_AFRICA_TRIPOLI	Africa/Tripoli
AFRICA_TUNIS	GOS_TZ_AFRICA_TUNIS	Africa/Tunis
AFRICA_WINDHOEK	GOS_TZ_AFRICA_WINDHOEK	Africa/Windhoek
AMERICA_ADAK	GOS_TZ_AMERICA_ADAK	America/Adak
AMERICA_ANCHORAGE	GOS_TZ_AMERICA_ANCHORAGE	America/Anchorage
AMERICA_ANGUILLA	GOS_TZ_AMERICA_ANGUILLA	America/Anguilla
AMERICA_ANTIGUA	GOS_TZ_AMERICA_ANTIGUA	America/Antigua
AMERICA_ARAGUAINA	GOS_TZ_AMERICA_ARAGUAINA	America/Araguaina
AMERICA_ARUBA	GOS_TZ_AMERICA_ARUBA	America/Aruba
AMERICA_ASUNCION	GOS_TZ_AMERICA_ASUNCION	America/Asuncion
AMERICA_BARBADOS	GOS_TZ_AMERICA_BARBADOS	America/Barbados
AMERICA_BELEM	GOS_TZ_AMERICA_BELEM	America/Belem
AMERICA_BELIZE	GOS_TZ_AMERICA_BELIZE	America/Belize
AMERICA_BOGOTA	GOS_TZ_AMERICA_BOGOTA	America/Bogota
AMERICA_BOISE	GOS_TZ_AMERICA_BOISE	America/Boise

Table 8-4 Supported Timezones (continued)

EMS Value	Platform Value	Timezone Name
AMERICA_BUENOS_AIRES	GOS_TZ_AMERICA_BUENOS_AIRES	America/Buenos_Aires
AMERICA_CANCUN	GOS_TZ_AMERICA_CANCUN	America/Cancun
AMERICA_CARACAS	GOS_TZ_AMERICA_CARACAS	America/Caracas
AMERICA_CATAMARCA	GOS_TZ_AMERICA_CATAMARCA	America/Catamarca
AMERICA_CAYENNE	GOS_TZ_AMERICA_CAYENNE	America/Cayenne
AMERICA_CAYMAN	GOS_TZ_AMERICA_CAYMAN	America/Cayman
AMERICA_CHICAGO	GOS_TZ_AMERICA_CHICAGO	America/Chicago
AMERICA_CHIHUAHUA	GOS_TZ_AMERICA_CHIHUAHUA	America/Chihuahua
AMERICA_CORDOBA	GOS_TZ_AMERICA_CORDOBA	America/Cordoba
AMERICA_COSTA_RICA	GOS_TZ_AMERICA_COSTA_RICA	America/Costa_Rica
AMERICA_CUIABA	GOS_TZ_AMERICA_CUIABA	America/Cuiaba
AMERICA_CURACAO	GOS_TZ_AMERICA_CURACAO	America/Curacao
AMERICA_DAWSON	GOS_TZ_AMERICA_DAWSON	America/Dawson
AMERICA_DAWSON_CREEK	GOS_TZ_AMERICA_DAWSON_CREEK	America/Dawson_Creek
AMERICA_DENVER	GOS_TZ_AMERICA_DENVER	America/Denver
AMERICA_DETROIT	GOS_TZ_AMERICA_DETROIT	America/Detroit
AMERICA_DOMINICA	GOS_TZ_AMERICA_DOMINICA	America/Dominica
AMERICA_EDMONTON	GOS_TZ_AMERICA_EDMONTON	America/Edmonton
AMERICA_EL_SALVADOR	GOS_TZ_AMERICA_EL_SALVADOR	America/El_Salvador
AMERICA_ENSENADA	GOS_TZ_AMERICA_ENSENADA	America/Ensenada
AMERICA_FORTALEZA	GOS_TZ_AMERICA_FORTALEZA	America/Fortaleza
AMERICA_GLACE_BAY	GOS_TZ_AMERICA_GLACE_BAY	America/Glace_Bay
AMERICA_GODTHAB	GOS_TZ_AMERICA_GODTHAB	America/Godthab
AMERICA_GOOSE_BAY	GOS_TZ_AMERICA_GOOSE_BAY	America/Goose_Bay
AMERICA_GRAND_TURK	GOS_TZ_AMERICA_GRAND_TURK	America/Grand_Turk
AMERICA_GRENADA	GOS_TZ_AMERICA_GRENADA	America/Grenada
AMERICA_GUADELOUPE	GOS_TZ_AMERICA_GUADELOUPE	America/Guadeloupe
AMERICA_GUATEMALA	GOS_TZ_AMERICA_GUATEMALA	America/Guatemala
AMERICA_GUAYAQUIL	GOS_TZ_AMERICA_GUAYAQUIL	America/Guayaquil
AMERICA_GUYANA	GOS_TZ_AMERICA_GUYANA	America/Guyana
AMERICA_HALIFAX	GOS_TZ_AMERICA_HALIFAX	America/Halifax
AMERICA_HAVANA	GOS_TZ_AMERICA_HAVANA	America/Havana
AMERICA_INDIANA_ INDIANAPOLIS	GOS_TZ_AMERICA_INDIANA_ INDIANAPOLIS	America/Indiana/Indianapolis
AMERICA_INDIANA_KNOX	GOS_TZ_AMERICA_INDIANA_KNOX	America/Indiana/Knox
AMERICA_INDIANA_MARENGO	GOS_TZ_AMERICA_INDIANA_MARENGO	America/Indiana/Marengo

Table 8-4 Supported Timezones (continued)

EMS Value	Platform Value	Timezone Name
AMERICA_INDIANA_VEVAY	GOS_TZ_AMERICA_INDIANA_VEVAY	America/Indiana/Vevay
AMERICA_INDIANAPOLIS	GOS_TZ_AMERICA_INDIANAPOLIS	America/Indianapolis
AMERICA_INUVIK	GOS_TZ_AMERICA_INUVIK	America/Inuvik
AMERICA_IQALUIT	GOS_TZ_AMERICA_IQALUIT	America/Iqaluit
AMERICA_JAMAICA	GOS_TZ_AMERICA_JAMAICA	America/Jamaica
AMERICA_JUJUY	GOS_TZ_AMERICA_JUJUY	America/Jujuy
AMERICA_JUNEAU	GOS_TZ_AMERICA_JUNEAU	America/Juneau
AMERICA_LA_PAZ	GOS_TZ_AMERICA_LA_PAZ	America/La_Paz
AMERICA_LIMA	GOS_TZ_AMERICA_LIMA	America/Lima
AMERICA_LOS_ANGELES	GOS_TZ_AMERICA_LOS_ANGELES	America/Los_Angeles
AMERICA_LOUISVILLE	GOS_TZ_AMERICA_LOUISVILLE	America/Louisville
AMERICA_MACEIO	GOS_TZ_AMERICA_MACEIO	America/Maceio
AMERICA_MANAGUA	GOS_TZ_AMERICA_MANAGUA	America/Managua
AMERICA_MANAUS	GOS_TZ_AMERICA_MANAUS	America/Manaus
AMERICA_MARTINIQUE	GOS_TZ_AMERICA_MARTINIQUE	America/Martinique
AMERICA_MAZATLAN	GOS_TZ_AMERICA_MAZATLAN	America/Mazatlan
AMERICA_MENDOZA	GOS_TZ_AMERICA_MENDOZA	America/Mendoza
AMERICA_MENOMINEE	GOS_TZ_AMERICA_MENOMINEE	America/Menominee
AMERICA_MEXICO_CITY	GOS_TZ_AMERICA_MEXICO_CITY	America/Mexico_City
AMERICA_MIQUELON	GOS_TZ_AMERICA_MIQUELON	America/Miquelon
AMERICA_MONTEVIDEO	GOS_TZ_AMERICA_MONTEVIDEO	America/Montevideo
AMERICA_MONTREAL	GOS_TZ_AMERICA_MONTREAL	America/Montreal
AMERICA_MONTSERRAT	GOS_TZ_AMERICA_MONTSERRAT	America/Montserrat
AMERICA_NASSAU	GOS_TZ_AMERICA_NASSAU	America/Nassau
AMERICA_NEW_YORK	GOS_TZ_AMERICA_NEW_YORK	America/New_York
AMERICA_NIPIGON	GOS_TZ_AMERICA_NIPIGON	America/Nipigon
AMERICA_NOME	GOS_TZ_AMERICA_NOME	America/Nome
AMERICA_NORONHA	GOS_TZ_AMERICA_NORONHA	America/Noronha
AMERICA_PANAMA	GOS_TZ_AMERICA_PANAMA	America/Panama
AMERICA_PANGNIRTUNG	GOS_TZ_AMERICA_PANGNIRTUNG	America/Pangnirtung
AMERICA_PARAMARIBO	GOS_TZ_AMERICA_PARAMARIBO	America/Paramaribo
AMERICA_PHOENIX	GOS_TZ_AMERICA_PHOENIX	America/Phoenix
AMERICA_PORT_AU_PRINCE	GOS_TZ_AMERICA_PORT_AU_PRINCE	America/Port-au-Prince
AMERICA_PORT_OF_SPAIN	GOS_TZ_AMERICA_PORT_OF_SPAIN	America/Port_of_Spain
AMERICA_PORTO_ACRE	GOS_TZ_AMERICA_PORTO_ACRE	America/Porto_Acre
AMERICA_PORTO_VELHO	GOS_TZ_AMERICA_PORTO_VELHO	America/Porto_Velho

Table 8-4 Supported Timezones (continued)

EMS Value	Platform Value	Timezone Name
AMERICA_PUERTO_RICO	GOS_TZ_AMERICA_PUERTO_RICO	America/Puerto_Rico
AMERICA_RAINY_RIVER	GOS_TZ_AMERICA_RAINY_RIVER	America/Rainy_River
AMERICA_RANKIN_INLET	GOS_TZ_AMERICA_RANKIN_INLET	America/Rankin_Inlet
AMERICA_REGINA	GOS_TZ_AMERICA_REGINA	America/Regina
AMERICA_ROSARIO	GOS_TZ_AMERICA_ROSARIO	America/Rosario
AMERICA_SANTIAGO	GOS_TZ_AMERICA_SANTIAGO	America/Santiago
AMERICA_SANTO_DOMINGO	GOS_TZ_AMERICA_SANTO_DOMINGO	America/Santo_Domingo
AMERICA_SAO_PAULO	GOS_TZ_AMERICA_SAO_PAULO	America/Sao_Paulo
AMERICA_SCORESBYSUND	GOS_TZ_AMERICA_SCORESBYSUND	America/Scoresbysund
AMERICA_SHIPROCK	GOS_TZ_AMERICA_SHIPROCK	America/Shiprock
AMERICA_ST_JOHNS	GOS_TZ_AMERICA_ST_JOHNS	America/St_Johns
AMERICA_ST_KITTS	GOS_TZ_AMERICA_ST_KITTS	America/St_Kitts
AMERICA_ST_LUCIA	GOS_TZ_AMERICA_ST_LUCIA	America/St_Lucia
AMERICA_ST_THOMAS	GOS_TZ_AMERICA_ST_THOMAS	America/St_Thomas
AMERICA_ST_VINCENT	GOS_TZ_AMERICA_ST_VINCENT	America/St_Vincent
AMERICA_SWIFT_CURRENT	GOS_TZ_AMERICA_SWIFT_CURRENT	America/Swift_Current
AMERICA_TEGUCIGALPA	GOS_TZ_AMERICA_TEGUCIGALPA	America/Tegucigalpa
AMERICA_THULE	GOS_TZ_AMERICA_THULE	America/Thule
AMERICA_THUNDER_BAY	GOS_TZ_AMERICA_THUNDER_BAY	America/Thunder_Bay
AMERICA_TIJUANA	GOS_TZ_AMERICA_TIJUANA	America/Tijuana
AMERICA_TORTOLA	GOS_TZ_AMERICA_TORTOLA	America/Tortola
AMERICA_VANCOUVER	GOS_TZ_AMERICA_VANCOUVER	America/Vancouver
AMERICA_WHITEHORSE	GOS_TZ_AMERICA_WHITEHORSE	America/Whitehorse
AMERICA_WINNIPEG	GOS_TZ_AMERICA_WINNIPEG	America/Winnipeg
AMERICA_YAKUTAT	GOS_TZ_AMERICA_YAKUTAT	America/Yakutat
AMERICA_YELLOWKNIFE	GOS_TZ_AMERICA_YELLOWKNIFE	America/Yellowknife
ASIA_ADEN	GOS_TZ_ASIA_ADEN	Asia/Aden
ASIA_ALMATY	GOS_TZ_ASIA_ALMATY	Asia/Almaty
ASIA_AMMAN	GOS_TZ_ASIA_AMMAN	Asia/Amman
ASIA_ANADYR	GOS_TZ_ASIA_ANADYR	Asia/Anadyr
ASIA_AQTAU	GOS_TZ_ASIA_AQTAU	Asia/Aqtau
ASIA_AQTOBE	GOS_TZ_ASIA_AQTOBE	Asia/Aqtobe
ASIA_ASHKHABAD	GOS_TZ_ASIA_ASHKHABAD	Asia/Ashkhabad
ASIA_BAGHDAD	GOS_TZ_ASIA_BAGHDAD	Asia/Baghdad
ASIA_BAHRAIN	GOS_TZ_ASIA_BAHRAIN	Asia/Bahrain
ASIA_BAKU	GOS_TZ_ASIA_BAKU	Asia/Baku

Table 8-4 Supported Timezones (continued)

EMS Value	Platform Value	Timezone Name
ASIA_BANGKOK	GOS_TZ_ASIA_BANGKOK	Asia/Bangkok
ASIA_BEIRUT	GOS_TZ_ASIA_BEIRUT	Asia/Beirut
ASIA_BISHKEK	GOS_TZ_ASIA_BISHKEK	Asia/Bishkek
ASIA_BRUNEI	GOS_TZ_ASIA_BRUNEI	Asia/Brunei
ASIA_CALCUTTA	GOS_TZ_ASIA_CALCUTTA	Asia/Calcutta
ASIA_CHUNGKING	GOS_TZ_ASIA_CHUNGKING	Asia/Chungking
ASIA_COLOMBO	GOS_TZ_ASIA_COLOMBO	Asia/Colombo
ASIA_DACCA	GOS_TZ_ASIA_DACCA	Asia/Dacca
ASIA_DAMASCUS	GOS_TZ_ASIA_DAMASCUS	Asia/Damascus
ASIA_DUBAI	GOS_TZ_ASIA_DUBAI	Asia/Dubai
ASIA_DUSHANBE	GOS_TZ_ASIA_DUSHANBE	Asia/Dushanbe
ASIA_GAZA	GOS_TZ_ASIA_GAZA	Asia/Gaza
ASIA_HARBIN	GOS_TZ_ASIA_HARBIN	Asia/Harbin
ASIA_HONG_KONG	GOS_TZ_ASIA_HONG_KONG	Asia/Hong_Kong
ASIA_IRKUTSK	GOS_TZ_ASIA_IRKUTSK	Asia/Irkutsk
ASIA_ISTANBUL	GOS_TZ_ASIA_ISTANBUL	Asia/Istanbul
ASIA_JAKARTA	GOS_TZ_ASIA_JAKARTA	Asia/Jakarta
ASIA_JAYAPURA	GOS_TZ_ASIA_JAYAPURA	Asia/Jayapura
ASIA_JERUSALEM	GOS_TZ_ASIA_JERUSALEM	Asia/Jerusalem
ASIA_KABUL	GOS_TZ_ASIA_KABUL	Asia/Kabul
ASIA_KAMCHATKA	GOS_TZ_ASIA_KAMCHATKA	Asia/Kamchatka
ASIA_KARACHI	GOS_TZ_ASIA_KARACHI	Asia/Karachi
ASIA_KASHGAR	GOS_TZ_ASIA_KASHGAR	Asia/Kashgar
ASIA_KATMANDU	GOS_TZ_ASIA_KATMANDU	Asia/Katmandu
ASIA_KRASNOYARSK	GOS_TZ_ASIA_KRASNOYARSK	Asia/Krasnoyarsk
ASIA_KUALA_LUMPUR	GOS_TZ_ASIA_KUALA_LUMPUR	Asia/Kuala_Lumpur
ASIA_KUCHING	GOS_TZ_ASIA_KUCHING	Asia/Kuching
ASIA_KUWAIT	GOS_TZ_ASIA_KUWAIT	Asia/Kuwait
ASIA_MACAO	GOS_TZ_ASIA_MACAO	Asia/Macao
ASIA_MAGADAN	GOS_TZ_ASIA_MAGADAN	Asia/Magadan
ASIA_MANILA	GOS_TZ_ASIA_MANILA	Asia/Manila
ASIA_MUSCAT	GOS_TZ_ASIA_MUSCAT	Asia/Muscat
ASIA_NICOSIA	GOS_TZ_ASIA_NICOSIA	Asia/Nicosia
ASIA_NOVOSIBIRSK	GOS_TZ_ASIA_NOVOSIBIRSK	Asia/Novosibirsk
ASIA_OMSK	GOS_TZ_ASIA_OMSK	Asia/Omsk
ASIA_PHNOM_PENH	GOS_TZ_ASIA_PHNOM_PENH	Asia/Phnom_Penh

Table 8-4 Supported Timezones (continued)

EMS Value	Platform Value	Timezone Name
ASIA_PYONGYANG	GOS_TZ_ASIA_PYONGYANG	Asia/Pyongyang
ASIA_QATAR	GOS_TZ_ASIA_QATAR	Asia/Qatar
ASIA_RANGOON	GOS_TZ_ASIA_RANGOON	Asia/Rangoon
ASIA_RIYADH	GOS_TZ_ASIA_RIYADH	Asia/Riyadh
ASIA_SAIGON	GOS_TZ_ASIA_SAIGON	Asia/Saigon
ASIA_SAMARKAND	GOS_TZ_ASIA_SAMARKAND	Asia/Samarkand
ASIA_SEOUL	GOS_TZ_ASIA_SEOUL	Asia/Seoul
ASIA_SHANGHAI	GOS_TZ_ASIA_SHANGHAI	Asia/Shanghai
ASIA_SINGAPORE	GOS_TZ_ASIA_SINGAPORE	Asia/Singapore
ASIA_TAIPEI	GOS_TZ_ASIA_TAIPEI	Asia/Taipei
ASIA_TASHKENT	GOS_TZ_ASIA_TASHKENT	Asia/Tashkent
ASIA_TBILISI	GOS_TZ_ASIA_TBILISI	Asia/Tbilisi
ASIA_TEHRAN	GOS_TZ_ASIA_TEHRAN	Asia/Tehran
ASIA_THIMBU	GOS_TZ_ASIA_THIMBU	Asia/Thimbu
ASIA_TOKYO	GOS_TZ_ASIA_TOKYO	Asia/Tokyo
ASIA_UJUNG_PANDANG	GOS_TZ_ASIA_UJUNG_PANDANG	Asia/Ujung_Pandang
ASIA_ULAN_BATOR	GOS_TZ_ASIA_ULAN_BATOR	Asia/Ulan_Bator
ASIA_URUMQI	GOS_TZ_ASIA_URUMQI	Asia/Urumqi
ASIA_VIENTIANE	GOS_TZ_ASIA_VIENTIANE	Asia/Vientiane
ASIA_VLADIVOSTOK	GOS_TZ_ASIA_VLADIVOSTOK	Asia/Vladivostok
ASIA_YAKUTSK	GOS_TZ_ASIA_YAKUTSK	Asia/Yakutsk
ASIA_YEKATERINBURG	GOS_TZ_ASIA_YEKATERINBURG	Asia/Yekaterinburg
ASIA_YEREVAN	GOS_TZ_ASIA_YEREVAN	Asia/Yerevan
AUSTRALIA_ACT	GOS_TZ_AUSTRALIA_ACT	Australia/ACT
AUSTRALIA_BROKEN_HILL	GOS_TZ_AUSTRALIA_BROKEN_HILL	Australia/Broken_Hill
AUSTRALIA_LHI	GOS_TZ_AUSTRALIA_LHI	Australia/LHI
AUSTRALIA_NORTH	GOS_TZ_AUSTRALIA_NORTH	Australia/North
AUSTRALIA_NSW	GOS_TZ_AUSTRALIA_NSW	Australia/NSW
AUSTRALIA_QUEENSLAND	GOS_TZ_AUSTRALIA_QUEENSLAND	Australia/Queensland
AUSTRALIA_SOUTH	GOS_TZ_AUSTRALIA_SOUTH	Australia/South
AUSTRALIA_SOUTH	GOS_TZ_AUSTRALIA_SOUTH	Australia/South
AUSTRALIA_TASMANIA	GOS_TZ_AUSTRALIA_TASMANIA	Australia/Tasmania
AUSTRALIA_VICTORIA	GOS_TZ_AUSTRALIA_VICTORIA	Australia/Victoria
AUSTRALIA_WEST	GOS_TZ_AUSTRALIA_WEST	Australia/West
AUSTRALIA_YANCOWINNA	GOS_TZ_AUSTRALIA_YANCOWINNA	Australia/Yancowinna
CANADA_ATLANTIC	GOS_TZ_CANADA_ATLANTIC	Canada/Atlantic

Table 8-4 Supported Timezones (continued)

EMS Value	Platform Value	Timezone Name
CANADA_CENTRAL	GOS_TZ_CANADA_CENTRAL	Canada/Central
CANADA_EAST_SASKATCHEWAN	GOS_TZ_CANADA_EAST_ SASKATCHEWAN	Canada/East-Saskatchewan
CANADA_EASTERN	GOS_TZ_CANADA_EASTERN	Canada/Eastern
CANADA_MOUNTAIN	GOS_TZ_CANADA_MOUNTAIN	Canada/Mountain
CANADA_NEWFOUNDLAND	GOS_TZ_CANADA_NEWFOUNDLAND	Canada/Newfoundland
CANADA_PACIFIC	GOS_TZ_CANADA_PACIFIC	Canada/Pacific
CANADA_YUKON	GOS_TZ_CANADA_YUKON	Canada/Yukon
CST6CDT	GOS_TZ_CST6CDT	CST6CDT
EST	GOS_TZ_EST	EST
EST5EDT	GOS_TZ_EST5EDT	EST5EDT
EUROPE_AMSTERDAM	GOS_TZ_EUROPE_AMSTERDAM	Europe/Amsterdam
EUROPE_ANDORRA	GOS_TZ_EUROPE_ANDORRA	Europe/Andorra
EUROPE_ATHENS	GOS_TZ_EUROPE_ATHENS	Europe/Athens
EUROPE_BELFAST	GOS_TZ_EUROPE_BELFAST	Europe/Belfast
EUROPE_BELGRADE	GOS_TZ_EUROPE_BELGRADE	Europe/Belgrade
EUROPE_BERLIN	GOS_TZ_EUROPE_BERLIN	Europe/Berlin
EUROPE_BRATISLAVA	GOS_TZ_EUROPE_BRATISLAVA	Europe/Bratislava
EUROPE_BRUSSELS	GOS_TZ_EUROPE_BRUSSELS	Europe/Brussels
EUROPE_BUCHAREST	GOS_TZ_EUROPE_BUCHAREST	Europe/Bucharest
EUROPE_BUDAPEST	GOS_TZ_EUROPE_BUDAPEST	Europe/Budapest
EUROPE_CHISINAU	GOS_TZ_EUROPE_CHISINAU	Europe/Chisinau
EUROPE_COPENHAGEN	GOS_TZ_EUROPE_COPENHAGEN	Europe/Copenhagen
EUROPE_DUBLIN	GOS_TZ_EUROPE_DUBLIN	Europe/Dublin
EUROPE_GIBRALTAR	GOS_TZ_EUROPE_GIBRALTAR	Europe/Gibraltar
EUROPE_HELSINKI	GOS_TZ_EUROPE_HELSINKI	Europe/Helsinki
EUROPE_ISTANBUL	GOS_TZ_EUROPE_ISTANBUL	Europe/Istanbul
EUROPE_KALININGRAD	GOS_TZ_EUROPE_KALININGRAD	Europe/Kaliningrad
EUROPE_KIEV	GOS_TZ_EUROPE_KIEV	Europe/Kiev
EUROPE_LISBON	GOS_TZ_EUROPE_LISBON	Europe/Lisbon
EUROPE_LJUBLJANA	GOS_TZ_EUROPE_LJUBLJANA	Europe/Ljubljana
EUROPE_LONDON	GOS_TZ_EUROPE_LONDON	Europe/London
EUROPE_LUXEMBOURG	GOS_TZ_EUROPE_LUXEMBOURG	Europe/Luxembourg
EUROPE_MADRID	GOS_TZ_EUROPE_MADRID	Europe/Madrid
EUROPE_MALTA	GOS_TZ_EUROPE_MALTA	Europe/Malta
EUROPE_MINSK	GOS_TZ_EUROPE_MINSK	Europe/Minsk

Table 8-4 Supported Timezones (continued)

EMS Value	Platform Value	Timezone Name
EUROPE_MONACO	GOS_TZ_EUROPE_MONACO	Europe/Monaco
EUROPE_MOSCOW	GOS_TZ_EUROPE_MOSCOW	Europe/Moscow
EUROPE_OSLO	GOS_TZ_EUROPE_OSLO	Europe/Oslo
EUROPE_PARIS	GOS_TZ_EUROPE_PARIS	Europe/Paris
EUROPE_PRAGUE	GOS_TZ_EUROPE_PRAGUE	Europe/Prague
EUROPE_RIGA	GOS_TZ_EUROPE_RIGA	Europe/Riga
EUROPE_ROME	GOS_TZ_EUROPE_ROME	Europe/Rome
EUROPE_SAMARA	GOS_TZ_EUROPE_SAMARA	Europe/Samara
EUROPE_SAN_MARINO	GOS_TZ_EUROPE_SAN_MARINO	Europe/San_Marino
EUROPE_SARAJEVO	GOS_TZ_EUROPE_SARAJEVO	Europe/Sarajevo
EUROPE_SIMFEROPOL	GOS_TZ_EUROPE_SIMFEROPOL	Europe/Simferopol
EUROPE_SKOPJE	GOS_TZ_EUROPE_SKOPJE	Europe/Skopje
EUROPE_SOFIA	GOS_TZ_EUROPE_SOFIA	Europe/Sofia
EUROPE_STOCKHOLM	GOS_TZ_EUROPE_STOCKHOLM	Europe/Stockholm
EUROPE_TALLINN	GOS_TZ_EUROPE_TALLINN	Europe/Tallinn
EUROPE_TIRANE	GOS_TZ_EUROPE_TIRANE	Europe/Tirane
EUROPE_VADUZ	GOS_TZ_EUROPE_VADUZ	Europe/Vaduz
EUROPE_VATICAN	GOS_TZ_EUROPE_VATICAN	Europe/Vatican
EUROPE_VIENNA	GOS_TZ_EUROPE_VIENNA	Europe/Vienna
EUROPE_VILNIUS	GOS_TZ_EUROPE_VILNIUS	Europe/Vilnius
EUROPE_WARSAW	GOS_TZ_EUROPE_WARSAW	Europe/Warsaw
EUROPE_ZAGREB	GOS_TZ_EUROPE_ZAGREB	Europe/Zagreb
EUROPE_ZURICH	GOS_TZ_EUROPE_ZURICH	Europe/Zurich
GMT	GOS_TZ_GMT	GMT
GMT_MINUS1	GOS_TZ_GMT_MINUS1	GMT-1
GMT_MINUS10	GOS_TZ_GMT_MINUS10	GMT-10
GMT_MINUS11	GOS_TZ_GMT_MINUS11	GMT-11
GMT_MINUS12	GOS_TZ_GMT_MINUS12	GMT-12
GMT_MINUS2	GOS_TZ_GMT_MINUS2	GMT-2
GMT_MINUS3	GOS_TZ_GMT_MINUS3	GMT-3
GMT_MINUS4	GOS_TZ_GMT_MINUS4	GMT-4
GMT_MINUS5	GOS_TZ_GMT_MINUS5	GMT-5
GMT_MINUS6	GOS_TZ_GMT_MINUS6	GMT-6
GMT_MINUS7	GOS_TZ_GMT_MINUS7	GMT-7
GMT_MINUS8	GOS_TZ_GMT_MINUS8	GMT-8
GMT_MINUS9	GOS_TZ_GMT_MINUS9	GMT-9

Table 8-4 Supported Timezones (continued)

EMS Value	Platform Value	Timezone Name
GMT_PLUS1	GOS_TZ_GMT_PLUS1	GMT+1
GMT_PLUS10	GOS_TZ_GMT_PLUS10	GMT+10
GMT_PLUS11	GOS_TZ_GMT_PLUS11	GMT+11
GMT_PLUS12	GOS_TZ_GMT_PLUS12	GMT+12
GMT_PLUS2	GOS_TZ_GMT_PLUS2	GMT+2
GMT_PLUS3	GOS_TZ_GMT_PLUS3	GMT+3
GMT_PLUS4	GOS_TZ_GMT_PLUS4	GMT+4
GMT_PLUS5	GOS_TZ_GMT_PLUS5	GMT+5
GMT_PLUS6	GOS_TZ_GMT_PLUS6	GMT+6
GMT_PLUS7	GOS_TZ_GMT_PLUS7	GMT+7
GMT_PLUS8	GOS_TZ_GMT_PLUS8	GMT+8
GMT_PLUS9	GOS_TZ_GMT_PLUS9	GMT+9
HONGKONG	GOS_TZ_HONGKONG	Hongkong
HST	GOS_TZ_HST	HST
JAMAICA	GOS_TZ_JAMAICA	Jamaica
MEXICO_BAJANORTE	GOS_TZ_MEXICO_BAJANORTE	Mexico/BajaNorte
MEXICO_BAJASUR	GOS_TZ_MEXICO_BAJASUR	Mexico/BajaSur
MEXICO_GENERAL	GOS_TZ_MEXICO_GENERAL	Mexico/General
MST	GOS_TZ_MST	MST
MST7MDT	GOS_TZ_MST7MDT	MST7MDT
PRC	GOS_TZ_PRC	PRC
PST8PDT	GOS_TZ_PST8PDT	PST8PDT
ROK	GOS_TZ_ROK	ROK
TAIWAN	GOS_TZ_TAIWAN	ROC
US_ALASKA	GOS_TZ_US_ALASKA	US/Alaska
US_ALEUTIAN	GOS_TZ_US_ALEUTIAN	US/Aleutian
US_ARIZONA	GOS_TZ_US_ARIZONA	US/Arizona
US_CENTRAL	GOS_TZ_US_CENTRAL	US/Central
US_EAST_INDIANA	GOS_TZ_US_EAST_INDIANA	US/East-Indiana
US_EASTERN	GOS_TZ_US_EASTERN	US/Eastern
US_HAWAII	GOS_TZ_US_HAWAII	US/Hawaii
US_MICHIGAN	GOS_TZ_US_MICHIGAN	US/Michigan
US_MOUNTAIN	GOS_TZ_US_MOUNTAIN	US/Mountain
US_PACIFIC	GOS_TZ_US_PACIFIC	US/Pacific
US_SAMOA	GOS_TZ_US_SAMOA	US/Samoa
UTC	GOS_TZ_UTC	UTC

Trigger Detection Point

The Trigger Detection Point (trigger-detection-point) table defines the specific trigger detection points (TDPs) supported by the Cisco BTS 10200 Softswitch Call Agent.

Table Name: TRIGGER-DETECTION-POINT

Table Containment Area: EMS

Command Types

Show

Examples

```
show trigger-detection-point;
```

Usage Guidelines

Primary Key Token(s): TDP

Syntax Description

* TDP	Primary key. Trigger detection points supported by the Call Agent. VARCHAR(32): 1–32 ASCII characters.
AUTO-REFRESH	Specifies whether to display cached data on the screen. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
DESCRIPTION (EMS-only field)	Described by the service provider. VARCHAR(64): 1–64 ASCII characters.
DISPLAY	Specifies what token information to display on the screen. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
LIMIT	Specifies the number of rows to display on the screen. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
ORDER	Specifies whether to display data on the screen in a sorted order. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
START-ROW	Specifies to begin displaying data on the screen at a specific row. INTEGER: 1–100000000 (Default = 1).

Table 8-5 lists the valid TDP parameters available.

Table 8-5 Valid Trigger Detection Point Descriptions

TDP	Description
O-NULL	First state the Cisco BTS 10200 Softswitch starts in on origination side
O-ATTEMPT	Origination attempt
O-ATTEMPT-AUTHD	Origination attempt authorized
COLLECTED-INFORMATION	Collected information
ANALYZED-INFORMATION	Analyzed information
O-TERM-SEIZED	Termination seized
ROUTE-SELECT-FAILURE	Route selection failure
O-CALLED-PARTY-BUSY	Called party busy
O-NO-ANSWER	Origination no answer
O-ANSWER	Origination answer
O-SUSPEND	Origination suspend
O-RE-ANSWER	Origination reanswer
O-MID-CALL	Origination midcall
O-DISCONNECT	Origination disconnect
O-ABANDON	Origination abandon
O-NOT-REACHABLE	Origination not reachable
O-EXCEPTION	Origination exception
ROUTE-SELECTED	Route selected
T-NULL	Initial state of termination in the Cisco BTS 10200 Softswitch
TERMINATION-ATTEMPT	Termination attempt
TERMINATION-ATTEMPT-AUTHORIZED	Termination attempt authorized
FACILITY-SELECTED-AND-AVAILABLE	Facility selected and available
CALL-ACCEPTED	Call accepted
T-BUSY	Termination busy
T-NO-ANSWER	Termination no answer
T-ANSWER	Termination answer
T-SUSPEND	Termination suspend
T-REANSWER	Termination reanswer
T-MID-CALL	Termination midcall
T-DISCONNECT	Termination disconnect
T-ABANDON-DP	Termination abandon
T-NOT-REACHABLE	Termination not reachable
T-EXCEPTION	Termination exception

Trigger Identification

The Trigger Identification (trigger-id) table defines the trigger IDs (TIDs) supported by the Cisco BTS 10200 Call Agent.

Table Name: TRIGGER-ID

Table Containment Area: EMS only

Command Types

Show

Examples

```
show trigger-id;
```

Usage Guidelines

Primary Key Token(s): tid

Syntax Description

* TID	Primary key. Trigger ID supported by the Call Agent. VARCHAR(32): 1–32 ASCII characters.
AUTO-REFRESH	Specifies whether to display cached data on the screen. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
DESCRIPTION (EMS-only field)	Described by the service provider. VARCHAR(64): 1–64 ASCII characters.
DISPLAY	Specifies what token information to display on the screen. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
LIMIT	Specifies the number of rows to display on the screen. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
ORDER	Specifies whether to display data on the screen in a sorted order. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
START-ROW	Specifies to begin displaying data on the screen at a specific row. INTEGER: 1–100000000 (Default = 1).

The Trigger Identification table is preprovisioned during installation with the parameters described in Table 8-6.

Table 8-6 Trigger Identification Descriptions

Trigger ID	Description
911_TRIGGER	911 call trigger
BLV	Busy line verification trigger
CALL_ACCEPTED	Call accepted
CALL_ACCEPTED_NOTIFY	Call accepted—notify trigger
CNAM	Calling name delivery feature
COS_TRIGGER	Class of service trigger
CUSTOMIZE_DIALING_PLAN	Used for Centrex groups
LCD_TRIGGER	Limited call duration (prepaid feature)
LNP_TRIGGER	Local number portability trigger
O_ATTEMPT_AUTHD	Origination attempt authorized
O_SWITCH_HOOK_FLASH_IMMEDIATE	Not used
PS-TRIGGER (Release 4.5)	Privacy screening trigger
REFER-TRIGGER	Refer trigger. Used by SIP for call transfer feature.
ROUTE_SELECT_FAILURE	Route select failure
ROUTE_SELECTED	Route selected
SC1D-TRIGGER	1-digit speed call trigger
SC2D-TRIGGER	2-digit speed call trigger
SPECIFIC_DIGIT_STRING	Trigger for 800 calls
T_ANSWER	Termination answer
T_BUSY	Termination busy
T_NO_ANSWER	Termination no answer
T_SWITCH_HOOK_FLASH_IMMEDIATE	Not used
TERMINATION_ATTEMPT	Termination attempt
TERMINATION_ATTEMPT_AUTHORIZED	Termination attempt authorized
TERMINATION_RESOURCE_AVAILABLE	Not used
VERTICAL_SERVICE_CODE	Used for any start (*) features

Trigger Nature of Dial Escape List (Release 4.5)

The Trigger Nature of Dial Escape List (trigger-nod-escape-list) table specifies the NODs that are part of escape list for a particular trigger. If the NOD for the dialed number is in the TRIGGER-NOD-ESCAPE-LIST, then the trigger is not invoked by the BTS.

Table Name: TRIGGER-NOD-ESCAPE-LIST

Table Containment Area: EMS only

Command Types

Show, add, change and delete

Examples

```
show trigger-nod-escape-list tid=cos-trigger; nod=emg;
add trigger-nod-escape-list tid=cos-trigger; nod=emg;
change trigger-nod-escape-list tid=cos-trigger; nod=emg; description=do not trigger cos
for emg calls;
delete trigger-nod-escape-list tid=cos-trigger; nod=emg;
```

Usage Guidelines

Primary Key Token(s): tid, nod

Foreign Key Token(s): nod

Syntax Description

* NOD	Primary key. Foreign key: NOD table. VARCHAR(32): 1–32 ASCII characters.
* TID	Primary key. Foreign key: Trigger table. The trigger id. VARCHAR(32): 1–32 ASCII characters.
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
DESCRIPTION	Described by the service provider. VARCHAR(64): 1–64 ASCII characters.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.

LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).

Vertical Service Code

The Vertical Service Code (vsc) table translates star codes (* XX) to feature names. This table is preprovisioned, based on Feature table customer records, during installation.See Appendix C, "Vertical Service Codes" for the preprovisioned defaults for this table.

Table Name: VSC

Table Containment Area: FSPTC

Caution If there is more than one entry in the Vertical Service Code table with the same leading feature activation code, the feature server can map the feature activation (from the handset) to the wrong feature. For example: the feature activation code for CPRK and CWD are "*58" and "*58#". When a subscriber activates CWD from the handset by dialing "*58#", feature server can activate the CPRK feature instead.

Command Types

Show, add, change, and delete

Examples

```
show vsc digit-string=* 72;
add vsc digit-string=* 72, fname=CFUA;
change vsc digit-string=* 72, description=call forwarding unconditional activation code;
delete vsc digit-string=* 72
```

Usage Guidelines

Primary Key Token(s): digit-string

Foreign Key Token(s): fname

Add Rules: None.

Change Rules: None.

Delete Rules: None.

For North American Numbering Plan Areas, the * code must be 3-digits for codes beginning with *2 and *3. All others should be 2-digit star codes.

Syntax Description

* DIGIT-STRING	Primary key. Vertical service code. VARCHAR(5): 1–5 ASCII characters. Valid formats are: *2x or 112xx *3x or 113xx *4x, * 5x, * 6x, * 7x, * 8x, * 9x 114x, 115x, 116x, 117x, 118x, 119x where x = 0–9. See Appendix C, "Vertical Service Codes" for more examples.
* FNAME	Foreign key: Feature table. Feature name. VARCHAR(16): 1–16 ASCII characters.
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
DESCRIPTION (EMS-only field)	Described by the service provider. VARCHAR(64): 1–64 ASCII characters.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
SDT (Obsoleted in Release 4.5)	Specifies a second dial tone indicator. CHAR(1): Y/N (Default = Y). Y—Apply second dial tone. N—Do not apply second dial tone.

SDT-TYPE (Obsoleted in Release 4.5)	Specifies a second dial tone type. VARCHAR(8): 1–8 ASCII characters. Permitted values are: DL—Dial tone. SL (Default)—Stutter (recall) dial tone. CF—Confirmation tone. NO-SDT—No second dial tone.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).



CHAPTER 9

Interactive Voice Response (Release 4.4.0)

Revised: July 24, 2009, OL-3743-42

This chapter defines the tables for Interactive Voice Response (IVR) functionality. The tables in this chapter are supported as of Release 4.4.0 unless otherwise specified.

Note In this chapter, an asterisk preceding a token name means the token is mandatory. A token without an asterisk is optional.

Audio Segment

The Audio Segment (audio-segment) table defines the location of an audio file when audio segment type is physical and specifies the audio file format when the audio segment is a variable. There are two kinds of audio segments—physical and variable. A physical audio segment is for a single announcement and a variable audio segment is for a list of announcements.

Table Name: AUDIO-SEGMENT

Table Containment Area: FSPTC, FSAIN

Command Types

Show, add, change, and delete

Examples

```
show audio-segment;
add audio-segment id= ar-dn-voiceback-id, type=physical;
url=http://audio/ar/dn_voiceback.au; description=Phrase "The last incoming number was"
add audio-segment id=ar-var-voiceback-dn-id, type=variable; var-type=dig; var-subtype=gen;
description=voice back DN in North American format.
change audio-segment id=ar-var-voiceback-dn-id, var-subtype=ndn;
delete audio-segment id= ar-var-voiceback-dn-id,
```

Usage Guidelines

Primary Key Token(s): id

Add Rules: None.

Change Rules: None.

Delete Rules: None.

Syntax Description

* ID	Primary key. Audio segment id. VARCHAR(32): 1–32 ASCII characters.
* TYPE	Identifies the audio segment type. VARCHAR(16): 1–16 ASCII characters. Permitted values are: PHYSICAL—The audio segment ID is for a single announcement VARIABLE—The audio segment ID is to define a variable.
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
DESCRIPTION	Described by the service provider. VARCHAR(256): 1–256 ASCII characters. VARCHAR(512): 1–512 ASCII characters. (Release 4.5)
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).
var-subtype **Note** This token must be provisioned in lowercase.	Mandatory if var-type = dat | dig | mny | num | tme. Variable subtype. VARCHAR(3): 1–3 ASCII characters. Permitted values are: DEFAULT—Null. **Note** See the subtypes specified for the var-type token for permitted values based on var-type. If value = null, the Cisco BTS 10200 Softswitch defaults to the var-subtype defined in the Feature Configuration table.

var-type		Mandatory if type = variable. The variable type.
Note	This token must be provisioned in lowercase.	VARCHAR(3): 1–3 ASCII characters. Permitted values are: dat—Date. Variable subtype = mdy, myd, dym, dmy, ymd, ydm. dig—Digits. Variable subtypes = gen (Generic), ndn (North American DN). dur—Duration. Variable subtype = null (Default). mth—Month. Variable subtype = null (Default). mny—Money. Variable subtype = <ISO 4217 three letter codes>. num—Number. Variable subtype = crd (Cardinal), ord (ordinal). sil—Silence. Variable subtype = null (Default). str—String. Variable subtype = null (Default). tme—Time. Variable subtype = t12 (12-hour format), t24 (24-hour format). wkd—Weekday. Variable subtype = null (Default).
URL		Mandatory if type = physical. URL for the physical audio segment id. VARCHAR(256): 1–256 ASCII characters.

Audio Sequence

The Audio Sequence (audio-seq) table defines audio segment sequences. Each audio event can consist of one or more audio segments. Each audio segment can be a standalone announcement or an audio variable. The Audio Sequence table also specifies the order in which these segments are played. The audio segments are specified as a sequence separated by comma.

Note If Multiple Language Support (see the IVR Script Profile table) is required, a language-specific audio sequence record is selected. If multiple language support is not required, then the language-id “def” is used to select the audio sequence record. If a language-specific audio sequence is not provisioned, then the default audio sequence is selected.

Table Name: AUDIO-SEQ

Table Containment Area: FSPTC, FSAIN

Command Types

Show, add, change, and delete

Examples

```
show audio-seq;
add audio-seq id=AR-INITIAL-PROMPT; language-id=def; seq=ar-dn-voiceback-id, ar-var-dn-id,
ar-date-voiceback-id, ar-var-date-id, ar-time-voiceback-id, ar-var-time-id;
change audio-seq id=AR-INITIAL-PROMPT; language-id=def; seq=ar-dn-voiceback-id,
ar-var-dn-id, ar-date-voiceback-id, ar-var-date-id, ar-time-voiceback-id, ar-var-time-id,
ar-activation-prompt-id;
delete audio-seq id=AR-INITIAL-PROMPT; language-id=def;
```

Usage Guidelines

Primary Key Token(s): id, language-id

Foreign Key Token(s): language-id

Add Rules: None.

Change Rules: None.

Delete Rules: None.

Syntax Description

* ID	Primary key. Audio Sequence id. VARCHAR(16): 1–16 ASCII characters.
* LANGUAGE-ID	Primary key. Foreign key: Language table. Specifies the language to use for a sequence. If a language-specific record is not found, the default language ID = def is applied. VARCHAR(3): 3 ASCII characters. Permitted values are: DEF (Default)—Default. For all other languages, see ISO Standard ISO 639.2.
* SEQ	Comma-separated ordered list of audio segments. Audio segments can be physical or variable audio segments. VARCHAR(1024): 1–1024 ASCII characters.
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
DESCRIPTION	Described by the service provider. VARCHAR(64): 1–64 ASCII characters. VARCHAR(512): 1–512 ASCII characters. (Release 4.5)
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.

ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).

Interactive Voice Response Script Profile (Release 4.4.1)

The Interactive Voice Response Script Profile (ivr-script-profile) table defines IVR properties on a per-feature basis. This table specifies whether to use a network-based IVR or the IVR capability on the access gateway.

Note The default-ivr-route-guide-id is defined in the Call Agent Configuration table. The Cisco BTS 10200 Softswitch uses the default-ivr-route-guide if the Feature Server does not provide an ivr-route-guide-id. However, the Feature Server always sends the script package type.

Table Name: IVR-SCRIPT-PROFILE

Table Containment Area: FSPTC, FSAIN

Command Types

Show, add, change, and delete

Examples

```
show ivr-script-profile fname=ar;
add ivr-script-profile fname=ar;
change ivr-script-profile fname=ar; multiple-language-supp=Y;
delete ivr-script-profile fname=ar;
```

Usage Guidelines

Primary Key Token(s): fname

Foreign Key Token(s): fname, ivr-route-guide-id

Add Rules: None.

Change Rules: None.

Delete Rules: None.

Syntax Description

* FNAME	Primary key. Foreign key: Feature table. Feature name. VARCHAR(16): 1–16 ASCII characters.
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
DESCRIPTION	Described by the service provider. VARCHAR(64): 1–64 ASCII characters. VARCHAR(512): 1–512 ASCII characters. (Release 4.5)
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
IVR-ACCESS-MODE (Not supported)	Specifies whether to use the local resources at a gateway or the centralized resources at an IVR. VARCHAR(16): 1–16 ASCII characters. Permitted values are: AUTO—Use the IVR capability of the access gateway if available, else use the default IVR. IVR (Default)—Use the IVR specified by the ivr-route-guide-id or the default-ivr-route-guide-id defined in the Call Agent Configuration table.
IVR-ROUTE-GUIDE-ID	Foreign key: Route Guide table. Used if the access gateway does not support IVR capability or an external IVR is required for the feature. If this token is not provisioned, the default IVR route specified in the Call Agent Configuration table is used. VARCHAR(16): 1–16 ASCII characters.
IVR-SCRIPT-PKG-TYPE	Specifies if the ivr-access-mode is IVR or if the originating gateway does not support IVR capability. If not provisioned, IVR scripts are generated based on the capabilities of the originating gateway. VARCHAR(8): 1–8 ASCII characters. Permitted values are: BAU (Default)—Basic Audio Package. AAU—For language option support. (Not supported) A—Announcement Package. TCL—Tool Command Language. (Not supported)
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.

MULTIPLE-LANGUAGE-SUPP (Not supported)	Specifies whether the Cisco BTS 10200 Softswitch supports multiple languages (sends the ?LANG parameter with the BAU/AAU package). CHAR(1): Y/N (Default = N). Y—Multiple languages are supported. N—Multiple languages are not supported.
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).

Language

The Language (language) table defines the languages supported by the IVR feature. Use the language abbreviations defined in ISO 639.2 when provisioning this table.

Note This table must be provisioned using the DEF value.

Table Name: LANGUAGE

Table Containment Area: EMS ONLY

Command Types

Show, add, change, and delete

Examples

```
show language;
add language id=def;
change language id=def; description=Default Language ID;
delete language id=eng;
```

Usage Guidelines

Primary Key Token(s): id

Add Rules: None.

Change Rules: None.

Delete Rules: None.

Syntax Description

* ID	Primary key. Language id. VARCHAR(3): 1–3 ASCII characters.
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
DESCRIPTION (EMS only)	Described by the service provider. VARCHAR(32): 1–32 ASCII characters.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).



CHAPTER 10

PacketCable Media Security

Revised: July 24, 2009, OL-3743-42

This chapter describes the commands and tables used in PacketCable media security provisioning. For complete information regarding PacketCable commands, provisioning, and troubleshooting, see the *Cisco BTS 10200 Softswitch PacketCable Feature Guide*.

Note In this chapter, an asterisk preceding a token name means the token is mandatory. A token without an asterisk is optional.

Ciphersuite

The Ciphersuite (ciphersuite) table contains the security parameters required for media security between multimedia terminal adapters (MTAs). The table is used when a bearer path between two MTAs needs to be encrypted. The MTAs exchange security parameters (ciphersuites) through signaling. This table allows the Cisco BTS 10200 Softswitch to specify which ciphersuites are allowed for an MTA.

Note A cipher is an algorithm that transforms data between plain text and encrypted text. A ciphersuite is a set that contains both an encryption algorithm and a message authentication algorithm.

Table Name: CIPHERSUITE

Table Containment Area: Call Agent

Command Types Show, add, change, and delete

Examples

```
show ciphersuite id=cp1gold;
add ciphersuite id=cp1gold; proto-type=RTP; auth-algo=RTP-NULL; encrypt-algo=RTP-NULL;
priority=1;
change ciphersuite id=cp1gold; proto-type=RTP; auth-algo=RTP-NULL; encrypt-algo=RTP-NULL;
priority=10;
delete ciphersuite id=cp1gold; proto-type=RTP; auth-algo=RTP-NULL; encrypt-algo=RTP-NULL;
```

Usage Guidelines

Primary Key Token(s): id, proto-type, auth-algo, encrypt-algo

Foreign Key Token(s): id

Add Rules: PK constraints; ciphersuite-profile id must exist.

- if type is proto-type=rtp then
  - valid auth-algo values are: Rtp-null, rtp-mmh-2, rtp-mmh-4
  - valid encrypt-algo values are: rtp-null, rtp-aes, rtp-xdesx-cbc, rtp-des-cbc-pad, rtp-3des-cbc, rtp-rc4
- if type is proto-type=rtcp then
  - valid auth-algo values are: rtcp-null, rtcp-hmac-sha1-96, rtcp-hmac-md5-96
  - valid encrypt-algo values are: rtcp-null, rtcp-aes-cbc, rtcp-xdesx-cbc, rtcp-des-cbc-pad, rtcp-3des-cbc

Change Rules: Only the priority token can be changed.

Delete Rules: None.

Syntax Description

* ID	Primary key. Foreign key: Ciphersuite Profile table. Ciphersuite profile id. VARCHAR(16): 1–16 ASCII characters.
* AUTH-ALGO	Primary key. Specifies the authentication algorithm for RTP or RTCP (depending upon the value entered for proto-type). See the *PacketCable Security Specification* for more detailed information. VARCHAR(32): 1–32 ASCII characters. Permitted authentication algorithms for proto-type=RTP are: RTP-NULL RTP-MMH-2 RTP-MMH-4 Permitted authentication algorithms for proto-type=RTCP are: RTCP-NULL RTCP-HMAC-SHA1-96 RTCP-HMAC-MD5-96

* ENCRYPT-ALGO	Primary key. Specifies the encryption algorithm for RTP or RTCP (depending upon the value entered for PROTO-TYPE). See the *PacketCable Security Specification* for more detailed information. VARCHAR(32): 1–32 ASCII characters. Permitted (valid) encryption algorithms for proto-type=RTP are: RTP-NULL RTP-AES RTP-XDESX-CBC RTP-DES-CBC-PAD RTP-3DES-CBC RTP-RC4 Permitted (valid) encryption algorithms for proto-type=RTCP are: RTCP-NULL RTCP-AES-CBC RTCP-XDESX-CBC RTCP-DES-CBC-PAD RTCP-3DES-CBC **Note** Authentication and encryption algorithms are identified in the PacketCable Security Specification, PKT-SP-SEC-I06-021018.
* PRIORITY	Specifies the priority of the ciphersuite. These parameters are sent in the local connection options (LCO) in the order specified. INTEGER: 1–32 numeric digits. Priority 1 has the highest priority. Priority 32 has the lowest priority. For example, if 64/51 has a priority of 10, and 62/53 has a priority of 15, then they will go as sc-rtp:64/51; 62/53. The gateway chooses 64/51 if it is able to do so. If the gateway cannot handle a 64/51, it chooses 62/53. **Note** See the PacketCable Network-Based Call Signaling Protocol Specification, PKT-SP-EC-MGCP-I06-021127 for additional information on the sc-rtp and sc-rtcp parameters.
* PROTO-TYPE	Primary key. This token specifies whether the authentication and encryption algorithms specified are for the Real Time Protocol (RTP) or for the Real Time Control Protocol (RTCP). Encrypted packets are carried end-to-end in RTP packets. RTCP is a control protocol for RTP. VARCHAR(16): 1–16 ASCII characters. Permitted values are: RTP—Real Time Protocol. RTCP—Real Time Control Protocol.
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.

DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).

Ciphersuite Profile

The Ciphersuite Profile (ciphersuite-profile) table contains the list of valid ciphersuites. A ciphersuite is a set that contains both an encryption algorithm and a message authentication algorithm.

Table Name: CIPHERSUITE-PROFILE

Table Containment Area: EMS only

Command Types

Show, add, change, and delete

Examples

```
show ciphersuite-profile id=cp1gold;
add ciphersuite-profile id=cp1gold;
change ciphersuite-profile id=cp1gold; description=This ID is used for QoS gold.
delete cipersuite-profile id=cp1gold;
```

Usage Guidelines

Primary key: id

Add Rules: Id cannot exist.

Delete Rules: Id cannot exist in any dependency tables.

Syntax Description

* ID	Primary key. ID of Ciphersuite Profile table. VARCHAR(16): 1–16 ASCII characters.
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
DESCRIPTION	Described by the service provider. VARCHAR(64): 1–64 ASCII characters.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).

IPSec Kerberos

The IPSec Kerberos (ipsec-kerberos) table contains the Kerberos configuration parameters used by IPSec and the associated key management application.

Table Name: IPSEC-KERBEROS

Table Containment Area: Call Agent

Command Types

Show, add, change, delete

Examples

```
show ipsec-kerberos;
add ipsec-kerberos krb-fqdn=cms-ca1.ciscolab.com; krb-realm=cisco-realm.com;
krb-srv-key=5468697320697320612061206b6579206f66203234206368612e;
srv-key-version=3;
change ipsec-kerberos; krb-fqdn=cms-ca1.ciscolab.com; krb-max-retry=25;
change ipsec-kerberos krb-fqdn=cms-ca1.ciscolab.com; srv-key-version=4;
krb-srv-key=12345678901234567890123456789012345678901234567890123456789012345678;
delete ipsec-kerberos; krb-fqdn=cms-ca1.ciscolab.com;
```

Usage Guidelines

Primary Key Token(s): krb-fqdn

Add Rules: See restrictions in the Syntax Description table. Limit 1 entry.

Change Rules: See restrictions in the Syntax Description table.

Delete Rules: None.

Other Rules:

- If krb-srv-key is changed, srv-key-version must be changed also.
- If srv-key-version is changed, krb-srv-key must be changed also.
- For krb-srv-key and srv-key-version, each cannot exist in the IPSec Kerberos Old Service Keys table. The system updates the IPSec Kerberos table before it updates the IPSec Kerberos Old Service Keys table.

Syntax Description

* KRB-FQDN	Primary key. The Kerberos fully qualified domain name for the Call Agent. It is used to create the call management server (CMS) principal name. The krb-fqdn must be the FQDN used on the Kerberos Domain Controller (KDC) for this node. The source krb-fqdn must be a valid hostname as described in gethostbyname(3XNET). VARCHAR(256): 1–256 ASCII characters.
* KRB-REALM	The Kerberos realm, used to create the CMS principal name. VARCHAR(256): 1–256 ASCII characters.

* KRB-SRV-KEY	The Kerberos service key. When assigning a new krb-srv-key, the existing krb-srv-key is added to the IPSec Kerberos Old Service Keys table. VARCHAR(48): Length must be 48 hex characters (0–9, A–F, a–f). Input is permitted with a delimiter for readability. For example: “6854 7369 6920 2073 2061 656b 2079 666f 3220 2034 6863 2e61” is equivalent to: “6854736969202073206165 6b2079666f3220203468632e61”
* SRV-KEY-VERSION	CMS server keys. Allows the Cisco BTS 10200 Softswitch to support CMSs using different server key versions for a CMS server key. INTEGER: 1–MAXINT. **Note** MAXINT is the largest possible 4-byte integer: [2 to the power 32] –1 divided by 2.
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
KRB-ACK-FLAG	The Kerberos Acknowledgment Flag. If enabled, an acknowledgment is requested in the AP-REPLY. CHAR(1): Y/N (Default = Y).
KRB-EXP-RETRY-TIME	The Kerberos Exponential Retry Time. Specifies the exponential backoff time, in seconds, for WAKEUP retries. SMALLINT: 1–60 (Default = 2).
KRB-MAX-OLD-SRV-KEYS	The maximum number of records to be kept in the rolling list of old Kerberos service keys. SMALLINT: 1–256 (Default = 32).
KRB-MAX-RETRY	The Kerberos maximum retries. The maximum number of times that the CMS sends a WAKEUP message without the receipt of an AP-REQ. SMALLINT: 1–100 (Default = 10).

KRB-MAX-RETRY-TIME	Kerberos Maximum Retry Time. Specifies the maximum or the total time, in seconds, that the CMS sends WAKEUP messages before it stops. SMALLINT: 1–60 (Default = 20). **Note** The krb-max-retry-time must be greater than krb-timeout and krb-exp-retry-time.
KRB-REEST-SA-ACK-FLAG	The Kerberos Reestablish Security Association (SA) Acknowledgment Flag. If enabled, the CMS reestablishes the outbound SA before the hard expiration occurs. CHAR(1): Y/N (Default = Y).
KRB-SRV-KEY-COMP-FLAG	The Kerberos Service Key Compromised Flag. If enabled, tickets using the old service key are not accepted, and a message is sent to the MTA instructing it to obtain a new ticket. If disabled, the old service key is accepted until the date-time specified in the ticket. CHAR(1): Y/N (Default = N).
KRB-TIMEOUT	The Kerberos Timeout. Specifies the amount of time, in seconds, that the CMS waits for the receipt of an AP-REQ following a WAKEUP message. SMALLINT: 1–60 (Default = 3).
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).

IPSec Kerberos Old Service Keys

The IPSec Kerberos Old Service Keys (ipsec-kerberos-keys) table contains the old Kerberos Service Keys to be used by IPSec and the associated key management application. When assigning a new krb-srv-key, the existing krb-srv-key is added to this table. This is a rolling list; when the list becomes full, the oldest service key is overwritten.

Table Name: IPSEC-KERBEROS-KEYS

Table Containment Area: Call Agent

Command Types

Show and delete

Examples

```
show ipsec-kerberos-keys;
delete ipsec-kerberos-keys; krb-srv-key=5468697320697320612061206b6579206f66206234206368612e;
```

Usage Guidelines

Primary Key Token(s): krb-srv-key

Delete Rules: None.

Other Rules: Maximum number of entries is determined by the configured value of krb-max-old-srv-keys in the IPSec Kerberos table.

Syntax Description

* KRB-SRV-KEY	Mandatory for delete. Primary key. Kerberos Service Key. This key is used for Kerberos communications. The value of this field is an old Kerberos Service Key and is set when a new krb-srv-key is configured. VARCHAR(48): 1–48 ASCII characters. Array must be 48 hex characters (0–9, A–F, a–f). When a new krb-srv-key is assigned, the existing krb-srv-key is added to this table. This is a rolling list; when the list becomes full, the oldest service key is overwritten.
* SRV-KEY-VERSION	CMS server keys. Allows the Cisco BTS 10200 Softswitch to support CMSs using different server key versions. INTEGER: 1–MAXINT. **Note** MAXINT is the largest possible 4-byte integer: [2 to the power 32]–1 divided by 2.
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.

DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
KRB-SRV-KEY-TIMESTAMP (System generated)	Not provisionable. A system-generated time stamp with the date and time that the entry was added. INTEGER.
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).

IPSec Policy

The IPSec Policy (ipsec-policy) table contains the global security policies to be used by IPSec.

Table Name: IPSEC-POLICY

Table Containment Area: Call Agent

Command Types

Show, add, and delete

Examples

```
show ipsec-policy;
add ipsec-policy id=mta01; src-fqdn=cms-ca1.ciscolab.com; dest-fqdn=mta5.ciscolab.com;
action=ipsec;
add ipsec-policy id=mta2xy; src-ipaddr=10.10.45.89; src-ipmask=255.255.255.0;
dest-ipaddr=10.10.2.44; dest-ipmask=255.255.255.0; action=permit;
delete ipsec-policy id=mta2xy;
```

Usage Guidelines

Primary Key Token(s): id

Add Rules: Both src-fqdn and src-ipaddr cannot be specified. (Release 4.2 and Release 4.4.1)

Other Rules: src-fqdn, src-ipaddr or src-port and dest-fqdn, dest-ipaddr or dest-port must be present (Release 4.4.1).

Delete Rules: None.

Syntax Description

* ID	Primary key. Policy ID. Service provider assigns, based on network configuration. Suggested format is <device-type>NN, for example, mta01, cmts01, rks01. VARCHAR(8): 1–8 ASCII characters.
* ACTION	Defines whether security is applied to outbound or inbound traffic, both, or neither. VARCHAR(6): 1–6 ASCII characters. Permitted values are: Permit—Security on inbound traffic. Apply—Security on outbound traffic. IPSec—Security on both inbound and outbound traffic. Bypass—No security.
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
DEST-FQDN	Fully qualified domain name for the destination network element to which this security policy applies. The destination address value must be a valid hostname as described in gethostbyname(3XNET). You cannot specify both a dest-fqdn and a dest-ipaddr at the same time. VARCHAR(256): 1–256 ASCII characters. **Note** The 'getprotobyname' function is a UNIX system function that refers to the Internet protocols TCP, UDP, and so forth.
DEST-IPADDR	IP address for the destination network element(s) to which this security policy applies. The destination address value must be a valid hostname as described in gethostbyname(3XNET). You cannot specify both a dest-fqdn and a dest-ipaddr at the same time. VARCHAR(15): 1–15 ASCII characters. Format: IPv4 Internet decimal dot notation.
DEST-IPMASK	Valid only if dest-ipaddr is specified. The IP address mask used to establish a range of IP addresses for the destination network element(s) to which this security policy applies. VARCHAR(15): 1–15 ASCII characters. Format: IPv4 Internet decimal dot notation.

DEST-PORT	The specific port for the destination network element to which this security policy applies. SMALLINT: 1–65534.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
SRC-FQDN	Fully qualified domain name for the source network element that this security policy applies to. The source fqdn must be a valid hostname as described in gethostbyname(3XNET). You cannot specify both an src-fqdn and a src-ipaddr at the same time. VARCHAR(256): 1–256 ASCII characters. **Note** The 'getprotobyname' function is a UNIX system function that refers to Internet protocols TCP, UDP, and so forth.
SRC-IPADDR	IP address for the source network element(s) that this security policy applies to. The source address value must be a valid hostname as described in gethostbyname(3XNET). You cannot specify both an src-fqdn and an src-ipaddr at the same time. VARCHAR(15): 1–15 ASCII characters. Format: IPv4 Internet decimal dot notation.
SRC-IPMASK	Valid only if src-ipaddr is specified. The IP address mask used to establish a range of IP addresses for the source network element(s) to which this security policy applies. VARCHAR(15): 1–15 ASCII characters. Format: IPv4 Internet decimal dot notation.
SRC-PORT	Specific port for the source network element that this security policy applies to. SMALLINT: 1–65534.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).

ULP-NAME	IPSec SA upper-layer protocol name that the entry is matched against. Used if the SA is created only for specific protocol traffic (for example IP traffic). The value is a string as described in getprotobyname(3XNET). You cannot specify both an ulp-name and an ulp-number at the same time. VARCHAR(8): 1–8 ASCII characters. Permitted values are: IP (Default) TCP UDP The default value (IP) is adequate for most applications.
ULP-NUMBER	Upper-layer protocol that the entry is matched against. You cannot specify both an ulp-name and an ulp-number at the same time. SMALLINT: 0–255. The value is a number as described in getprotobyname(3XNET).

IPSec Security Administration

The IPSec Security Administration (SA) (ipsec-sa) table contains the required IPSec security associations that are not associated with IKE or Kerberos key management.

Table Name: IPSEC-SA

Table Containment Area: Call Agent

Command Types

Show, add, change, and delete

Examples

```
show ipsec-sa;
add ipsec-sa id=cmts01; auth-algo=hmac-sha-1;
auth-key=2069732061206b6579206f66203234206368612e; dest=10.10.22.33; encrypt-algo=des;
encrypt-key=4bb586a120532c07; spi=85723;
change ipsec-sa id=cmts01; encrypt-algo=3des;
encrypt-key=abcdefabcdefabcdefabcdefabcdefabcdefabcdefabcdef; soft-lifetime=3600;
hard-lifetime=7200;
delete ipsec-sa id=cmts01;
```

Usage Guidelines

Primary Key Token(s): id

Add Rules: See specific restrictions in the Syntax Description.

Change Rules: See specific restrictions in the Syntax Description.

Delete Rules: None.

Other Rules:

- The auth-key is a maximum of 40 characters.
- The size of the key configured is validated to ensure that it is 32 characters if auth-algo=hmac-md5 and 40 characters if auth-algo=hmac-sha-1.
- The size of the encrypt-key configured is validated to ensure that it is 16 characters if encrypt-algo=des and 48 characters if encrypt-algo=3des.

Syntax Description

* ID	Primary key. Service provider assigns an ID or SA identifier based on network configuration. VARCHAR(8): 1–8 ASCII characters. Suggested format is <device-type>NN, for example: mta01, cmts01, rks01.
* AUTH-ALGO	Specifies the authentication algorithm for an SA. VARCHAR(10): 1–10 ASCII characters. Permitted values are: HMAC-MD5 HMAC-SHA-1
* AUTH-KEY	Specifies the authentication key for this SA. Length varies depending on auth-algo selected. The key must be 32 characters if HMAC-MD5 is selected and 40 characters if HMAC-SHA-1 is selected. VARCHAR(40): 1–40 ASCII characters. The key is expressed as a string of hexadecimal digits (0–9, A–F, a–f).
* DEST	Specifies the destination address of the SA. The source address value must be a valid host as described in gethostbyname(3XNET). VARCHAR(15): 1–15 ASCII characters. Format: IPv4 Internet decimal dot notation. **Note** The 'getprotobyname' function is a UNIX system function that refers to the Internet protocols TCP, UDP, and so forth.
* ENCRYPT-ALGO	Specifies the encryption algorithm for an SA. VARCHAR(4): 1–4 ASCII characters. Permitted values are: DES 3DES
* ENCRYPT-KEY	Specifies the encryption key for this SA. Length varies depending on the encrypt-algo selected. The key must be 16 characters if DES is selected and 48 characters if the 3DES is selected. VARCHAR(48): 1–48 ASCII characters. The key is expressed as a string of hexadecimal digits (0–9, A–F, a–f).
* SPI	Security parameters index of the SA. INTEGER: –MAXINT to MAXINT. Permitted values are any valid integer. **Note** MAXINT is the largest possible 4-byte integer: [2 to the power 32]–1.

AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
HARD-LIFETIME	Specifies the number of seconds that this SA can exist. When the hard lifetime expires, the SA is deleted automatically by the system. INTEGER: 0–MAXINT (Default = 0). **Note** If hard-lifetime is not specified, the default value is zero, which means the SA does not expire based on how long it has been since the SA was added. MAXINT is the largest possible 4-byte integer: [2 to the power 32]–1.
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
SOFT-LIFETIME	Specifies the number of seconds that this SA can exist. When the soft lifetime expires, an SADB_EXPIRE message is transmitted by the system, and the SA is changed to DYING. INTEGER: 0–MAXINT (Default = 0). **Note** If SOFT-LIFETIME is not specified, the default value is zero, which means the SA does not expire based on how long it has been since the SA was added. MAXINT is the largest possible 4-byte integer: [2 to the power 32]–1.

SRC	Specifies the source address of the SA. The source address value must be valid host as described in gethostbyname(3XNET). VARCHAR(15): 1–15 ASCII characters. Format: IPv4 Internet decimal dot notation.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).

Radius Profile

The Radius Profile (radius-profile) table is used in PacketCable networks that run a billing system based on event messages and to provide radius-based authentication for the Limited Call Duration (LCD) feature.

Table Name: RADIUS-PROFILE

Table Containment Area: Call Agent

Command Types

Show, add, change, and delete

Examples

```
show radius-profile id=rks1;
show radius-profile-unencr id=rks1;
add radius-profile id=rks1; tsap-addr=165.12.23.1:1851;
change radius-profile id=rks1; acc-req-retransmit=2; acc-rsp-timer=3;
delete radius-profile id=rks1;
```

Usage Guidelines

Primary Key Token(s): id

Unique Key Token(s): tsap-addr

Add Rules: None.

Change Rules: None.

Delete Rules: None.

Syntax Description

* ID	Primary key. Radius profile ID. ASCII string that identifies the primary or secondary record keeping server (RKS). VARCHAR(16): 1–16 ASCII characters.

* TSAP-ADDR	Unique key. TSAP address for the radius server. Unique IP address, or IP address and port number, of the primary or secondary RKS. This value must be an IP address (not a domain name), however, a domain name is allowed if server-type=prepaid. VARCHAR(64): 1–64 ASCII characters. **Note** The value of tsap-addr can be updated dynamically using the following command. No system restart is required. `change radius-profile id=[primary RKS id | secondary RKS id]; tsap-addr=[IP address:port-number];`
ACC-REQ-RETRANSMIT	Specifies the number of retransmissions of unacknowledged accounting requests. Also specifies the number of accounting request retransmissions for event message (EM) applications. This is the number of times the Cisco BTS 10200 Softswitch attempts to retransmit an EM to a target RKS. When this limit is reached, the Cisco BTS 10200 Softswitch treats the target RKS as nonresponsive and begins transmitting to another RKS. In the unlikely event that the Cisco BTS 10200 Softswitch tries, but fails, to receive acknowledgment from both RKSs, it begins storing EM files on the currently active Call Agent. INTEGER: 1–4 (Default = 3). INTEGER: 0–5 (Default = 3) (Release 4.2)
ACC-RSP-TIMER	Specifies the number of seconds that the Cisco BTS 10200 Softswitch waits for an acknowledgment of a transmission by an external radius server before retransmitting. Also specifies the time the Cisco BTS 10200 Softswitch waits for a target RKS to acknowledge receipt of a transmitted EM for EM applications. When this timer expires, the Cisco BTS 10200 Softswitch retransmits the EM. INTEGER: 1–10 (Default = 2).
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
DESCRIPTION	Described by the service provider. VARCHAR(64): 1–64 ASCII characters.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
ENCRYPTION-KEY	Specifies an optional 16-byte encryption key. VARCHAR(16): 1–16 hex characters (0–9, A–F) (Default = all zeros (0000000000000000)).

IKE-CS	Specifies a list of ciphersuites supported by IKE, in priority order. This list is used to negotiate the encryption-authentication algorithm pair used by IKE. The list can contain only those ciphersuites using the authentication algorithms HMAC-MD5 and HMAC-SHA and the encryption algorithm ESP-3DES. VARCHAR(64): 1–64 ASCII characters. Permitted values are: 3DES-MD5, 3DES-SHA1 (Default list) 3DES-SHA1, 3DES-MD5 3DES-MD5 3DES-SHA1
IKE-GROUP	Internet Key Exchange (IKE) group. Specifies the available groups in which the Diffie-Helman exchange can occur. INTEGER: Valid values are 1 or 2 (Default = 2).
IKE-KEY	The IKE preshared key. This value is used for security on the interface between the Cisco BTS 10200 Softswitch and the RKS. VARCHAR(256): 1–256 ASCII characters. (Release 4.5) The system encrypts the value of the ike-key token and stores the encrypted value as ike-key-encr. See the ike-key-encr token for additional details.
IKE-KEY-ENCR (System generated) (Release 4.5)	The IKE preshared key in encrypted form. The system encrypts the value of the ike-key token and stores the encrypted value as ike-key-encr. It is then decrypted and displayed only when accessed by a privileged user. VARCHAR(256): 1–256 ASCII characters. To show the ike-key-encr token in encrypted form, use the following command: `show radius-profile;` To show the ike-key token in unencrypted form, use the following command: **`show radius-profile-unencr;`**
IKE-SA-LIFETIME	Sets the IKE SA expiration, in seconds. This is the hard expiration. INTEGER: 0–MAXINT (Default = 86400). **Note** MAXINT is the largest possible 4-byte integer, that is, [2 to the power 32]–1.

IPSEC-SA-ESP-CS	The IPSec SA ESP ciphersuite list in priority order. Used to negotiate an encryption-authentication algorithm pair used by IPSec. The list can contain only those ciphersuites using the authentication algorithms HMAC-MD5 and HMAC-SHA and the encryption algorithms ESP-3DES and ESP-NULL. VARCHAR(64): 1–64 ASCII characters. 3DES-MD5, 3DES-SHA1, NULL-MD5, NULL-SHA1 (Default list) **Note** This list can be modified to be a subset of this initial list using the CLI and can be reordered to specify a new priority selection. For example: - 3DES-MD5, 3DES-SHA1, NULL-SHA1, NULL-MD5 - 3DES-SHA1, NULL-MD5, NULL-SHA1 - 3DES-MD5, NULL-MD5 - NULL-SHA1 and additional values
IPSEC-SA-GRACE-PERIOD	The IPSec SA key expiration grace period, in seconds. This is used to calculate the soft expiration. INTEGER: 0–MAXINT (Default = 21600). **Note** The ipsec-sa-grace-period must be less than or equal to 25% of the provisioned value for ipsec-sa-lifetime. If not specified when provisioning a new ipsec-sa-lifetime, the ipsec-sa-grace-period defaults to 25% of the ipsec-sa-lifetime.
IPSEC-SA-LIFETIME	The IPSec SA expiration in seconds. This is the hard expiration. INTEGER: 0–MAXINT (Default = 86400). **Note** MAXINT is defined as the largest possible 4-byte integer, that is, [2 to the power 32]–1.
IPSEC-ULP-NAME	IPSec SA upper-layer protocol name. Used if the SA is created only for specific protocol traffic (for example, IP traffic). The value is a string as described in getprotobyname(3XNET). VARCHAR(8): 1–8 ASCII characters. Permitted values are: IP (Default) TCP UDP **Note** The default value (IP) is adequate for most applications.
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.

SERVER-TYPE (Release 4.5)	Specifies whether the Radius server is for limited call duration features. VARCHAR(8): 1–8 ASCII characters (Default = OTHER). Permitted values are: PREPAID OTHER
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).



CHAPTER 11

Session Initiation Protocol

Revised: July 24, 2009, OL-3743-42

This chapter describes some of the Session Initiation Protocol (SIP) commands and their associated tables. For complete information regarding SIP commands, provisioning, and troubleshooting, see the *Cisco BTS 10200 Softswitch SIP Protocol Guide* and the *Cisco BTS 10200 Softswitch SIP Protocol Provisioning Guide*.

Note In this chapter, an asterisk preceding a token name means the token is mandatory. A token without an asterisk is optional.

Authentication Realm

The Authentication Realm (auth-realm) table defines the authentication realm IDs supported by the Cisco BTS 10200 Softswitch. An auth-realm-id is assigned to subscribers using the Serving Domain Name table. All subscribers in a specific serving domain share a common auth-realm-id. This table is used primarily for Session Initiation Protocol (SIP) provisioning.

Table Name: AUTH-REALM

Table Containment Area: Call Agent

Command Types

Show, add, change, and delete

Examples

```
show auth-realm id=rcdn-cisco;
add auth-realm id=rcdn-cisco; description=This realm id is for rcdn5 cisco.
change auth-realm id=rcdn-cisco; description=This realm id is for all of cisco in
Richardson.
delete auth-realm id=rcdn-cisco;
```

Usage Guidelines

Primary Key Token(s): id

Add Rules: None.

Change Rules: None.

Delete Rules: Foreign key constraints.

Syntax Description

* ID	Primary key. The realm ID. VARCHAR(64): 1–64 ASCII characters.
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
DESCRIPTION	Described by the service provider. VARCHAR(64): 1–64 ASCII characters.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).

HTTP Feature Server

The HTTP Feature Server (http-feature-server) table manages the services supported for Session Initiation Protocol (SIP)-based IP phones. This table also identifies the TSAP address associated with the HTTP Feature Server.

Table Name: HTTP-FEATURE-SERVER

Table Containment Area: FSPTC

Command Types

Show, add, change, and delete

Examples

```
show http-feature-server id=FSHTT002;
add http-feature-server id=FSHTT002; tsap-addr-sidea=190.101.100.103:11025; type=HTTP;
change http-feature-server id=FSHTT002; type=HTTP; tsap-addr-sidea=test.cisco.com;
delete http-feature-server id=FSHTT002;
```

Usage Guidelines

Primary Key Token(s): id

Add Rules: None

Change Rules: None

Delete Rules: None

Syntax Description

* ID	Primary key. The HTTP Feature Server id. The format of the id is FSHTTnnn where *nnn* = 000 to 999. VARCHAR(8): 1–8 ASCII characters.
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
DESCRIPTION	Described by the service provider. VARCHAR(64): 1–64 ASCII characters.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.

LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).
TSAP-ADDR-SIDEA	TSAP address of the Feature Server.
TSAP-ADDR (Release 4.4.1)	VARCHAR(64): 7–64 ASCII characters in formats ranging from n.n.n.n to nnn.nnn.nnn.nnn.
TYPE	Type of Feature Server. VARCHAR(4): 1–4 ASCII characters. Permitted value is: HTTP—HTTP Feature Server used for the SIP phone.

Serving Domain Name

The Serving Domain Name (serving-domain-name) table defines serving domain names supported by the Cisco BTS 10200 Softswitch. This table is also used to define authentication requirements for subscribers served by the serving domain. This table is used primarily for Session Initiation Protocol (SIP) provisioning.

Table Name: SERVING-DOMAIN-NAME

Table Containment Area: Call Agent, EMS

Command Types

Show, add, change, and delete

Examples

```
show serving-domain-name;
add serving-domain-name domain-name=rcdn.cisco.com; auth-realm-id=rcdn-cisco; auth-reqd=Y;
change serving-domain-name domain-name=rcdn.cisco.com; auth-realm-id=" "; auth-reqd=N;
delete serving-domain-name domain-name=rcdn.cisco.com;
```

Usage Guidelines

Primary Key Token(s): domain-name

Foreign Key Token(s): auth-realm-id

Add Rules:

- auth-realm-id is required if auth-reqd=Y.
- auth-realm-id is null if auth-reqd=N.

Change Rules: Same as add rules.

Syntax Description

* DOMAIN-NAME	Primary key. The domain name supported by the Cisco BTS 10200 Softswitch. This field is case insensitive. VARCHAR(64): 1–64 ASCII characters.
* AUTH-REQD (Mandatory as of Release 4.5.1)	Specifies whether SIP messages from the serving domain must be authenticated or not. CHAR(1): Y/N (Default = Y).
AUTH-REALM-ID	Foreign key: Authentication Realm table. Specifies the Auth Realm ID to use if authentication is required. VARCHAR(64): 1–64 ASCII characters. **Note** auth-realm-id is required if auth-reqd=Y auth-realm-id is null if auth-reqd=N
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
DESCRIPTION	Described by the service provider. VARCHAR(64): 1–64 ASCII characters.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).

SIP Timer Profile (Release 4.5)

The Session Initiation Protocol (SIP) Timer Profile (sip-timer-profile) table defines a SIP timer profile for a Softswitch Trunk Group Profile or a default SIP timer profile at the system level.

Caution Deviation from default timer values can significantly influence system performance and reliability. Exercise great caution and consult with Cisco TAC prior to making changes.

Table Name: SIP-TIMER-PROFILE

Table Containment Area: CA, EMS

Command Types

Show, add, change, and delete

Examples

```
show sip-timer-profile;
add sip-timer-profile id=default;
change sip-timer-profile id=default; timer-t1-milli=4000; timer-t2-secs=5;
timer-t4-secs=6;
delete sip-timer-profile id=default;
```

Usage Guidelines

Primary Key Token(s): id

Add Rules: None.

Change Rules: None.

Delete Rules: Foreign key constraints.

Other Rules:

- Timer-b-secs times 1000 must be greater than timer-a-milli.
- Timer-f-secs times 1000 must be greater than timer-e-milli.
- Timer-t2-secs times 1000 must be greater than timer-t1-milli and timer-t2-secs times 1000 must be greater than timer-g-milli.
- Timer-t4-secs must be greater than timer-t2-secs.

Syntax Description

* ID (Release 4.5)	Primary key. Identifies the primary key of the records in this table. VARCHAR(16): 1–16 ASCII characters.
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.

DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
INVITE-INCOMPLETE-TIMER-SECS	Specifies whether to clean up user agent client (UAC) invite transactions when a provisional response of less than 180 is received, but no ringing or final response is received within a reasonable period of time. INTEGER: 15–600 (Default = 40).
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
MIN-SE (Release 4.5)	Specifies the minimum number of session-expires allowed, in seconds, to be sent or received. INTEGER: 100–1800 (Default = 900).
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
SESSION-EXPIRES-DELTA-SECS (Release 4.5)	SIP session timer, in seconds, for SIP auditing purposes. Specifies when to send a periodic refresh for each session to check the liveness of the session. This conveys the session interval for a SIP call. INTEGER: 100–7200 (Default = 1800).
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).
TIMER-A-MILLI (Release 4.5)	The SIP RFC3261 timer, in milliseconds, for the INVITE request retransmit interval, for User Datagram Protocol (UDP) only. INTEGER: 0, 100–5000 (Default = 0). **Note** A default value of zero means that values for those timers are computed automatically from TimerT1, TimerT2, and TimerT4.
TIMER-B-SECS (Release 4.5)	The SIP RFC3261 timer, in seconds, for INVITE transaction timeout. INTEGER: 0–3600 (Default = 0). **Note** A default value of zero means that values for those timers are computed automatically from TimerT1, TimerT2, and TimerT4.
TIMER-D-SECS (Release 4.5)	The SIP RFC3261 timer, in seconds, for the wait time for response retransmits. INTEGER: 33–65 (Default = 33).

TIMER-E-MILLI (Release 4.5)	The SIP RFC3261 timer, in milliseconds, for non-INVITE request retransmit interval, UDP only. INTEGER: 0, 100–5000 (Default = 0). **Note** A default value of zero means that values for those timers are computed automatically from TimerT1, TimerT2, and TimerT4.
TIMER-F-SECS (Release 4.5)	The SIP RFC3261 timer, in seconds, for non-INVITE transaction timeout. INTEGER: 0–3600 (Default = 0). **Note** A default value of zero means that values for those timers are computed automatically from TimerT1, TimerT2, and TimerT4.
TIMER-G-MILLI (Release 4.5)	The SIP RFC3261 timer, in milliseconds, for INVITE response retransmit interval. INTEGER: 0, 100–5000 (Default = 0). **Note** A default value of zero means that values for those timers are computed automatically from TimerT1, TimerT2 and TimerT4.
TIMER-H-SECS (Release 4.5)	The SIP RFC3261 timer in seconds for the wait time for ACK receipt. INTEGER: 0–3600 (Default = 0). **Note** A default value of zero means that values for those timers are computed automatically from TimerT1, TimerT2, and TimerT4.
TIMER-I-SECS (Release 4.5)	The SIP RFC3261 timer in seconds for wait time for ACK retransmits. INTEGER: 0–10 (Default = 0) **Note** A default value of zero means that values for those timers are computed automatically from TimerT1, TimerT2, and TimerT4.
TIMER-J-SECS	The SIP RFC3261 timer in seconds for wait time for non-INVITE request retransmits. INTEGER: 0–3600 (Default = 0) **Note** NOTE: Default value of zero means that values for those timers will be computed automatically from TimerT1, TimerT2 and TimerT4.
TIMER-T1-MILLI (Release 4.5)	Specifies the SIP RFC3261 timer, in milliseconds, for RTT estimate. INTEGER: 100–5000 (Default = 500).
TIMER-T2-SECS (Release 4.5)	Specifies the SIP RFC3261 timer, in seconds, for the maximum retransmit interval for SIP non-INVITE requests and INVITE responses. INTEGER: 1–10 (Default = 4).
TIMER-T4-SECS (Release 4.5)	The SIP RFC3261 timer, in seconds, for the maximum duration a SIP message remains in the network. INTEGER: 1–10 (Default = 5).

SIPT ISUP Version Alias (Release 4.2)

The SIPT ISUP Version Alias (sipt-isup-ver-alias) contains the aliases to the SIP-T ISUP version names defined in the SIP-T ISUP Version Base table.

Table Name: SIPT-ISUP-VER-ALIAS

Table Containment Area: EMS, Call Agent

Command Types

Show, add, change, and delete

Examples

```
show sipt-isup-vers-alias id=Q761_HONGKONG;
add sipt-isup-ver-alias id=Q761_HONGKONG; alias=hongkong;
change sipt-isup-ver-alias id=Q761_HONGKONG; alias=HONGKONG;
delete sipt-isup-ver-alias id=Q761_HONGKONG;
```

Usage Guidelines

Primary Key Token(s): id

Foreign Key Token(s): id

Unique Key Token(s): alias

Add Rules: None.

Change Rules: None.

Delete Rules: id cannot exist in any dependency table.

Syntax Description

* ID (Release 4.2)	Primary key. Foreign key: SIPT ISUP Version Base table. The SIP-T ISUP version name. VARCHAR(32): 1–32 ASCII characters.
* ALIAS (Release 4.2)	Unique key. The alias for the SIP-T ISUP version name. VARCHAR(32): 1–32 ASCII characters
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.

LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).

SIPT ISUP Version Base (Release 4.2)

The SIPT ISUP Version Base (sipt-isup-ver-base) table contains the list of all supported SIP-T ISUP versions and their base family names. The SIPT ISUP Version Base table is used to validate the ISUP version information stored in the Softswitch Trunk Group Profile table.

Table Name: SIPT-ISUP-VER-BASE

Table Containment Area: EMS

Command Types

Show

Examples

```
show sipt-isup-ver-base id=Q761-HONGKONG;
```

Usage Guidelines

Primary Key Token(s): id

Syntax Description

ID (Release 4.2)	Primary key. The SIP-T ISUP or SIP-GTD version name. VARCHAR(32): 1–32 ASCII characters. Permitted values are: GTD (Release 4.5)
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.

BASE (Release 4.2)	The SIP-T ISUP base or SIP-GTD version name. VARCHAR(32): 1–32 ASCII characters. Permitted values are: SIPT-GTD (Release 4.5)
DISPLAY	Specifies what token information to display on the screen. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
LIMIT	Specifies the number of rows to display on the screen. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
ORDER	Specifies whether to display data on the screen in a sorted order. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
START-ROW	Specifies to begin displaying data on the screen at a specific row. INTEGER: 1–100000000 (Default = 1).

Static Contact

The Static Contact (static-contact) table defines the static contact id to use when dynamic registration is not supported. This table is used primarily for Session Initiation Protocol (SIP) provisioning.

Table Name: STATIC-CONTACT

Table Containment Area: Call Agent

Command Types

Show, add, change, delete

Examples

```
show static-contact aor-id=joe@rcdn.cisco.com;
add static-contact aor-id=joe@rcdn.cisco.com; user-type=IP; static-contact-user=joe;
static-contact-host=rcdn.cisco.com;
delete static-contact aor-id=joe@rcdn.cisco.com;
```

Usage Guidelines

Primary Key Token(s): aor-id

Foreign Key Token(s): aor-id

Add Rules: None.

Change Rules: None.

Delete Rules: None.

Syntax Description

* AOR-ID	Primary key. Foreign key: AOR to Subscriber table. The address of record (AOR) ID. VARCHAR(64): 1–64 ASCII characters.
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).
STATIC-CONTACT-HOST	Hostname portion of the contact id as in user@hostname. VARCHAR(32): 1–32 ASCII characters.
STATIC-CONTACT-PORT	Port number if different from default SIP port number (5060). INTEGER: 1–4 numeric characters (Default = 5060).
STATIC-CONTACT-USER	User portion of the contact id as in user@hostname. VARCHAR(32): 1–32 ASCII characters.
USER-TYPE	Defines the type of user. VARCHAR(16): 1–16 ASCII characters. Permitted values are: IP (Default) PHONE

User Authentication

The User Authentication (user-auth) table identifies the subscriber address of record (AOR) based on the authentication credentials supplied by the user during registration or call setup. When a SIP user attempts to register or set up a call, the Cisco BTS 10200 Softswitch challenges the SIP subscriber based on information from the Serving Domain Name table. If the Serving Domain Name Table indicates that authentication is required, the Cisco BTS 10200 Softswitch challenges the SIP user to send a user ID and password (HA1) based on the auth-realm-id. If the Cisco BTS 10200 Softswitch receives a valid user ID and password, the AOR in this table is used to identify the subscriber based on the AOR to Subscriber table.

Table Name: USER-AUTH

Table Containment Area: CA, EMS

Command Types

Show, add, change, and delete

Examples

```
show user-auth auth-user=joe; auth-realm-id=rcdn-cisco;
add user-auth auth-user=joe; auth-realm-id=rcdn-cisco; password=mhallwfmesw;
aor-id=joe@rcdn.cisco.com
change user-auth auth-user-joe;password=joe2seven;
delete user-auth auth-user=joe; auth-realm-id=rcdn-cisco;
```

Usage Guidelines

Primary Key Token(s): auth-user, auth-realm-id

Foreign Key Token(s): aor-id

Add Rules: None

Delete Rules: None

Syntax Description

* AUTH-USER	Primary key. The authentication user name. VARCHAR(32): 1–32 ASCII characters.
AOR-ID	Foreign key: AOR to Subscriber table. The aor-id. VARCHAR(64): 1–64 ASCII characters.
AUTH-REALM-ID	Primary key. The authentication realm id. VARCHAR(64): 1–64 ASCII characters.
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.

DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
HA1	Represents a Hashed Password–MD5 of USER:REALM:PASSWORD according to RFC 2617. This value is computed and automatically provisioned by the Element Management System. CHAR(32): 1–32 characters.
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
PASSWORD	The password for this auth-user. VARCHAR(64): Not stored.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).



CHAPTER 12

Multiline Hunt Group Features

Revised: July 24, 2009, OL-3743-42

The Cisco BTS 10200 Softswitch supports multiline hunt group (MLHG) features. An MLHG is a collection of lines organized into a group with a single pilot DN (also referred to as the group DN or the main-subscriber DN). Optionally, individual DNs can be assigned to some or all of the lines in the group. Each line in an MLHG has a terminal number that identifies its position in the group. When there is an incoming call, if the first line in the MLHG is busy, the next line is hunted and so on until an idle line is found.

For a detailed feature description, use cases, examples of specific hunting scenarios, and detailed guidance on certain provisionable parameters, see the "Multiline Hunt Group (MLHG)" section in the *Cisco BTS 10200 Softswitch Network and Subscriber Feature Descriptions* document.

For the basic sequence of steps required to provision a a MLHG, see the MLHG provisioning procedure in the *Cisco BTS 10200 Softswitch Provisioning Guide.*

Note In this chapter, an asterisk preceding a token name means the token is mandatory. A token without an asterisk is optional.

Multiline Hunt Group

The Multiline Hunt Group (mlhg) table defines the size, type and relationships of a multiline hunt group.

Table Name: MLHG

Table Containment Area: Call Agent, FSPTC

Command Types Show, add, change, and delete

Examples

```
show mlhg id=engineering;
add mlhg id=engineering; hunt-type=ucd; main-sub-id=xyzcorp; call-agent-id=CA146;
change mlhg id=engineering; hunt-type=circular;
delete mlhg id=engineering;
```

Usage Guidelines

Primary Key Token(s): id

Foreign Key Token(s): main-sub-id, call-agent-id

Add Rules: None.

Change Rules: None.

Delete Rules: ID does not exist in any subscriber::mlhg-id.

Syntax Description

* ID	Primary key. Unique identifier of a particular MLHG. Assigned by service provider. VARCHAR(16): 1–16 ASCII characters.
* MAIN-SUB-ID	Foreign key: Subscriber table. Main subscriber ID assigned to the group. Same as ID in Subscriber table. VARCHAR(30): 1–30 ASCII characters.
* CALL-AGENT-ID	Foreign key: Call Agent table. ID of the Call Agent servicing this MLHG. Same as ID in the Call Agent table. VARCHAR(8): 1–8 ASCII characters.
MAX-LINES (Obsolete as of Release 4.5)	Maximum number of lines in the MLHG. Up to 512 lines are supported on an MLHG. Assigned by service provider. SMALLINT: 2–512 (Default = 2).
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.

HUNT-TYPE	Specifies the hunting process. The system searches for an idle line within the MLHG according to this provisioned value. For detailed examples of hunting scenarios, see the "Multiline Hunt Group (MLHG)" section in the *Cisco BTS 10200 Softswitch Network and Subscriber Feature Descriptions* document. VARCHAR(8): 1–8 ASCII characters. Permitted values are: REGULAR (Default)—If the pilot number is dialed, the hunt starts from the top of the list (lowest numbered terminal in the MLHG), then searches sequentially for an idle line, or until it reaches the last line on the list (highest numbered terminal in the MLHG). If the DN of a specific terminal is dialed, the call is completed to the dialed DN, if idle, otherwise the search begins at the terminal after the dialed DN, and continues down the list. CIRCULAR—If the pilot number is dialed, the system searches in the same way as for HUNT-TYPE=REGULAR. If the DN of a specific terminal is dialed, the call is completed to the dialed DN, if idle, otherwise the search begins at the terminal after the dialed DN, and continues down the list. CIRCULAR adds the capability to search additional terminals at the top of the list after trying the last terminal in the list. The circular hunt stops at the terminal just before the terminal of the dialed DN. UCD (Uniform call distribution)—Uses a pointer to assign an incoming call call to an idle line in the group. • If the pilot number is dialed, the call is completed to the line indicated by the pointer, if idle. However, if the terminal corresponding to the pointer is busy, for example, if the user goes off-hook to make a call, the hunt starts at the next terminal in the list (after the line with the pointer) and continues with a circular hunt to find an idle line. The call is given to the idle line, then the pointer is immediately reset to the next available (idle) line. When the next call comes in, it is completed to the line indicated by the pointer, and so forth. • If the DN of a specific terminal is dialed, the call is completed to the dialed DN, if idle. If the specific terminal is not idle, the call is completed to the line indicated by the pointer, and the pointer is immediately reset to the next available (idle) line. When the next call comes in, it is completed to the line indicated by the pointer, and so forth.
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).

Multiline Hunt Group Terminal

The Multiline Hunt Group Terminal (mlhg-terminal) table identifies the terminals in a multiline hunt group and the termination IDs associated with each terminal. A terminal number must be provisioned for every physical line in the MLHG.

Table Name: MLHG-TERMINAL

Table Containment Area: Call Agent

Command Types

Show, add, change, and delete

Examples

```
show mlhg-terminal mlhg-id=Cisco Eng; terminal=12;
add mlhg-terminal mlhg-id=Cisco Eng; terminal=12; term-id=aaln/1/; mgw-id=rgw242;
change mlhg-terminal mlhg-id=Cisco Eng; terminal=12; term-id=aaln/1; mgw-id=rgw;
delete mlhg-terminal mlhg-id=Cisco Eng; terminal=12;
```

Usage Guidelines

Primary Key Token(s): mlhg-id, terminal

Foreign Key Token(s): mlhg-id, mgw-id

Add Rules: term-id, mgw-id combination exists in termination::(term-id, mgw-id).

Change Rules: term-id, mgw-id combination exists in termination::(term-id, mgw-id).

Delete Rules: terminal does not exist in any mlhg-pref-list(mlhg-id)::rel-terminal.

Syntax Description

* MLHG-ID	Primary key. Foreign key: Multiline Hunt Group table. Identifier for this MLHG. Same as ID in the Multiline Hunt Group table. VARCHAR(16): 1–16 ASCII characters.
* TERMINAL	Primary key. The number assigned to this terminal (that is, the terminal number within the MLHG). Numbers can be assigned in numeric order starting from 1, but this is not required. During a multiline hunt, the terminals are attempted in numerical order, from lowest to highest. SMALLINT: 1–512.
* MGW-ID	Foreign key: Media Gateway table. Media Gateway table ID. It must match an ID in the Media Gateway table. VARCHAR(32): 1–32 ASCII characters.
* TERM-ID	The ID from the Termination table. Use a geographical map to assign terminations to terminals. The ID must be obtained from the previous provider if the customer had one. VARCHAR(32): 1–32 ASCII characters.
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).

Multiline Hunt Group Preference List

The Multiline Hunt Group Preference List (mlhg-pref-list) table indicates the terminals to be sequentially attempted in a preferential hunt list within an MLHG. Lists are pools of terminals within the MLHG. If the called DN is busy, and if the called DN is provisioned in the Subscriber table with a mlhg-pref-list-id, the call is first given to an idle member of the specified preferential hunt list (if available) before overflowing to the terminals within the whole MLHG.

Note The system does *not* invoke the preference list (preferential hunt) if hunt-type=UCD in the MLHG table.

Table Name: MLHG-PREF-LIST

Table Containment Area: Call Agent

Command Types

Show, add, change, and delete

Examples

```
show mlhg-pref-list id=admin-pool; mlhg-id=Cisco Eng;
add mlhg-pref-list id=admin-pool; mlhg-id=Cisco Eng;
change mlhg-pref-list id=admin-pool; mlhg-id=Cisco Eng;
rel-terminal1=20; rel-terminal2=21;
delete mlhg-pref-list id=admin-pool; mlhg-id=Cisco Eng;
```

The following example illustrates how to provision an MLHG *preferential* hunt list.

The MLHG has 512 terminals (numbered 1 to 512). A preferential hunt list can be created using any of the 512 terminals. The rel-terminal token specifies the position of a terminal in the preferential hunt list and the terminal number to use to complete the call. Up to 18 terminals can be specified. Any terminal can use any value, but a value can be used only once in the same group. So, if rel-terminal1 uses value 3, rel-terminal2 can use any value but 3. If rel-terminal2 uses value 66, rel-terminal3 can use any value but 3 and 66, and so forth.

Note For additional examples of preferential hunting scenarios, see the "Multiline Hunt Group (MLHG)" section in the *Cisco BTS 10200 Softswitch Network and Subscriber Feature Descriptions* document.

Usage Guidelines

Primary Key Token(s): mlhg-id, id

Foreign Key Token(s): mlhg-id

Add Rules:

- No more than 64 lists exist for this mlhg-id.
- rel-terminal does not already exist for the mlhg-id and id combination.
- rel-terminal exists in any mlhg-terminal::rel-terminal based on mlhg-id.

Change Rules:

- rel-terminal does not already exist for the mlhg-id and id combination.
- rel-terminal exists in any mlhg-terminal::rel-terminal based on mlhg-id.

Delete Rules: None.

Syntax Description

* MLHG-ID	Primary key. Foreign key: Multiline Hunt Group table. Identifier for this MLHG. Same as ID in Multiline Hunt Group table. VARCHAR(16): 1–16 ASCII characters.
* ID	Primary key. Preferential hunt list ID. Assigned by service provider. VARCHAR(16): 1–16 ASCII characters.
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Enter multiple tokens by separating with a comma.
REL-TERMINAL1	Identifies the terminal (same as the terminal provisioned in the MLHG Terminal table) assigned to position 1 in this preferential hunt list. SMALLINT: 1–512.
REL-TERMINAL2	Identifies the terminal (same as the terminal provisioned in the MLHG Terminal table) assigned to position 2 in this preferential hunt list. SMALLINT: 1–512.
REL-TERMINAL3	Identifies the terminal (same as the terminal provisioned in the MLHG Terminal table) assigned to position 3 in this preferential hunt list. SMALLINT: 1–512.
REL-TERMINAL4	Identifies the terminal (same as the terminal provisioned in the MLHG Terminal table) assigned to position 4 in this preferential hunt list. SMALLINT: 1–512.
REL-TERMINAL5	Identifies the terminal (same as the terminal provisioned in the MLHG Terminal table) assigned to position 5 in this preferential hunt list. SMALLINT: 1–512.

REL-TERMINAL6	Identifies the terminal (same as the terminal provisioned in the MLHG Terminal table) assigned to position 6 in this preferential hunt list. SMALLINT: 1–512.
REL-TERMINAL7	Identifies the terminal (same as the terminal provisioned in the MLHG Terminal table) assigned to position 7 in this preferential hunt list. SMALLINT: 1–512.
REL-TERMINAL8	Identifies the terminal (same as the terminal provisioned in the MLHG Terminal table) assigned to position 8 in this preferential hunt list. SMALLINT: 1–512.
REL-TERMINAL9	Identifies the terminal (same as the terminal provisioned in the MLHG Terminal table) assigned to position 9 in this preferential hunt list. SMALLINT: 1–512.
REL-TERMINAL10	Identifies the terminal (same as the terminal provisioned in the MLHG Terminal table) assigned to position 10 in this preferential hunt list. SMALLINT: 1–512.
REL-TERMINAL11	Identifies the terminal (same as the terminal provisioned in the MLHG Terminal table) assigned to position 11 in this preferential hunt list. SMALLINT: 1–512.
REL-TERMINAL12	Identifies the terminal (same as the terminal provisioned in the MLHG Terminal table) assigned to position 12 in this preferential hunt list. SMALLINT: 1–512.
REL-TERMINAL13	Identifies the terminal (same as the terminal provisioned in the MLHG Terminal table) assigned to position 13 in this preferential hunt list. SMALLINT: 1–512.
REL-TERMINAL14	Identifies the terminal (same as the terminal provisioned in the MLHG Terminal table) assigned to position 14 in this preferential hunt list. SMALLINT: 1–512.
REL-TERMINAL15	Identifies the terminal (same as the terminal provisioned in the MLHG Terminal table) assigned to position 15 in this preferential hunt list. SMALLINT: 1–512.
REL-TERMINAL16	Identifies the terminal (same as the terminal provisioned in the MLHG Terminal table) assigned to position 16 in this preferential hunt list. SMALLINT: 1–512.
REL-TERMINAL17	Identifies the terminal (same as the terminal provisioned in the MLHG Terminal table) assigned to position 17 in this preferential hunt list. SMALLINT: 1–512.
REL-TERMINAL18	Identifies the terminal (same as the terminal provisioned in the MLHG Terminal table) assigned to position 18 in this preferential hunt list. SMALLINT: 1–512.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).



CHAPTER 13

Centrex Features

Revised: July 24, 2009, OL-3743-42

This chapter describes Centrex features. Centrex features are normally provided by a PBX to business subscribers. The Cisco BTS 10200 Softswitch allows a service provider to provide PBX features without purchasing separate PBX equipment.

Note In this chapter, an asterisk preceding a token name means the token is mandatory. A token without an asterisk is optional.

Call Park Subscriber Group

The Call Park Subscriber Group (cpsg) table defines the Centrex-specific call park subscriber group identification and the call park timeout timer. Call park is similar to placing a call on hold, but the call is retrieved by dialing a code, rather than by pressing a line button. With call park, anyone, anywhere can retrieve the call.

Table Name: CPSG

Table Containment Area: FSPTC

Command Types

Show, add, change, and delete

Examples

```
show cpsg id=cisco;
add cpsg id=cisco; tcprk=100; ctxg-id=cisco;
change cpsg id=cisco; tcprk=60;
delete cpsg id=cisco;
```

Usage Guidelines

Primary Key Token(s): id

Foreign Key Token(s): ctxg-id

Add Rules: None.

Delete Rules: None.

Syntax Description

* ID	Primary key. Call park subscriber group ID. VARCHAR(16): 1–16 ASCII characters.
* CTXG-ID	Foreign key: Centrex Group table. Valid Centrex group ID. VARCHAR(16): 1–16 ASCII characters.
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
CPRK-DIGIT-MAP-STRING (Release 4.5)	Allows a service provider to enter a digit map based on the length of extension supported in the Centrex Group. For example, the following digit map provides a digit extension beginning with digit 3 and a 4-digit extension beginning with digit 4: `#|3xx|4xxx3` VARCHAR(32): 1–32 ASCII characters.
CPRK-FDN	Specifies the directory number (DN) to forward a parked call after three successive ring-back attempt failures. VARCHAR(26): 1–26 ASCII characters.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).
TCPRK	Call park timeout timer value in seconds. VARCHAR(3): 0–360.

Centrex Group

Both the Call Agent and POTS/Tandem/Centrex (PTC) Feature Server (FSPTC) share the Centrex Group (centrex-grp) table. A Centrex group is typically assigned to a business group. Subscribers within a Centrex group can reach each other via intercom (extension) dialing. A Centrex group is an emulation of a PBX by a Class 5 switch. This table defines Centrex groups and their associated Call Agents. The FSPTC provides Centrex-group functionality. The properties assigned to the main-subscriber-id are applicable to the whole Centrex group.

Note **Provisioning Speed Call (dial) for Centrex**
Provision Centrex speed calling using the Custom Dial Plan (CDP) table and setting NOD=speed-call, where NOD is nature of dial.

Table Name: CENTREX-GRP

Table Containment Area: Call Agent, FSPTC

Command Types

Show, add, change, and delete

Examples

```
show centrex-grp id=engineering;
add centrex-grp id=engineering; cdp-id=business; main-sub-id=26000sub2@cisco.com;
call-agent-id=CA146;
change centrex-grp id=engineering; main-sub-id=26211sub1@cisco.com; call-agent-id=CA146;
delete centrex-grp id=engineering;
```

Usage Guidelines

Primary Key Token(s): id

Foreign Key Token(s): cdp-id, call-agent-id, main-sub-id

Add Rules: None.

Change Rules: None.

Delete Rules:

- ID does not exist in ext2subscriber::ctxg-id.
- ID does not exist in any subscriber::ctxg-id.

Delete Procedure:

1. delete custom-dial-plan::cdp-id; digit-string=*;
2. delete custom-dial-plan-profile::cdp-id.
3. delete subscriber where subscriber::ctxg-id=id; (see delete subscriber).
4. delete centrex-grp::id.

Syntax Description

* ID	Primary key. Centrex group identification. VARCHAR(16): 1–16 ASCII characters.
* CDP-ID	Foreign key: Custom Dial Plan Profile table. Must match ID in the Custom Dial Plan Profile table. VARCHAR(16): 1–16 ASCII characters.
* CALL-AGENT-ID	Foreign key: Call Agent table. Identifies the Call Agent that the group belongs to. VARCHAR(8): 1–8 ASCII characters.
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
BOTH-SFG-COUNT	Specifies the number of simultaneous incoming/outgoing calls that are allowed in addition to the in-sfg-count and out-sfg-count. SMALLINT: 0–100.
CAT-SCREENING	Customer access treatment (CAT). Each CAT in a specific location in the string identifies a feature. The subscriber can access the feature if cat-screening allows. CHAR(1): Y/N (Default = Y). Y—CAT is turned on. N—CAT is turned off.
CPRK-FDN	Unsuccessful timed recall forward to extension. When a parked call times out, the call is forwarded to the extension specified in this column. VARCHAR(26): 1–26 ASCII characters.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
IN-SFG-COUNT	Specifies the number of simultaneous incoming calls allowed for this Centrex group. SMALLINT: 0–100.
INTERNAL-CND-ONLY	This flag applies to calling number delivery (CND) and Caller ID with name (CNAM) features only. CHAR(1): Y/N (Default = Y). Y—CND/CNAM is applied only to intercom calls. N—CND/CNAM is applied to all calls.

LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
MAIN-SUB-ID	Foreign key: Subscriber table. Main subscriber ID. VARCHAR(30): 1–30 ASCII characters.
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
OUT-SFG-COUNT	Specifies the number of simultaneous outgoing calls allowed for this Centrex group. SMALLINT: 0–100.
SDT-TYPE	Specifies the second dial tone type. VARCHAR(8): 1–8 ASCII characters. Permitted values are: DL—Dial tone. SL—Stutter dial tone. CF—Confirmation tone. NA—Not applicable.
SFG-CONTROL	Specifies whether to apply a simulated facility group (SFG) control. CHAR(1): Y/N (Default = Y). Y—Apply SFG control. N—Do not apply SFG control.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).

Custom Dial Plan

The Custom Dial Plan (custom-dial-plan) table translates Centrex calls. If the result of a custom dial plan (CDP) is a POTS access code, call processing uses the POTS Dial Plan table to translate the digits dialed after the POTS access code. Speed call codes are provisioned in this table as nod=speed-call and fname=SC1D (or SC2D). Screening does not apply to speed dialing.

Table Name: CUSTOM-DIAL-PLAN

Table Containment Area: FSPTC

Command Types

Show, add, change, and delete

Examples

```
show custom-dial-plan id=cisco plan; digit-string=4xx;
add custom-dial-plan id=cisco plan; digit-string=9; nod=pots-access;
cat-string=1111111111;
change custom-dial-plan id=cisco plan; digit-string=4xx; nod=vsc; fname=CFUA;
delete custom-dial-plan id=cisco plan; digit-string=*72;
```

Usage Guidelines

Primary Key Token(s): id, digit-string

Foreign Key Token(s): id, fname

Add Rules: None.

Change Rules: None.

Delete Rules: None.

Related Commands

* ID	Primary key. Foreign key: Custom Dial Plan Profile table. Must match ID in the Custom Dial Plan Profile table. VARCHAR(16): 1–16 ASCII characters.
* DIGIT-STRING	Primary key. Digit string to be translated in this custom dial plan. VARCHAR(7): 1–7 digit string. Access codes can be 1–5 digits. Extensions can be 1–7 digits.
* NOD	Nature of the dial—the type of digits dialed. If nod=speed-call, then fname must be either SC1D or SC2D. If nod=vsc, then an fname must be specified. If nod=attendant-access, pots-access, or extension, then fname is not required. VARCHAR(16): 1–16 ASCII characters. Permitted values are: VSC—Vertical service code. ATTENDANT-ACCESS—Attendant access. POTS-ACCESS—PSTN access code. EXTENSION—Extension dialing. SPEED-CALL—One- or two-digit speed calling.

AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
CAT-STRING	Specifies customer access treatment (CAT) code screening. VARCHAR(16): 1–16 ASCII characters. You can specify only 0s (zeros) or 1s (ones). CAT codes are associated with the feature access codes of a Centrex group. A bitmap of 16 possible CAT code values is required for each feature access code. Each bit position is marked as Allowed/Disallowed. A CAT code value between 1–16 is assigned to a subscriber. The CAT code value assigned to a subscriber is used to index the CAT code bit map assigned to the feature access code. The feature access code is allowed or disallowed based on the value of the corresponding bit value.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
FNAME	Feature name. Mandatory if nod = vsc; null for all others. Foreign key: Feature table. See the Subscriber Feature Data table for more information. VARCHAR(6): 1–6 ASCII characters. See Appendix C, "Vertical Service Codes" for permitted values.
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).

Custom Dial Plan Profile

The Custom Dial Plan Profile (custom-dial-plan-profile) table defines custom dial plan IDs (CDP IDs) assigned to Centrex groups.

Table Name: CUSTOM-DIAL-PLAN-PROFILE (EMS ONLY)

Table Containment Area: FSPTC

Command Types

Show, add, change, and delete

Examples

```
show custom-dial-plan-profile id=cisco plan;
add custom-dial-plan-profile id=cisco plan;
change custom-dial-plan-profile id=cisco plan; description=main dialing plan for cisco;
delete custom-dial-plan-profile id=cisco plan;
```

Usage Guidelines

Primary Key Token(s): id

Add Rules: None.

Change Rules: None.

Delete Rules: ID does not exist in any custom-dial-plan::id.

Syntax Description

* ID	Primary key. Custom dial plan profile ID. VARCHAR(16): 1–16 ASCII characters.
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
DESCRIPTION (EMS-only field)	Described by the service provider. VARCHAR(64): 1–64 ASCII characters.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.

ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).

Ext2Subscriber

The EXT2SUBSCRIBER table has to be manually defined for each subscriber in the CENTREX group including main_sub.



Note If this table is not created manually then the dial-plan defined in the CDP (customer dial-plan) for the centrex will not work.

Table Name: EXT2SUBSCRIBER

Table Containment Area: FSPTC

Command Types

Show, add, change, and delete

Examples

```
show ext2subscriber ctxg-id=engineering; ext=1234;
add ext2subscriber ctxg-id=engineering; ext=1234;
change ext2subscriber ctxg-id=engineering; ext=1234; sub-id=wilmerwabash;
delete ext2subscriber ctxg-id=engineering; ext=1234;
```

Usage Guidelines

Primary Key Token(s): ctxg-id, ext

Foreign Key Token(s): ctxg-id, cpsg-id, sub-id

Add Rules: None.

Change Rules: None.

Delete Rules: None.

Syntax Description

* CTXG-ID	Primary key. Foreign key: Centrex Group table. Centrex group ID. VARCHAR(16): 1–16 ASCII characters.
* EXT	Primary key. Extension number. VARCHAR(7): 1–7 digits. 0 is a valid extension.

ASSIGNED	Indicates if extension is assigned. CHAR(1): Y/N (Default = Y). Y—Assigned N—Unassigned (Not supported)
ATTENDANT	Specifies whether subscriber is an attendant. CHAR(1): Y/N (Default = N). N—Subscriber is not an attendant. Y—Subscriber is an attendant.
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
CAT-CODE	Mandatory if cat-screening=y in centrex-grp::ctxg-id. Customer access treatment (CAT) code assigned to the Centrex subscriber. SMALLINT: 1–16.
CPSG-ID	Foreign key: Call Park Subscriber table. Call park subscriber group identification. VARCHAR(16): 1–16 ASCII characters.
CTX-RESTRICT	Specifies if there are any Centrex restrictions. VARCHAR(4). Permitted values are: NONE (Default)—No restriction on the line. FULL—Fully restricted line. Cannot make or receive DOD/DID calls. DID calls cannot be transferred to a fully restricted line. SEMI—Similar to fully restricted line but can receive transferred DID calls.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.

START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).
SUB-ID	Foreign key: Subscriber table. Subscriber ID from the Subscriber table. VARCHAR(30): 1–30 ASCII characters.



CHAPTER 14

Local Toll-Free Service Provisioning

Revised: July 24, 2009, OL-3743-42

This chapter describes the Local Toll-Free Service Provisioning commands and their associated tables.

Note In this chapter, an asterisk preceding a token name means the token is mandatory. A token without an asterisk is optional.

Automatic Numbering Identification White Black List

The Automatic Number Identification (ANI) White Black List (ani-wb-list) table performs ANI screening on 800 calls. The Customer Group specifies if the list is to be used as a White List or a Black List. A White Black List specifies whether calls are allowed to connect (white) or not allowed to connect (black).

Table Name: ANI-WB-LIST

Table Containment Area: FSAIN

Command Types

Show, add, and delete

Examples

```
show ani-wb-list cust-grp-id=cisco; digit-string=469-255-0000;
add ani-wb-list cust-grp-id=cisco; digit-string=469-255-0000;
delete ani-wb-list cust-grp-id=cisco; digit-string=469-255-0000;
```

Usage Guidelines

Primary Key Token(s): cust-grp-id, digit-string

Foreign Key Token(s): cust-grp-id

Add Rules: None.

Delete Rules: None.

Syntax Description

* CUST-GRP-ID	Primary key. Foreign key: Customer Group table. ID of the customer group to use in determining how to apply this list. VARCHAR(16): 1–16 ASCII characters.
* DIGIT-STRING	Primary key. The 10-digit phone number of the calling party. VARCHAR(14): 1–14 numeric characters in the format NDC-EC-DN. **Note** Hyphens are required.
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).

Customer Group

The Customer Group (cust-grp) table defines the cust-grp-id and how automatic number identification (ANI) call forwarding and call restrictions are applied.

Table Name: CUST-GRP

Table Containment Area: FSAIN

Command Types

Show, add, change, and delete

Examples

```
show cust-grp id=cisco;
add cust-grp id=cisco; dnis-pattern=8002424444
change cust-grp id=cisco; ani-wb-list=white;
delete cust-grp id=cisco;
```

Usage Guidelines

Primary Key Token(s): id

Foreign Key Token(s): route-guide-id

Add Rules: None.

Change Rules: None.

Delete Rules:

- ID does not exist in any dn2cust-grp::cust-grp-id.
- ID does not exist in any ani-wb-list::cust-grp-id.
- ID does not exist in any ii-restrict-list::cust-grp-id.

Syntax Description

* ID	Primary key. A unique identifier for this customer group. Assigned by service provider. Required if any policy routing is needed. It is used to look up specific customer information for screening, routing, or DNIS information, if it exists. VARCHAR(16): 1–16 ASCII characters.
ANI-WB-LIST	Indicates if White Black List ANI screening is required. Defines how the list is used to screen the calling number. CHAR(5): 1–5 characters. Permitted values are: NONE (Default)—No ANI screening is performed. WHITE—Use as a White List. BLACK—Use as a Black List.

AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
COLLECT-PIN (Not used)	800 service with PIN service. CHAR(1): Y/N (Default = N).
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
DNIS-PATTERN	Identifies a dialed number identification service (DNIS) pattern. The DNIS pattern allows more than one 8XX/9XX number to be forwarded to a single line and identifies the called number. VARCHAR(32): 1–32 ASCII characters.
II-RESTRICT-LIST	Indicates if White Black List originating line information (OLI) screening is required. CHAR(5): 1–5 characters. Permitted values are: NONE (Default)—No screening is performed. BLACK—Call is blocked for the OLI digits contained in the II Restrict List table. WHITE—Call is allowed for the OLI digits contained in the II Restrict List table.
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
NUM-PIN-DIGITS (Not used)	Number of PIN digits to collect. SMALLINT: 2–12.
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
OVERFLOW-CARRIER (Not used)	Carrier to use for overflow calls. CHAR(4): 4 numeric characters.
OVERFLOW-POTS (Not used)	The call is routed to the overflow POTS number if all trunk groups are busy. VARCHAR(10): 1–10 ASCII characters.

ROUTE-GUIDE-ID	Foreign key: Route Guide table. Route guide ID is required if policy-based routing is to be performed. VARCHAR(16): 1–16 ASCII characters.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).

DN2 Customer Group

The DN2 Customer Group (dn2cust-grp) table provides translation of inbound/outbound 8XX (toll free) numbers to a local number and designated carrier.

Table Name: DN2CUST-GRP

Table Containment Area: FSAIN

Command Types

Show, add, change, and delete

Examples

```
show dn2cust-grp digit-string=800-234-5678;
add dn2cust-grp digit-string=800-234-5678; translated-dn=972-671-2355; carrier-id=1234;
change dn2cust-grp digit-string=800-234-5678; carrier-id=1235;
delete dn2cust-grp digit-string=800-234-5678;
```

Usage Guidelines

Primary Key Token(s): digit-string

Foreign Key Token(s): carrier-id, cust-grp-id

Add Rules: None.

Change Rules: None.

Delete Rules: None.

Syntax Description

* DIGIT-STRING	Primary key. Dialed digits string. VARCHAR(14): 1–14 ASCII characters in the format 8xxNxxxxxx.
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
CARRIER-ID	Foreign key: Carrier table. Specifies which carrier to use to route the call by the ID assigned to the carrier in the Carrier table. The 4-digit Carrier Identification Code (CIC) 101xxxx. CHAR(4): 4 numeric digits: 0000–9999.

CUST-GRP-ID	Foreign key: Customer Group table. Customer group ID. Required if any policy routing is needed. Same ID assigned to this customer group in the Customer Group table. It is used to look up specific customer information for screening, routing, or DNIS information, if it exists. VARCHAR(16): 1–16 ASCII characters.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).
TRANSLATED-DN	Specifies the translated DN to use for call completion. VARCHAR(14): 1–14 ASCII characters.

II Restrict List

The II Restrict List (II-restrict-list) table restricts certain types of originating line services for a given group. The use of the list is determined by provisioning in the Customer Group table. This is a Black List (restrict) only. It cannot be a White List.

Table Name: II-RESTRICT-LIST

Table Containment Area: FSAIN

Command Types

Show, add, and delete

Examples

```
show ii-restrict-list ii=20; cust-grp-id=cisco;
add ii-restrict-list ii=20; cust-grp-id=cisco;
delete ii-restrict-list ii=20; cust-grp-id=cisco;
```

Usage Guidelines

Primary Key Token(s): cust-grp-id, ii

Foreign Key Token(s): cust-grp-id

Add Rules: None.

Delete Rules: None.

Syntax Description

* II	Primary key. Originating line information (OLI) assigned to subscriber in the Subscriber Profile table or received in the IAM message. SMALLINT: 0–99.
* CUST-GRP-ID	Mandatory if any policy routing is required. Primary key. Foreign key: Customer Group table. Customer group ID. ID assigned to this customer group in the Customer Group table. It is used to look up specific customer information for screening, routing, or DNIS information, if it exists. CHAR(16): 1–16 characters.
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).

Routing Features

See Chapter 3, "Routing Provisioning" for detailed information.

Policy-NXX

See the "Policy NXX" section on page 3-47 for details.

Policy-ODR

See the "Policy Origin Dependent Routing" section on page 3-48 for details.

Policy-OLI

See the "Policy Originating Line Information" section on page 3-50 for details.

Policy-Percent

See the "Policy Percent" section on page 3-52 for details.

Policy-POP

See the "Policy Point of Presence" section on page 3-55 for details.

Policy-Prefix

See the "Policy Prefix" section on page 3-57 for details.

Policy-Region

See the "Policy Region" section on page 3-61 for details.

Policy-TOD

See the "Policy Time of Day" section on page 3-63 for details.

Region-Profile

See the "Region Profile" section on page 3-71 for details.

Route-Guide

See the "Route Guide" section on page 3-79 for details.



CHAPTER 15

Split Numbering Plan Area Provisioning

Revised: July 24, 2009, OL-3743-42

The Split Numbering Plan Area (split-npa) table is used when the Call Agent is affected by a split Numbering Plan Area (NPA). A split-NPA occurs when an NXX of NPA-NXX moves from one NPA to another. In the following example, all directory numbers (DNs) under 214-671 move to the new NPA:

```
old nxx = 214-671
new nxx = 972-671
```

Note In this chapter, an asterisk preceding a token name means the token is mandatory. A token without an asterisk is optional.

Table Name: SPLIT-NPA

Table Containment Area: Call Agent

Command Types

Show, add, change, and delete

Examples

```
show split-npa old-npa=214;
add split-npa old-npa=214-671; new-npa=972-671; start-date=2003-08-01;
end-date=2004-01-31;
change split-npa old-npa=214-671; dup-records=y;
delete split-npa old-npa=214-671;
```

Usage Guidelines

Primary Key Token(s): old-npa

Unique Key Token(s): new-npa

Add Rules:

- start-date is before end-date.
- old(nxx) = new(nxx).

Change Rules:

- start-date is before end-date.
- if update-ani and start-date ≤today's date ≤end-date.
- if cleanup, end-date must be less than or equal to today's date.

Delete Rules: None.

Syntax Description

* OLD-NPA	Primary key. Old NPA before split. VARCHAR(6): 1–6 ASCII characters in the format NPA-NXX.
* NEW-NPA	Unique key. New NPA after split. VARCHAR(6): 1–6 ASCII characters in the format NPA-NXX.
* START-DATE	Start date of the permissive dialing period. DATE: in the format yyyy-mm-dd, where: yyyy—year mm—01 to 12 (month) dd—01 to 31 (day)
* END-DATE	End date of the permissive dialing period. DATE: in the format yyyy-mm-dd, where: yyyy—year mm—01 to 12 (month) dd—01 to 31 (day)
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.

LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).
DUP-RECORDS (EMS-only token)	Duplicate records. When set, dial-plan, office-code, ported-office-code tables are updated with the new NPA-NXX. CHAR(1): Y/N (Default = N).
DUP-RECORDS-STATUS (EMS-only token) (System generated)	Used internally by the EMS to keep track of the record duplication status. When a split-NPA record is provisioned, the dup-records-status is initialized to pending. VARCHAR(11): 1–11 ASCII characters. Permitted values are: Pending (Default)—Records duplication pending. In-progress—Records duplication in progress. Completed—Records duplication completed.
UPDATE-ANI (EMS-only token)	Update automatic number identification (ANI) records. When set, subscriber directory numbers (DNs) are updated to the new NPA in the subscriber record. CHAR(1): Y/N (Default = N).
UPDATE-ANI-STATUS (EMS-only token) (System generated)	Used internally by EMS to keep track of the ANI update status. When a split-NPA record is provisioned, the update-ani-status is initialized to pending. VARCHAR(11): 1–11 ASCII characters. Permitted values are: Pending (Default)—ANI update pending. In-progress—ANI update in progress. Completed—ANI update completed.
CLEANUP (EMS-only token)	Cleanup. When set, records pointing to the old NPA are removed. CHAR(1): Y/N (Default = N).
CLEANUP-STATUS (EMS-only token) (System generated)	Used internally by EMS to keep track of the cleanup status. When a split-NPA record is provisioned, the cleanup-status is initialized to pending. VARCHAR(11): 1–11 ASCII characters. Permitted values are: Pending (Default)—Cleanup pending. In-progress—Cleanup in progress. Completed—Cleanup completed.



CHAPTER 16

Electronic Surveillance Server

Revised: July 24, 2009, OL-3743-42

The Electronic Surveillance Server (ess) table holds the information related to the Delivery Function (DF) server and is populated at system installation.

Table Name: ESS

Table Containment Area: EMS, Call Agent, and FSPTC

Command Types

Show, add, change, and delete

Examples

```
show ess cdc-df-address=191.12.301.211; cdc-df-port=1813;
add ess cdc-df-address=191.12.301.211; cdc-df-port=1813; encryption-key=0000000000000000;
protocol-version=I03;
change ess cdc-df-address=191.12.301.211; cdc-df-port=1813;
acc-req-retransmit=4;acc-rsp-timeout=3;
delete ess cdc-df-address=191.12.301.211; cdc-df-port=1813;
```

Usage Guidelines

Primary Key Token(s): cdc-df-address, cdc-df-port

Add Rules: None.

Change Rules: None.

Delete Rules: None.

IPSec Rules:

- ipcsec-sa-lifetime must be greater than or equal to 0.
- ipsec-sa-grace-period must be greater than or equal to 0.
- ipsec-sa-grace-period must less than or equal to 25% of ipsec-sa-lifetime.
- ike-group: the list must contain 1, but other possible lists are: <1>, or <1, 2>.
- ike-sa-lifetime must be greater than or equal to 0.
- ike-key-encr must be stored in an encrypted format.

Note An asterisk preceding a token name means the token is mandatory. A token without an asterisk is optional.

Syntax Description

* CDC-DF-ADDRESS	Primary key. Identifies the DNS or IP address of the DF server to send the call data and call content. VARCHAR(64): 1–64 ASCII characters.
* PROTOCOL-VERSION	Specifies the PacketCable event message (EM) version. VARCHAR(8): 1–8 ASCII characters. Permitted values are: I02—Encodes the EM headers with 60 bytes. I03—(Default) EM-I03 and up. Encodes EM headers with 76 bytes.
ACC-REQ-RETRANSMIT	Specifies the number of retransmissions of unacknowledged accounting requests. INTEGER: 1–4 (Default = 3).
ACC-RSP-TIMEOUT	Time (in seconds) to retransmit the radius message. The value must be an integer. INTEGER: Default = 2.
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
CDC-DF-PORT	Primary key. Identifies the port number of the DF server to send the call data packets. INTEGER: 0–65535 (Default = 1813).
DESCRIPTION	Described by the service provider. VARCHAR(64): 1–64 ASCII characters.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
ENCRYPTION-KEY	MD5 Encryption Key for the radius interface between the Cisco BTS 10200 Softswitch and the DF server. VARCHAR(16): 1–16 ASCII characters (Default = 0000000000000000).

IKE-CS	Specifies a list of ciphersuites supported by IKE, in priority order. This list is used to negotiate the encryption-authentication algorithm pair used by IKE. The list can contain only those ciphersuites using the authentication algorithms HMAC-MD5 and HMAC-SHA and the encryption algorithm ESP-3DES. VARCHAR(64): 1–64 ASCII characters. Permitted values are: 3DES-MD5, 3DES-SHA1 (Default list) 3DES-SHA1, 3DES-MD5 3DES-MD5 3DES-SHA1
IKE-GROUP	Identifies the available groups in which the Diffie-Helman exchange can occur. INTEGER: Valid values are 1 and 2 (Default = 2).
IKE-KEY	The IKE preshared key. An ike-key value must be provisioned for a trunking gateway, and is optional for other gateways. VARCHAR(512): 1–512 ASCII characters.
IKE-KEY-ENCR	The IKE preshared key in encrypted form (system generated). The system encrypts the value of the IKE-KEY token and stores the encrypted value as IKE-KEY-ENCR. It is then decrypted and displayed only when accessed by a privileged user. VARCHAR(256): 1–256 ASCII characters. To show the ike-key-encr token in encrypted form, use the following command: show radius-profile; To show the ike-key token in unencrypted form, use the following command: show radius-profile-unencr;
IKE-SA-LIFETIME	Specifies the IKE SA expiration, in seconds. INTEGER: 0–MAXINT (Default = 86400). **Note** MAXINT is defined as the largest possible 4-byte integer, that is, [2 to the power 32]–1.
IPSEC-CMS-CONTROL-PORT	IPSec SA outbound control port. Used if the SA is created for a particular outbound port for this device class. SMALLINT: 0–65534 (Default = 0).

IPSEC-SA-ESP-CS	The IPSec SA ESP ciphersuite list in priority order. Used to negotiate an encryption-authentication algorithm pair used by IPSec. The list can contain only those ciphersuites using the authentication algorithms HMAC-MD5 and HMAC-SHA and the encryption algorithms ESP-3DES and ESP-NULL. VARCHAR(64): 1–64 ASCII characters. 3DES-MD5, 3DES-SHA1, NULL-MD5, NULL-SHA1 (Default list) **Note** This list can be modified to be a subset of this initial list using the CLI and can be reordered to specify a new priority selection. For example: - 3DES-MD5, 3DES-SHA1, NULL-SHA1, NULL-MD5 - 3DES-SHA1, NULL-MD5, NULL-SHA1 - 3DES-MD5, NULL-MD5 - NULL-SHA1 and additional values
IPSEC-SA-GRACE-PERIOD	Sets the IPSec SA key expiration grace period, in seconds. This is used to calculate the soft expiration. The ipsec-sa-grace-period must be less than the ipsec-sa-lifetime. INTEGER: 0–MAXINT (Default = 3600). **Note** MAXINT is defined as the largest possible 4-byte integer, that is, [2 to the power 32]–1. **Note** The value of ipsec-sa-grace-period must be less than or equal to 25% of the provisioned value for ipsec-sa-lifetime. If not specified when provisioning a new ipsec-sa-lifetime, the ipsec-sa-grace-period defaults to 25% of the ipsec-sa-lifetime.
IPSEC-SA-LIFETIME	Sets the IPSec SA expiration, in seconds. This is the hard expiration. INTEGER: 0–MAXINT (Default = 86400). **Note** MAXINT is defined as the largest possible 4-byte integer, that is, [2 to the power 32]–1.
IPSEC-ULP-NAME	Specifies a single IPSec SA upper-layer protocol. Use this token if the SA should be created only for specific protocol traffic for this device class. VARCHAR(8): 1–8 ASCII characters. The value is a string as described in getprotobyname(3XNET). Permitted values are: IP (Default) TCP UDP
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.

ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).
USE-PACKETCABLE-IAP	Specifies whether to use IAP for PacketCable. Set this flag to N if the Cisco BTS 10200 Softswitch does not need to search for a PacketCable CALEA enabled IAP for CALEA Call Content (SII only). This flag is typically set to N in a network with no available PacketCable-compliant Intercept Access Points (IAPs). CHAR(1): Y/N (Default = N). Y—PacketCable IAPs are searched for call content. N—PacketCable IAPs are not searched for call content. The Cisco BTS 10200 Softswitch assumes the DF server knows where to send the wiretap request using SDP information.



PART 1

Administration, Diagnostic, Maintenance and Operational Commands



CHAPTER 1

Administration, Diagnostic, and Maintenance Commands

Revised: July 24, 2009, OL-3743-42

This chapter describes the Administration, Diagnostic, and Maintenance (ADM) commands. With the exception of the Status Update Processor command, status and control commands do not have their own tables. They use the tokens in the applicable tables from the Call Processing chapters in this document. Tokens used in addition to the tokens from the tables in the Call Processing chapters are noted where applicable in this document.

Note In this chapter, an asterisk preceding a token name means the token is mandatory. A token without an asterisk is optional.

Command Responses

See the *Cisco BTS 10200 Softswitch Operations and Maintenance Guide* and the *Cisco BTS 10200 Softswitch Troubleshooting Guide* for command response information,

Generic Status and Control Commands

Generic status and control commands apply to all media gateways, subscribers, trunks, trunk groups and in one specific case, system. Some sample responses, replies, and failure reasons are also listed in this section. For a complete list, see the *Cisco BTS 10200 Softswitch Operations Manual*.

Administration and Maintenance

Administration and Maintenance commands consist of commands that control or show the status of a component. The following commands are specific to, and listed under, the applicable type. Sample responses, replies, and failure reasons are also listed in this section. For a complete list, see the *Cisco BTS 10200 Softswitch Operations Manual*.

Address of Record to Subscriber Status and Control Commands

This section describes the status and control commands for the Address of Record (AOR) to Subscriber (aor2sub) table.

Caution These commands are no longer supported in Release 4.4.1. Use the **change aor2sub** command to control an aor2sub id, and the **show aor2sub** to check the status.

Control Command

An aor2sub id must be put in service to terminate a call to a Session Initiation Protocol (SIP) subscriber.

Command Types Control

Examples

```
control aor2sub aor-id=4692551114@prica45.ipclab.cisco.com; target-state=oos
control aor2sub aor-id=4692551114@prica45.ipclab.cisco.com; target-state=ins
```

Status Command

The status command determines the status of the dynamic contact for the particular AOR. This shows if the AOR (SIP phone subscriber) has a registered contact or not. Calls cannot be terminated to SIP subscribers if the AOR does not have a registered contact (such as an expired or freed contact).

Command Types Status

Examples

```
status sip-reg-contact AOR-ID=4692552222@prica45.ipclab.cisco.com
```

Reply example:

```
AOR ID ->
USER ->
HOST ->
PORT -> 0
USER TYPE ->
EXPIRES ->
EXPIRETIME ->
STATUS -> FREED CONTACT

Reply : Success:
AOR ID -> 4692552222@prica45.ipclab.cisco.com
USER -> 4692552222
HOST -> 64.101.150.141
PORT -> 5062
USER TYPE -> USER_IP_TYPE
EXPIRES -> 1800
EXPIRETIME -> Wed Jun 4 11:08:33 2003

STATUS -> EXPIRED CONTACT
```

```
Reply : Success:

status sip-reg-contact AOR_ID=4692552222@prica45.ipclab.cisco.com

AOR ID -> 4692552222@prica45.ipclab.cisco.com
USER -> 4692552222
HOST -> 64.101.150.141
PORT -> 5060
USER TYPE -> USER_IP_TYPE
EXPIRES -> 3600
EXPIRETIME -> Wed Jun 4 11:37:44 2003

STATUS -> REGISTERED CONTACT

Reply : Success:
```

Aggregation Status Command

This section describes the status command for an aggregation (aggr) router. Aggregation routers are used in cable and network-based call signaling (NCS) markets. In cable markets, they are used as cable modem termination systems (CMTSs). In NCS markets, they are used as edge routers.

Command Types

Status

Examples

status aggr id=CMTS1

Reply Example:

```
Reply: Success:

AGGR ID -> CMTS1
OPER STATE -> AGGR IN Service
RESULT -> ADM configure result in success
REASON -> ADM executed successful
```

Usage Guidelines

The following list provides the AGGR operational-state values and possible responses for the command:

1. IN SERVICE
   a. Means the TCP connection to the AGGR is up.
   b. CLI output: AGGR IN SERVICE.
2. CONNECTING
   a. Means the TCP connection to the AGGR is being set up.
   b. CLI output: AGGR CONNECTING.
3. INITIALIZING
   a. Identifies the initial state of the AGGR before a Call Agent (CA) attempts to connect to it.
   b. CLI output: AGGR INITIALIZING (this is a transitional state, which a user may rarely see).
4. OUT OF SERVICE

a. Means the AGGR is out of service.

b. CLI output: AGGR OUT OF SERVICE.

Syntax Description

The following token may be used with the status command:

- WAIT (Release 4.5)—Specifies a waiting period so that previously issued provisioning commands (for example, an add command) can complete before a status, control, or equip command executes. CHAR(1): Y/N (Default = N).
  - Y—System checks whether there are any pending provisioning requests in the transaction queue issued before the status, control or equip command. The provisioning commands are allowed to execute before the status, control, or equip command is executed.
  - N—System does not check whether there are any pending provisioning requests in the transaction queue issued before the status, control or equip command. All commands execute according to their order in the transaction queue.

Destination Point Code Status Command

This section describes the status command for destination point codes (DPCs).

Command Types

Status

Examples

```
status dpc id=dpc1;
```

Syntax Description

The following token may be used with the destination point code status command:

- WAIT (Release 4.5)—Specifies a waiting period so that previously issued provisioning commands (for example, an add command) can complete before a status, control, or equip command executes. CHAR(1): Y/N (Default = N).
  - Y—System checks whether there are any pending provisioning requests in the transaction queue issued before the status, control or equip command. The provisioning commands are allowed to execute before the status, control, or equip command is executed.
  - N—System does not check whether there are any pending provisioning requests in the transaction queue issued before the status, control or equip command. All commands execute according to their order in the transaction queue.

H.323 Gateway Status and Control Command

This section describes the status and control commands for H.323 gateways.

Command Types

Status and control

Examples

```
status h323-gw id=CHINA-1;
```

Reply Example:

```
Reply : Success:

ADMIN_STATE -> ADMIN_INS
H3A PROCESS NUMBER -> 30
H3A PROCESS NAME -> H3A1
ENDPOINT ID ->
ACTIVE CALLS -> 0
RAS STATE -> CCH323_RAS_STATE_GRQ
RAS PORT -> 35881
IP ADDRESS -> 10.89.224.125
REGISTERED GATEKEEPER ID ->
PRIMARY GATEKEEPER ID ->
PRIMARY GATEKEEPER PORT -> 0
PRIMARY GATEKEEPER IP ->
H323 VERSION -> 4
TIME TO LIVE -> 0
NUM ALT GATEKEEPERS -> 0
ALT GATEKEEPER PERMANENT -> TRUE
THRESHOLD_ENABLED -> FALSE
OUT_OF_RESOURCES -> FALSE
ALT GATEKEEPER LIST ->
```

```
control h323-gw id=CHINA_1; target-state=INS;
```

Reply Example:

```
Reply : Failure:

INITIAL STATE -> ADMIN_INS
REQUEST STATE -> ADMIN_INS
RESULT STATE -> ADMIN_INS
FAIL REASON -> ADM entity in desired state
REASON -> ADM is in request state
RESULT -> ADM configure result in warning
H323GW ID -> CHINA_1
```

Syntax Description

The following token may be used with the H.323 status and control commands:

- WAIT (Release 4.5)—Specifies a waiting period so that previously issued provisioning commands (for example, an add command) can complete before a status, control, or equip command executes. CHAR(1): Y/N (Default = N).
  - Y—System checks whether there are any pending provisioning requests in the transaction queue issued before the status, control or equip command. The provisioning commands are allowed to execute before the status, control, or equip command is executed.
  - N—System does not check whether there are any pending provisioning requests in the transaction queue issued before the status, control or equip command. All commands execute according to their order in the transaction queue.

Media Gateway Status and Control Commands

This section describes the status and control commands for media gateways.

Command Types

Status and control

Examples

```
status mgw id=c5400_197;
```

Reply Example:

```
Reply : Success:

MGW ID -> c5400_197
RESULT -> ADM configure result in success
REASON -> ADM executed successful
ADMIN STATE -> ADMIN_INS
OPER STATE -> Media gateway in working status
```

Table 1-1 lists the administrative states the system can return.

Table 1-1 Returnable Administrative States

State	Definition
ADMIN-INS	In Service.
ADMIN-OOS	Out of Service.
ADMIN-MAINT	Maintenance Mode.
ADMIN-OOS-PENDING	Transitioning to Out of Service.
ADMIN-MAINT-PENDING	Transitioning to Maintenance Mode.

The following command shows how to control a media gateway in service. Modes can be either forced or graceful. Forced tears down all calls immediately; graceful allows calls in progress to complete before teardown.

```
control mgw id=c5400_162; mode=forced; target-state=INS;
```

Reply Example:

```
Reply : Success: CLI change successful

MGW ID -> c5400_162
INITIAL STATE -> ADMIN_OOS
REQUEST STATE -> ADMIN_INS
RESULT STATE -> ADMIN_INS
FAIL REASON -> ADM found no failure
REASON -> ADM executed successful
RESULT -> ADM configure result in success
```

Syntax Description

The following token may be used with the media gateway status command:

- THROTTLE—Internal token used only by programs. CHAR(1): Y / N (Default = N).

Caution Setting this token to Y results in “Reply : Success” as the output. All other output is suppressed.

  - Y—Throttle output and suppress the results for internal programs to use.
  - N—Do not throttle output and display results as normal.

The following token may be used with the media gateway status and control commands:

- WAIT (Release 4.5)—Specifies a waiting period so that previously issued provisioning commands (for example, an add command) can complete before a status, control, or equip command executes. CHAR(1): Y/N (Default = N).
  - Y—System checks whether there are any pending provisioning requests in the transaction queue issued before the status, control or equip command. The provisioning commands are allowed to execute before the status, control, or equip command is executed.
  - N—System does not check whether there are any pending provisioning requests in the transaction queue issued before the status, control or equip command. All commands execute according to their order in the transaction queue.

Signaling Gateway Get and Set Trace Commands

This section details the set-trace and get-trace commands for the Signaling Gateway table. The get-trace command retrieves trace information for the Signaling Gateway table. The set-trace command sets what trace information to log for the Signaling Gateway table.

Command Types

get-trace and set-trace

Examples

```
get-trace sg id=sg1;
set-trace sg id=sg1;
```

Syntax Description

The following tokens are used with the get-trace and set-trace commands:

- ID—The Signaling Gateway id. VARCHAR(16): 1-16 ASCII characters. Mandatory.
- PLATFORM ID—Platform ID (must be a valid Call Agent or Feature Server ID). VARCHAR(16): 1–16 ASCII characters. Optional.

The following tokens may be used with the set-trace command:

- TRACE-DPC-STATE—DBM only. The DPC trace state. CHAR(1): Y/N (Default = N). Optional.
- TRACE-ERR—DBM only. The trace error. CHAR(1): Y/N (Default = N). Optional.
- TRACE-ERRIND—DBM only. The trace error indicator. CHAR(1): Y/N (Default = N). Optional.
- TRACE-SG-STATE—DBM only. The signaling gateway trace state. CHAR(1): Y/N (Default = N). Optional.

Signaling Gateway Process Status, Get-Trace and Set Trace Commands

This section details the status, set-trace, and get-trace commands for the Signaling Gateway Process table.

Status Command

The SGP status command returns the state of the SGP.

Command Types Status

Examples

```
status sgp id=sgp1;
```

Syntax Description The following token may be used with the status command:

- WAIT (Release 4.5)—Specifies a waiting period so that previously issued provisioning commands (for example, an add command) can complete before a status, control, or equip command executes. CHAR(1): Y/N (Default = N).
  - Y—System checks whether there are any pending provisioning requests in the transaction queue issued before the status, control or equip command. The provisioning commands are allowed to execute before the status, control, or equip command is executed.
  - N—System does not check whether there are any pending provisioning requests in the transaction queue issued before the status, control or equip command. All commands execute according to their order in the transaction queue.

Get Trace and Set Trace Commands

The get-trace command retrieves trace information for the Signaling Gateway Process table. The set-trace command sets what trace information to log for the Signaling Gateway Process table.

Command Types Get-trace and set-trace

Examples

```
get-trace sgp id=sgp1;
set-trace sgp id=sgp1; trace-err=Y;
```

Syntax Description The following tokens may be used with the get-trace and set-trace commands:

- ID—Unique signaling gateway process identifier. VARCHAR(16): 1–16 ASCII characters. Mandatory.
- SG-ID—Unique signaling gateway identifier. VARCHAR(16): Y/N (Default = N). Mandatory.
- TRACE-SCTP—CHAR(1): Y/N (Default = N).
- TRACE-PAK—CHAR(1): Y/N (Default = N).
- TRACE-HB—CHAR(1): Y/N (Default = N).
- TRACE-ERR—The SGP trace error. CHAR(1): Y/N (Default = N).
- TRACE-ERRIND—The SGP trace error indicator. CHAR(1): Y/N (Default = N).

Session Initiation Protocol Registration Status

The Session Initiation Protocol Registration Check command checks the AOR status of a SIP subscriber.

Command Types Status

Examples

```
status sip-reg-contact;
```

Signaling System 7 Trace Command

The Signaling System 7 (SS7) trace command performs a trace of a CIC for a specific trunk.

Command Types Start and Stop

Examples

```
start ss7-trace cic=1-2; tgn-id=1; file-prefix=tgn-1;
stop ss7-trace tgn-id=1; file-name=tgn-1_20030826110057;
```

Upon successful completion of this command a trace file name is returned. Trace file name has the format <file-prefix>-<time stamp>. Traces files are stored in /opt/OptiCall/CA146/mdltrace directory.

Traces can be started by specifying the time duration for which they can be active. By default all traces are active for 10 minutes.

Upon successful completion of this command a trace file name is returned. The trace file name format is <file-prefix>_<time stamp>. Trace report files are stored in /opt/OptiCall/CA146/mdltrace directory. Trace files must be converted using the mtv.sh script:

```
cd /opt/OptiCall/CA146/bin ./mtv.sh <trace-file-name>_<timestamp>.btr
```

See the *Cisco BTS 10200 Softswitch Operations and Maintenance Guide* for more information on using the mtv.sh script.

Status Update Processor Command

The Status Update Processor (SUP) Configuration (sup-config) table stores configurable values used by the SUP process to poll various components on the CA/FS. Each value is used to modify the SUP so that the collection of statuses is least intrusive depending on the size of the Softswitch (number of media gateways, trunk groups, and terminations). Most of the values are used for performance tuning.

Note This table is initially provisioned with default values at installation. During upgrades the values in these tables are not maintained.

Table Name: SUP-CONFIG

Table Containment Area: OAMP

Command Types Show and change

Examples

```
show sup-config

change sup-config type= refresh-rate; value=600
```

Usage Guidelines

Primary Key Token(s): type

Change Rules: None

Syntax Description

The following tokens may be used for the status update processor command:

- WAIT (Release 4.5)—Specifies a waiting period so that previously issued provisioning commands (for example, an add command) can complete before a status, control, or equip command executes. CHAR(1): Y/N (Default = N).
  - Y—System checks whether there are any pending provisioning requests in the transaction queue issued before the status, control or equip command. The provisioning commands are allowed to execute before the status, control, or equip command is executed.
  - N—System does not check whether there are any pending provisioning requests in the transaction queue issued before the status, control or equip command. All commands execute according to their order in the transaction queue.
- TYPE—Identifies the configurable property of the SUP process to change or show. VARCHAR: 1–64 ASCII characters. Mandatory. Permitted values are:
  - REFRESH-RATE—Specifies the interval in seconds between each collection period in seconds. The value must be greater than 30 seconds.
  - PRIORITY—Specifies the inner priority of the Collection Thread. The value can range from 1 to 10 and the default value is 5. Modifying this value has a minor effect in changing the CPU utilization of the SUP.
  - SUBTERM-MGW-BLOCK—Specifies the block of subterms within a gateway to retrieve and update at a time. Default value is 5 subterm blocks at a time.
  - SUBTERM-BLOCK-PAUSE—Specifies the time in milliseconds to pause between each subterm block from each subterm-mgw-block retrieved. The default value is 9000 milliseconds (9 seconds).
  - SUBTERM-STATUS-PAUSE—Specifies the time in milliseconds to pause between each bulk subterm status command. The default value is 0 milliseconds.
  - TRUNKTERM-TG-BLOCK—Specifies the block of trunk terms within a trunk group to retrieve and update at a time. Default value is 5 trunk term blocks at a time.
  - TRUNKTERM-BLOCK-PAUSE—Specifies the time in milliseconds to pause between each trunk term block for each trunkterm-tg-block retrieved. The default value is 9000 milliseconds (9 seconds).
  - TRUNKTERM-STATUS-PAUSE—Specifies the time in milliseconds to pause between each bulk trunk term status command. The default value is 0 milliseconds.
  - TRUNKTERM-RANGE-BLOCK—Specifies the range of CICs to retrieve on each bulk trunk term status. The default value is 1000 CICs per query.
  - TRUNKTERM-RANGE-PAUSE—Specifies the time in milliseconds to pause between each block of the trunkterm-range-block retrieved. The default value is 20000 milliseconds (20 seconds).

- VALUE—Identifies the values of the configurable property specified in the TYPE token. VARCHAR: 1–64 ASCII characters. Optional.

Stream Control Transmission Protocol Association Control and Status Commands

This section details the status and control commands for the Stream Control Transmission Protocol (SCTP) Association table. Use the control command to control an SCTP out of service. The status command checks the status of an SCTP association.

Command Types Control and status

Examples

```
control sctp-assoc id=sctpassoc1; target-state=OOS
status sctp-assoc id=sctpassoc1;
```

Syntax Description The following tokens may be used with the SCTP status and control commands:

- WAIT (Release 4.5)—Specifies a waiting period so that previously issued provisioning commands (for example, an add command) can complete before a status, control, or equip command executes. CHAR(1): Y/N (Default = N).
  - Y—System checks whether there are any pending provisioning requests in the transaction queue issued before the status, control or equip command. The provisioning commands are allowed to execute before the status, control, or equip command is executed.
  - N—System does not check whether there are any pending provisioning requests in the transaction queue issued before the status, control or equip command. All commands execute according to their order in the transaction queue.
- MODE—Specifies the control mode. VARCHAR(6): 1–6 ASCII characters. The only permitted value is FORCED.
  - Forced—immediately tears down all calls.

Trunk Group Status and Control Commands

This section describes the status and control commands for trunk groups.

Command Types Status and control

Examples The following command shows how to display the status of one trunk group id:

```
status trunk-grp id=2;
```

Reply Example:

```
RESULT -> ADM configure result in success
REASON -> ADM executed successful
ADMIN STATE -> ADMIN_INS
OPER STATE -> Trunk group in-service
TGN ID -> 2
```

Table 1-2 lists the administrative states the system can return.

Table 1-2 Returnable Administrative States

State	Definition
ADMIN-INS	In Service.
ADMIN-OOS	Out of Service.
ADMIN-MAINT	Maintenance Mode.
ADMIN-OOS-Pending	Transitioning to Out of Service.
ADMIN-MAINT-Pending	Transitioning to Maintenance Mode.
ACL	Congestion is at level 1.
ACL	Congestion is at level 2.
ACL	Congestion is at level 3.
TFC	Congestion is at level 1.
TFC	Congestion is at level 2.
TFC	Congestion is at level 3.

See the *Cisco BTS 10200 Softswitch Operations and Maintenance Guide* for returnable operating states.

Examples

The following command shows how to control one trunk group id:

```
control trunk-grp tgn-id=2; mode=forced; target-state=INS;
```

Reply Example:

```
Reply : Success: CLI change successful

INITIAL STATE -> ADMIN_OOS
REQUEST STATE -> ADMIN_INS
RESULT STATE -> ADMIN_INS
FAIL REASON -> ADM found no failure
REASON -> ADM executed successful
RESULT -> ADM configure result in success
TGN ID -> 2
```

Caution To control an ISDN trunk in-service, the media gateway must be in-service.

Usage Guidelines

The administrative target-state MAINT is for ISDN trunk groups only.

Syntax Description

The following token may be used with the trunk group commandS:

- THROTTLE—Internal token used only by programs. CHAR(1): Y / N (Default = N).

Caution Setting this token to Y results in "Reply : Success" as the output. All other output is suppressed.

  - Y—Throttle output and suppress the results for internal programs to use.
  - N—Do not throttle output and display results as normal.

The following tokens may be used with the trunk group status and control commands:

- WAIT (Release 4.5)—Specifies a waiting period so that previously issued provisioning commands (for example, an add command) can complete before a status, control, or equip command executes. CHAR(1): Y/N (Default = N).
  - Y—System checks whether there are any pending provisioning requests in the transaction queue issued before the status, control or equip command. The provisioning commands are allowed to execute before the status, control, or equip command is executed.
  - N—System does not check whether there are any pending provisioning requests in the transaction queue issued before the status, control or equip command. All commands execute according to their order in the transaction queue.
- MODE—Valid for the control command. Specifies whether shutdown is graceful or forced. VARCHAR(8): 1–8 ASCII characters. Permitted values are:
  - GRACEFUL—Allow applicable processes and components to complete all activity before shutting down.
  - FORCED—All applicable processes and components terminate immediately, including calls.

Subscriber Termination Commands

This section describes the status and control commands for subscriber terminations. Either a range of subscribers can be specified (using *@mgw-id for the ID parameter), or a single subscriber can be specified (for example: sub-ctx1@Cisco.com).

Status Command

This section describes the subscriber termination status command.

Command Types Status

Examples The following command shows how to display the status for one subscriber termination:

```
status subscriber-termination id=ubr204_1;
```

Reply Example:

```
RESULT -> ADM configure result in success
REASON -> ADM executed successful
ADMIN STATE -> ADMIN_INS
OPER STATE -> Termination is idle
SUBCRIBER ID -> ubr204_1
FAULT REASON -> No fault reason available
```

Table 1-3 lists the administrative states the system can return.

Table 1-3 Returnable Administrative States

State	Definition
ADMIN-UEQP	Unequipped.
ADMIN-INS	In Service.
ADMIN-OOS	Out of Service.
ADMIN-MAINT	Maintenance Mode.
ADMIN-OOS-Pending	Transitioning to Out of Service.
ADMIN-MAINT-Pending	Transitioning to Maintenance Mode.

Show the status for all subscriber terminations on a particular gateway using the following command:

```
status subscriber-termination id=*@ubr235;
```

Reply Example:

```
SUBCRIBER DN -> ubr235_1
ADMIN STATE -> ADMIN_UEQP
OPER STATE -> Termination is unequiped
REASON -> ADM executed successful
RESULT -> ADM configure result in success
FAULT REASON -> No fault reason available

SUBCRIBER DN -> ubr235_2
ADMIN STATE -> ADMIN_UEQP
OPER STATE -> Termination is unequiped
REASON -> ADM executed successful
RESULT -> ADM configure result in success
FAULT REASON -> No fault reason available

Reply : Success:
```

Syntax Description

The following token may be used with the subscriber termination status command:

- THROTTLE—Internal token used only by programs. CHAR(1): Y / N (Default = N).

Caution Setting this token to Y results in “Reply : Success” as the output. All other output is suppressed.

  - Y—Throttle output and suppress the results for internal programs to use.
  - N—Do not throttle output and display results as normal.

The following tokens may be used with the subscriber termination status command:

- WAIT (Release 4.5)—Specifies a waiting period so that previously issued provisioning commands (for example, an add command) can complete before a status, control, or equip command executes. CHAR(1): Y/N (Default = N).
  - Y—System checks whether there are any pending provisioning requests in the transaction queue issued before the status, control or equip command. The provisioning commands are allowed to execute before the status, control, or equip command is executed.

  - N—System does not check whether there are any pending provisioning requests in the transaction queue issued before the status, control or equip command. All commands execute according to their order in the transaction queue.

- OPER-STATE—Operating state. Expands the range of useful information returned by the status subscriber-termination command. Permitted values are:
  - FA—Faulty
  - NF—Not faulty
  - IDLE—Termination idle
  - LBLK—Trunk local blocked
  - RBLK—Trunk remote blocked
  - ACTIVE—Termination active
  - DOWN—Termination down
  - TERM-FA—Termination fault
  - TEMP-DOWN—Termination temporarily down
  - UNREACH—Termination unreachable
  - INT-MAINT—Termination internal maintenance
  - UEQP—Termination unequipped
  - ALL—All states, same as executing command without oper-state token

Note The values for the oper-state token are not the same as the operational status responses returned for the command.

The following command example returns only those subscriber terminations that are FA (if any):

```
status subscriber-termination id=*@ubr235; oper-state=FA;
```

- SOURCE—Source. The source token specifies whether to query the Call Agent or the EMS for status information. It is an optional token. Permitted values are:
  - EMS (Default)—Query the local EMS database for most current status.
  - AGENT—Query the remote Call Agent database for most current status.

The following command example returns the current status of the Call Agent:

```
status subscriber-termination id=*@ubr235; source=AGENT;
```

Control Command

This section describes how to control subscriber-terminations on a particular gateway. To control a subscriber termination to the unequipped or equipped state, use the equip or unequip commands.

Command Types Control

Examples

```
control subscriber-termination id=*@c3810_167; mode=forced; target-state=INS;
```

Reply Example:

```
Reply : Success: CLI change successful

ID -> c3810_167
REQUEST STATE -> ADMIN_INS
RESULT STATE -> ADMIN_INS
FAIL REASON -> ADM found no failure
REASON -> ADM executed successful
RESULT -> ADM configure result in success
```

Control all subscriber-terminations on a particular gateway using the following command:

```
control subscriber-termination id=*@ubr235; mode=forced; target-state=MAINT
```

Reply Example:

```
Reply : Success: CLI change successful

ID -> ubr235
REASON -> ADM executed successful
RESULT -> ADM configure result in success
REQUEST STATE -> ADMIN_MAINT
RESULT STATE -> ADMIN_MAINT
FAIL REASON -> ADM found no failure
```

Syntax Description

The following tokens may be used with the subscriber termination control command:

- WAIT (Release 4.5)—Specifies a waiting period so that previously issued provisioning commands (for example, an add command) can complete before a status, control, or equip command executes. CHAR(1): Y/N (Default = N).
  - Y—System checks whether there are any pending provisioning requests in the transaction queue issued before the status, control or equip command. The provisioning commands are allowed to execute before the status, control, or equip command is executed.
  - N—System does not check whether there are any pending provisioning requests in the transaction queue issued before the status, control or equip command. All commands execute according to their order in the transaction queue.

Equip Command

The equip command changes the administrative state of terminations that are in the UEQP state to OOS state. It ignores the terminations in the states INS, MAINT, or OOS.

Use the equip command or the control trunk-grp command to change the termination state for a subscriber to an ISDN trunk. The control trunk-grp command changes all trunks in the specified trunk group to the specified state. For trunk types other than ISDN, use the equip command to set the subscriber termination state. Thereafter, to change the termination state, use the control command.

A subscriber termination state must set to unequipped before it can be deleted.

You cannot use the control command to change a termination state to UEQP. Furthermore, you cannot use the control command to change the state of any subscriber termination that is already in the UEQP state.

For example, consider a case in which 24 CICs in a trunk group are in the following initial states:

- CICs 1–10 in OOS state

- CICs 11–15 in UEQP state
- CICs 16–24 in MAINT state

For this case, issuing the control, equip, or unequip commands would affect the initial state of the CICs as follows:

- If a control command is used with target-state = ins, the final states of all the CICs are:
  - CICs 1–10 in INS state
  - CICs 11–15 in UEQP state
  - CICs 16–24 in INS state
- If an equip command is applied to the CICs in the initial states, the final states of all the CICs are:
  - CICs 1–10 in OOS state
  - CICs 11–15 in OOS state
  - CICs 16–24 in MAINT state
- If an unequip command is applied to the CICs in the initial states, the final states of the CICs are:
  - CICs 1–10 in UEQP state
  - CICs 11–15 in UEQP state
  - CICs 16–24 in MAINT state

Command Types

Equip

Examples

```
equip subscriber-termination id=97_8@ipclab.cisco.com;
```

Reply Example:

```
Reply : Success: CLI change successful

ID -> Subcriber ID -> 97_8@ipclab.cisco.com
REASON -> ADM executed successful
RESULT -> ADM configure result in success
FAIL REASON -> ADM found no failure
```

Syntax Description

The following token may be used with the equip command:

- WAIT (Release 4.5)—Specifies a waiting period so that previously issued provisioning commands (for example, an add command) can complete before a status, control, or equip command executes. CHAR(1): Y/N (Default = N).
  - Y—System checks whether there are any pending provisioning requests in the transaction queue issued before the status, control or equip command. The provisioning commands are allowed to execute before the status, control, or equip command is executed.
  - N—System does not check whether there are any pending provisioning requests in the transaction queue issued before the status, control or equip command. All commands execute according to their order in the transaction queue.

Unequip Command

The unequip command changes the administrative state of subscriber terminations that are in OOS state into UEQP state. It ignores the terminations in the states: INS, MAINT, or UEQP.

Command Types

Unequip

Examples

```
unequip subscriber-termination id=97_8@ipclab.cisco.com;
```

Reply Example:

```
Reply : Success: CLI change successful

ID -> Subcriber ID -> 97_8@ipclab.cisco.com
REASON -> ADM executed successful
RESULT -> ADM configure result in success
FAIL REASON -> ADM found no failure
FAIL REASON -> ADM found no failure
```

Subsystem Status and Control Commands

This section describes the status and control commands for the Subsystem table. Use the status command to display the state of a subsystem. Use the control command to control a subsystem out of service in forced mode.

Command Types

Status and control

Examples

```
status subsystem id=SSN1;
control subsystem id=SSN1; OPC-ID=dallas-pc; target-state=OOS; mode=FORCED;
```

Syntax Description

The following token may be used with the subsystem status and control commands:

- WAIT (Release 4.5)—Specifies a waiting period so that previously issued provisioning commands (for example, an add command) can complete before a status, control, or equip command executes. CHAR(1): Y/N (Default = N).
  - Y—System checks whether there are any pending provisioning requests in the transaction queue issued before the status, control or equip command. The provisioning commands are allowed to execute before the status, control, or equip command is executed.
  - N—System does not check whether there are any pending provisioning requests in the transaction queue issued before the status, control or equip command. All commands execute according to their order in the transaction queue.

Subsystem Group Status and Control Commands (Release 4.5)

This section describes the status and control commands for the Subsystem Group table. Use the status command to display the state of a subsystem group. Use the control command to control a subsystem out of service in forced mode.

Command Types

Status and control

Examples

```
status subsystem-grp id=CNAM
```

The following command controls one system-OPC combination out of service:

```
control subsystem-grp id=SSN1; OPC-ID=dallas-pc; target-state=OOS; mode=FORCED;
```

Note If you have controlled one system in a group OOS, and the group is controlled OOS then back to INS, all subsystems (including the one system originally controlled OOS) are returned to INS.

The following command controls all subsystem-OPC combinations out-of-service. If a subsystem-OPC combination is taken out-of-service individually, the state of the subsystem group is in-service while individual members of the group are out-of-service.

```
control subsystem-grp id=CNAM; mode=forced; target_state=UOS;
```

Syntax Description

The following token may be used with the subsystem group status and control commands:

- WAIT (Release 4.5)—Specifies a waiting period so that previously issued provisioning commands (for example, an add command) can complete before a status, control, or equip command executes. CHAR(1): Y/N (Default = N).
  - Y—System checks whether there are any pending provisioning requests in the transaction queue issued before the status, control or equip command. The provisioning commands are allowed to execute before the status, control, or equip command is executed.
  - N—System does not check whether there are any pending provisioning requests in the transaction queue issued before the status, control or equip command. All commands execute according to their order in the transaction queue.

Trunk Termination Status and Control Commands

This section describes the status and control commands for trunk terminations. Either a range (for example, cic=1–24;) or a single value (for example, cic=1;) for the CIC parameter can be specified for the status and control of trunk terminations.

Status Command

This command can be executed for one CIC (for example, cic=1;), a range of CICs (for example, cic=1–12;) or for all CICs (cic=all;).

Command Types

Status

Examples

```
status trunk-termination tgn-id=2; cic=8;
```

Reply Example:

```
Reply : Success:

RESULT -> ADM configure result in success
REASON -> ADM executed successful
TGN ID -> 2
CIC -> 8
TERM ADMIN STATE -> ADMIN_INS
TERM OPER STATE -> Termination is idle
TERM REASON -> No fault reason available
TRUNK STATIC STATE -> ACTV
TRUNK DYNAMIC STATE -> TRNS
TRUNK REASON -> NON_FAULTY
```

The following command returns only those trunk terminations that are in administrative state OOS (if any), and operating state IDLE (if any):

```
status trunk-termination tgn-id=12; cic=1-1000; admin-state=OOS; oper-state=idle
```

Table 1-4 lists the administrative states the system can return for the *term admin state* response.

Table 1-4 Returnable Administrative States

State	Definition
ADMIN-UNEQP	Unequipped.
ADMIN-INS	In Service.
ADMIN-OOS	Out of Service.
ADMIN-MAINT	Maintenance Mode.
ADMIN-OOS-Pending	Transitioning to Out of Service.
ADMIN-MAINT-Pending	Transitioning to Maintenance Mode.
ADMIN-NULL	Resource does not exist.

Syntax Description

The following tokens may be used with the trunk termination status command:

- Administrative State (admin-state). Permitted values are:
  - UEQP: Unequipped; resource is not commissioned. Resource not registered.
  - OOS: Termination was manually controlled out of service.
  - INS: Termination was manually controlled in service, but operationally may be available or unavailable.
  - OOS-PENDING: Termination was manually controlled out of service with mode graceful, termination is still involved in a call.
  - MAINT: Termination in maintenance mode, can run diagnostic commands.
  - MAINT-PENDING: Termination was manually controlled to MAINT state, but termination is still involved in call.

  - ALL: Return all possible states.

- WAIT (Release 4.5)—Specifies a waiting period so that previously issued provisioning commands (for example, an add command) can complete before a status, control, or equip command executes. Permitted values are:
  - Y—System checks whether there are any pending provisioning requests in the transaction queue issued before the status, control or equip command. The provisioning commands are allowed to execute before the status, control, or equip command is executed.
  - N (Default)—System does not check whether there are any pending provisioning requests in the transaction queue issued before the status, control or equip command. All commands execute according to their order in the transaction queue.

The following token may be used with the trunk termination status command:

- THROTTLE—Internal token used only by programs. CHAR(1): Y / N (Default = N).

Caution Setting this token to Y results in "Reply : Success" as the output. All other output is suppressed.

  - Y—Throttle output and suppress the results for internal programs to use.
  - N—Do not throttle output and display results as normal.

- Operating State (oper-state). Valid values are:
  - FA—Includes FAULTY, UNREACH, TEMP-DOWN, and DOWN.
  - FAULTY—The MGCP endpoint returned a permanent error code.
  - UNREACH—The MGCP endpoint was declared as not reachable. This indicates gateway connectivity problems.
  - TEMP-DOWN—The MGCP endpoint is temporarily down.
  - DOWN—MGCP endpoint is down because GW termination has sent RSIP-down message.
  - NF—Includes INT-MAINT, IDLE, BUSY, and ACTIVE.
  - INT-MAINT—Internal error recovery is in progress.
  - IDLE—Termination is not involved in a call, but is available.
  - BUSY— Termination is involved in transient call.
  - ACTIVE—Termination is involved in stable call.
  - UEQP—Termination is not equipped.
  - ALL—Returns all possible operational states.

  The following command example returns only those trunk terminations that are FA (if any):

```
status trunk-termination tgn-id=12; cic=ALL; oper-state=FA;
```

- Static State (static-state). Valid values are:
  - UEQP—Unequipped resource is not commissioned. Resource is not registered.
  - LBLK—Termination is locally blocked: either manually taken OOS/MAINT (block reason can be MANUAL-OOS, MAINT-OOS), or automatically went out of service (see block-reason: TERM-FAULT, SIG-FAULT).
  - RBLK—Termination is remotely blocked (blocked by remote side).
  - ACTV—Available.

– All—Returns all possible static states.

The following command example returns only those terminations that are locally blocked (if any):

```
status trunk-termination tgn-id=101; cic=1-24; static-state=lblk;l
```

- Dynamic State (dynamic-state). Valid values are:
  – IBSY—Trunk-termination is involved in an incoming active call.
  – OBSY—Trunk-termination is involved in an outgoing active call.
  – TRNS—Transient maintenance state (sent maintenance signaling message and waiting for response).
  – IDLE—Termination is not involved in a call.
  – IBSY-TRNS—Termination is involved in a transient call (for example, waiting to send first backward signaling message, such as ACM/ALERTING).
  – OBSY-TRNS—Termination is involved in a transient call (for example, waiting to receive first backward signaling message, such as ACM/ALERTING).
  – ALL—All possible dynamic states.

  The following command example returns only those terminations that are idle (if any):

```
status trunk-termination tgn-id=101; cic=1-24; dynamic-state=idle;
```

- Off-normal State (off-normal). Valid values are:
  – Yes—Return all terminations in off-normal state.
  – No—Return all terminations in normal state.

  The following command example returns only those terminations in an off-normal state (if any):

```
status trunk-termination tgn-id=101; cic=1-24; off-normal=yes;
```

  A termination is in an off-normal state when it is *not* in one of the state combinations shown in Table 1-5.
- Source (source)—specifies whether to query the Call Agent or the EMS, for status information. It is an optional token. Valid values are:
  – EMS (Default)—Query the local EMS database for the most current status.
  – AGENT—Query the remote Call Agent database for the most current status.

  The following command example returns the current status of the Call Agent:

```
status trunk-termination tgn-id=101; cic=1-24; source=AGENT;
```

Table 1-5 Valid Normal Trunk Termination States

State/Token	ADMIN-STATE	OPER-STATE	STATIC-STATE	DYNAMIC-STATE
UNEQP	UNEQP	ANY	UEQP	IDLE
MANUALLY OOS	OOS	ANY	LBLK	IDLE
MANUALLY MAIN	MAINT	IDLE	LBLK	IDLE
IDLE	INS	IDLE	ACTV	IDLE
ACTIVE INCOMING	INS	IDLE	ACTV	IDLE
ACTIVE OUTGOING	INS	ACTIVE	ACTV	OBSY

Table 1-5 Valid Normal Trunk Termination States (continued)

State/Token	ADMIN-STATE	OPER-STATE	STATIC-STATE	DYNAMIC-STATE
TRANSIENT INCOMING	INS	ACTIVE	ACTV	IBY-TRNS
TRANSIENT OUTGOING	INS	BUSY	ACTV	OBSY-TRNS

The following command example (**status tt**) returns current status in a tabular format.

```
status tt tgn-id=994; cic=all
```

Reply Example (column headings will not appear on screen):

TGN ID	CIC	ADMIN STATE	OPER STATE	STATIC STATE	DYNAMIC STATE	REASON
994	1	ADMIN_INS	TERM_ACTIVE_IDLE	ACTV	IDLE	NON_FAULTY
994	2	ADMIN_INS	TERM_ACTIVE_IDLE	ACTV	IDLE	NON_FAULTY
994	3	ADMIN_INS	TERM_ACTIVE_IDLE	ACTV	IDLE	NON_FAULTY
994	4	ADMIN_INS	TERM_ACTIVE_IDLE	ACTV	IDLE	NON_FAULTY
994	5	ADMIN_INS	TERM_ACTIVE_IDLE	ACTV	IDLE	NON_FAULTY
994	6	ADMIN_INS	TERM_ACTIVE_IDLE	ACTV	IDLE	NON_FAULTY
994	7	ADMIN_INS	TERM_ACTIVE_IDLE	ACTV	IDLE	NON_FAULTY
994	8	ADMIN_INS	TERM_ACTIVE_IDLE	ACTV	IDLE	NON_FAULTY
994	9	ADMIN_INS	TERM_ACTIVE_IDLE	ACTV	IDLE	NON_FAULTY
994	10	ADMIN_INS	TERM_ACTIVE_IDLE	ACTV	IDLE	NON_FAULTY
994	11	ADMIN_INS	TERM_ACTIVE_IDLE	ACTV	IDLE	NON_FAULTY
994	12	ADMIN_INS	TERM_ACTIVE_IDLE	ACTV	IDLE	NON_FAULTY
994	13	ADMIN_INS	TERM_ACTIVE_IDLE	ACTV	IDLE	NON_FAULTY
994	14	ADMIN_INS	TERM_ACTIVE_IDLE	ACTV	IDLE	NON_FAULTY
994	15	ADMIN_INS	TERM_ACTIVE_IDLE	ACTV	IDLE	NON_FAULTY
994	16	ADMIN_INS	TERM_ACTIVE_IDLE	ACTV	IDLE	NON_FAULTY
994	17	ADMIN_INS	TERM_ACTIVE_IDLE	ACTV	IDLE	NON_FAULTY
994	18	ADMIN_INS	TERM_ACTIVE_IDLE	ACTV	IDLE	NON_FAULTY
994	19	ADMIN_INS	TERM_ACTIVE_IDLE	ACTV	IDLE	NON_FAULTY
994	20	ADMIN_INS	TERM_ACTIVE_IDLE	ACTV	IDLE	NON_FAULTY
994	21	ADMIN_INS	TERM_ACTIVE_IDLE	ACTV	IDLE	NON_FAULTY
994	22	ADMIN_INS	TERM_ACTIVE_IDLE	ACTV	IDLE	NON_FAULTY
994	23	ADMIN_INS	TERM_ACTIVE_IDLE	ACTV	IDLE	NON_FAULTY
994	24	ADMIN_INS	TERM_ACTIVE_IDLE	ACTV	IDLE	NON_FAULTY

```
Reply : Success:
```

Control Command

This section describes how to control a trunk termination.

Command Types Control

Examples

The following command controls one trunk termination into OOS.

```
control trunk-termination tgn-id=22; cic=1; target-state=OOS; mode=forced;
```

Reply Example:

```
Reply : Success: CLI change successful

TGN ID -> 22
REASON -> ADM executed successful
RESULT -> ADM configure result in success
CIC START -> 1
CIC END -> 1
FAIL REASON -> ADM found no failure
REQUEST STATE -> ADMIN_OOS
RESULT STATE -> ADMIN_OOS
```

The following command controls all trunk terminations for a particular CIC or group of CICs to OOS:

```
control trunk-termination tgn-id=17; cic=1-23; target-state=oos; mode=forced;
```

Reply Example:

```
Reply: Request was successful.
REPLY=CONFIGURATION COMMAND EXECUTED ISDN-TRUNK-GROUP -> 17
INIT STATE -> ADMIN-OOS
FINAL STATE -> ADMIN-OOS
```

Syntax Description

The following token may be used with the trunk termination control command:

- WAIT (Release 4.5)—Specifies a waiting period so that previously issued provisioning commands (for example, an add command) can complete before a status, control, or equip command executes. CHAR(1): Y/N (Default = N).
  - Y—System checks whether there are any pending provisioning requests in the transaction queue issued before the status, control or equip command. The provisioning commands are allowed to execute before the status, control, or equip command is executed.
  - N—System does not check whether there are any pending provisioning requests in the transaction queue issued before the status, control or equip command. All commands execute according to their order in the transaction queue.

Reset Command

This command clears all manual and blocked states as well as any active/transient calls on a trunk termination, with the exception of SS7 trunk terminations. It brings a trunk into INS mode.

Required Parameters:

- tgn-id: The trunk group ID to be reset (a number).
- CIC: Circuit Identification Code (CIC) to be reset. All, a range, or only one CIC can be reset.

Examples

The following command resets a single CIC:

```
reset trunk-termination tgn-id=22; cic=1
```

Reply Example:

```
Reply : Success:
```

```
TGN ID -> 13
REASON -> ADM executed successful
RESULT -> ADM configure result in success
CIC START -> 1
CIC END -> 24
FAIL REASON -> ADM found no failure
```

The following command resets a range of CICs:

```
reset trunk-termination tgn-id=13; cic=1-6;
```

Reply Example:

```
Reply: Request was successful.
REPLY=CONFIGURATION COMMAND EXECUTED -> reset trunk-termination
```

The following command resets all CICs:

```
reset trunk-termination tgn-id=13; cic=all;
```

Reply Example:

```
Reply: Request was successful.
REPLY=CONFIGURATION COMMAND EXECUTED -> reset trunk-termination
```

Equip Command

The equip command changes the administrative state of terminations that are in the UEQP state to OOS state. It ignores the terminations in the states: INS, MAINT, or OOS.

Use the equip command or the control trunk-grp command to change the termination state for a subscriber to an ISDN trunk. The control trunk-grp command changes all trunks in the specified trunk group to the specified state. For trunk types other than ISDN, use the equip command to set the subscriber termination state. Thereafter, to change the termination state, use the control command.

A subscriber termination state must set to unequipped before it can be deleted.

You cannot use the control command to change a termination state to UEQP. Furthermore, you cannot use the control command to change the state of any subscriber termination that is already in the UEQP state.

For example, consider a case in which 24 CICs in a trunk group are in the following initial states:

- CICs 1–10 in OOS state
- CICs 11–15 in UEQP state
- CICs 16–24 in MAINT state

For this case, issuing the control, equip, or unequip commands would affect the initial state of the CICs as follows:

- If a control command is used with target-state = ins, the final states of all the CICs are:
  - CICs 1–10 in INS state
  - CICs 11–15 in UEQP state
  - CICs 16–24 in INS state
- If an equip command is applied to the CICs in the initial states, the final states of all the CICs are:
  - CICs 1–10 in OOS state

  - CICs 11–15 in OOS state
  - CICs 16–24 in MAINT state
- If an unequip command is applied to the CICs in the initial states, the final states of the CICs are:
  - CICs 1–10 in UEQP state
  - CICs 11–15 in UEQP state
  - CICs 16–24 in MAINT state

Command Types

Equip

Examples

Use the following command to change the termination administrative state to EQP:

```
equip trunk-termination tgn-id=13; cic=all;
```

Reply Example:

```
Reply : Success: CLI change successful

TGN ID -> 13
REASON -> ADM executed successful
RESULT -> ADM configure result in success
CIC START -> 1
CIC END -> 24
FAIL REASON -> ADM found no failure
```

Syntax Description

The following token may be used with the trunk termination equip command:

- WAIT (Release 4.5)—Specifies a waiting period so that previously issued provisioning commands (for example, an add command) can complete before a status, control, or equip command executes. CHAR(1): Y/N (Default = N).
  - Y—System checks whether there are any pending provisioning requests in the transaction queue issued before the status, control or equip command. The provisioning commands are allowed to execute before the status, control, or equip command is executed.
  - N—System does not check whether there are any pending provisioning requests in the transaction queue issued before the status, control or equip command. All commands execute according to their order in the transaction queue.

Unequip Command

The unequip command changes the administrative state of terminations that are in OOS state into UEQP state. It ignores the terminations in the states: INS, MAINT, or UEQP.

Command Types

Unequip

Examples

```
unequip trunk-termination tgn-id=13; cic=all;
```

Reply Example:

```
Reply : Success: CLI change successful

TGN ID -> 13
REASON -> ADM executed successful
RESULT -> ADM configure result in success
CIC START -> 1
CIC END -> 24
```

Diagnostic Tests

This section describes diagnostic tests that can be performed on media gateways, subscriber terminations, and trunk terminations. SS7 COT, CVM, and CQM tests must be performed while in service. All other tests require the MAINT state for testing.

Use the following command example to force a media gateway into the MAINT state:

```
control mgw id=c2421.65; mode=forced; target-state=maint;
```

Reply Example:

```
Reply : Success: CLI change successful

MGW ID -> c2421.65
INITIAL STATE -> ADMIN_INS
REQUEST STATE -> ADMIN_MAINT
RESULT STATE -> ADMIN_MAINT
FAIL REASON -> ADM found no failure
REASON -> ADM executed successful
RESULT -> ADM configure result in success
```

Media Gateway Tests

This section describes the tests that can be performed on media gateways. The gateway must be in the MAINT state.

Test Menu

This section describes how to display the Test Menu.

Command Types

diag

Examples

```
diag mgw;
```

Reply Example:

```
Reply: Diagnostic MGW Menu.
===
(1) MGW Network Connectivity Test
(2) MGW MGCP Connectivity Test
(3) ALL
```

Note Test #1 tests if there is a path to the device (ping).
Test #2 tests if MGCP has access to the device.
Test #3 performs tests 1 and 2.

Tests

This section describes how to perform a specific test.

Command Types

diag

Examples

diag mgw id=ubr-03; test=1;

Reply Example:

```
MEDIA GATEWAY LINE DIAGNOSTIC TEST EXECUTED -> diag mgw
ID -> ubr-03
TEST-TYPE -> ADM-MGW-NETW-CONNECTIVITY-TEST
TEST-DURATION -> 0
RESULT -> TEST-SUCCESS
REASON -> PASSED
Reply: Diagnostic command executed.
```

diag mgw id=ubr-03; test=2;

Reply Example:

```
MEDIA GATEWAY LINE DIAGNOSTIC TEST EXECUTED -> diag mgw
ID -> ubr-03
TEST-TYPE -> ADM-MGW-MGCP-CONNECTIVITY-TEST
TEST-DURATION -> 0
RESULT -> TEST-SUCCESS
REASON -> PASSED
Reply: Diagnostic command executed.
```

diag mgw id=ubr-03; test=3;

Reply Example:

```
MEDIA GATEWAY LINE DIAGNOSTIC TEST EXECUTED -> diag mgw
ID -> ubr-03
TEST-TYPE -> ADM-MGW-NETW-CONNECTIVITY-TEST
TEST-DURATION -> 11
RESULT -> TEST-SUCCESS
REASON -> PASSED

MEDIA GATEWAY LINE DIAGNOSTIC TEST EXECUTED -> diag mgw
ID -> ubr-03
TEST-TYPE -> ADM-MGW-MGCP-CONNECTIVITY-TEST
TEST-DURATION -> 0
RESULT -> TEST-SUCCESS
REASON -> PASSED
Reply: Diagnostic command executed.
```

Subscriber Termination Tests

This section describes the tests that can be performed on subscriber terminations. All terminations must be in the MAINT state.

Test Menu

This section describes how to display the Test Menu.

Command Types

diag

Examples

diag subscriber-termination;

Reply Example:

```
Reply: Diagnostic Subscriber Menu.
===
(1) Subscriber MGCP Connectivity Test
(2) Subscriber Termination Connection Test
(3) Subscriber Termination Ring Test
(4) ALL
```

Note

Test #1 tests if MGCP has access to the termination.
Test #2 tests if there is a path to the device (ping).
Test #3 tests if the Subscriber can be rung. The Ring parameter must be specified in seconds for this test. The default is 5 seconds.
Test #4 performs tests 1 through 3.

Tests

This section describes how to perform a specific test.

Command Types

diag

Examples

diag subscriber-termination id=sub2-ctx2; test=1;

Reply Example:

```
SUBSCRIBER LINE DIAGNOSTIC TEST EXECUTED -> diag subscriber-termination
ID -> sub2-ctx2
TEST-TYPE -> ADM-MGW-MGCP-CONNECTIVITY-TEST
TEST-DURATION -> 10
RESULT -> TEST-SUCCESS
REASON -> PASSED: Reason: AUEP-NACK received with RespCode = 510
Reply: Diagnostic command executed.
```

diag subscriber-termination id=sub-ubr3-1@cisco.com; test=2;

Reply Example:

```
SUBSCRIBER LINE DIAGNOSTIC TEST EXECUTED -> diag subscriber-termination
ID -> sub-ubr3-1@Cisco.com
TEST-TYPE -> ADM-TERM-CONNECTION-TEST
TEST-DURATION -> 55
RESULT -> TEST-SUCCESS
REASON -> PASS successfully.
Reply: Diagnostic command executed.
```

diag subscriber-termination id=sub-ubr3-1@cisco.com; test=3; ring-duration=10;

Reply Example:

```
SUBSCRIBER LINE DIAGNOSTIC TEST EXECUTED -> diag subscriber-termination
ID -> sub-ubr3-1@Cisco.com
TEST-TYPE -> ADM-TERM-RING-TEST
TEST-DURATION -> 9989
RESULT -> TEST-SUCCESS
REASON -> PASSED
Reply: Diagnostic command executed.
```

diag subscriber-termination id=sub-ubr3-1@cisco.com; test=3; ring-duration=10;

-

Note RING-DURATION—Specifies the ring duration in seconds. INTEGER(2): 1–40 (Default = 10). (Release 4.5.1)

Ring-duration values are 0–999 (Default = 5). Maximum ring time is 30 seconds regardless of whether the duration is set higher than or equal to 31 .

Reply Example:

```
SUBSCRIBER LINE DIAGNOSTIC TEST EXECUTED -> diag subscriber-termination
ID -> sub-ubr3-1@Cisco.com
TEST-TYPE -> ADM-TERM-RING-TEST
TEST-DURATION -> 9896
RESULT -> TEST-SUCCESS
REASON -> PASSED
Reply: Diagnostic command executed.
```

Trunk Termination Tests

This section describes diagnostic tests that can be performed on trunk terminations. All must be in the MAINT state for testing. Trunk termination tests are done by trunk type.

SS7 Trunk Termination Tests

This section describes the tests that can be performed on SS7 trunk terminations.

Test Menu

This section describes how to display the Test Menu.

Note Set COT, CVM, and CQM on the terminating gateway or switch to perform these tests. The terminating gateway or switch must be INS. Otherwise, the test or tests will fail. COT must also set in the SS7 trunk-grp-profile to run COT test.

Examples

```
diag ss7-trunk-termination tgn-ID=50079; cic=1
```

Reply Example:

```
Reply: Diagnostic SS7 Trunk Group Menu.
===
(1) SS7 MGCP Connectivity Test
(2) SS7 Termination Connection Test
(3) SS7 COT Test
(4) SS7 CQM Test
(5) SS7 CVT Test
(6) SS7 CIC Audit
(7) ALL
```

Note Test #1 tests if MGCP has access to the SS7 trunk termination.
Test #2 tests if there is a path to the device (ping).
Test #3 tests the integrity of the SS7 Bearer Path.
Test #4 queries the SS7 circuit (or group of circuits) status. A range of CICs can be specified (to a maximum of twenty four). Both remote and local trunk states are displayed in the results.
Test #5 tests to ensure that each end of the circuit has sufficient and consistent information for using the circuit in call connections. CLLI names are included.
Test #6 performs CIC audit.
Test #6 performs tests 1 through 6.

CQM Responses

Table 1-6 lists the responses that can be returned for the CQM test.

Table 1-6 CQM Responses

Response	Description
CS_TRANSIENT	Transient
CS_UNEQUIPPED	Unequipped
CS_IC_BUSY	Incoming Busy
CS_IC_BUSY_LOCBLOC	Incoming Busy and Locally Maintenance Blocked
CS_IC_BUSY_REMBLOC	Incoming Busy and Remotely Maintenance Blocked
CS_IC_BUSY_BOTH_BLOC	Incoming Busy and Remotely and Locally Maintenance Blocked
CS_OG_BUSY	Outgoing Busy
CS_OG_BUSY_LOCBLOC	Outgoing Busy and Locally Maintenance Blocked
CS_OG_BUSY_REMBLOC	Outgoing Busy and Remotely Maintenance Blocked

Table 1-6 CQM Responses (continued)

Response	Description
CS_OG_BUSY_BOTH_BLOC	Outgoing Busy and Remotely and Locally Maintenance Blocked
CS_IDLE	Idle
CS_IDLE_LOCBLOC	Idle and Locally Maintenance Blocked
CS_IDLE_REMBLOC	Idle and Remotely maintenance blocked
CS_IDLE_BOTH_BLOC	Idle and Remotely and Locally Maintenance Blocked
CS_HW_LOCBLOC	Locally Hardware Blocked
CS_HW_LOCBLOC_LOCBLOC	Locally Hardware and Locally Maintenance Blocked
CS_HW_LOCBLOC_REMBLOC	Locally Hardware and Remotely Maintenance Blocked
CS_HW_LOCBLOC_BOTHBLOC	Locally Hardware and Remotely and Locally Maintenance Blocked
CS_HW_REMBLOC	Remotely Hardware Blocked
CS_HW_REMBLOC_LOCBLOC	Remotely Hardware and Locally Maintenance Blocked
CS_HW_REMBLOC_REMBLOC	Remotely Hardware and Remotely Maintenance Blocked
CS_HW_REMBLOC_BOTHBLOC	Remotely Hardware and Remotely and Locally Maintenance Blocked
CS_HW_BOTHBLOC	Remotely and Locally Hardware Blocked
CS_HW_BOTHBLOC_LOCBLOC	Remotely and Locally Hardware and Locally Maintenance Blocked
CS_HW_BOTHBLOC_REMBLOC	Remotely and Locally Hardware and Remotely Maintenance Blocked
CS_HW_BOTHBLOC_BOTHBLOC	Remotely and Locally Hardware and Remotely and Locally Maintenance Blocked

Tests

This section describes how to perform specific tests.

Command Types

Diag

Examples

```
diag ss7-trunk-termination tgn-id=103; cic=13; test=1;
```

Reply Example:

```
TRUNK DIAGNOSTIC TEST EXECUTED -> diag trunk
TG-NUM -> 103
CIC -> 13
```

```
TEST-TYPE -> ADM-MGW-MGCP-CONNECTIVITY-TEST
TEST-DURATION -> 0
RESULT -> TEST-SUCCESS
REASON -> PASSED: Reason: AUEP-NACK received with RespCode = 510
Reply: Diagnostic command executed.
```

diag ss7-trunk-termination tgn-id=103; cic=13; test=2;

Reply Example:

```
TRUNK DIAGNOSTIC TEST EXECUTED -> diag trunk
TG-NUM -> 103
CIC -> 13
TEST-TYPE -> ADM-TERM-CONNECTION-TEST
TEST-DURATION -> 33
RESULT -> TEST-SUCCESS
REASON -> PASS successfully.
Reply: Diagnostic command executed.
```

diag ss7-trunk-termination tgn-id=103; cic=14; test=3;

Reply Example:

```
TRUNK DIAGNOSTIC TEST EXECUTED -> diag trunk
TG-NUM -> 103
CIC -> 14
TEST-TYPE -> ADM-SS7-COT-TEST
TEST-DURATION -> 0
RESULT -> TEST-FAILURE
REASON -> ADM-MAINT-STATE-REQUIRED
Reply: Diagnostic command executed.
```

diag ss7-trunk-termination tgn-id=2;cic=1-24;test=4

Reply Example:

```
Reply : Success:

TGN ID -> 2
START CIC -> 1
END CIC -> 24
TEST TYPE -> ADM running SS7 circuit query messagge test
TEST DURATION -> 0
RESULT -> ADM ran test succeessfully
REASON -> CQM test pass
CIC COUNT -> 24
CIC STATES ->

        Remote State         Local State
        CIC 1 -> CS_IDLE     ACTV    IDLE
        CIC 2 -> CS_IDLE     ACTV    IDLE
        CIC 3 -> CS_IDLE     ACTV    IDLE
        CIC 4 -> CS_IDLE     ACTV    IDLE
        CIC 5 -> CS_IDLE     ACTV    IDLE
        CIC 6 -> CS_IDLE     ACTV    IDLE
        CIC 7 -> CS_IDLE     ACTV    IDLE
        CIC 8 -> CS_IDLE     ACTV    IDLE
        CIC 9 -> CS_IDLE     ACTV    IDLE
        CIC 10 -> CS_IDLE    ACTV    IDLE
        CIC 11 -> CS_IDLE    ACTV    IDLE
```

```
CIC 12 -> CS_IDLE    ACTV    IDLE
CIC 13 -> CS_IDLE    ACTV    IDLE
CIC 14 -> CS_IDLE    ACTV    IDLE
CIC 15 -> CS_IDLE    ACTV    IDLE
CIC 16 -> CS_IDLE    ACTV    IDLE
CIC 17 -> CS_IDLE    ACTV    IDLE
CIC 18 -> CS_IDLE    ACTV    IDLE
CIC 19 -> CS_IDLE    ACTV    IDLE
CIC 20 -> CS_IDLE    ACTV    IDLE
CIC 21 -> CS_IDLE    ACTV    IDLE
CIC 22 -> CS_IDLE    ACTV    IDLE
CIC 23 -> CS_IDLE    ACTV    IDLE
CIC 24 -> CS_IDLE    ACTV    IDLE
```

diag ss7-trunk-termination tgn-id=2;cic=1;test=5;

Reply Example:

```
Reply : Success:

TGN ID -> 2
START CIC -> 1
END CIC -> 1
TEST TYPE -> ADM running SS7 circuit validation test
TEST DURATION -> 0
RESULT -> ADM ran test successfully
REASON -> CVT test pass
CLLI -> DALLTXRCDN5
```

ISDN Trunk Termination Tests

This section describes the tests that can be performed on ISDN trunk terminations.

Test Menu

This section describes how to display the Test Menu.

Examples

diag isdn-trunk-termination tgn-id=17; cic=1;

Reply Example:

```
Reply: Diagnostic ISDN Trunk Group Menu.
===
(1) ISDN MGCP Connectivity Test
(2) ISDN Termination Connection Test
(3) ALL
```

Note Test #1 tests if MGCP has access to the ISDN termination.
Test #2 tests if there is a path to the device (ping).
Test #3 performs tests 1 and 2.

Tests

This section describes how to perform a specific test.

Command Types Diag

Examples

```
diag isdn-trunk-termination test=1; tgn-id=17; cic=1;
```

Reply Example:

```
TRUNK DIAGNOSTIC TEST EXECUTED -> diag trunk
TG-NUM -> 17
CIC -> 1
TEST-TYPE -> ADM-MGW-MGCP-CONNECTIVITY-TEST
TEST-DURATION -> 0
RESULT -> TEST-SUCCESS
REASON -> PASSED: Reason: AUEP-NACK received with RespCode = 510
Reply: Diagnostic command executed.
```

```
diag isdn-trunk-termination test=2; tgn-id=17; cic=1;
```

Reply Example:

```
TRUNK DIAGNOSTIC TEST EXECUTED -> diag trunk
TG-NUM -> 17
CIC -> 1
TEST-TYPE -> ADM-TERM-CONNECTION-TEST
TEST-DURATION -> 0
RESULT -> TEST-SUCCESS
REASON -> PASSED: Reason: AUEP-NACK received with RespCode = 510
Reply: Diagnostic command executed.
```

CAS Trunk Termination Tests

This section describes the tests that can be performed on CAS trunk terminations.

Test Menu

This section describes how to display the Test Menu.

Examples

```
diag cas-trunk-termination;tgn-id=64;cic=1;
```

Reply Example:

```
Reply: Diagnostic CAS Trunk Group Menu.
===
(1) CAS MGCP Connectivity Test
(2) CAS Termination Connection Test
(3) ALL
```

Note Test #1 tests if MGCP has access to the CAS termination.
Test #2 tests if there is a path to the device (ping).
Test #3 performs tests 1 and 2.

Tests

This section describes how to perform a specific test.

Command Types

Diag

Examples

diag cas-trunk-termination tgn-id=64;cic=1;test=1;

Reply Example:

```
TRUNK DIAGNOSTIC TEST EXECUTED -> diag trunk
TG-NUM -> 64
CIC -> 1
TEST-TYPE -> ADM-MGW-MGCP-CONNECTIVITY-TEST
TEST-DURATION -> 0
RESULT -> TEST-SUCCESS
REASON -> PASSED: Reason: AUEP-NACK received with RespCode = 510
Reply: Diagnostic command executed.
```

diag cas-trunk-termination tgn-id=64;cic=1;test=2;

Reply Example:

```
TRUNK DIAGNOSTIC TEST EXECUTED -> diag trunk
TG-NUM -> 64
CIC -> 1
TEST-TYPE -> ADM-TERM-CONNECTION-TEST
TEST-DURATION -> 32
RESULT -> TEST-SUCCESS
REASON -> PASS successfully.
Reply: Diagnostic command executed.
```

diag cas-trunk-termination tgn-id=64;cic=1;test=3;

Reply Example:

```
TRUNK DIAGNOSTIC TEST EXECUTED -> diag trunk
TG-NUM -> 64
CIC -> 1
TEST-TYPE -> ADM-MGW-MGCP-CONNECTIVITY-TEST
TEST-DURATION -> 11
RESULT -> TEST-SUCCESS
REASON -> PASSED: Reason: AUEP-NACK received with RespCode = 510

TRUNK DIAGNOSTIC TEST EXECUTED -> diag trunk
TG-NUM -> 64
CIC -> 1
TEST-TYPE -> ADM-TERM-CONNECTION-TEST
TEST-DURATION -> 32
RESULT -> TEST-SUCCESS
REASON -> PASS successfully.
Reply: Diagnostic command executed.
```

Announcement Trunk Termination Tests

This section describes the tests that can be performed on Announcement trunk terminations.

Test Menu

This section describes how to display the Test Menu.

Examples

```
diag annc-trunk-termination;tgn-id=13;cic=1
```

Reply Example:

```
Reply: Diagnostic ANC Trunk Group Menu.
===
(1) ANC MGCP Connectivity Test
(2) ANC Termination Connection Test
(3) ALL
```

Note Test #1 tests if MGCP has access to the ANC termination.
Test #2 tests if there is a path to the device (ping).
Test #3 performs tests 1 and 2.

Tests

This section describes how to perform a specific test.

Command Types Diag

Examples

```
diag annc-trunk-termination;test=1;tgn-id=13;cic=1;
```

Reply Example:

```
TRUNK DIAGNOSTIC TEST EXECUTED -> diag trunk
TG-NUM -> 13
CIC -> 1
TEST-TYPE -> ADM-MGW-MGCP-CONNECTIVITY-TEST
TEST-DURATION -> 0
RESULT -> TEST-SUCCESS
REASON -> PASSED: Reason: AUEP-NACK received with RespCode = 510
Reply: Diagnostic command executed.
```

```
diag annc-trunk-termination;test=2;tgn-id=13;cic=1
```

Reply Example:

```
TRUNK DIAGNOSTIC TEST EXECUTED -> diag trunk
TG-NUM -> 13
CIC -> 1
TEST-TYPE -> ADM-TERM-CONNECTION-TEST
TEST-DURATION -> 33
RESULT -> TEST-SUCCESS
REASON -> PASS successfully.
Reply: Diagnostic command executed.
```

```
diag annc-trunk-termination;test=3;tgn-id=13;cic=1;
```

Reply Example:

```
TRUNK DIAGNOSTIC TEST EXECUTED -> diag trunk
TG-NUM -> 13
CIC -> 1
TEST-TYPE -> ADM-MGW-MGCP-CONNECTIVITY-TEST
TEST-DURATION -> 11
RESULT -> TEST-SUCCESS
REASON -> PASSED: Reason: AUEP-NACK received with RespCode = 510

TRUNK DIAGNOSTIC TEST EXECUTED -> diag trunk
TG-NUM -> 13
CIC -> 1
TEST-TYPE -> ADM-TERM-CONNECTION-TEST
TEST-DURATION -> 33
RESULT -> TEST-SUCCESS
REASON -> PASS successfully.
Reply: Diagnostic command executed.
```

Hardware Monitoring

The Hardware Monitor (HMN) subsystem monitors the CPUs, memory consumption, disk, and disk control utilization and returns information and alarms as appropriate.

Command Types

Show, change, control, report, and status

Caution Show and change and control are obsolete as of Release 4.4.0.

Examples

```
show node node=CA146; service=ssh (Obsoleted as of Release 4.4.0)
change node node=CA146; service=ftp; enable=Y (Obsoleted as of Release 4.4.0)_
```

Caution Altering node settings after the delivery of a Cisco BTS 10200 Softswitch can create security issues in your network.

```
control node node=CA146; action=HALT; (Obsoleted as of Release 4.4.0)
```

Caution Modifying nodes are low-level maintenance activities.

Note After halting a Cisco BTS 10200 Softswitch node, local console access or a power cycle may be required to restart the node.

```
report node node=CA146
status node node=CA146;cpu=y;memory=y;
```

Examples

```
report node node=priems123;
report node;
status node node=priems123;cpu=y;memory=y;
status node;
```

Note The hostname is the only permitted value for the node token.

Usage Guidelines

Primary Key Token(s): None

If the report and status commands are entered with no tokens then the commands are executed on the active EMS.

Note In the Syntax Description, an asterisk preceding a token name means the token is mandatory. A token without an asterisk is optional.

Syntax Description

* NODE	The logical host name of the target node in the Cisco BTS 10200 Softswitch. This replaces manually telneting to the box. Use only the hostname (priemsxxx) not the application name (for example, CA146). **Caution** For security purposes, Telnet is no longer supported as of Release 4.4.0/1. STRING: Hostname in the format: priemsxxx.
ACTION	Valid only for the control command. The *action* indicates the type of activity to perform. Both parameters are required. STRING: *REBOOT*, or *HALT*, are the only valid actions for this token.
CPU	Valid only for the status and report commands. Specifies whether to generate a report of CPU utilization. STRING: Y/N (Default = Y).
ENABLE (Obsolete as of Release 4.4.0)	Valid only for the change command. Specifies whether to turn a service on (Y), or off (N). STRING: Y/N (Default = Y).
MEMORY	Valid only for the status and report commands. Specifies whether to generate a report of memory utilization. STRING: Y/N (Default = Y).
NETWORK	Valid only for the status and report commands. Specifies whether to generate a report of network utilization. STRING: Y/N (Default = Y).

PROCESS	Valid only for the status and report commands. Specifies whether to generate a report of process utilization. STRING: Y/N (Default = Y).
SERVICE (Obsolete as of Release 4.4.0)	Valid only for the show and change commands. Specifies the standard UNIX service. STRING: any valid UNIX service. Permitted values are: ftp—File Transfer Protocol telnet—Text-based terminal service ⚠ **Caution** For security purposes, Telnet is no longer supported as of Release 4.4.0/1. echo—Application space service to verify a remote host discard—Solaris testing facility day—Solaris testing facility time—Solaris testing facility chargen—Solaris testing facility smtp—Solaris mail service finger—UNIX user ID service sunrpc—Solaris Remote Procedure Call service exec—Remote execution service login—BSD remote login service shell—BSD remote shell service printer—Solaris printer services uucp—UNIX-to-UNIX copy service nfs—Network File System service lockd—Remote file locking facility x11—X Window graphical services dtscp—Solaris management services font_service—Solaris character set service http—Hyper-Text Transfer Protocol service **Note** These values must be entered in lowercase.

System Health

The System Health Report (system-health) (SHR) allows a service provider to retrieve the status of various processes within the Cisco BTS 10200 Softswitch.

Command Types Report

Examples

Use the following command example to run a SHR immediately.

```
report system-health period=720;
```

Syntax Description

PERIOD	The amount of time to collect back to in hours. INTEGER: 1–720 (Default = 24).

The SHR command can be used in conjunction with the command scheduler. Using the command scheduler, the SHR runs at periodic intervals collecting the last 24 hours (configurable) worth of data. Upon initial installation and startup, there is an SHR command already scheduled to execute at midnight every 24 hours.

To schedule multiple SHR command(s) at different times, the command scheduler add command can be issued multiple times:

```
add scheduled-command verb=report; noun=system-health; <recurrence=DAILY>; <start-time=…>;
<keys=period>; <values=…>
```

Use the following command to remove any scheduled SHR command(s):

```
delete scheduled-command id=NNN
```

To obtain an id, view the list of scheduled commands using the show scheduled command:

```
show scheduled-command verb=report; noun=system-health
```

To reschedule an SHR command at another time, change the recurrence, or change the collection period, use the change command:

```
change scheduled-command id=NNN; <recurrence=DAILY>; <start-time=…>; <keys=period>;
<values=…>
```



CHAPTER 2

Alarms and Events

Revised: July 24, 2009, OL-3743-42

This chapter describes Cisco BTS 10200 Softswitch alarms and events. This chapter is divided into three parts:

- Alarm or Event Log Command—The Log command is valid for both alarms and events.
- Alarms—Valid alarm commands.
- Events—Valid event commands.

Note In this chapter, an asterisk preceding a token name means the token is mandatory. A token without an asterisk is optional.

Alarm or Event Log Command

This command is valid for both alarms and events. The Alarm Log command requests a summary report of alarms by severity, type, and start/stop times from the Alarm Log (alarm-log) table. Alarms are events with severities of minor, major, or critical. Substituting Event for Alarm returns a summary report of events by severity, type, and start/stop times from the Event Log (event-log) table.

Table Name: ALARM-LOG or EVENT-LOG

Table Containment Area: OAMP

Command Types Show

Examples

```
show alarm-log
show event-log
```

Usage Guidelines Primary Key Token(s): id

Change Rules: None.

Syntax Description

ID (System generated)	Primary key. A unique integer value that identifies the specific event or alarm in the log. INTEGER: 12-digit number.
TYPE	Type of event to show in the alarm summary. Only one type is selectable at a time. VARCHAR(12): 1–12 ASCII characters. Permitted values are: AUDIT (Audit events)—Events dealing with audit. This includes the starting and stopping of an audit, depending on how the audit was defined. BILLING (Billing data alarms)—This includes the generation, collection, and retrieval of billing call events. CALLP (Call processing alarms)—Alarm types dealing with the processing of actual call data. CONFIG (Configuration alarms)—Alarm types dealing with the provisioning aspects of the system. Includes all activity such as system devices and facility management. DATABASE (Database alarms)—Alarm types dealing with database activity. Includes table download, reading, and writing. MAINTENANCE (Maintenance alarms)—Alarm types dealing with fault handling and diagnostic areas. Includes test facilities and the health of hardware and software components. OSS (Operating system services)—Alarm types dealing with the Cisco BTS 10200 Softswitch external interfaces that are on the northbound side of the system. This does not include southbound components in the system. SECURITY (Security alarms)—Alarm types dealing with access to the system through both human interfaces and machine interfaces. SIGNALING (Signaling alarms)—Alarm types dealing with protocol stacks such as MGCP and TDM interfaces like SS7. STATISTICS (Statistical alarms)—Alarm types dealing with the accumulation, collection, and reporting of measurements in the system. This includes traffic and performance data. SYSTEM (System events)—Events dealing with the system. This includes events dealing with low-level process activities, such as the IDX table reads and IPC messaging.
ALARM-STATUS	Status of an alarm. VARCHAR(12): 1–12 ASCII characters. Permitted values are: ON OFF ACKNOWLEDGED IGNORED

AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(51200): 1–51200 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
END-TIME	Ending time for alarm summary. Enter all 19 ASCII characters as shown. DATE: YYYY-MM-DD HH:MM:SS.
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
NUMBER	Numerical identifier of the event to clear or query. NUMERIC: 1–150. NUMERIC: 1–500 (Release 4.5).
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(51200): 1–51200 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
ORIGIN	Process that originated the alarm, for example: pmg, mga, and so forth. VARCHAR(12): 1–12 ASCII characters.

SEVERITY	Level of alarm or event to show in the summary. VARCHAR(8): 1–8 ASCII characters. Permitted values are: INFO (Information level)—Provides only added data to the general processing of an event report. Selecting Info turns on Info and all the levels above it (Warn, Minor, Major, and Critical). WARNING (Warning level)—Indicates that some potential service degradation is occurring as a result of internal or external processing. At this level, processing is able to continue. Turns on Warn and all the levels above it (Minor, Major, and Critical). MINOR (Minor level)—Indicates that some loss of capacity or availability has occurred. An example is the loss of an Ethernet link or a software outage. Selecting Minor turns on Minor and all the levels above it (Minor, Major, and Critical). MAJOR (Major level)—Indicates a loss of capacity or availability. It refers to a larger loss than Minor or an escalation of some earlier alarm. Selecting Major turns on Major and Critical. CRITICAL (Critical level)—Indicates a catastrophic condition in the system that requires operator attention and potential supervision over the situation. This can be an outage or complete loss of service somewhere in the system. Selecting Critical turns on Critical only.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).
START-TIME	Starting time for alarm summary. Enter all 19 ASCII characters as shown. Start-time must occur before end-time. Alarm events are available for the current and previous calendar days only. Level indicates the minimum level to show in the report summary. DATE: YYYY-MM-DD HH:MM:SS.

Alarm or Event Report Properties

The Report Properties (report-properties) command (formerly Alarm-logsize or Event-logsize) specifies the maximum number of alarm or event entries permitted (up to 30,000) in the Report Properties (report-properties) table. It also specifies the minimum event severity level to be stored in the Event Log.

Table Name: REPORT-PROPERTIES

Table Containment Area: OAMP

Command Types Show and change

Examples

```
show report-properties;
```



Note The show command, without any tokens, returns all alarm-logsize, event-logsize, and event-level data.

```
change report-properties type=alarm-logsize; value=1234
change report-properties type=event-logsize; value=5000
```

Usage Guidelines

Primary Key Token(s): None.

Change Rules: None.

Syntax Description

TYPE	Optional for show; mandatory for change. Primary key. Type of alarm or event. VARCHAR(12): 1–12 ASCII characters. Permitted values are: ALARM-LOGSIZE EVENT-LOGSIZE EVENT-LEVEL
VALUE	Optional for show; mandatory for change. Property value. Do not enter commas. VARCHAR(12): 1–12 ASCII characters. For type=alarm-logsize or event-logsize, valid values are 1–30000. For type=event-level, valid values are INFO, WARNING, MINOR, MAJOR, CRITICAL (or the minimum level of events stored in the log).
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(51200): 1–51200 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(51200): 1–51200 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).

Alarms

Alarms are a subset of events and indicate a problem with the system.

Alarm

The Alarm (alarm) command shows, clears, and acknowledges specific alarms on specific nodes.

Table Name: ALARM

Table Containment Area: OAMP

Command Types

Show, ack, and clear

Examples

```
show alarm;
clear alarm id=123;
ack alarm id=123;
```

Usage Guidelines

Primary Key Token(s): id

Change Rules: None.

Syntax Description

ID (System generated)	Primary key. A unique integer value that identifies the specific alarm in the log. INTEGER: 12-digit number.
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(51200): 1–51200 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
END-TIME	Ending time for alarm summary. Enter all 19 ASCII characters as shown. DATE: YYYY-MM-DD HH:MM:SS.
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.

NUMBER	Numerical identifier of the alarm to clear or query. INTEGER: 1–200.
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(51200): 1–51200 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).
START-TIME	Starting time for alarm summary. Enter all 19 ASCII characters as shown. Start-time must occur before end-time. Alarm events are available for the current and previous calendar days only. Level indicates the minimum level to show in the report summary. DATE: YYYY-MM-DD HH:MM:SS.

Alarm Report

The Alarm Report (alarm-report) command provides the ability to subscribe or unsubscribe to each level and type of alarm report.

Table Containment Area: OAMP

Command Types

Subscribe and unsubscribe

Note When you subscribe to alarms or events, they take over the screen as they happen, which can interrupt other commands.

Examples

```
subscribe alarm-report severity=major; type=callp,config;
unsubscribe alarm-report severity=major,critical; type=all;
```

Usage Guidelines

Primary Key Token(s): None.

Syntax Description

SEVERITY	Specifies the minimum severity of an alarm report to subscribe to or unsubscribe from. VARCHAR(8): 1–8 ASCII characters. Permitted values are: MINOR (Minor severity)—Indicates that some loss of capacity or availability occurred. An example is the loss of an Ethernet link or a software outage. Selecting Minor turns on Minor and all the levels above it (Minor, Major, and Critical). MAJOR (Major severity)—Indicates a loss of capacity or availability. This is a larger loss than Minor or an escalation of an earlier alarm. Selecting Major turns on Major and Critical. CRITICAL (Critical severity)—Indicates a catastrophic condition in the system that requires operator attention and potential supervision over the situation. This can be an outage or a complete loss of service somewhere in the system. Selecting Critical only turns on Critical. ALL—Turns on all severities.
TYPE	Type of alarm report to subscribe to or unsubscribe from. VARCHAR(12): 1–12 ASCII characters. Permitted values are: AUDIT (Audit events)—Events dealing with audit. This includes the starting and stopping of an audit, depending on how the audit was defined. BILLING (Billing alarms)—Alarms dealing with bill data. This includes the generation, collection, and retrieval of billing call events. CALLP (Call processing alarms)—Alarm types dealing with the processing of actual call data. CONFIG (Configuration alarms)—Alarm types dealing with the provisioning aspects of the system. Includes all activity such as system devices and facility management. DATABASE (Database alarms)—Alarm types dealing with database activity. Includes table download, reading, and writing. MAINTENANCE (Maintenance alarms)—Alarm types dealing with fault handling and diagnostic areas. Includes test facilities and the health of hardware and software components. OSS (Operating System Services)—Alarm types dealing with the Cisco BTS 10200 Softswitch external interfaces that are on the northbound side of the system. This does not include southbound components in the system. SECURITY (Security alarms)—Alarm types dealing with access to the system through both human interfaces and machine interfaces. SIGNALING (Signaling alarms)—Alarm types dealing with protocol stacks such as MGCP and TDM interfaces such as SS7. STATISTICS (Statistical alarms)—Alarm types dealing with the accumulation, collection, and reporting of measurements in the system. This includes traffic and performance data. SYSTEM (System events)—Events dealing with the system. This includes events dealing with low-level process activities, such as the IDX table reads and IPC messaging. ALL—Turns on all of the above.

Events

Cisco BTS 10200 Softswitch events are indications that something has happened with the system.

Event Provisioning

The Event Provisioning (event-prov) command uses the Report Parameters (reportparameters) table to provision threshold and throttling values for any event that can be issued by the system.

Table Name: REPORTPARAMETERS

Table Containment Area: OAMP

Command Types

Show and change

Examples

```
show event-prov type=callp; number=20;
```

Note The show command also displays the descriptive string and the data labels for the specified data words.

```
change event-prov type=callp; number=20; threshold=95; throttle=1;
```

Usage Guidelines

Primary Key Token(s): type, number

Change Rules: None.

Other Rules: Type and number are the only valid tokens for this command. The limit, start-row, display, order, threshold and throttle tokens cannot be used with the show event-prov command—returns the error message “invalid key(s) found.”

Syntax Description

NUMBER	Primary key. Unique instance within the event category. NUMERIC: 1–200.
TYPE	Primary key. Event category. VARCHAR(12): 1–12 ASCII characters. Permitted values are: CALLP (Call processing events)—Events dealing with the processing of actual call data. CONFIG (Configuration events)—Events dealing with the provisioning aspects of the system. Includes all activity such as system devices and facility management. DATABASE (Database events)—Events dealing with database activity. Includes table download, reading, and writing. MAINTENANCE (Maintenance events)—Events dealing with fault handling and diagnostic areas. Includes test facilities and the health of hardware and software components. OSS (Operating System Services events)—Events dealing with the Cisco BTS 10200 Softswitch external interfaces that are on the northbound side of the system. This does not include southbound components in the system. SECURITY (Security events)—Events dealing with access to the system through both human interfaces and machine interfaces. SIGNALING (Signaling events)—Events dealing with protocol stacks such as MGCP and TDM interfaces like SS7. STATISTICS (Statistical events)—Events dealing with the accumulation, collection, and reporting of measurements in the system. This includes traffic and performance data. BILLING (Billing events)—Events dealing with billing data. This includes the generation, collection, and retrieval of billing call events. AUDIT (Audit events)—Events dealing with audit. This includes the starting and stopping of an audit, depending on how the audit was defined. SYSTEM (System events)—Events dealing with the system. This includes events dealing with low-level process activities, such as the IDX table reads and IPC messaging.
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(51200): 1–51200 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.

LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(51200): 1–51200 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).
THRESHOLD	Mandatory for change. Specifies the maximum number of events, (as identified by its type and number) to be reported for a 30-minute interval. Specifying the value zero establishes no threshold; therefore, every event of the specified type and number would be reported during the 30-minute interval. Specifying the default value of 100 would enable the Cisco BTS 10200 Softswitch to report the first 100 events of the specified type and number during the 30-minute interval but no more until the beginning of the next interval. If both the threshold and throttle parameters are specified, the throttle parameter is applied before the threshold parameter is considered. NUMERIC: 0–100 (Default = 100).
THROTTLE	Mandatory for change. Reporting reduction factor. For any throttle value, *n*, the system issues only one report for every *n* event for the specified event. When setting both throttle and threshold, the throttle value is applied before the threshold values. NUMERIC: 0–100 (Default = 0). A throttle set to zero means no throttling.

Event Report

The Event Report (event-report) command provides the ability to view events in a near real-time format by subscribing or unsubscribing to each level and type of event report.

Table Containment Area: OAMP

Command Types

Subscribe and unsubscribe

Examples

```
subscribe event-report severity=info; type=callp;
```

Note When you subscribe to alarms or events, they take over the screen as they happen, which can interrupt other commands.

```
unsubscribe event-report severity=info, warn; type=callp;
```

Usage Guidelines

Primary Key Token(s): None.

Syntax Description

SEVERITY	Specifies the minimum severity of event report to be subscribed to or unsubscribed from. VARCHAR(8): 1–8 ASCII characters. Permitted values are: INFO (Information severity)—Provides only added data to the general processing of an event report. Selecting Info turns on Info and all the levels above it (Warn, Minor, Major, and Critical). WARNING (Warning severity)—Indicates that some potential service degradation is occurring as a result of internal or external processing. At this level, processing is able to continue. Turns on Warn and all the levels above it (Minor, Major, and Critical). MINOR (Minor severity)—Indicates some loss of capacity or availability has occurred. An example is the loss of an Ethernet link or a software outage. Selecting Minor turns on Minor and all the levels above it (Major and Critical). MAJOR (Major severity)—Indicates a loss of capacity or availability. It refers to a larger loss than Minor or an escalation of some earlier alarm. Selecting Major turns on Major and Critical. CRITICAL (Critical severity)—A catastrophic condition in the system that requires operator attention and potential supervision over the situation. This can be an outage or complete loss of service somewhere in the system. Selecting Critical turns on Critical only. ALL—Turns on all severities.

TYPE	Type of event report to be subscribed to or unsubscribed from. VARCHAR(12): 1–12 ASCII characters. Permitted values are: CALLP (Call processing events)—Events dealing with the processing of actual call data. CONFIG (Configuration events)—Events dealing with the provisioning aspects of the system. Includes all activity such as system devices and facility management. DATABASE (Database events)—Events dealing with database activity. Includes table download, reading, and writing. MAINTENANCE (Maintenance events)—Events dealing with fault handling and diagnostic areas. Includes test facilities and the health of hardware and software components. OSS (Operating System Services events)—Events dealing with the Cisco BTS 10200 Softswitch external interfaces that are on the northbound side of the system. This does not include southbound components in the system. SECURITY (Security events)—Events dealing with access to the system through both human interfaces and machine interfaces. SIGNALING (Signaling events)—Events dealing with protocols stacks such as MGCP and TDM interfaces like SS7. STATISTICS (Statistical events)—Events dealing with the accumulation, collection, and reporting of measurements in the system. This includes traffic and performance data. BILLING (Billing data events)—This includes the generation, collection and retrieval of billing call events. AUDIT (Audit events)—Events dealing with audit. This includes the starting and stopping of an audit, depending on how the audit was defined. SYSTEM (System events)—Events dealing with the system. This includes events dealing with low-level process activities, such as the IDX table reads and IPC messaging. ALL—Report all events.



CHAPTER 3

Audit

Revised: July 24, 2009, OL-3743-42

This chapter describes the types of audit commands available. Note that most audit commands are time intensive. Completion time depends upon the number of entries in the table or database—for example, systems with 50,000+ subscribers may take over 7 hours to do a complete database audit.

Audit Circuit Identification Code

The Audit Circuit Identification Code (CIC) command allows executing a General Remote CIC audit at a scheduled time.

Command Types

Audit

Examples

```
audit all-ss7-cics
```

Note When entered manually, this command initiates a General Remote CIC audit of the entire system on demand. This command does not provide per-trunk results—its primary use is to be automatically scheduled by the command-scheduled CLI capability. This command does not wait for a general remote CIC audit to be completed before responding. The response occurs as soon as the audit starts. An INFO event is logged when this audit starts and completes. Any unexpected results from this audit are written as WARNings in the alarm log.

Audit Database

The Audit Database command allows users to audit every entry in every table that can be provisioned, or by number of rows in every table.

Command Types

Audit

Examples

```
audit database;
audit database type=row-count;
audit database platform-state=ems;
```

Usage Guidelines

Primary Key Token(s): None.

Syntax Description

TYPE	Type of audit. VARCHAR(10): 1–10 ASCII characters. Permitted values are: FULL (Default)—Audits the entire table. ROW-COUNT—Audits the table by row count.
PLATFORM-STATE	State of an active or standby system shared memory database; use to audit an active or standby system shared memory database. VARCHAR(7): 1–7 ASCII characters. Permitted values are: ACTIVE (Default)—System is active (currently running). STANDBY—System is in standby mode. EMS—Audits the active EMS to the standby EMS. **Note** If platform-state=EMS; the system does a full audit even if type=row-count;

Audit Table Name

The Audit Table Name command is more specific than the Audit Database command in that it audits only the entries in a particular table (whereas table-name (feature) is any provisionable table). You can audit a particular table from the active side or the standby side. The audit can be made more specific by specifying any valid token and its value for that particular table to narrow the search.

Command Types

Audit

Examples

```
audit trunk platform-state=active;
audit trunk platform-state=active; tgn-id=42;
audit subscriber id=jer%;
```

Note The last example shows how to use the percent sign (%) to specify a search range. This example returns any subscriber entries that have an ID field that begins with *jer*.

Usage Guidelines

Primary Key Token(s): None.

There is only one token: PLATFORM-STATE.

Syntax Description

PLATFORM-STATE	State of an active or standby system shared memory database; use to audit an active or standby system shared memory database. VARCHAR(7): 1–7 ASCII characters. Permitted values are: ACTIVE (Default)—System is active (currently running). STANDBY—System is in standby mode.



CHAPTER 4

Billing

Revised: July 24, 2009, OL-3743-42

This chapter describes the call detail block (CDB) billing tables, commands, and tokens that the Cisco BTS 10200 Softswitch uses for billing data transfer. These tables, commands, and tokens do not apply to event message (EM) billing.

Caution Manual manipulation of billing files can cause Billing to fail. Contact Cisco for assistance before manually manipulating any billing file, including clean up.

Note In this chapter, an asterisk preceding a token name means the token is mandatory. A token without an asterisk is optional.

Billing Account Address

The Billing Account Address (billing-acct-addr) table provisions addresses and polling intervals for billing data transfer. It also provisions the user authorized to transfer the data. Only one billing account address can be set per Cisco BTS 10200 Softswitch.

Note New Cisco BTS 10200 Softswitches are delivered without a billing account address set.

Table Name: BILLING-ACCT-ADDR

Table Containment Area: OAMP

Command Types Show and change

Examples

```
show billing-acct-addr;
change billing-acct-addr; billing-server-addr=billing-server.cisco.com;billing-file-
prefix=cisco001; billing-server-directory=/export/billing/ftp/inbound; user-name=cisco001;
password=test; polling-interval=12;
```

Usage Guidelines

Primary Key Token(s): None.

Change Rules: None.

Syntax Description

BILLING-DIRECTORY	Specifies the BDMS directory where the billing files are located. VARCHAR(64): 1–64 ASCII characters.
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
BILLING-FILE-PREFIX	Prefix of the filename of a billing-data file at a local office. VARCHAR(10): 1–10 (Default = bil) ASCII characters. VARCHAR(20): 1–20 (Default = bil) characters. (Release 4.4.1) VARCHAR(64): 1–64 (Default = bil) characters. (Release 4.5) **Caution** A hyphen is automatically appended to this field. Do not manually enter a hyphen in this field.
BILLING-SERVER-ADDR	Mandatory if billing-server-directory is populated. Address of a remote billing center—the IP address or the domain name of a remote billing server. VARCHAR(64): 1–64 ASCII characters in domain format.
BILLING-SERVER-DIRECTORY	Directory at a remote billing center—the directory path to the billing server for billing data files. VARCHAR(64): 1–64 ASCII characters.
DEPOSIT-CONFIRMATION-FILE (Release 4.5)	Specifies whether to send an explicit confirmation file after each CDB file is transferred to the remote billing collection system. CHAR(1): Y/N (Default = N). Y—An empty file with the same name with a suffix of ".done" is appended to the end of the file. N—No file is appended.
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(51200): 1–51200 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.

PASSWORD	Mandatory if billing-server-directory is populated. FTP password on the billing server. VARCHAR(32): 1–32 ASCII characters.
POLLING-INTERVAL	The time in minutes between file transfers of billing information from the BDMS to the billing server. NUMERIC: 1–60 (Default = 15).
SFTP-SUPP (Release 4.4.1)	Specifies whether secure FTP is supported. CHAR(1): Y/N (Default = N).
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).
USER-NAME	Mandatory if billing-server-directory is populated. FTP login name on the billing server. VARCHAR(32): 1–32 ASCII characters.

Billing Alarm

The Billing Alarm (billing-alarm) table provisions the percentage of disk storage filled that triggers minor, major, and critical alarms.

Table Name: BILLING-ALARM

Table Containment Area: OAMP

Command Types

Show and change

Examples

```
show billing-alarm;
change billing-alarm minor-thresh=75; major-thresh=85; critical-thresh=95;
```

Usage Guidelines

Primary Key Token(s): None.

Change Rules: None.

Syntax Description

AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
CRITICAL-THRESH	Real-time billing data storage—percentage of capacity that triggers a critical alarm. NUMERIC: 4–99 (Default = 90).

LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
MAJOR-THRESH	Real-time billing data storage—percentage of capacity that triggers a major alarm. NUMERIC: 3–98 (Default = 80). **Caution** Major-thresh *must* be less than critical-thresh.
MAXIMUM-RECORD	The maximum number of records to store in a given flat file. NUMERIC: 500–10000 (Default = 1000).
MAXIMUM-SIZE	The size of a call detail block (CDB) flat file in megabytes. NUMERIC: 1–10 (Default = 2).
MAXIMUM-SPACE	The allocated storage capacity for billing data in megabytes. NUMERIC: 10–5000 (Default = 1000).
MAXIMUM-TIME	The maximum number of seconds a given flat file can remain open for the addition of new records. NUMERIC: 10–3600 (Default = 3600).
MINOR-THRESH	Real-time billing data storage—percentage of capacity that triggers a minor alarm. NUMERIC: 2–97 (Default = 70). **Caution** Minor-thresh *must* be less than major-thresh.
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(51200): 1–51200 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
REGULAR-SPACE	The percentage of real time capacity used before secondary files are deleted. NUMERIC: 1–90 (Default = 60). **Caution** Regular-space must be less than minor-thresh.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).

Billing File

The system operator uses the Billing File Report (billing-file) command to manage files that are stored on the Bulk Data Management System (BDMS) platform at any given time. The names of the available files and their operational status can be queried. This command does not query a particular table.

Table Containment Area: OAMP

Command Types

Report

Examples

```
report billing-file filename=%;
report billing-file filename=<filename>;
report billing-file state=open;
```

Usage Guidelines

Primary Key Token(s): None.

Syntax Description

0/1	Specifies whether to turn daylight saving time on or off. CHAR(1): 0, 1 1—On 0—Off
AUTO-REFRESH	Specifies whether to display cached data on the screen. This token must be entered with at least one other valid token. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
DISPLAY	Specifies what token information to display on the screen. VARCHAR(51200): 1–51200 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
FILENAME	The name of the billing file to report on. If the filename does not exist, the user is notified that the file does not exist.
HHMMSS	The UTC offset time. Specify +/-HHMMSS.
LIMIT	Specifies the number of rows to display on the screen. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
ORDER	Specifies whether to display data on the screen in a sorted order. VARCHAR(51200): 1–51200 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.

SEQUENCE-NUMBER	Used to prevent generation of billing files with the same filename. INTEGER(6): 000001–999999. A monotonically increasing 6 digit number that rolls over to 000001 when the maximum number of 999999 is reached.
START-ROW	Specifies to begin displaying data on the screen at a specific row. INTEGER: 1–100000000 (Default = 1).
STATE	The current state of a given file. VARCHAR(10): 1–10 ASCII characters. Valid values are: OPEN—The file is currently being written to. PRIMARY—The file has not been sent to and acknowledged by the external billing mediation system. SECONDARY—The file has been sent to and acknowledged by the external billing mediation system.
YYYYMMDD-HHMMSS	The local time the file was created. DATE/TIME

Billing Record Query

The system operator uses the Billing Record Query (billing-record) command to obtain specific billing reports from the Call Detail (calldetail) table.

Table Name: CALLDETAIL

Table Containment Area: OAMP

Command Types

Report

Examples

```
report billing-record start-time=2000-03-27 12:00:00; end-time=2000-03-27 12:01:00;
orig-number=9726712344;
report billing-record;
```

Note If the command is entered without parameters, it defaults to tail=1 and returns the most recently written record.

Usage Guidelines

Primary Key Token(s): None.

There is no restriction on the start time and end time that can be entered for searches.

For all searches, only the most recent 500,000 billing records are considered.

The limit on the number of records returned by a search is 500.

Syntax Description

AUTO-REFRESH	Specifies whether to display cached data on the screen. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
CALL-TYPE	Type of call. STRING. Permitted values are: 500—Service access code 500, use carrier to route the call. 700—700 SAC call-route via PIC or dialed CAC. 900—Service access code 900, use carrier to route the call. 976—Information service calls. AIRLINES—Airline call. AMBULANCE—Ambulance service call. ATTENDANT—Call to a Centrex attendant. BLV—Busy line verification call. BUSINESS—811 call to business office. CARRIER-OPERATOR—101xxxx+0-, or 00(PIC) call. CUT-THRU—Call to user-dialed access code (101xxxx+#). DA—411, NPA-555-12121 call to directory assistance. DA-TOLL—1+411, 1+NPA-555-1212 toll call to directory assistance. EMG—911 emergency calls. EXTENSION—Call to another extension within a business group. FIRE—Fire department call. INFO—Same as 976. INTERLATA—InterLATA call that uses PIC or dialed CAC. INTL_OPERATOR—International operator. INTL_WORLD_ZONE_1—International world zone 1. INVALID—Partial dialed digits that time out. LOCAL—7-digit or 10-digit nontoll call. LOOPBACK_TEST—Loopback test. LRN—Call to a DN that has been reserved as a local routing number. MOBILE—Calls to a mobile network. (Release 4.5) NAS—Network access server call. NATIONAL—Call within the United States, use LSA table to determine if local, toll or destination call. See the *Cisco BTS 10200 Softswitch Provisioning Manual* for more information. NATL_OPERATOR—National operator. NONE—No call type was provisioned into the Cisco BTS 10200 Softswitch or the given dialing pattern. No data available regarding call type.

NON-EMG—311 Civic service call.

NULL—Service activation, deactivation, or interrogation call.

OPERATOR—0–call.

OPERATOR-ASSISTED—0+ call.

PCS—Call to personal communications services line (service access code 500-use carrier to route the call).

POLICE—Police service call.

PREMIUM—Same as 900.

RAILWAYS—Railway.

RELAY—711 relay call.

REPAIR—611 repair call.

SERVICE_CODE—Service code.

SPEED-DIAL—Speed-dial call.

TANDEM—Tandem call between CA and the next switch or CA.

TEST-CALL—Test call dialed as: 958/959-xxxx or 1xx.

TIME—Time service call.

TOLL—1+NPA-xxx-xxxx IntraLATA toll call.

TOLL-FREE—8NN toll-free call (800, 888, 877, 866, 855).

TRAFFIC—Traffic service call.

TW—Time and weather call.

VACANT—Call attempted to an NPA/DN that is currently unassigned.

VOICE-MAIL (Release 4.5)

VOICE-MAIL-ACCESS (Release 4.5)

WEATHER—Weather service call.

DISPLAY	Specifies what token information to display on the screen. VARCHAR(51200): 1–51200 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
END-TIME	Report billing records that occur at this time and earlier. STRING: yyyy-mm-dd hh:mm:ss.
FILENAME	Specifies the name of a group of records, which can be searched using search qualifiers other than the filename.
LIMIT	Specifies the number of rows to display on the screen. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
ORDER	Specifies whether to display data on the screen in a sorted order. VARCHAR(51200): 1–51200 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. **Note** In this table, more than one value cannot be specified for this token.

ORIG-NUMBER	Dialing number of the calling number. NUMERIC: 4–15 decimal characters. (Do *not* include hyphens.) NUMERIC: 3–15 decimal characters. (Do *not* include hyphens.) (Release 4.5.1)
SERVICE-TYPE	Specifies the type of service to filter against in the billing database. STRING. Permitted values are: 911-HANDLING ACCOUNT-CODE AIN-HANDLING ANONYMOUS-CALL-REJECTION AUTHORIZATION-CODE AUTOMATIC-CALLBACK AUTO-RECALL BUSY-LINE-VERIFICATION CALL-BLOCK CALL-FORWARD-BUSY CALL-FORWARD-COMBINATION (Release 4.5) CALL-FORWARD-NO-ANSWER CALL-FORWARD-UNCONDITIONAL CALL-HOLD CALL-PARK CALL-PARK-REOFFERED CALL-PARK-RETRIEVAL CALL-TRANSFER CALL-WAITING CALL-WAITING-DELUXE CALL-WAITING-WITH-CALLER-IDENTITY CALLING-ID-DELIVERY-BLOCK-PERMANENT CALLING-IDENTITY-DELIVERY-SUPPRESSION CALLING-NAME-DELIVERY CALLING-NAME-DELIVERY-BLOCKING CALLING-NUMBER-DELIVERY CALLING-NUMBER-DELIVERY-BLOCK CANCELLED-CALL-WAITING CLASS-OF-SERVICE CNAM-SCP-QUERY CUSTOM-DIALING-PLAN CUSTOMER-ORIGINATED-TRACE DIRECTED-CALL-PICKUP-WITH-BARGE-IN

	DIRECTED-CALL-PICKUP-WITHOUT-BARGE-IN DO-NOT-DISTURB DRCW HOTLINE HOTLINE-VARIABLE NO-SOLICITATION-ANNOUNCEMENT (Release 4.5) LNP OUTGOING-CALL-BARRING PRIVACY-SCREENING (Release 4.5) REFER REJECT-CALLER REMOTE-ACTIVATION-OF-CALL-FORWARDING REMOTE-ACTIVATION-OF-CALL-FORWARDING-PIN REPEAT-CALL RETURN-CALL SCREENING-LIST-EDIT-DRCW SCREENING-LIST-EDIT-SCA SCREENING-LIST-EDIT-SCF SCREENING-LIST-EDIT-SCR SELECTIVE-CALL-ACCEPTANCE SELECTIVE-CALL-FORWARDING SELECTIVE-CALL-REJECTION SERVICE-FEATURE-GROUP-INCOMING SERVICE-FEATURE-GROUP-OUTGOING SPEED-CALLING THREE-WAY-CALL THREE-WAY-CALL-DELUXE TOLL-FREE USER-SENSITIVE-THREE-WAY-CALL WARMLINE
START-ROW	Specifies to begin displaying data on the screen at a specific row. INTEGER: 1–100000000 (Default = 1).
START-TIME	Report billing records that occur from this time forward. STRING: yyyy-mm-dd hh:mm:ss.
TAIL	Causes the system to report only the most recent records of the requested set. NUMERIC: 1–50 decimal characters.
TERM-CAUSE	Specifies the call termination cause to filter against in the billing database. STRING. Permitted values are: AAL-PARAM-NOT-SUPPORTED

ACCESS-INFO-DISCARDED
BEARER-CAPABILITY-NOT-IMPLEMENTED
BEARER-CAPABILITY-UNAVAILABLE
BEARER-CAPAB-INCOMPAT-WITH-SERVICE
CALL-AWARDED
CALL-PROCEEDING
CALL-REJECTED
CALL-RESTRICTED-WITH-CLIR
CHANNEL-DOES-NOT-EXIST
CHANNEL-UNACCEPTABLE
CHANNEL-UNAVAILABLE
CIRCUIT-CHANNEL-CONGESTED
DESTINATION-OUT-OF-ORDER
EXCESS-DIGIT-RECD
FACILITY-NOT-IMPLEMENTED
FACILITY-NOT-SUBSCRIBED
FACILITY-REJECTED
INCOMPATIBLE-DESTINATION
INCORRECT-MESSAGE-LENGTH
INFOELEMENT-NONEXISTENT
INVALID-CALL-REFERENCE
INVALID-ENDPOINT-REFERENCE
INVALID-INFOELEMENT
INVALID-NUMBER-FORMAT
INVALID-TRANSIT-NETW-SELECTION
MANDATORY-INFOELEMENT-MISSING
MESSAGE-INCOMPAT-WITH-CALL-STATE
MESSAGE-TYPE-NONEXISTENT
NETWORK-OUT-OF-ORDER
NORMAL-CALL-CLEARING
NORMAL-UNSPECIFIED
NO-ROUTE-DESTINATION
NO-ROUTE-TRANSIT-NETWORK
NO-VPCI-VCI-AVAILABLE
NUMBER-CHANGED
ONE-DIALED-IN-ERROR
ONE-NOT-DIALED
PROTOCOL-ERROR-THRESHOLD-XCEEDED
PROTOCOL-ERROR-UNSPECIFIED
QOS-UNAVAILABLE
RESOURCE-UNAVAILABLE

SERVICE-DENIED
SERVICE-NOT-IMPLEMENTED
SERVICE-OPERATION-VIOLATED
SERVICE-UNSPECIFIED
SWITCH-EQUIP-CONGESTED
TEMPORARY-FAILURE
TIMER-EXPIRY-RECOVERY
TOO-MANY-PENDING-ADD-PARTY-REQ
UNASSIGNED-NUMBER
UNAUTHORIZED-BEARER-CAPABILITY
UNSUPPORTED-TRAFFIC-PARAMS
USER-ALERTED-NO-ANSWER
USER-BUSY
USER-CELLRATE-UNAVAILABLE
USER-NOT-RESPONDING
VACANT-CODE
VPCI-VCI-ASSIGNMENT-FAIL
VPCI-VCI-NOT-AVAILABLE
ZERO-DIALED-IN-ERROR
INTERWORKING-ERROR-UNSPECIFIED
AAL_PARAM_NOT_SUPPORTED (Release 4.5.1)
ACCESS_INFO_DISCARDED (Release 4.5.1)
ACCOUNT_LIMIT_EXCEEDED (Release 4.5.1)
BEARER_CAPAB_INCOMPAT_WITH_SERVICE (Release 4.5.1)
BEARER_CAPABILITY_NOT_IMPLEMENTED (Release 4.5.1)
BEARER_CAPABILITY_UNAVAILABLE (Release 4.5.1)
CALL_AWARDED (Release 4.5.1)
CALL_PROCEEDING (Release 4.5.1)
CALL_REJECTED (Release 4.5.1)
CALL_RESTRICTED_WITH_CLIR (Release 4.5.1)
CALLED_NUMBER_PORTED_OUT (Release 4.5.1)
CHANNEL_DOES_NOT_EXIST (Release 4.5.1)
CHANNEL_UNACCEPTABLE (Release 4.5.1)
CHANNEL_UNAVAILABLE (Release 4.5.1)
CIRCUIT_CHANNEL_CONGESTED (Release 4.5.1)
DESTINATION_OUT_OF_ORDER (Release 4.5.1)
EXCESS_DIGIT_RECD (Release 4.5.1)
FACILITY_NOT_IMPLEMENTED (Release 4.5.1)
FACILITY_NOT_SUBSCRIBED (Release 4.5.1)

FACILITY_REJECTED (Release 4.5.1)
INCOMPATIBLE_DESTINATION (Release 4.5.1)
INCORRECT_MESSAGE_LENGTH (Release 4.5.1)
INFOELEMENT_NONEXISTENT (Release 4.5.1)
INTERWORKING_ERROR_UNSPECIFIED (Release 4.5.1)
INVALID_CALL_REFERENCE (Release 4.5.1)
INVALID_ENDPOINT_REFERENCE (Release 4.5.1)
INVALID_INFOELEMENT (Release 4.5.1)
INVALID_NUMBER_FORMAT (Release 4.5.1)
INVALID_TRANSIT_NETW_SELECTION (Release 4.5.1)
MANDATORY_INFOELELMENT_MISSING (Release 4.5.1)
MESSAGE_INCOMPAT_WITH_CALL_STATE (Release 4.5.1)
MESSAGE_TYPE_NONEXISTENT (Release 4.5.1)
MISROUTED_PORTED (Release 4.5.1)
NE_CAUSE_AUDIT_RELEASE (Release 4.5.1)
NETWORK_OUT_OF_ORDER (Release 4.5.1)
NO_ROUTE_DESTINATION (Release 4.5.1)
NO_ROUTE_TRANSIT_NETWORK (Release 4.5.1)
NO_VPCI_VCI_AVAILABLE (Release 4.5.1)
NORMAL_CALL_CLEARING (Release 4.5.1)
NORMAL_UNSPECIFIED (Release 4.5.1)
NUMBER_CHANGED (Release 4.5.1)
ONE_DIALED_IN_ERROR (Release 4.5.1)
ONE_NOT_DIALED (Release 4.5.1)
PROTOCOL_ERROR_THRESHOLD_XCEEDED (Release 4.5.1)
PROTOCOL_ERROR_UNSPECIFIED (Release 4.5.1)
QOS_UNAVAILABLE (Release 4.5.1)
REPONSE_STATIC_ENQ_MSG (Release 4.5.1)
RESOURCE_UNAVAILABLE (Release 4.5.1)
SERVICE_DENIED (Release 4.5.1)
SERVICE_NOT_IMPLEMENTED (Release 4.5.1)
SERVICE_OPERATION_VIOLATED (Release 4.5.1)
SERVICE_UNSPECIFIED (Release 4.5.1)
SWITCH_EQUIP_CONGESTED (Release 4.5.1)
TEMPORARY_FAILURE (Release 4.5.1)
TIMER_EXPIRY_RECOVERY (Release 4.5.1)
TOO_MANY_PENDING_ADD_PARTY_REQ (Release 4.5.1)
UNASSIGNED_NUMBER (Release 4.5.1)

	UNAUTHORIZED_BEARER_CAPABILITY (Release 4.5.1) UNSUPPORTED_TRAFFIC_PARAMS (Release 4.5.1) USER_ALERTED_NO_ANSWER (Release 4.5.1) USER_BUSY (Release 4.5.1) USER_CELLRATE_UNAVAILABLE (Release 4.5.1) USER_NOT_RESPONDING (Release 4.5.1) VACANT_CODE (Release 4.5.1) VPCI_VCI_ASSIGNMENT_FAIL (Release 4.5.1) VPCI_VCI_NOT_AVAILABLE (Release 4.5.1) ZERO_DIALED_IN_ERROR (Release 4.5.1)
TERM-NUMBER	Dialing number of the called number. NUMERIC: 4–15 decimal characters. (Do *not* include hyphens.) NUMERIC: 3–15 decimal characters. (Do *not* include hyphens.) (Release 4.5.1)

Billing Call Detail Block

The Call Detail Block (CDB) (billingcdb) table enables or disables call types for billing using the billing-cdb command. Used to determine what is reported in the billing file.

Table Name: BILLINGCDB

Table Containment Area: OAMP

Note CDB is the implementation of CDR, call detail record.

Command Types Show and change

Examples

```
show billing-cdb type=local;
change billing-cdb type=local; enable=y;
```

Usage Guidelines Primary Key Token(s): type

Syntax Description

* TYPE	Primary key. Call type to be enabled or disabled for billing purposes. STRING. Permitted values are: 500—Service access code 500, use carrier to route the call. 700—700 SAC call-route via PIC or dialed CAC. 900—Service access code 900, use carrier to route the call. 976—Information service calls. AIRLINES—Airline. AMBULANCE—Ambulance service call. ATTENDANT—Call to a Centrex attendant. BLV—Busy line verification call. BUSINESS—811 call to business office. CALLING-NUMBER-ANNOUNCEMENT (Release 4.5)—Announcement played upon call. CARRIER-OPERATOR—101xxxx+0-, or 00(PIC) call. CUT-THRU—Call to user-dialed access code (101xxxx+#). DA-411, NPA-555—12121 call to directory assistance. DA-TOLL—1+411, 1+NPA-555-1212 toll call to directory assistance. EMG—911 emergency calls. EXTENSION—Call to another extension within a business group. FIRE—Fire department call. INFO—Same as 976. INTERLATA—InterLATA call that uses PIC or dialed CAC. INTERLATA-DA (Release 4.5)—InterLATA Directory Assistance. INTERNATIONAL-DA (Release 4.5)—International Directory Assistance. INTL-OPERATOR-International operator. INTL-WORLD-ZONE-1—International World Zone. INVALID—Partial dialed digits that time out. LOCAL—7-digit or 10-digit nontoll call. LOOPBACK—TEST-Loopback test. (Obsoleted as of Release 4.5) LRN—Call to a DN that has been reserved as a local routing number. NAS—Network access server call. NATIONAL—Call within the United States, use LSA table to determine if local, toll or destination call. See the *Cisco BTS 10200 Softswitch Provisioning Guide* for more information. NATL-OPERATOR—National operator. NON—EMG-311 Civic service call. NONE—No call type was provisioned into the Cisco BTS 10200 Softswitch or the given dialing pattern. No data available regarding call type. NULL—Service activation, deactivation, or interrogation call. OPERATOR—0-call. OPERATOR-ASSISTED—0+ call. PCS—Call to personal communications services line (service access code 500-use carrier to route the call). POLICE—Police service call. PREMIUM—Same as 900. RAILWAYS—Railway. RELAY—711 relay call. REPAIR—611 repair call. SERVICE-CODE—Service code. SPEED-DIAL—Speed-dial call. TANDEM—Tandem call between CA and the next switch or CA. TEST-CALL—100,101,102,103,105, 108, NLB test calls. 108 and NLB test calls are supported as of Release 4.5. TIME—Time service call. TOLL—1+NPA-xxx-xxxx IntraLATA toll call. TOLL-FREE—8NN toll-free call (800, 888, 877, 866, 855). TRAFFIC—Traffic service call. TW—Time and weather call. UNIVERSAL-ACCESS-NUMBER (Release 4.5)—Universal access number. VACANT—Call attempted to an NPA/DN that is currently unassigned. WEATHER—Weather service call.
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.

ENABLE	Enable or disable collection of the specified type of CDB. CHAR(1): Y/N (Default = Y). Y—Enable N—Disable
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(51200): 1–51200 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).



CHAPTER 5

Command Scheduler

Revised: July 24, 2009, OL-3743-42

The Command Scheduler (scheduled-command) table allows an operator to schedule a command to execute daily, weekly, or monthly at a specific time. Once a command is scheduled, the Command Scheduler allows removing a command from the schedule. Regardless of whether the command previously executed, the command can be removed at any time. If the command is scheduled to recur and is currently executing within the Element Management System (EMS), the command completes in a normal fashion but is removed from the list from that point forward.

It is often necessary to schedule commands to occur during periods of least system activity. Using the start time and recurrence command parameters, commands can be scheduled at any time and at any frequency. The recurrence parameter schedules a command daily, weekly, or monthly. Scheduling a command without the recurrence parameter causes the Command Scheduler to execute the command only once.

The characteristics of a scheduled command are read once at execution time. During execution, the characteristics can be changed but do not affect the command that is running.

To view generated a report go to https://<active EMS IP address>. Select the report and open ScheduledCommand<generated id>.html. Report results vary based on the scheduled command entered.'

Note Noun-verb syntax is not checked until execution.

Table Name: SCHEDULED-COMMAND

Table Containment Area: OAMP

Command Types

Show, add, change, and delete

Examples

```
show scheduled-command id=1234
add scheduled-command start-time=2001-10-01 12:22:22; noun=database; verb=audit
change scheduled-command id=1234; start-time=2001-10-02 20:00:00
delete scheduled-command id=1234
```

Usage Guidelines

Primary Key Token(s): id

Add Rules: None.

Change Rules: Security privilege levels apply.

Commands with additional tokens use keys as token and key-values as the token values. Multiple token/token values are separated with a comma (no white space is allowed). For example:

```
add scheduled-command start-time=2005-0901 02:22:00; noun=mgw; verb=control;
keys=id,mode,target-state; key-values=emta-11,forced,oos;
```

This forces the mgw id=emat-11 out of service at 2:22AM.

Note An asterisk preceeding a token name means the token is mandatory. A token without an asterisk is optional.

Syntax Description

ID (System generated)	Mandatory for change command. Primary key. System-generated identifier. INTEGER.
VERB	Mandatory for add command. Command-line interface (CLI) verb. VARCHAR(64): 1–64 ASCII characters; any valid command verb.
NOUN	Mandatory for add command. CLI noun. VARCHAR(64): 1–64 ASCII characters; any valid command noun.
KEYS	Key associated with the noun-verb combination. VARCHAR(1024): 1–1024 ASCII characters; any key or keys allowed for the noun-verb combination, separated by a comma. Spaces are not allowed. For example: type,display **Note** The field size is large because many commands include several keys whose length can be up to 1024 characters.
KEY-VALUES	Value associated with the key entered for the noun-verb combination. VARCHAR(1024): 1–1024 ASCII characters; any value or values associated with the key or keys entered, separated by a comma. Spaces are not allowed. For example: full,none **Note** The field size is large because many commands include several values whose length can be up to 1024 characters.
START-TIME	Mandatory for add command. Start time of the command. Enter all 19 ASCII characters as shown. DATE: yyyy-mm-dd hh:mm:ss.
NEXT-START-DAY (System generated)	The next time the command will run. System generated based on the start-time. NUMERIC.
USER-NAME (System generated)	Username of the last user to modify the scheduled command. VARCHAR(16): 1–16 ASCII characters.

EXECUTION-COUNTER (System generated)	System-generated command repetition counter. NUMERIC.
RECURRENCE	Number of times to execute the command. VARCHAR(16): 1–16 ASCII characters. Permitted values are: NONE (Default)—One time DAILY WEEKLY MONTHLY



CHAPTER 6

Customer Originated Trace

Revised: July 24, 2009, OL-3743-42

The Customer Originated Trace (call-trace) table contains information gathered by the system when a customer activates a trace by pressing *57 on the telephone. The table logs information pertaining only to the most recently received call. The Call Trace Summary (call-trace-summary) command retrieves the logged information.

Table Name: CALL-TRACE

Table Containment Area: OAMP

Command Types

Report

Examples

```
report call-trace-summary
```

Note Using the command without any tokens returns all entries in the table.

Usage Guidelines

Primary Key Token(s): None.

Foreign Key Token(s): term-id

Note An asterisk preceding a token name means the token is mandatory. A token without an asterisk is optional.

Syntax Description

CUSTOMER-DN	The customer's directory number. VARCHAR(10): 10 digits in the format npaxxxxxxx.
CALLING-DN	The caller's directory number. VARCHAR(10): 10 digits in the format npaxxxxxxx.
CALL-DATE	Date of the call. DATE: yyyy-mm-dd hh:mm:ss.

TRACE-DATE	Date the trace was activated. DATE: yyyy-mm-dd hh-mm-ss.
SUB-ID (System generated)	The subscriber ID of the customer who activated the trace. VARCHAR(30): 1–30 ASCII characters
TERM-ID (System generated)	Foreign key: Termination table. The termination ID of the customer who activated the trace. VARCHAR(32): 1–32 ASCII characters.
PRIVACY-STATUS	Refers to what caller information is displayed to the person being called. If the caller has this feature activated, only the applicable information is logged. VARCHAR(30): 1–30 ASCII characters. Permitted values are: FULL—Nothing is logged. NAME—Name is not logged. NUMBER—Number is not logged. OFF—Whatever is available for the caller is logged.

Note Table information is logged from the switch. If the system cannot decipher the information from the switch, it returns the value UNKNOWN in the applicable field.



CHAPTER 7

Database Usage

Revised: July 24, 2009, OL-3743-42

The Database Usage (db-usage) table can only be provisioned at installation. It provides maximum, licensed, and current database record statistics. The *current number of records* field is updated by the Element Management System (EMS) in real time. The db-usage command also uses the Database Threshold (db-thresholds) table, which contains default alarm threshold parameters that are preprovisioned during installation. A service provider can change and show these threshold parameters. The default threshold parameters are:

- 80 percent minor
- 85 percent major
- 90 percent critical

Note After a new install or an upgrade, all provisioning is disabled unless the DB-LICENSE file is provisioned. See the *Cisco BTS 10200 Softswitch Provisioning Guide* for steps.

Table Name: DB-USAGE

Table Containment Area: EMS

Command Types

Show and change

Examples

```
show db-usage table-name=dial-plan;
change db-usage table-name=dial-plan; minor-threshold=70; major-threshold=80;
critical-threshold=95;
```

Usage Guidelines

Primary Key Token(s): table-name

Change Rules:

- max-record-count must be greater than or equal to licensed-record-count.
- max-record-count must be greater than or equal to current-record-count.
- licensed-record-count must be greater than or equal to current-record-count.
- Major threshold must be less than Critical threshold and more than Minor threshold.

- Minor threshold must be less than Major threshold.

Note In this chapter, an asterisk preceding a token name means the token is mandatory. A token without an asterisk is optional.

Syntax Description

TABLE-NAME	Primary key. Table name. VARCHAR(32): 1–32 ASCII characters.
MAX-RECORD-COUNT (Not provisionable)	The size is specified in number of records. This field is populated during installation. INTEGER.
ALERT-LEVEL	Displays the status of record count for each table. VARCHAR(12): 1–12 ASCII characters. Permitted values are: NO-LICENSE—The DB size (license) is not installed. NORMAL—The current record count is lower than the minor threshold. MINOR—The current record count is higher than minor threshold and lower than major threshold. MAJOR—The current record count is higher than major threshold and lower than critical threshold. CRITICAL— The current record count is higher than critical threshold.
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
CRITICAL-THRESHOLD	Threshold for critical alarm (in percent). INTEGER: 2–100 (Default = 90).
CURRENT-RECORD-COUNT (System generated)	Current number of records in the table. This field is 0 for new installations and is the current table size for existing systems. INTEGER.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
LICENSED-RECORD-COUNT (Not provisionable)	Number of records authorized for the customer. This field is populated during installation. INTEGER.

LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
MAJOR-THRESHOLD	Threshold for major alarm (in percent). INTEGER: 1–99 (Default = 85).
MINOR-THRESHOLD	Threshold for minor alarm (in percent). INTEGER: 0–98 (Default = 80).
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
SEND-ALERT	Indicates whether to turn the threshold alarm ON or OFF. If the table size is 10 records or less, the flag is automatically set to OFF. VARCHAR(16): 1–16 ASCII characters. Permitted values are: ON—Turn the threshold alarm on. OFF—Turn the threshold alarm off.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).



CHAPTER 8

Fresh Download

Revised: July 24, 2009, OL-3743-42

The Fresh Download command refreshes data in Call Agent (CA) shared memory. It recovers the data in the Call Agent shared memory in the event that shared memory data cannot be recovered by any other means. The fresh download wipes out Call Agent shared memory data and causes a total outage.

Caution Only a operator of "ciscouser" authority can execute a download database command. No other user can execute this command. (Release 4.5)

Caution Do not use this command on any live traffic production systems. Contact Cisco TAC if you need additional help regarding the use of this command for disaster recovery.

You can perform the command in one of the following ways:

- By ID
- By standby CA or Feature Server (FS)

Note In this chapter, an asterisk preceding a token name means the token is mandatory. A token without an asterisk is optional.

Download by ID

The download by ID command allows copying database information from the Element Management System (EMS) to a specific CA or FS. If a CA ID is not specified, the command copies to all IDs.

Command Types Download

Examples

```
download database target=ca; id=CA146
download database target=fsptc; id=FSPTC135
download database target=fsain; id=FSAIN125
```

Download by Standby Call Agent or Feature Server

The download to Standby CA or FS command allows copying database information from the EMS to a specific standby CA or FS. If a target is not specified, the active instance is used.

Command Types

Download

Examples

```
download database target=ca; id=CA146;
download database target=ca; id=CA146; target-state=standby;
```

Syntax Description

*TARGET	Specifies the network element to receive the download. VARCHAR(5): 1–5 ASCII characters. Permitted values are: CA—Network identifier of a Call Agent. FSPTC (POTS/Tandem/Centrex Feature Server)—Network identifier of a specific Feature Server. FSAIN (AIN Feature Server)—Network identifier of AIN Feature Servers.
ID	Network ID of a specific CA or FS. VARCHAR(8):1–8 ASCII characters consisting of any valid, provisioned CA, FSPTC, or FSAIN ID.
FILE	This contains all the SQL commands that represent all the data in an EMS database. This is a faster process than the alternative of going through the Queuing and Audit Manager (QAM). VARCHAR(128): 1–128 ASCII characters consisting of any valid filename.
TARGET-STATE	The state (active or standby) of the Call Agent or Feature Server. VARCHAR(7): 1–7 ASCII characters. Permitted values are: ACTIVE (Default)—Call Agent or Feature Server is in active state. STANDBY—Call Agent or Feature Server is in standby state.



CHAPTER 9

History

Revised: July 24, 2009, OL-3743-42

The History (history) table stores a list of executed commands. A list of all executed commands can be sent to a file (report history), or displayed on the screen (show history).

Table Name: HISTORY

Table Containment Area: EMS only.

Command Types

Show and report

Examples

```
show history
report history
```

Note Using the command without any tokens returns all entries in the table.

Usage Guidelines

Primary Key Token(s): None.

Syntax Description

ADAPTER	The OSS adapter. User input is not modified prior to validation. VARCHAR(30): 1–30 ASCII characters. Permitted values are: CLI SPIT IOS MNT TEST GUI FTP SNMP SUP CORBA HTTP CRON QAM DBASE
AUTO-REFRESH	Specifies whether to display cached data on the screen. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
DISPLAY	Specifies what token information to display on the screen. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
END-TIME	Ending time for history range. DATE/TIME: in the format: YYYY-MM-DD HH:MM:SS.
LIMIT	Specifies the number of rows to display on the screen. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
NOUN	The command noun. VARCHAR(50): 1–50 ASCII characters.

ORDER	Specifies whether to display data on the screen in a sorted order. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
RESULT	The result of the command. VARCHAR(100): 1–100 ASCII characters.
SESSION	The login session ID. VARCHAR(30): 1–30 ASCII characters.
START-ROW	Specifies to begin displaying data on the screen at a specific row. INTEGER: 1–100000000 (Default = 1).
START-TIME	The starting time for history range. Start-time must occur before end-time. DATE/TIME: in the format: YYYY-MM-DD HH:MM:SS.
TRANSACTION-ID	The transaction id. VARCHAR(30): 1–30 ASCII characters.
USER	The user. VARCHAR(50): 1–50 ASCII characters.
USER-DOMAIN	The user domain. VARCHAR(100): 1–100 ASCII characters.
USER-INPUT	The command input. VARCHAR(100): 1–100 ASCII characters.
VERB	The command verb. VARCHAR(50): 1–50 ASCII characters.



CHAPTER 10

Maintenance and Administration of System Component Commands

Revised: July 24, 2009, OL-3743-42

This chapter describes the status and control commands that are applicable only to the Call Agent (CA), Feature Server (FS), Element Management System (EMS), and the Bulk Data Management System (BDMS). There is also one System command. Status and control commands do not have their own tables.

Do not attempt to interpret responses from the status commands, or to use any control commands without first referring to the procedures and interpretations in the Cisco BTS 10200 Softswitch Operations Manual. Incorrect interpretation of the status commands, and incorrect usage of the control commands can cause a traffic or data interruption. For a complete list of sample replies and states, see the *Cisco BTS 10200 Softswitch Operations Manual.*

Note In this chapter, an asterisk preceding a token name means the token is mandatory. A token without an asterisk is optional.

Control Command Target States

Table 10-1 lists target states and their descriptions for the control commands.

Table 10-1 Control Command Target States and Descriptions

Target State	Description
NORMAL (Obsoleted as of Release 4.5)	Normal allows changing the operational state from FORCED to NORMAL. If the previous configuration was FORCED_STANDBY_ACTIVE, a switchover will occur.
ACTIVE_STANDBY (Release 4.5)	Controls Side A to active and Side B to standby.
STANDBY_ACTIVE (Release 4.5)	Controls Side A to standby and Side B to active.
FORCED-ACTIVE-STANDBY (Obsoleted as of Release 4.5)	Side A is forced to active and Side B is standby.

Table 10-1 Control Command Target States and Descriptions (continued)

Target State	Description
FORCED-STANDBY-ACTIVE (Obsoleted as of Release 4.5)	Side A has been forced to standby and Side B is active.

Call Agent

This section describes the status and control commands for the Cisco BTS 10200 Softswitch Call Agent.

Status Command

The status command reports the status of a Call Agent.

Command Types Status

Examples

```
status call-agent;
```

Reply Example:

```
Reply: Request was successful.
REPLY=CONFIGURATION COMMAND EXECUTED-> status call-agent
PRIMARY STATUS -> ACTIVE_NORMAL
SECONDARY STATUS -> STANDBY_NORMAL
```

Note In Release 4.5, the words FORCED and NORMAL are no longer returned in command responses. ACTIVE_NORMAL becomes ACTIVE, STANDBY_NORMAL becomes STANDBY, and so forth.

Control Command

The control command puts the Call Agent into a specific state.

Command Types Control

Examples

```
control call-agent id=CA146; target-state=forced-standby-active;
control call-agent id=CA146; target-state=forced-active-standby;
control call-agent id=CA146; target-state=normal;

control call-agent id=CA146; target-state=standby-active; (Release 4.5)
control call-agent id=CA146; target-state=active-standby; (Release 4.5)
```

Reply Example:

```
Request was successful
```

```
REPLY=CONFIGURATION COMMAND EXECUTED->Reconfigured successfully.
```

Note In Release 4.5, the words FORCED and NORMAL are no longer returned in command responses. ACTIVE_NORMAL becomes ACTIVE, STANDBY_NORMAL becomes STANDBY, and so forth.

Feature Server

This section describes the status and control commands for the Cisco BTS 10200 Softswitch Feature Server.

Status Command

The status command reports the status of a Feature Server. Entering the command without an id returns all feature servers except third party (3PTY) feature servers. 3PTY feature servers are not valid for this command.

Command Types Status

Examples

```
status feature-server id=FSAIN205.Cisco.com;
```

Reply Example:

```
Request was successful.
REPLY=CONFIGURATION COMMAND EXECUTED-> status feature-server
PRIMARY STATUS -> ACTIVE-NORMAL
SECONDARY STATUS -> STANDBY-NORMAL
```

Note In Release 4.5, the words FORCED and NORMAL are no longer returned in command responses. ACTIVE_NORMAL becomes ACTIVE, STANDBY_NORMAL becomes STANDBY, and so forth.

Control Command

The control command puts a Feature Server into a specific state. This command is not valid for 3PTY feature servers.

Command Types Control

Examples

```
control feature-server id=FSAIN205.Cisco.com; target-state=normal;
```

```
control feature-server id=FSAIN205.Cisco.com; target-state=active-standby; (Release 4.5)
```

Reply Example:

```
Request was successful
```

```
REPLY=CONFIGURATION COMMAND EXECUTED->control feature-server LOCAL STATUS
```

Element Management System

This section describes the status and control commands for the Cisco BTS 10200 Softswitch Element Management System (EMS). These commands are specific to the EMS. For Billing commands, see the "Bulk Data Management System" section on page 10-5.

Status Command

The status command reports the status of an EMS.

Command Types Status

Examples

```
status element-manager; id=EM01;
```

Reply Example:

```
Reply : Success:

        ELEMENT MANAGER STATUS IS... ->

        APPLICATION INSTANCE -> Element Manager [EM1]
        PRIMARY STATUS -> ACTIVE_NORMAL
        SECONDARY STATUS -> FAULTY

        EMS ORACLE STATUS IS ... -> Daemon is running!

        ORACLE STATUS IS... -> Daemon is running! Control Command
```

Note In Release 4.5, the words FORCED and NORMAL are no longer returned in command responses. ACTIVE_NORMAL becomes ACTIVE, STANDBY_NORMAL becomes STANDBY, and so forth.

Control Command

The control command puts an EMS into a specific state.

Command Types Control

Examples

```
control element-manager id=EM01; target-state=normal;
control element-manager id=EM01; target-state=active-standby; (Release 4.5)
```

Reply Example:

```
Request was successful
REPLY=CONFIGURATION COMMAND EXECUTED->CONTROL EMS LOCAL STATUS
```

Bulk Data Management System

This section describes the status and control commands for the Cisco BTS 10200 Softswitch Bulk Data Management System (BDMS).

Status Command

The status command reports the status of the BDMS.

Command Types Status

Examples

```
status bdms; id=BDMS01;
```

Reply Example:

```
BILLING SERVER STATUS IS... ->

APPLICATION INSTANCE -> Bulk Data Management Server [BDMS01]
PRIMARY STATUS -> ACTIVE
SECONDARY STATUS -> STANDBY

BILLING ORACLE STATUS IS... -> Daemon is running!

Reply : Success:

CLI>
CLI>control bdms id=BDMS01; target-state=active-standby

APPLICATION INSTANCE -> Bulk Data Management Server [BDMS01]
REASON -> Application instance is already in request configuration

Reply : Success:
```

Control Command

The control command puts the BDMS into a specific state.

Command Types Control

Examples

```
control bdms id=BDMS1; target-state=normal;
control bdms id=BDMS1; target-state=active-standby; (Release 4.5)
```

Reply Example:

```
Reply : Success:

APPLICATION INSTANCE -> Bulk Data Management Server [BDMS01]
REASON -> CONFIGURATION COMMAND EXECUTED->CONTROL BDMS LOCAL STATUS System
```

Status System Command

The status system command returns the status of all applicable components of the system, including the BDMS.

Command Types

Status

Examples

```
status system;
```

Reply Example:

```
Checking Call Agent status ...
Checking Feature Server status ...
Checking Billing Server status ...
Checking Billing Oracle status ...
Checking Element Manager status ...
Checking ORACLE status ...

CALL AGENT STATUS IS... ->

APPLICATION INSTANCE -> Call Agent [CA146]
PRIMARY STATUS -> STANDBY_NORMAL
SECONDARY STATUS -> ACTIVE_NORMAL

FEATURE SERVER STATUS IS... ->

APPLICATION INSTANCE -> Feature Server [FSPTC235]
PRIMARY STATUS -> STANDBY_NORMAL
SECONDARY STATUS -> ACTIVE_NORMAL

FEATURE SERVER STATUS IS... ->

APPLICATION INSTANCE -> Feature Server [FSAIN205]
PRIMARY STATUS -> STANDBY_NORMAL
SECONDARY STATUS -> ACTIVE_NORMAL

BILLING SERVER STATUS IS... ->

APPLICATION INSTANCE -> Bulk Data Management Server [BDMS01]
PRIMARY STATUS -> ACTIVE_NORMAL
SECONDARY STATUS -> STANDBY_NORMAL

BILLING ORACLE STATUS IS... -> Daemon is running!

ELEMENT MANAGER STATUS IS... ->

APPLICATION INSTANCE -> Element Manager [EM01]
PRIMARY STATUS -> STANDBY_NORMAL
SECONDARY STATUS -> ACTIVE_NORMAL

EMS ORACLE STATUS IS ... -> Daemon is running!

Reply : Success:
```

Note In Release 4.5, the words FORCED and NORMAL are no longer returned in command responses. ACTIVE_NORMAL becomes ACTIVE, STANDBY_NORMAL becomes STANDBY, and so forth.

Status Application Command

The status application command shows the state of any Cisco BTS 10200 Softswitch application (CA, FS, EMS, BDMS), including uptime, side indications and additional qualifying reason information.

Command Types

Status

Examples

```
status application id=*; (returns status of each component)
status application id=1; (returns status of every component containing a 1)
status application id=CA146;
status application id=CA146;
status application id=EM01;
status application id=EM01;
```

Usage Guidelines

Wild card matching is available for this command. A value can be entered to report any component that has this value. For example, entering id=1 returns every component that has a 1 in its value.

Syntax Description

* ID	Type of application. VARCHAR(8): 1–8 ASCII characters. Permitted values are: CAnnn (or cannn)—CA EMnn (or emnn)—EMS BDMSnn (or bdms)—BDMS FSPTCnnn (or fsptcnnn)—FSPTC FSAINnnn (or fsainnnn)—FSAIN
NODE	UNIX system id. Input is not modified prior to validation. VARCHAR(64): 1–64 ASCII characters. Enter at least 1 character, but not more than 64 characters. To clear a value, enter NULL.

Control Application Command

The control application command stops or starts a platform instance using the CLI. This is the same as a root user entering the command: platform stop -i CA146.

Command Types

Control

Examples

```
control application id=CA146; node=prica01;action=start;
control application id=CA146; node=prica01;action=stop;
control application id=EM01; node=priems01;action=start;
control application id=EM01; node=priems01;action=stop;
```

Syntax Description

* ID	Type of application. VARCHAR(8): 1–8 ASCII characters. VARCHAR(64): 1–64 ASCII characters. (Release 4.5.1) Permitted values are: CAnnn (or cannn)—CA EMnn (or emnn)—EMS BDMSnn (or bdms)—BDMS FSnnn (or fsnnn)—FS
* ACTION	Activity to perform. Permitted values are: START—Start a CA, EMS, BDMS, or FS. This is the same as performing a *platform start*. STOP—Stop a CA, EMS, BDMS, or FS. This is the same as performing a *platform stop*. ⚠ **Caution** Performing a platform stop takes down a component and can produce outages.
* BYPASS (Release 4.5)	Mandatory in Release 4.5.1. Bypass. Input is not modified prior to validation. CHAR(1): Y/N (Default = N).
* NODE	UNIX system id. Input is not modified prior to validation. VARCHAR(64): 1–64 ASCII characters. Enter at least 1 character, but not more than 64 characters. To clear a value, enter NULL.
* IRDP (Release 4.5)	Mandatory in Release 4.5.1. IRDP. Input is not modified prior to validation. CHAR(1): Y/N (Default = Y).
* PING (Release 4.5)	Mandatory in Release 4.5.1. Ping. Input is not modified prior to validation. CHAR(1): Y/N (Default = Y).

System Configuration Command

Use the System Configuration commands to manage the Network Time Protocol servers on the system.

Command Types

Show and change

Examples

```
show ems;
change ems ntp-server=ntp-server-1,ntp-server-2; (Obsolete in Release 4.5)
change ems interface=ce1;ip-alias=priems09.cisco.com
```

Note There are two forms of the change command:
`change ems ntp-server=xxxx` (Obsolete in Release 4.5)
`change ems interface=xxx, ip-alias=xxx`
The first form identifies the NTP server that the Element Management System (EMS) must synchronize to. The second form creates an IP address alias that tracks the active EMS.

Usage Guidelines

Primary Key Token(s): None.

Change Rules: None.

Syntax Description

INTERFACE	The physical network interface to be made an alias. VARCHAR(10): 1–10 characters.
IP-ALIAS	Interface alias. Assigned by the service provider. VARCHAR(64): 1–64 characters.
NTP-SERVER	Network time protocol master server name. Defines the Cisco BTS 10200 Softswitch server used for time synchronization. VARCHAR(64): 1–64 ASCII characters. **Note** In Release 4.1, both NTP servers must be specified. In Release 4.2, only one NTP server must be specified.



CHAPTER 11

Measurements

Revised: July 24, 2009, OL-3743-42

This chapter describes the tables and their commands that are used to provision and manage the types of traffic statistics in Measurement tables.

Note Some tokens in this chapter are mandatory for *on-demand requests*. An *on-demand request* takes a snapshot of current counters at a particular point in time. This snapshot can be across current collection intervals (time interval), although only data from the current interval is returned. For example, if you wish to get a current measurement at 6:10 AM, and it is 6:10 AM, you can enter a start time of 6:10 or greater (such as 6:20). But you will receive only those counters collected from 6:01 until 6:10, within the time of the current collection interval. For this type of command, the on-demand tokens are mandatory. However, if it is 6:10 AM and you run a start time of 5:00 and an end time of 5:30, you will receive all measurements collected in that interval and the on-demand tokens are optional.

For any measurement report request, you can specify the creation of a file of comma-separated ASCII data of the values retrieved. This is done using the output=<filename> token. This token is created in memory when needed and is not physically present in any of the measurement tables. It is used in conjunction with the output-type token. For example, entering the following command results in the creation of a file *Tm_yourfilename.csv* in the /opt/ems/report directory:

```
report measurement-callp-summary; output=callpsummary; output-type=CSV
```

All files begin with *Tm_*, followed by the filename entered by the user, and are placed in the /opt/ems/report directory on the active Element Management System (EMS).

The output file contains the same data that one receives from issuing a report, except that the data is arranged horizontally in a comma-separated format. Therefore, instead of the following:

```
FIELD-NAME1 value1
FIELD-NAME2 value2
```

The output is:

```
FIELD-NAME1, FIELD-NAME2, value1, value2, and so forth.
```

Note In the following tables, the start-time value must be greater than, or equal to, now when you take snapshots of measurement data that have not yet been logged to the disk yet.

Note In this chapter, an asterisk preceding a token name means the token is mandatory. A token without an asterisk is optional.

AIN Services Summary

The Measurement AIN Services Feature Server Summary (measurement-ainsvc-summary) table requests a summary report of AIN service-related statistics for a specified Feature Server that occur during a specified collection interval (time-interval). Each collection interval starts on the hour, half-hour, or quarter-hour.

Table Name: MEASUREMENT-AINSVC-SUMMARY

Table Containment Area: OAMP

Command Types

Report, show and clear

Examples

```
show measurement-ainsvc-summary;
report measurement-ainsvc-summary start-time=2001-03-27 06:00:00; end-time=2001-03-27
13:00:00; feature-server-id=FSAIN203;output-type=csv;
clear measurement-ainsvc-summary feature-server-id=FSAIN203;
```

Caution The clear command clears *all* current collecting measurement values for the specified Call Agent. There will not be any announcement data to report until the next interval.

Usage Guidelines

Primary Key Token(s): None.

Foreign Key Token(s): feature-server-id

Syntax Description

FEATURE-SERVER-ID	Mandatory for on-demand requests. Foreign key: Feature Server table. The ID of the associated Feature Server. VARCHAR(8): 1–8 ASCII characters in the format fsptcnnn or fsainnnn.
DISPLAY	Specifies particular report counters to display on the screen. Display token values must be entered with an underscore (_). Do not use hyphens (-). STRING. See Table 11-1 for permitted values.
END-TIME	Ending time for measurement summary. Enter all 19 ASCII characters as shown. DATE and TIME: YYYY-MM-DD HH:MM:SS.

INTERVAL	Specifies whether to report measurement entries for all intervals, or to get the current data that is not yet in a report. STRING. CURRENT—Returns the measurement data available for the latest interval that is not yet in a report for the Call Agent and Feature Server. If used with the START-TIME token, the START-TIME token is ignored and the INTERVAL=CURRENT value is used. ALL—returns all the entries in regardless of the timestamp or reported intervals. If used with the START-TIME token, this token is ignored and the START-TIME value is used.
OUTPUT-TYPE	Specifies the desired output format. Permitted values are: CSV (Default)—Comma-separated view XML—Extensible Markup Language
START-TIME	Mandatory for on-demand requests. Starting time for measurements summary. Enter all 19 ASCII characters as shown. Start-time must occur before end-time. Measurement items are available for the current and previous calendar days only (up to a maximum of 48 hours of events). If the time specified is during the current collection interval only, partial measurement counts are displayed. DATE and TIME: YYYY-MM-DD HH:MM:SS.
SUM	Specifies whether the resulting report request must contain the individual interval reports (N) or a summation of all interval reports into one composite report (Y). CHAR(1): Y/N (Default = N).

Table 11-1 lists the values for the AIN Services Summary Display token.

Table 11-1 AIN Services Summary Display Token Values

TIMESTAMP
NODENAME
CONDITION
AINSVC_TOTAL_QUERY
AINSVC_8XX_QUERY
AINSVC_EXT_8XX_QUERY
AINSVC_EXT_8XX_QUERY_SUCC
AINSVC_EXT_8XX_FAIL_APP
AINSVC_EXT_8XX_FAIL_NETW
AINSVC_LOC_8XX_QUERY
AINSVC_LOC_8XX_QUERY_SUCC
AINSVC_LOC_8XX_ANI_BLOCK
AINSVC_LOC_8XX_II_BLOCK
AINSVC_LOC_8XX_DNIS_SUCC

AINSVC_LOC_8XX_ROUTING_SUCC	
AINSVC_LOC_8XX_REROUTE	
AINSVC_LOC_8XX_FAIL_APP	
AINSVC_TOTAL_LNP_QUERY	
AINSVC_EXT_LNP_QUERY	
AINSVC_EXT_LNP_QUERY_SUCC	
AINSVC_EXT_LNP_FAIL_APP	
AINSVC_EXT_LNP_FAIL_NETW	
AINSVC_EXT_8XX_QUERY_FAIL	
AINSVC_EXT_LNP_QUERY_LRN	
AINSVC_EXT_LNP_QUERY_FAIL	
AINSVC_LOC_LNP_QUERY	(Release 4.5)
AINSVC_LOC_LNP_QUERY_SUCC	(Release 4.5)
AINSVC_LOC_LNP_FAIL_APP	(Release 4.5)
AINSVC_LOC_LNP_QUERY_RN_FOUND	(Release 4.5)
AINSVC_LOC_LNP_QUERY_NO_RN	(Release 4.5)
NUM_OF_8XX	
NUM_OF_AIN	
NUM_OF_CNAM	
NUM_OF_EXT_8XX	
NUM_OF_EXT_8XX_FAIL_APPL	
NUM_OF_EXT_8XX_FAIL_NET	
NUM_OF_EXT_8XX_QUERY_FAIL	
NUM_OF_EXT_8XX_SUCCEED	
NUM_OF_EXT_CNAM	
NUM_OF_EXT_CNAM_FAIL_APPL	
NUM_OF_EXT_CNAM_SUCCEED	
NUM_OF_EXT_LNP	
NUM_OF_EXT_LNP_FAIL_APPL	
NUM_OF_EXT_LNP_QUERY_FAIL	
NUM_OF_EXT_LNP_QUERY_LRN	
NUM_OF_EXT_LNP_SUCCEED	
NUM_OF_LNP	
NUM_OF_LOC_8XX	
NUM_OF_LOC_8XX_ANI_BLOCKED	
NUM_OF_LOC_8XX_DNIS_SUCCEED	
NUM_OF_LOC_8XX_FAIL_APPL	
NUM_OF_LOC_8XX_II_BLOCKED	

NUM_OF_LOC_8XX_REROUTED
NUM_OF_LOC_8XX_ROUTING_SUCCEED
NUM_OF_LOC_8XX_SUCCEED
SIP_100_RX
SIP_100_TX
SIP_18x_RX
SIP_18x_TX
SIP_200_RX
SIP_200_TX
SIP_3xx_RX
SIP_3xx_TX
SIP_4xx_RX
SIP_4xx_TX
SIP_5xx_RX
SIP_5xx_TX
SIP_6xx_RX
SIP_6xx_TX
SIP_7xx_RX
SIP_7xx_TX
SIP_ACK_RX
SIP_ACK_TX
SIP_BYE_RX
SIP_BYE_TX
SIP_CANCEL_RX
SIP_CANCEL_TX
SIP_INFO_RX
SIP_INFO_TX
SIP_INVITE_RX
SIP_INVITE_REPLACES_RX
SIP_INVITE_REPLACES_TX
SIP_INVITE_TX
SIP_NOTIFY_RX
SIP_NOTIFY_TX
SIP_OPTIONS_RX
SIP_OPTIONS_TX
SIP_PRACK_RX
SIP_PRACK_TX
SIP_PROV_RSP_RETRAN_RX

SIP_PROV_RSP_RETRAN_TX
SIP_REFER_RX
SIP_REFER_W_REPLACEs_RX
SIP_REFER_TX
SIP_REGISTER_RX
SIP_REGISTER_TX
SIP_REL100_RX
SIP_REL100_TX
SIP_REQ_RETRAN_RX
SIP_REQ_RETRAN_TX
SIP_RSP_RETRAN_RX
SIP_RSP_RETRAN_TX
SIP_SUBSCRIBE_RX
SIP_SUBSCRIBE_TX
SIP_T1_TIMER_EXPIRED
SIP_T2_TIMER_REACHED
SIP_TOTAL_INCOM_MSG
SIP_TOTAL_SUCC_INCOM_MSG
SIP_TOTAL_OUTG_MSG_ATTMP
SIP_TOTAL_SUCC_OUTG_MSG
SIP_UNSUPPORTED_RX
SIP_UPDATE_RX
SIP_UPDATE_TX

Announcement Measurements Summary

The Announcement Measurements Summary (measurement-anm-summary) table collects announcement statistics, such as how many times a specific announcement was played during a specified collection interval (time-interval). Each collection interval starts on the hour, half-hour, or quarter-hour.

Table Name: MEASUREMENT-ANM-SUMMARY

Table Containment Area: OAMP

Command Types

Report, show and clear

Examples

```
show measurement-anm-summary;
report measurement-anm-summary start-time=2001-03-27 06:00:00; end-time=2001-03-27
06:30:00; call-agent-id=CA146;output-type=csv;
clear measurement-anm-summary call-agent-id=ca001;
```

Caution The clear command clears *all* current collecting measurement values for the specified Call Agent. There will not be any announcement data to report until the next interval.

Usage Guidelines

Primary Key Token(s): None.

Foreign Key Token(s): call-agent-id

Change Rules: None.

Syntax Description

CALL-AGENT-ID	Mandatory for on-demand requests. Foreign key: Call Agent table. ID of the associated Call Agent. VARCHAR(8): 1–8 ASCII characters in the format CAnnn or cannn.
DISPLAY	Specifies particular report counters to display on the screen. Display token values must be entered with an underscore (_). Do not use hyphens (-). STRING. Permitted values are: TIMESTAMP NODENAME CONDITION ANM_ADDR_INCOMPLETE ANM_AUTHCODE_INVALID ANM_CALL_REJECTED ANM_CAUSE_UNKNOWN ANM_CKT_UNAVAIL ANM_DEST_OUTOFORDER ANM_EMG_CKT_UNAVAIL (Release 4.5) ANM_FAC_REJECT ANM_FEAT_NOT_SUBS ANM_HNPA_ABSENT ANM_NO_ROUTE_DEST ANM_NO_RTE_TRANSITNW ANM_NUM_CHANGED ANM_PRE_0_1_ABSENT ANM_PRE_0_1_PRESENT ANM_TEMP_DISCONNECT ANM_UNALLOCATED_NUM
END-TIME	Ending time for measurement summary. Enter all 19 ASCII characters as shown. DATE and TIME: YYYY-MM-DD HH:MM:SS.

INTERVAL	Specifies whether to report measurement entries for all intervals, or to get the current data that is not yet in a report. STRING. CURRENT—Returns the measurement data available for the latest interval that is not yet in a report for the Call Agent and Feature Server. If used with the START-TIME token, the START-TIME token is ignored and the INTERVAL=CURRENT value is used. ALL—returns all the entries in regardless of the timestamp or reported intervals. If used with the START-TIME token, this token is ignored and the START-TIME value is used.
OUTPUT-TYPE	Specifies the desired output format. Permitted values are: CSV (Default)—Comma-separated view XML—Extensible Markup Language
START-TIME	Mandatory for on-demand requests. Starting time for measurements summary. Enter all 19 ASCII characters as shown. Start-time must occur before end-time. Measurement items are available for the current and previous calendar days only (up to a maximum of 48 hours of events). DATE and TIME: YYYY-MM-DD HH:MM:SS.
SUM	Specifies whether the resulting report request must contain the individual interval reports (N) or a summation of all interval reports into one composite report (Y). CHAR(1): Y/N (Default = N).

Measurement AIN Tools Summary (Release 4.4.1)

The Measurement AIN Tools Summary (measurement-ain-tools-summary) table collects AIN tools statistics. Each collection interval starts on the hour, half-hour, or quarter-hour.

Table Name: MEASUREMENT-AIN-TOOLS-SUMMARY

Table Containment Area: OAMP

Command Types

Report, show and clear

Examples

```
show measurement-ain-tools-summary;
report measurement-ain-tools-summary start-time=2002-03-27 10:00:00; end-time=2002-03-27
12:00:00; feature-server-id=FSAIN203; output=ain-tools-report; output-type=csv;
clear measurement-ain-tools-summary feature-server-id=FSAIN203;
```

Usage Guidelines

Primary Key Token(s): None.

Foreign Key Token(s): call-agent-id

Syntax Description

FEATURE-SERVER-ID	Mandatory for on-demand requests. Foreign key: Feature Server table. The ID of the associated Feature Server. VARCHAR(8): 1–8 ASCII characters in the format fsptcnnn or fsainnnn.
DISPLAY	Specifies particular report counters to display on the screen. Display token values must be entered with an underscore (_). Do not use hyphens (-). STRING. See Table 11-2 for permitted values.
END-TIME	Ending time for measurement summary. Enter all 19 ASCII characters as shown. DATE and TIME: YYYY-MM-DD HH:MM:SS.
INTERVAL	Specifies whether to report measurement entries for all intervals, or to get the current data that is not yet in a report. STRING. CURRENT—Returns the measurement data available for the latest interval that is not yet in a report for the Call Agent and Feature Server. If used with the START-TIME token, the START-TIME token is ignored and the INTERVAL=CURRENT value is used. ALL—returns all the entries in regardless of the timestamp or reported intervals. If used with the START-TIME token, this token is ignored and the START-TIME value is used.
OUTPUT-TYPE	Specifies the desired output format. Permitted values are: CSV (Default)—Comma-separated view XML—Extensible Markup Language
START-TIME	Mandatory for on-demand requests. Starting time for measurements summary. Enter all 19 ASCII characters as shown. Start-time must occur before end-time. Measurement items are available for the current and previous calendar days only (up to a maximum of 48 hours of events). If the time specified is during the current collection interval only, partial measurement counts are displayed. DATE and TIME: YYYY-MM-DD HH:MM:SS.
SUM	Specifies whether the resulting report request must contain the individual interval reports (N) or a summation of all interval reports into one composite report (Y). CHAR(1): Y/N (Default = N).

Table 11-2 lists the values for the Measurement AIN Tools Summary Display token.

Table 11-2 Measurement AIN Tools Summary Display Token Values

TIMESTAMP
NODENAME
CONDITION
AINSVC_8XX_QUERY
AINSVC_EXT_8XX_FAIL_APP
AINSVC_EXT_8XX_FAIL_NETW
AINSVC_EXT_8XX_QUERY

AINSVC_EXT_8XX_QUERY_FAIL	
AINSVC_EXT_8XX_QUERY_SUCC	
AINSVC_EXT_LNP_FAIL_APP	
AINSVC_EXT_LNP_FAIL_NETW	
AINSVC_EXT_LNP_QUERY	
AINSVC_EXT_LNP_QUERY_FAIL	
AINSVC_EXT_LNP_QUERY_LRN	
AINSVC_EXT_LNP_QUERY_SUCC	
AINSVC_LOC_8XX_ANI_BLOCK	
AINSVC_LOC_8XX_DNIS_SUCC	
AINSVC_LOC_8XX_FAIL_APP	
AINSVC_LOC_8XX_II_BLOCK	
AINSVC_LOC_8XX_QUERY	
AINSVC_LOC_8XX_QUERY_SUCC	
AINSVC_LOC_8XX_REROUTE	
AINSVC_LOC_8XX_ROUTING_SUCC	
AINSVC_LOC_LNP_FAIL_APP	(Release 4.5)
AINSVC_LOC_LNP_QUERY	(Release 4.5)
AINSVC_LOC_LNP_QUERY_NO_RN	(Release 4.5)
AINSVC_LOC_LNP_QUERY_RN_FOUND	(Release 4.5)
AINSVC_LOC_LNP_QUERY_SUCC	(Release 4.5)
AINSVC_TOTAL_LNP_QUERY	
AINSVC_TOTAL_QUERY	
SIS_100_RX	(Release 4.5)
SIS_100_TX	(Release 4.5)
SIS_18x_RX	(Release 4.5)
SIS_18x_TX	(Release 4.5)
SIS_200_RX	(Release 4.5)
SIS_200_TX	(Release 4.5)
SIS_3xx_RX	(Release 4.5)
SIS_3xx_TX	(Release 4.5)
SIS_4xx_RX	(Release 4.5)
SIS_4xx_TX	(Release 4.5)
SIS_5xx_RX	(Release 4.5)
SIS_5xx_TX	(Release 4.5)
SIS_6xx_RX	(Release 4.5)
SIS_6xx_TX	(Release 4.5)
SIS_7xx_RX	(Release 4.5)

SIS_7xx_TX	(Release 4.5)
SIS_ACK_RX	(Release 4.5)
SIS_ACK_TX	(Release 4.5)
SIS_BYE_RX	(Release 4.5)
SIS_BYE_TX	(Release 4.5)
SIS_CANCEL_RX	(Release 4.5)
SIS_CANCEL_TX	(Release 4.5)
SIS_INFO_RX	(Release 4.5)
SIS_INFO_TX	(Release 4.5)
SIS_INVITE_REPLACES_RX	(Release 4.5)
SIS_INVITE_REPLACES_TX	(Release 4.5)
SIS_INVITE_RX	(Release 4.5)
SIS_INVITE_TX	(Release 4.5)
SIS_NOTIFY_RX	(Release 4.5)
SIS_NOTIFY_TX	(Release 4.5)
SIS_OPTIONS_RX	(Release 4.5)
SIS_OPTIONS_TX	(Release 4.5)
SIS_PRACK_RX	(Release 4.5)
SIS_PRACK_TX	(Release 4.5)
SIS_PROV_RSP_RETRAN_RX	(Release 4.5)
SIS_PROV_RSP_RETRAN_TX	(Release 4.5)
SIS_REFER_RX	(Release 4.5)
SIS_REFER_TX	(Release 4.5)
SIS_REFER_W_REPLACES_RX	(Release 4.5)
SIS_REGISTER_RX	(Release 4.5)
SIS_REGISTER_TX	(Release 4.5)
SIS_REL100_RX	(Release 4.5)
SIS_REL100_TX	(Release 4.5)
SIS_REQ_RETRAN_RX	(Release 4.5)
SIS_REQ_RETRAN_TX	(Release 4.5)
SIS_RSP_RETRAN_RX	(Release 4.5)
SIS_RSP_RETRAN_TX	(Release 4.5)
SIS_SUBSCRIBE_RX	(Release 4.5)
SIS_SUBSCRIBE_TX	(Release 4.5)
SIS_T1_TIMER_EXPIRED	(Release 4.5)
SIS_T2_TIMER_REACHED	(Release 4.5)
SIS_TOTAL_INCOM_MSG	(Release 4.5)
SIS_TOTAL_OUTG_MSG_ATTMP	(Release 4.5)

SIS_TOTAL_SUCC_INCOM_MSG	(Release 4.5)
SIS_TOTAL_SUCC_OUTG_MSG	(Release 4.5)
SIS_UNSUPPORTED_RX	(Release 4.5)
SIS_UPDATE_RX	(Release 4.5)
SIS_UPDATE_TX	(Release 4.5)
TOOLS_LNP_QUERY_ATTMP	
TOOLS_LNP_QUERY_SUCC	
TOOLS_TOLLFREE_QUERY_ATTMP	
TOOLS_TOLLFREE_QUERY_SUCC	

Measurement Audit Summary

The Measurement Audit Summary (measurement-audit-summary) table requests a summary report of audit-related statistics for a specified Call Agent that occurred during a specified collection interval (time-interval). Each collection interval starts on the hour, half-hour, or quarter-hour.

Table Name: MEASUREMENT-AUDIT-SUMMARY

Table Containment Area: OAMP

Command Types

Report, show and clear

Examples

```
show measurement-audit-summary;
report measurement-audit-summary start-time=2003-03-27 06:00:00; end-time=2003-03-27
06:30:00; call-agent-id=CA146;output-type=csv;
clear measurement-audit-summary call-agent-id=CA146;
```

Caution The clear command clears *all* current collecting measurement values for the specified Call Agent. There will not be any announcement data to report until the next interval.

Usage Guidelines

Primary Key Token(s): None.

Foreign Key Token(s): call-agent-id

Syntax Description

CALL-AGENT-ID	Mandatory for on-demand requests. Foreign key: Call Agent table. ID of the associated Call Agent. VARCHAR(8): 1–8 ASCII characters in the format CAnnn or cannn.
DISPLAY	Specifies particular report counters to display on the screen. Display token values must be entered with an underscore (_). Do not use hyphens (-). STRING. Permitted values are: TIMESTAMP NODENAME CONDITION AUDIT_FS_TOTAL_SIP_RESP_TMO (Release 4.5) AUDIT_FS_TOTAL_SIP_NOACK_TMO (Release 4.5) AUDIT_FS_TOTAL_CA_SWITCHOVER (Release 4.5) AUDIT_SIP_CCB_FREED (Release 4.5) AUDIT_SIP_CALL_RELEASED (Release 4.5) AUDIT_SIP_BCM_CALL_RELEASED (Release 4.5) AUDIT_SIP_REGCONTACT_FREED (Release 4.5) AUDIT_SS7_TRUNK_STATE_SYNCED (Release 4.5) AUDIT_SS7_LONG_DUR_EXCEEDED (Release 4.5) SS7_AUDIT_LONG_DUR_EXCEEDED SS7_AUDIT_TRUNK_STATE_SYNCED
END-TIME	Ending time for measurement summary. Enter all 19 ASCII characters as shown. DATE and TIME: YYYY-MM-DD HH:MM:SS.
INTERVAL	Specifies whether to report measurement entries for all intervals, or to get the current data that is not yet in a report. STRING. CURRENT—Returns the measurement data available for the latest interval that is not yet in a report for the Call Agent and Feature Server. If used with the START-TIME token, the START-TIME token is ignored and the INTERVAL=CURRENT value is used. ALL—returns all the entries in regardless of the timestamp or reported intervals. If used with the START-TIME token, this token is ignored and the START-TIME value is used.
OUTPUT-TYPE	Specifies the desired output format. Permitted values are: CSV (Default)—Comma-separated view XML—Extensible Markup Language

START-TIME	Mandatory for on-demand requests. Starting time for measurements summary. Enter all 19 ASCII characters as shown. Start-time must occur before end-time. Measurement items are available for the current and previous calendar days only (up to a maximum of 48 hours of events). If the time specified is during the current collection interval only, partial measurement counts are displayed. DATE and TIME: YYYY-MM-DD HH:MM:SS.
SUM	Specifies whether the resulting report request must contain the individual interval reports (N) or a summation of all interval reports into one composite report (Y). CHAR(1): Y/N (Default = N).

Measurement Billing Summary

The Measurement Billing Summary (measurement-billing-summary) table requests a summary report of billing-related statistics for a specified Call Agent that occurred during a specified collection interval (time-interval). Each collection interval starts on the hour, half-hour, or quarter-hour.

Table Name: MEASUREMENT-BILLING-SUMMARY

Table Containment Area: OAMP

Command Types

Report, show and clear

Examples

```
show measurement-billing-summary;
report measurement-billing-summary start-time=2003-03-27 06:00:00; end-time=2003-03-27
06:30:00; call-agent-id=CA146;output-type=csv;
clear measurement-billing-summary call-agent-id=CA146;
```

Caution The clear command clears *all* current collecting measurement values for the specified Call Agent. There will not be any announcement data to report until the next interval.

Usage Guidelines

Primary Key Token(s): None.

Foreign Key Token(s): call-agent-id

Syntax Description

CALL-AGENT-ID	Mandatory for on-demand requests. Foreign key: Call Agent table. ID of the associated Call Agent. VARCHAR(8): 1–8 ASCII characters in the format CAnnn or cannn.
DISPLAY	Specifies particular report counters to display on the screen. Display token values must be entered with an underscore (_). Do not use hyphens (-). STRING. See Table 11-3 for permitted values.
END-TIME	Ending time for measurement summary. Enter all 19 ASCII characters as shown. DATE and TIME: YYYY-MM-DD HH:MM:SS.
INTERVAL	Specifies whether to report measurement entries for all intervals, or to get the current data that is not yet in a report. STRING. CURRENT—Returns the measurement data available for the latest interval that is not yet in a report for the Call Agent and Feature Server. If used with the START-TIME token, the START-TIME token is ignored and the INTERVAL=CURRENT value is used. ALL—returns all the entries in regardless of the timestamp or reported intervals. If used with the START-TIME token, this token is ignored and the START-TIME value is used.

OUTPUT-TYPE	Specifies the desired output format. Permitted values are: CSV (Default)—Comma-separated view XML—Extensible Markup Language
START-TIME	Mandatory for on-demand requests. Starting time for measurements summary. Enter all 19 ASCII characters as shown. Start-time must occur before end-time. Measurement items are available for the current and previous calendar days only (up to a maximum of 48 hours of events). If the time specified is during the current collection interval only, partial measurement counts are displayed. DATE and TIME: YYYY-MM-DD HH:MM:SS
SUM	Specifies whether the resulting report request must contain the individual interval reports (N) or a summation of all interval reports into one composite report (Y). CHAR(1): Y/N (Default = N).

Table 11-3 lists the values for the Measurement Billing Summary Display token.

Table 11-3 Measurement Billing Summary Display Token Values

TIMESTAMP	
NODENAME	
CONDITION	
BILLING_EM_ACKED	
BILLING_EM_LOGGED	
BILLING_EM_RETRANS	
BILLING_TOTAL_AIRLINES	(Release 4.5)
BILLING_TOTAL_CNA	(Release 4.5)
BILLING_TOTAL_DA_INTER	(Release 4.5)
BILLING_TOTAL_DA_INTL	(Release 4.5)
BILLING_TOTAL_INTL_OPR	(Release 4.5)
BILLING_TOTAL_INTL_WZ1	(Release 4.5)
BILLING_TOTAL_LB_TEST	(Release 4.5)
BILLING_TOTAL_NAT_OPR	(Release 4.5)
BILLING_TOTAL_RAILWAYS	(Release 4.5)
BILLING_TOTAL_SVC_CODE	(Release 4.5)
BILLING_TOTAL_MOBILE	(Release 4.5)
BILLING_TOTAL_UAN	(Release 4.5)
CALLTYPE_500	
CALLTYPE_700	
CALLTYPE_900	
CALLTYPE_976	
CALLTYPE_AMBULANCE	

CALLTYPE_ATTENDANT
CALLTYPE_BLV
CALLTYPE_BUSINESS
CALLTYPE_CARRIER_OPERATOR
CALLTYPE_CUT_THRU
CALLTYPE_DA
CALLTYPE_DA_TOLL
CALLTYPE_EMG
CALLTYPE_EXTENSION
CALLTYPE_FIRE
CALLTYPE_INFO
CALLTYPE_INTERLATA
CALLTYPE_INTL
CALLTYPE_INVALID
CALLTYPE_LOCAL
CALLTYPE_LRN
CALLTYPE_NAS
CALLTYPE_NATIONAL
CALLTYPE_NON_EMG
CALLTYPE_NONE
CALLTYPE_OPERATOR
CALLTYPE_OPERATOR_ASSISTED
CALLTYPE_PCS
CALLTYPE_POLICE
CALLTYPE_PREMIUM
CALLTYPE_RELAY
CALLTYPE_REPAIR
CALLTYPE_SPEED_DIAL
CALLTYPE_TANDEM
CALLTYPE_TEST_CALL
CALLTYPE_TIME
CALLTYPE_TOLL
CALLTYPE_TOLL_FREE
CALLTYPE_TRAFFIC
CALLTYPE_TW
CALLTYPE_VACANT
CALLTYPE_WEATHER

Measurement Call Processing Summary

The Measurement Call Processing Summary (measurement-callp-summary) table provides a summary report of call processing statistics for a specified Call Agent that occurred during a specified collection interval (time-interval). Each collection interval starts on the hour, half-hour, or quarter-hour.

Table Name: MEASUREMENT-CALLP-SUMMARY

Table Containment Area: OAMP

Command Types

Report, show and clear

Examples

```
show measurement-callp-summary;
report measurement-callp-summary start-time=2003-03-27 06:00:00; end-time=2003-03-27
06:30:00; call-agent-id=CA146;output-type=csv;
clear measurement-callp-summary call-agent-id=CA146;
```

Usage Guidelines

Primary Key Token(s): None.

Foreign Key Token(s): call-agent-id

Syntax Description

CALL-AGENT-ID	Mandatory for on-demand requests. Foreign key: Call Agent table. ID of the associated Call Agent. VARCHAR(8): 1–8 ASCII characters in the format CAnnn or cannn.
DISPLAY	Specifies particular report counters to display on the screen. Display token values must be entered with an underscore (_). Do not use hyphens (-). STRING. See Table 11-4 for permitted values.
END-TIME	Ending time for measurement summary. Enter all 19 ASCII characters as shown. DATE and TIME: YYYY-MM-DD HH:MM:SS.
INTERVAL	Specifies whether to report measurement entries for all intervals, or to get the current data that is not yet in a report. STRING. CURRENT—Returns the measurement data available for the latest interval that is not yet in a report for the Call Agent and Feature Server. If used with the START-TIME token, the START-TIME token is ignored and the INTERVAL=CURRENT value is used. ALL—returns all the entries in regardless of the timestamp or reported intervals. If used with the START-TIME token, this token is ignored and the START-TIME value is used.
OUTPUT-TYPE	Specifies the desired output format. Permitted values are: CSV (Default)—Comma-separated view XML—Extensible Markup Language

START-TIME	Mandatory for on-demand requests. Starting time for measurements summary. Enter all 19 ASCII characters as shown. Start-time must occur before end-time. Measurement items are available for the current and previous calendar days only (up to a maximum of 48 hours of events). If the time specified is during the current collection interval only, partial measurement counts are displayed. DATE and TIME: YYYY-MM-DD HH:MM:SS.
SUM	Specifies whether the resulting report request must contain the individual interval reports (N) or a summation of all interval reports into one composite report (Y). CHAR(1): Y/N (Default = N).

Table 11-4 lists the values for the Measurement Call Processing Summary Display token.

Table 11-4 Measurement Call Processing Summary Display Token Values

TIMESTAMP
NODENAME
CONDITION
BCM_CALL_SUCC
BCM_CAS_CALL_SUCCBCM_CAS_CALL_A BAND
BCM_CAS_CAS_CALL
BCM_CAS_H323_CALLS
BCM_CAS_ISDN_CALL
BCM_CAS_MGCP_CALL
BCM_CAS_ORIG_ATTMP
BCM_CAS_ORIG_FAIL
BCM_CAS_SIP_CALL
BCM_CAS_SS7_CALL
BCM_CAS_TERM_ATTMP
BCM_CAS_TERM_FAIL
BCM_EMGNCY_ATTMP
BCM_EMGNCY_CALL_ABAND
BCM_EMGNCY_CALL_SUCC
BCM_EMGNCY_FAIL
BCM_H323_CALLS_ABANDON
BCM_H323_CALLS_SUCCESS
BCM_H323_CAS_CALLSBCM_H323_H323_C ALLS
BCM_H323_ISDN_CALLS
BCM_H323_MGCP_CALLS
BCM_H323_ORIG_ATTEMPTS
BCM_H323_ORIG_FAILURES

BCM_H323_SIP_CALLS
BCM_H323_SS7_CALLS
BCM_H323_TERM_ATTEMPTS
BCM_H323_TERM_FAILURES
BCM_INTERLA_ATTMP
BCM_INTERLA_CALL_ABAND
BCM_INTERLA_FAILBCM_INTERL_CALL_ SUCC
BCM_INTL_ATTMP
BCM_INTL_CALL_ABAND
BCM_INTL_CALL_SUCC
BCM_INTL_FAIL
BCM_INTRAL_CALL_SUCC
BCM_INTRALA_ATTMP
BCM_INTRALA_CALL_ABAND
BCM_INTRALA_FAIL
BCM_ISDN_CALL_ABAND
BCM_ISDN_CALL_SUCC
BCM_ISDN_CAS_CALL
BCM_ISDN_H323_CALLS
BCM_ISDN_ISDN_CALL
BCM_ISDN_MGCP_CALL
BCM_ISDN_ORIG_ATTMP
BCM_ISDN_ORIG_FAIL
BCM_ISDN_SIP_CALL
BCM_ISDN_SS7_CALL
BCM_ISDN_TERM_ATTMP
BCM_ISDN_TERM_FAIL
BCM_LOCAL_ATTMP
BCM_LOCAL_CALL_ABAND
BCM_LOCAL_CALL_SUCC
BCM_LOCAL_FAIL
BCM_MGCP_CALL_ABAND
BCM_MGCP_CALL_SUCC
BCM_MGCP_CAS_CALL
BCM_MGCP_H323_CALLS
BCM_MGCP_ISDN_CALL
BCM_MGCP_MGCP_CALL
BCM_MGCP_ORIG_ATTMP

BCM_MGCP_ORIG_FAIL
BCM_MGCP_SIP_CALL
BCM_MGCP_SS7_CALL
BCM_MGCP_TERM_ATTMP
BCM_MGCP_TERM_FAIL
BCM_ORIG_ATTMP
BCM_ORIG_FAIL
BCM_SIP_CALL_ABAND
BCM_SIP_CALL_SUCC
BCM_SIP_CAS_CALL
BCM_SIP_H323_CALLS
BCM_SIP_ISDN_CALL
BCM_SIP_MGCP_CALL
BCM_SIP_ORIG_ATTMP
BCM_SIP_ORIG_FAIL
BCM_SIP_SIP_CALL
BCM_SIP_SS7_CALL
BCM_SIP_TERM_ATTMP
BCM_SIP_TERM_FAIL
BCM_SS7_CALL_ABAND
BCM_SS7_CALL_SUCC
BCM_SS7_CAS_CALL
BCM_SS7_H323_CALLS
BCM_SS7_ISDN_CALL
BCM_SS7_MGCP_CALL
BCM_SS7_ORIG_ATTMP
BCM_SS7_ORIG_FAIL
BCM_SS7_SIP_CALL
BCM_SS7_SS7_CALL
BCM_SS7_TERM_ATTMP
BCM_SS7_TERM_FAIL
BCM_TERM_ATTMP
BCM_TERM_FAIL
BCM_TOLL_FREE_ATTMP
BCM_TOLL_FREE_CALL_ABAND
BCM_TOLL_FREE_CALL_SUCCBCM_CALL _ABAND
BCM_TOLL_FREE_FAIL
BCM_TPM_NAS_ADMIN_REBOOT

BCM_TPM_NAS_ADMIN_RESET	
BCM_TPM_NAS_AUTH_FAIL	
BCM_TPM_NAS_AUTH_SUCC	
BCM_TPM_NAS_CALLBACK	
BCM_TPM_NAS_CLD_UNACC	
BCM_TPM_NAS_CLG_UNACC	
BCM_TPM_NAS_HOST_REQUEST	
BCM_TPM_NAS_IDLE_TIMEOUT	
BCM_TPM_NAS_ISP_PORT_LIMIT	
BCM_TPM_NAS_LOST_CARRIER	
BCM_TPM_NAS_LOST_SERVICE	
BCM_TPM_NAS_NAS_ERROR	
BCM_TPM_NAS_NAS_REBOOT	
BCM_TPM_NAS_NAS_REQUEST	
BCM_TPM_NAS_NO_MODEMS	
BCM_TPM_NAS_OP_FAIL	
BCM_TPM_NAS_PORT_ERROR	
BCM_TPM_NAS_PORT_PREEMPTED	
BCM_TPM_NAS_PORT_SUSPENDED	
BCM_TPM_NAS_PORT_UNNEEDED	
BCM_TPM_NAS_SERVICE_UNAVAIL	
BCM_TPM_NAS_SESSION_TIMEOUT	
BCM_TPM_NAS_USER_ERROR	
BCM_TPM_NAS_USER_REQUEST	
CALLP_LB_TEST_SUCC	(Release 4.5)
CALLP_NCT_TEST_SUCC	(Release 4.5)
CALLP_NCT_TEST_FAIL	(Release 4.5)
CALLP_NLB_TEST_SUCC	(Release 4.5)
CALLP_NLB_TEST_FAIL	(Release 4.5)
CALLP_TEST_ROUTE_SUCC	(Release 4.5)
CALLP_TOTAL_TDISC_ORIG_ATTMP	(Release 4.5)
CALLP_T38_FAX_MEDIA_SETUP_SUCC	(Release 4.5)
CALLP_T38_FAX_MEDIA_SETUP_FAIL	(Release 4.5)

Measurement Call Tools Summary (Release 4.4.1)

The Measurement Call Tools Summary (measurement-call-tools-summary) table collects call tools statistics. Each collection interval starts on the hour, half-hour, or quarter-hour.

Table Name: MEASUREMENT-CALL-TOOLS-SUMMARY

Table Containment Area: OAMP

Command Types

Report, show and clear

Examples

```
show measurement-call-tools-summary;
report measurement-call-tools-summary start-time=2002-03-27 10:00:00; end-time=2002-03-27
12:00:00; call-agent-id=CA146; output=call-tools-report; output-type=csv;
clear measurement-call-tools-summary call-agent-id=CA146;
```

Usage Guidelines

Primary Key Token(s): None.

Foreign Key Token(s): call-agent-id

Syntax Description

CALL-AGENT-ID	Mandatory for on-demand requests. Foreign key: Call Agent table. ID of the associated Call Agent. VARCHAR(8): 1–8 ASCII characters in the format CAnnn or cannn.
DISPLAY	Specifies particular report counters to display on the screen. Display token values must be entered with an underscore (_). Do not use hyphens (-). STRING. Permitted values are: STIMESTAMP NODENAME CONDITION TOOLS_TRUNK_TRANS_ATTMP TOOLS_TRUNK_TRANS_SUCC TOOLS_LINE_TRANS_ATTMP TOOLS_LINE_TRANS_SUCC
END-TIME	Ending time for measurement summary. Enter all 19 ASCII characters as shown. DATE and TIME: YYYY-MM-DD HH:MM:SS.
INTERVAL	Specifies whether to report measurement entries for all intervals, or to get the current data that is not yet in a report. STRING. CURRENT—Returns the measurement data available for the latest interval that is not yet in a report for the Call Agent and Feature Server. If used with the START-TIME token, the START-TIME token is ignored and the INTERVAL=CURRENT value is used. ALL—returns all the entries in regardless of the timestamp or reported intervals. If used with the START-TIME token, this token is ignored and the START-TIME value is used.

OUTPUT-TYPE	Specifies the desired output format. Permitted values are: CSV (Default)—Comma-separated view XML—Extensible Markup Language
START-TIME	Mandatory for on-demand requests. Starting time for measurements summary. Enter all 19 ASCII characters as shown. Start-time must occur before end-time. Measurement items are available for the current and previous calendar days only (up to a maximum of 48 hours of events). If the time specified is during the current collection interval only, partial measurement counts are displayed. DATE and TIME: YYYY-MM-DD HH:MM:SS.
SUM	Specifies whether the resulting report request must contain the individual interval reports (N) or a summation of all interval reports into one composite report (Y). CHAR(1): Y/N (Default = N).

Measurement Dynamic QOS Summary

The Measurement Dynamic Quality of Service (QOS) Summary (measurement-dqos-summary) table requests a summary report of quality-of-service-related statistics for a specified Call Agent that occurred during a specified collection interval (time-interval). Each collection interval starts on the hour, half-hour, or quarter-hour.

Table Name: MEASUREMENT-DQOS-SUMMARY

Table Containment Area: OAMP

Command Types

Report, show and clear

Examples

```
show measurement-dqos-summary;
report measurement-dqos-summary start-time=2003-03-27 06:00:00; end-time=2003-03-27
06:30:00; call-agent-id=CA146;
clear measurement-dqos-summary call-agent-id=CA146;
```

Caution The clear command clears *all* current collecting measurement values for the specified Call Agent. There will not be any announcement data to report until the next interval.

Usage Guidelines

Primary Key Token(s): None.

Foreign Key Token(s): call-agent-id

Syntax Description

CALL-AGENT-ID	Mandatory for on-demand requests. Foreign key: Call Agent table. ID of the associated Call Agent. VARCHAR(8): 1–8 ASCII characters in the format CAnnn or cannn.
DISPLAY	Specifies particular report counters to display on the screen. Display token values must be entered with an underscore (_). Do not use hyphens (-). STRING. Permitted values are: TIMESTAMP NODENAME CONDITION DQOS_GATE_COMMIT—The number of successfully committed DQOS gates of all types on the reporting CMTS. DQOS_GATESET_ATTMP—The number of DQOS gate set attempts of all types on the reporting CMTS. DQOS_GATESET_SUCC—The number of successful DQOS gate set attempts of all types on the reporting CMTS.
END-TIME	Ending time for measurement summary. Enter all 19 ASCII characters as shown. DATE and TIME: YYYY-MM-DD HH:MM:SS.
INTERVAL	Specifies whether to report measurement entries for all intervals, or to get the current data that is not yet in a report. STRING. CURRENT—Returns the measurement data available for the latest interval that is not yet in a report for the Call Agent and Feature Server. If used with the START-TIME token, the START-TIME token is ignored and the INTERVAL=CURRENT value is used. ALL—returns all the entries in regardless of the timestamp or reported intervals. If used with the START-TIME token, this token is ignored and the START-TIME value is used.
OUTPUT-TYPE	Specifies the desired output format. Permitted values are: CSV (Default)—Comma-separated view XML—Extensible Markup Language
START-TIME	Mandatory for on-demand requests. Starting time for measurements summary. Enter all 19 ASCII characters as shown. Start-time must occur before end-time. Measurement items are available for the current and previous calendar days only (up to a maximum of 48 hours of events). If the time specified is during the current collection interval only, partial measurement counts are displayed. DATE and TIME: YYYY-MM-DD HH:MM:SS.
SUM	Specifies whether the resulting report request must contain the individual interval reports (N) or a summation of all interval reports into one composite report (Y). CHAR(1): Y/N (Default = N).

Measurement Event Messaging Summary

The Measurement Event Messaging Summary (measurement-em-summary) table requests a summary report of billing event-related statistics for a specified Feature Server that occurred during a specified collection interval (time-interval). Each collection interval starts on the hour, half-hour, or quarter-hour.

Table Name: MEASUREMENT-EM-SUMMARY

Table Containment Area: OAMP

Command Types

Report, show and clear

Examples

```
show measurement-em-summary;
report measurement-em-summary start-time=2003-03-27 06:00:00;end-time=2003-03-27 06:30:00;
call-agent-id=CA146;output-type=csv;
clear measurement-em-summary call-agent-id=CA146;
```

Usage Guidelines

Primary Key Token(s): None.

Foreign Key Token(s): feature-server-id

Syntax Description

CALL-AGENT-ID	Mandatory for on-demand requests. Foreign key: Call Agent table. ID of the associated Call Agent. VARCHAR(8): 1–8 ASCII characters in the format CAnnn or cannn.
DISPLAY	Specifies particular report counters to display on the screen. Display token values must be entered with an underscore (_). Do not use hyphens (-). STRING. Permitted values are: TIMESTAMP NODENAME CONDITION BILLING_EM_ACKED—The number of EMs acknowledged by the RKS. BILLING_EM_LOGGED—The number of EMs written to disk but not sent to any RKS. BILLING_EM_RETRANS—The number of event messages that were transmitted to an alternate RKS due to the lack of a response from a previously tried RKS, excluding retries. The counter is incremented when an event message is first sent to an alternate RKS. Any retries that occur at the RADIUS stack level (as provided in the radius-profile table) will not be included in this count.
END-TIME	Ending time for measurement summary. Enter all 19 ASCII characters as shown. DATE and TIME: YYYY-MM-DD HH:MM:SS.

INTERVAL	Specifies whether to report measurement entries for all intervals, or to get the current data that is not yet in a report. STRING. CURRENT—Returns the measurement data available for the latest interval that is not yet in a report for the Call Agent and Feature Server. If used with the START-TIME token, the START-TIME token is ignored and the INTERVAL=CURRENT value is used. ALL—returns all the entries in regardless of the timestamp or reported intervals. If used with the START-TIME token, this token is ignored and the START-TIME value is used.
OUTPUT-TYPE	Specifies the desired output format. Permitted values are: CSV (Default)—Comma-separated view XML—Extensible Markup Language
START-TIME	Mandatory for on-demand requests. Starting time for measurements summary. Enter all 19 ASCII characters as shown. Start-time must occur before end-time. Measurement items are available for the current and previous calendar days only (up to a maximum of 48 hours of events). If the time specified is during the current collection interval only, partial measurement counts are displayed. DATE and TIME: YYYY-MM-DD HH:MM:SS
SUM	Specifies whether the resulting report request must contain the individual interval reports (N) or a summation of all interval reports into one composite report (Y). CHAR(1): Y/N (Default = N).

Measurement H323 Summary

The Measurement H323 Summary (measurement-h323-summary) table requests a summary report of H.323-related statistics for a specified Call Agent that occur during a specified collection interval (time-interval). Each collection interval starts on the hour, half-hour, or quarter-hour.

Table Name: MEASUREMENT-H323-SUMMARY

Table Containment Area: OAMP

Command Types

Report, show and clear

Examples

```
show measurement-h323-summary;
report measurement-h323-summary start-time=2003-03-27 06:00:00; end-time=2003-03-27
06:30:00; call-agent-id=CA146;output-type=csv;
clear measurement-h323-summary call-agent-id=ca001;
```

Note The clear command clears all current collecting measurement values for the specified Call Agent. There will not be any announcement data to report until the next interval.

Usage Guidelines

Primary Key Token(s): None.

Foreign Key Token(s): call-agent-id

Other Rules: None.

Syntax Description

CALL-AGENT-ID	Mandatory for on-demand requests. Foreign key: Call Agent table. VARCHAR(8): 1–8 ASCII characters in the format CAnnn or cannn.
DISPLAY	Specifies particular report counters to display on the screen. Display token values must be entered with an underscore (_). Do not use hyphens (-). STRING. See Table 11-5 for permitted values.
END-TIME	Ending time for measurement summary. Enter all 19 ASCII characters as shown. DATE and TIME: YYYY-MM-DD HH:MM:SS.
INTERVAL	Specifies whether to report measurement entries for all intervals, or to get the current data that is not yet in a report. STRING. CURRENT—Returns the measurement data available for the latest interval that is not yet in a report for the Call Agent and Feature Server. If used with the START-TIME token, the START-TIME token is ignored and the INTERVAL=CURRENT value is used. ALL—returns all the entries in regardless of the timestamp or reported intervals. If used with the START-TIME token, this token is ignored and the START-TIME value is used.
OUTPUT-TYPE	Specifies the desired output format. Permitted values are: CSV (Default)—Comma-separated view XML—Extensible Markup Language
START-TIME	Mandatory for on-demand requests. Starting time for measurements summary. Enter all 19 ASCII characters as shown. Start-time must occur before end-time. Measurement items are available for the current and previous calendar days only (up to a maximum of 48 hours of events). DATE and TIME: YYYY-MM-DD HH:MM:SS.
SUM	Specifies whether the resulting report request must contain the individual interval reports (N) or a summation of all interval reports into one composite report (Y). CHAR(1): Y/N (Default = N).

Table 11-5 lists the values for the Measurement H.323 Summary Display token.

Table 11-5 Measurement H.323 Summary Display Token Values

TIMESTAMP
NODENAME
CONDITION
H323_ALERT_RX

H323_ALERT_TX
H323_ARJ_RX
H323_ARJ_TX
H323_ARQ_RX
H323_ARQ_TX
H323_BCF_RX
H323_BCF_TX
H323_BRJ_RX
H323_BRJ_TX
H323_BRQ_RX
H323_BRQ_TX
H323_CALL_PROCEEDING_FAIL
H323_CALL_PROCEEDING_RX
H323_CALL_PROCEEDING_TX
H323_CONNECT_FAIL
H323_DCF_RX
H323_DCF_TX
H323_DRJ_RX
H323_DRJ_TX
H323_DRQ_RX
H323_DRQ_TX
H323_FACILITY_FAIL
H323_FACILITY_RX
H323_FACILITY_TX
H323_GCF_RX
H323_GCF_TX
H323_GRJ_RX
H323_GRJ_TX
H323_GRQ_RX
H323_GRQ_TX
H323_IN_PROGRESS_FAIL
H323_IN_PROGRESS_RX
H323_IN_PROGRESS_TX
H323_INFORMATION_FAIL
H323_INFORMATION_RX
H323_INFORMATION_TX
H323_NOTIFY_FAIL
H323_NOTIFY_RX

H323_NOTIFY_TX
H323_PASSTHROU_FAIL
H323_PASSTHROU_RX
H323_PASSTHROU_TX
H323_RAC_RX
H323_RAC_TX
H323_RAI_RX
H323_RAI_TX
H323_RCF_RX
H323_RCF_TX
H323_REJECT_FAIL
H323_REJECT_RX
H323_REJECT_TX
H323_RELEASE_COMPLETE_FAIL
H323_RELEASE_COMPLETE_RX
H323_RELEASE_COMPLETE_TX
H323_RIP_RX
H323_RIP_TX
H323_RRJ_RX
H323_RRJ_TX
H323_RRQ_RX
H323_RRQ_TX
H323_SETUP_CONFIRM_RX
H323_SETUP_CONFIRM_TX
H323_SETUP_FAIL
H323_SETUP_RX
H323_SETUP_TX
H323_UCF_RX
H323_UCF_TX
H323_URJ_RX
H323_URJ_TX
H323_URQ_RX
H323_URQ_TX
H323_USER_INFO_FAIL
H323_USER_INFO_RX
H323_USER_INFO_TX

Measurement INAP Summary

Note This table is obsoleted in Release 4.5.

The Measurement Intelligent Network Application Part (INAP) Summary (measurement-inap-summary) table requests a summary report of INAP-related statistics for a specified Call Agent that occurred during a specified collection interval (time-interval). Each collection interval starts on the hour, half-hour, or quarter-hour.

Table Name: MEASUREMENT-INAP-SUMMARY

Table Containment Area: OAMP

Command Types

Report, show and clear

Examples

```
show measurement-inap-summary;
report measurement-inap-summary start-time=2001-03-27 06:00:00; end-time=2001-03-27
06:30:00; call-agent-id=CA146;output-type=csv;
clear measurement-inap-summary call-agent-id=CA146;
```

Usage Guidelines

Primary Key Token(s): None.

Foreign Key Token(s): call-agent-id

Syntax Description

CALL-AGENT-ID	Mandatory for on-demand requests. Foreign key: Call Agent table. ID of the associated Call Agent. VARCHAR(8): 1–8 ASCII characters in the format CAnnn or cannn.
DISPLAY	Specifies particular report counters to display on the screen. Display token values must be entered with an underscore (_). Do not use hyphens (-). STRING. See Table 11-6 for permitted values.
END-TIME	Ending time for measurement summary. Enter all 19 ASCII characters as shown. DATE and TIME: YYYY-MM-DD HH:MM:SS.
INTERVAL	Specifies whether to report measurement entries for all intervals, or to get the current data that is not yet in a report. STRING. CURRENT—Returns the measurement data available for the latest interval that is not yet in a report for the Call Agent and Feature Server. If used with the START-TIME token, the START-TIME token is ignored and the INTERVAL=CURRENT value is used. ALL—returns all the entries in regardless of the timestamp or reported intervals. If used with the START-TIME token, this token is ignored and the START-TIME value is used.

OUTPUT-TYPE	Specifies the desired output format. Permitted values are: CSV (Default)—Comma-separated view XML—Extensible Markup Language
START-TIME	Mandatory for on-demand requests. Starting time for measurements summary. Enter all 19 ASCII characters as shown. Start-time must occur before end-time. Measurement items are available for the current and previous calendar days only (up to a maximum of 48 hours of events). If the time specified is during the current collection interval only, partial measurement counts are displayed. DATE and TIME: YYYY-MM-DD HH:MM:SS.
SUM	Specifies whether the resulting report request must contain the individual interval reports (N) or a summation of all interval reports into one composite report (Y). CHAR(1): Y/N (Default = N).

Table 11-6 lists the values for the Measurement INAP Summary Display token.

Table 11-6 Measurement INAP Summary Display Token Values

INAP_CANCEL_RX	Obsolete in Release 4.5.
INAP_CANCEL_TX	Obsolete in Release 4.5.
INAP_DATABASE_ERR_RX	Obsolete in Release 4.5.
INAP_DATABASE_ERR_TX	Obsolete in Release 4.5.
INAP_ETC_FAIL_RX	Obsolete in Release 4.5.
INAP_ETC_FAIL_TX	Obsolete in Release 4.5.
INAP_IMPROP_CALLER_RSP_RX	Obsolete in Release 4.5.
INAP_IMPROP_CALLER_RSP_TX	Obsolete in Release 4.5.
INAP_INFO_KEY_ERR_RX	Obsolete in Release 4.5.
INAP_INFO_KEY_ERR_TX	Obsolete in Release 4.5.
INAP_MISSING_CUST_REC_RX	Obsolete in Release 4.5.
INAP_MISSING_CUST_REC_TX	Obsolete in Release 4.5.
INAP_MISSING_PARM_RX	Obsolete in Release 4.5.
INAP_MISSING_PARM_TX	Obsolete in Release 4.5.
INAP_NUM_CAPAB_FAIL	Obsolete in Release 4.5.
INAP_NUM_CHANNEL_BUSY	Obsolete in Release 4.5.
INAP_NUM_RSRC_NOT_AVAIL	Obsolete in Release 4.5.
INAP_NUM_RSRC_NOT_SUPP	Obsolete in Release 4.5.
INAP_NUM_TASK_REFUSED	Obsolete in Release 4.5.
INAP_NUM_INVALID_CALLER_RSP	Obsolete in Release 4.5.
INAP_NUM_IP_TMO	Obsolete in Release 4.5.
INAP_NUM_SUPPL_SVC_INVOKE	Obsolete in Release 4.5.
INAP_NUM_SEND_RSCR_CANCEL	Obsolete in Release 4.5.

INAP_NUM_TEMP_FAIL	Obsolete in Release 4.5.
INAP_NUM_UNAUTH_REQ	Obsolete in Release 4.5.
INAP_NUM_UNAUTH_DEST	Obsolete in Release 4.5.
INAP_NUM_PROCED_ERR	Obsolete in Release 4.5.
INAP_PARM_OUT_OF_RANGE_RX	Obsolete in Release 4.5.
INAP_PARM_OUT_OF_RANGE_TX	Obsolete in Release 4.5.
INAP_REFERRAL_RX	Obsolete in Release 4.5.
INAP_REFERRAL_TX	Obsolete in Release 4.5.
INAP_REPORT_ERR_RX	Obsolete in Release 4.5.
INAP_REPORT_ERR_TX	Obsolete in Release 4.5.
INAP_REQ_INFO_RX	Obsolete in Release 4.5.
INAP_REQ_INFO_TX	Obsolete in Release 4.5.
INAP_SYS_FAIL_RX	Obsolete in Release 4.5.
INAP_SYS_FAIL_TX	Obsolete in Release 4.5.
INAP_TASK_REFUSED_RX	Obsolete in Release 4.5.
INAP_TASK_REFUSED_TX	Obsolete in Release 4.5.
INAP_UNAVIL_RSRC_RX	Obsolete in Release 4.5.
INAP_UNAVIL_RSRC_TX	Obsolete in Release 4.5.
INAP_UNEXPECT_COMP_SEQ_RX	Obsolete in Release 4.5.
INAP_UNEXPECT_COMP_SEQ_TX	Obsolete in Release 4.5.
INAP_UNEXPECT_DATA_VAL_RX	Obsolete in Release 4.5.
INAP_UNEXPECT_DATA_VAL_TX	Obsolete in Release 4.5.
INAP_UNEXPECT_PARM_RX	Obsolete in Release 4.5.
INAP_UNEXPECT_PARM_TX	Obsolete in Release 4.5.
INAP_UNKNOWN_LEG_ID_RX	Obsolete in Release 4.5.
INAP_UNKNOWN_LEG_ID_TX	Obsolete in Release 4.5.
INAP_UNKNOWN_RSRC_RX	Obsolete in Release 4.5.
INAP_UNKNOWN_RSRC_TX	Obsolete in Release 4.5.
INAP_UNRECOG_INVOKE_ID_RX	Obsolete in Release 4.5.
INAP_UNRECOG_INVOKE_ID_TX	Obsolete in Release 4.5.

Measurement ISDN Summary

The Measurement ISDN Summary (measurement-isdn-summary) table requests a summary report of ISDN-related statistics for a specified Call Agent that occurred during a specified collection interval (time-interval). Each collection interval starts on the hour, half-hour, or quarter-hour.

Table Name: MEASUREMENT-ISDN-SUMMARY

Table Containment Area: OAMP

Command Types

Report, show and clear

Examples

```
show measurement-isdn-summary;
report measurement-isdn-summary start-time=2003-03-27 06:00:00;end-time=2003-03-27
06:30:00; call-agent-id=CA146; output-type=csv;
clear measurement-isdn-summary call-agent-id=CA146;
```

Usage Guidelines

Primary Key Token(s): None.

Foreign Key Token(s): call-agent-id

Syntax Description

CALL-AGENT-ID	Mandatory for on-demand requests. Foreign key: Call Agent table. ID of the associated Call Agent. VARCHAR(8): 1–8 ASCII characters in the format CAnnn or cannn.
DISPLAY	Specifies particular report counters to display on the screen. Display token values must be entered with an underscore (_). Do not use hyphens (-). STRING. See Table 11-7 for permitted values.
END-TIME	Ending time for measurement summary. Enter all 19 ASCII characters as shown. DATE and TIME: YYYY-MM-DD HH:MM:SS.
INTERVAL	Specifies whether to report measurement entries for all intervals, or to get the current data that is not yet in a report. STRING. CURRENT—Returns the measurement data available for the latest interval that is not yet in a report for the Call Agent and Feature Server. If used with the START-TIME token, the START-TIME token is ignored and the INTERVAL=CURRENT value is used. ALL—returns all the entries in regardless of the timestamp or reported intervals. If used with the START-TIME token, this token is ignored and the START-TIME value is used.
OUTPUT-TYPE	Specifies the desired output format. Permitted values are: CSV (Default)—Comma-separated view XML—Extensible Markup Language

START-TIME	Mandatory for on-demand requests. Starting time for measurements summary. Enter all 19 ASCII characters as shown. Start-time must occur before end-time. Measurement items are available for the current and previous calendar days only (up to a maximum of 48 hours of events). If the time specified is during the current collection interval only, partial measurement counts are displayed. DATE and TIME: YYYY-MM-DD HH:MM:SS.
SUM	Specifies whether the resulting report request must contain the individual interval reports (N) or a summation of all interval reports into one composite report (Y). CHAR(1): Y/N (Default = N).

Table 11-7 lists the values for the Measurement ISDN Summary Display token.

Table 11-7 Measurement ISDN Summary Display Token Values

TIMESTAMP	
NODENAME	
CONDITION	
ISDN_ALERTING_RX	
ISDN_ALERTING_TX	
ISDN_CALL_PROCEED_RX	
ISDN_CALL_PROCEED_TX	
ISDN_CONG_CNTL_RX	(Release 4.4.0)
ISDN_CONG_CNTL_TX	(Release 4.4.0)
ISDN_CONNECT_ACK_RX	
ISDN_CONNECT_ACK_TX	
ISDN_CONNECT_RX	
ISDN_CONNECT_TX	
ISDN_DISCONNECT_RX	
ISDN_DISCONNECT_TX	
ISDN_INFORMATION_RX	
ISDN_INFORMATION_TX	
ISDN_NOTIFY_RX	
ISDN_NOTIFY_TX	
ISDN_NUM_OF_SRVC_ACK_RX	
ISDN_NUM_OF_SRVC_ACK_TX	
ISDN_NUM_OF_SRVC_RX	
ISDN_NUM_OF_SRVC_TX	
ISDN_PROGRESS_RX	
ISDN_PROGRESS_TX	
ISDN_RELEASE_COMPLETE_RX	

ISDN_RELEASE_COMPLETE_TX	
ISDN_RELEASE_RX	
ISDN_RELEASE_TX	
ISDN_RESTART_ACK_RX	
ISDN_RESTART_ACK_TX	
ISDN_RESTART_RX	
ISDN_RESTART_TX	
ISDN_RESUME_ACK_RX	(Release 4.4.0)
ISDN_RESUME_ACK_TX	(Release 4.4.0)
ISDN_RESUME_REJ_RX	(Release 4.4.0)
ISDN_RESUME_REJ_TX	(Release 4.4.0)
ISDN_RESUME_RX	(Release 4.4.0)
ISDN_RESUME_TX	(Release 4.4.0)
ISDN_SEGMENT_RX	(Release 4.4.0)
ISDN_SEGMENT_TX	(Release 4.4.0)
ISDN_SETUP_ACK_RX	
ISDN_SETUP_ACK_TX	
ISDN_SETUP_RX	
ISDN_SETUP_TX	
ISDN_STATUS_ENQUIRY_RX	
ISDN_STATUS_ENQUIRY_TX	
ISDN_STATUS_RX	
ISDN_STATUS_TX	
ISDN_SUSPEND_ACK_RX	
ISDN_SUSPEND_ACK_TX RX	(Release 4.4.0)
ISDN_SUSPEND_REJ_RX	(Release 4.4.0)
ISDN_SUSPEND_REJ_TX	(Release 4.4.0)
ISDN_SUSPEND_RX	(Release 4.4.0)
ISDN_SUSPEND_TX	(Release 4.4.0)
ISDN_USER_INFO_RX	(Release 4.4.0)
ISDN_USER_INFO_TX	(Release 4.4.0)

TIMESTAMP
NODENAME
CONDITION

Measurement ISUP Summary

The Measurement ISUP Summary (measurement-isup-summary) table requests a summary report of ISDN user part (ISUP)-related statistics for a specified Call Agent that occurred during a specified collection interval (time-interval). Each collection interval starts on the hour, half-hour, or quarter-hour.

Table Name: MEASUREMENT-ISUP-SUMMARY

Table Containment Area: OAMP

Command Types

Report, show and clear

Examples

```
show measurement-isup-summary;
report measurement-isup-summary start-time=2003-03-27 06:00:00; end-time=2003-03-27
06:30:00; call-agent-id=CA146;
clear measurement-isup-summary call-agent-id=CA146;
```

Usage Guidelines

Primary Key Token(s): None.

Foreign Key Token(s): call-agent-id

Syntax Description

CALL-AGENT-ID	Mandatory for on-demand requests. Foreign key: Call Agent table. ID of the associated Call Agent. VARCHAR(8): 1–8 ASCII characters in the format CAnnn or cannn.
DISPLAY	Specifies particular report counters to display on the screen. Display token values must be entered with an underscore (_). Do not use hyphens (-). STRING. See Table 11-8 for permitted values. **Note** SGA counters are renamed to ISUP in Release 4.5.
END-TIME	Ending time for measurement summary. Enter all 19 ASCII characters as shown. DATE and TIME: YYYY-MM-DD HH:MM:SS.
INTERVAL	Specifies whether to report measurement entries for all intervals, or to get the current data that is not yet in a report. STRING. CURRENT—Returns the measurement data available for the latest interval that is not yet in a report for the Call Agent and Feature Server. If used with the START-TIME token, the START-TIME token is ignored and the INTERVAL=CURRENT value is used. ALL—returns all the entries in regardless of the timestamp or reported intervals. If used with the START-TIME token, this token is ignored and the START-TIME value is used.
OUTPUT-TYPE	Specifies the desired output format. Permitted values are: CSV (Default)—Comma-separated view XML—Extensible Markup Language

START-TIME	Mandatory for on-demand requests. Starting time for measurements summary. Enter all 19 ASCII characters as shown. Start-time must occur before end-time. Measurement items are available for the current and previous calendar days only (up to a maximum of 48 hours of events). If the time specified is during the current collection interval only, partial measurement counts are displayed. DATE and TIME: YYYY-MM-DD HH:MM:SS.
SUM	Specifies whether the resulting report request must contain the individual interval reports (N) or a summation of all interval reports into one composite report (Y). CHAR(1): Y/N (Default = N).

Table 11-8 lists the values for the Measurement ISUP Summary Display token.

Table 11-8 Measurement ISUP Summary Display Token Values

TIMESTAMP	
NODENAME	
CONDITION	
TRKGRP-ID	
ISUP_ABNORMAL_REL_RX	(Release 4.5)
ISUP_ABNORMAL_REL_TX	(Release 4.5)
ISUP_ACM_RX	(Release 4.5)
ISUP_ACM_TX	(Release 4.5)
ISUP_ANM_RX	(Release 4.5)
ISUP_ANM_TX	(Release 4.5)
ISUP_ARR_RX	(Release 4.5)
ISUP_ARR_TX	(Release 4.5)
ISUP_BLA_RX	(Release 4.5)
ISUP_BLA_TX	(Release 4.5)
ISUP_BLO_RX	(Release 4.5)
ISUP_BLO_TX	(Release 4.5)
ISUP_CCL_RX	(Release 4.5)
ISUP_CCL_TX	(Release 4.5)
ISUP_CCR_RX	(Release 4.5)
ISUP_CCR_TX	(Release 4.5)
ISUP_CFN_RX	(Release 4.5)
ISUP_CFN_TX	(Release 4.5)
ISUP_CGB_RX	(Release 4.5)
ISUP_CGB_TX	(Release 4.5)
ISUP_CGBA_RX	(Release 4.5)
ISUP_CGBA_TX	(Release 4.5)

ISUP_CGU_RX	(Release 4.5)
ISUP_CGU_TX	(Release 4.5)
ISUP_CGUA_RX	(Release 4.5)
ISUP_CGUA_TX	(Release 4.5)
ISUP_CON_RX	(Release 4.5)
ISUP_CON_TX	(Release 4.5)
ISUP_COT_RX	(Release 4.5)
ISUP_COT_TX	(Release 4.5)
ISUP_CPG_RX	(Release 4.5)
ISUP_CPG_TX	(Release 4.5)
ISUP_CQM_RX	(Release 4.5)
ISUP_CQM_TX	(Release 4.5)
ISUP_CQR_RX	(Release 4.5)
ISUP_CQR_TX	(Release 4.5)
ISUP_CRA_RX	(Release 4.5)
ISUP_CRA_TX	(Release 4.5)
ISUP_CRG_RX	(Release 4.5)
ISUP_CRG_TX	(Release 4.5)
ISUP_CRM_RX	(Release 4.5)
ISUP_CRM_TX	(Release 4.5)
ISUP_CVR_RX	(Release 4.5)
ISUP_CVR_TX	(Release 4.5)
ISUP_CVT_RX	(Release 4.5)
ISUP_CVT_TX	(Release 4.5)
ISUP_EXM_RX	(Release 4.5)
ISUP_EXM_TX	(Release 4.5)
ISUP_FAA_RX	(Release 4.5)
ISUP_FAA_TX	(Release 4.5)
ISUP_FAC_RX	(Release 4.5)
ISUP_FAC_TX	(Release 4.5)
ISUP_FAR_RX	(Release 4.5)
ISUP_FAR_TX	(Release 4.5)
ISUP_FOT_RX	(Release 4.5)
ISUP_FOT_TX	(Release 4.5)
ISUP_FRJ_RX	(Release 4.5)
ISUP_FRJ_TX	(Release 4.5)
ISUP_FWT_RX	(Release 4.5)
ISUP_FWT_TX	(Release 4.5)

ISUP_GRA_RX	(Release 4.5)
ISUP_GRA_TX	(Release 4.5)
ISUP_GRS_RX	(Release 4.5)
ISUP_GRS_TX	(Release 4.5)
ISUP_IAM_RX	(Release 4.5)
ISUP_IAM_TX	(Release 4.5)
ISUP_IDR_RX	(Release 4.5)
ISUP_IDR_TX	(Release 4.5)
ISUP_INF_RX	(Release 4.5)
ISUP_INF_TX	(Release 4.5)
ISUP_INR_RX	(Release 4.5)
ISUP_INR_TX	(Release 4.5)
ISUP_IRS_RX	(Release 4.5)
ISUP_IRS_TX	(Release 4.5)
ISUP_ITX_RX	(Release 4.5.1)
ISUP_ITX_TX	(Release 4.5.1)
ISUP_LPA_RX	(Release 4.5)
ISUP_LPA_TX	(Release 4.5)
ISUP_LPM_RX	(Release 4.5)
ISUP_LPM_TX	(Release 4.5)
ISUP_MSG_RX	(Release 4.5)
ISUP_MSG_TX	(Release 4.5)
ISUP_NRM_RX	(Release 4.5)
ISUP_NRM_TX	(Release 4.5)
ISUP_OLM_RX	(Release 4.5)
ISUP_OLM_TX	(Release 4.5)
ISUP_OPR_RX	(Release 4.5)
ISUP_OPR_TX	(Release 4.5)
ISUP_PAM_RX	(Release 4.5)
ISUP_PAM_TX	(Release 4.5)
ISUP_PRI_RX	(Release 4.5)
ISUP_PRI_TX	(Release 4.5)
ISUP_REL_RX	(Release 4.5)
ISUP_REL_TX	(Release 4.5)
ISUP_RES_RX	(Release 4.5)
ISUP_RES_TX	(Release 4.5)
ISUP_RLC_RX	(Release 4.5)
ISUP_RLC_TX	(Release 4.5)

ISUP_RSC_RX	(Release 4.5)
ISUP_RSC_TX	(Release 4.5)
ISUP_SAM_RX	(Release 4.5)
ISUP_SAM_TX	(Release 4.5)
ISUP_SGM_RX	(Release 4.5)
ISUP_SGM_TX	(Release 4.5)
ISUP_SUS_RX	(Release 4.5)
ISUP_SUS_TX	(Release 4.5)
ISUP_UBA_RX	(Release 4.5)
ISUP_UBA_TX	(Release 4.5)
ISUP_UBL_RX	(Release 4.5)
ISUP_UBL_TX	(Release 4.5)
ISUP_UCIC_RX	(Release 4.5)
ISUP_UCIC_TX	(Release 4.5)
ISUP_UNEXPECT_MSG_RX	(Release 4.5)
ISUP_UNRECOG_MSG_RX	(Release 4.5)
ISUP_UPA_RX	(Release 4.5)
ISUP_UPA_TX	(Release 4.5)
ISUP_UPT_RX	(Release 4.5)
ISUP_UPT_TX	(Release 4.5)
ISUP_USR_RX	(Release 4.5)
ISUP_USR_TX	(Release 4.5)
MEAS_SGA_ITX_RX	(France) (Release 4.5.1)
MEAS_SGA_ITX_TX	(France) (Release 4.5.1)
MEAS_SGA_TXA_RX	(France) (Release 4.5.1)
MEAS_SGA_TXA_TX	(France) (Release 4.5.1)
S7A_TPM_ACM_RX	
S7A_TPM_ACM_TX	
S7A_TPM_ANM_RX	
S7A_TPM_ANM_TX	
S7A_TPM_BLA_RX	
S7A_TPM_BLA_TX	
S7A_TPM_BLO_RX	
S7A_TPM_BLO_TX	
S7A_TPM_CGB_RX	
S7A_TPM_CGB_TX	
S7A_TPM_CGBA_RX	
S7A_TPM_CGBA_TX	

S7A_TPM_CGU_RX	
S7A_TPM_CGU_TX	
S7A_TPM_CGUA_RX	
S7A_TPM_CGUA_TX	
S7A_TPM_CPG_RX	
S7A_TPM_CPG_TX	
S7A_TPM_CVR_RX	
S7A_TPM_CVR_TX	
S7A_TPM_CVT_RX	
S7A_TPM_CVT_TX	
S7A_TPM_GRA_RX	
S7A_TPM_GRA_TX	
S7A_TPM_GRS_RX	
S7A_TPM_GRS_TX	
S7A_TPM_IAM_RX	
S7A_TPM_IAM_TX	
S7A_TPM_MSU_RX	
S7A_TPM_MSU_TX	
S7A_TPM_MSU_TXRX	
S7A_TPM_MSU8_RETX	
S7A_TPM_MSU8_RX	
S7A_TPM_MSU8_TX	
S7A_TPM_MSU8_TXRX	
S7A_TPM_REL_RX	
S7A_TPM_REL_TX	
S7A_TPM_RLC_RX	
S7A_TPM_RLC_TX	
S7A_TPM_RSC_RX	
S7A_TPM_RSC_TX	
S7A_TPM_UBA_RX	
S7A_TPM_UBA_TX	
S7A_TPM_UBL_RX	
S7A_TPM_UBL_TX	
SGA_ABNORMAL_REL_RX	(ITU-China) (ITU-Israel, Australia, ETSI: Release 4.4.0, 4.5) (Israel and Australia are not supported)
SGA_ABNORMAL_REL_RX	(ITU-Mexico) (Release 4.5.1)
SGA_ABNORMAL_REL_RX	(Thailand) (Release 4.2)
SGA_ABNORMAL_REL_RX	(ITU-Hong Kong) Release 4.2

SGA_ABNORMAL_REL_RX	(ITU-Chile) (Release 4.4.0) (Not supported)
SGA_ABNORMAL_REL_TX	(ITU-China) (ITU-Israel, Australia, ETSI: Release 4.4.0, 4.5) (Israel and Australia are not supported)
SGA_ABNORMAL_REL_TX	(ITU-Mexico) (Release 4.5.1)
SGA_ABNORMAL_REL_TX	(Thailand) (Release 4.2)
SGA_ABNORMAL_REL_TX	(ITU-Hong Kong) Release 4.2
SGA_ABNORMAL_REL_TX	(ITU-Chile) (Release 4.4.0) (Not supported)
SGA_ACM_RX	(ITU-China) (ITU-Israel, Australia, ETSI: Release 4.4.0, 4.5) (Israel and Australia are not supported)
SGA_ACM_RX	(Thailand) (Release 4.2)
SGA_ACM_RX	(ITU-Hong Kong) Release 4.2
SGA_ACM_RX	(ITU-Chile) (Release 4.4.0) (Not supported)
SGA_ACM_RX	(ITU-Mexico) (Release 4.5.1)
SGA_ACM_TX	(ITU-China) (ITU-Israel, Australia, ETSI: Release 4.4.0, 4.5) (Israel and Australia are not supported)
SGA_ACM_TX	(Thailand) (Release 4.2)
SGA_ACM_TX	(ITU-Hong Kong) Release 4.2
SGA_ACM_TX	(ITU-Chile) (Release 4.4.0) (Not supported)
SGA_ACM_TX	(ITU-Mexico) (Release 4.5.1)
SGA_ANM_RX	(ITU-China) (ITU-Israel, Australia, ETSI: Release 4.4.0, 4.5) (Israel and Australia are not supported)
SGA_ANM_RX	(Thailand) (Release 4.2)
SGA_ANM_RX	(ITU-Hong Kong) Release 4.2
SGA_ANM_RX	(ITU-Chile) (Release 4.4.0) (Not supported)
SGA_ANM_RX	(ITU-Mexico) (Release 4.5.1)
SGA_ANM_TX	(ITU-China) (ITU-Israel, Australia, ETSI: Release 4.4.0, 4.5) (Israel and Australia are not supported)
SGA_ANM_TX	(Thailand) (Release 4.2)
SGA_ANM_TX	(ITU-Hong Kong) Release 4.2
SGA_ANM_TX	(ITU-Chile) (Release 4.4.0) (Not supported)
SGA_ANM_TX	(ITU-Mexico) (Release 4.5.1)
SGA_ARR_RX	(Thailand) (Release 4.2)
SGA_ARR_TX	(Thailand) (Release 4.2)
SGA_BLA_RX	(ITU-China) (ITU-Israel, Australia, ETSI: Release 4.4.0, 4.5) (Israel and Australia are not supported)
SGA_BLA_RX	(Thailand) (Release 4.2)

SGA_BLA_RX	(ITU-Hong Kong) Release 4.2
SGA_BLA_RX	(ITU-Chile) (Release 4.4.0) (Not supported)
SGA_BLA_RX	(ITU-Mexico) (Release 4.5.1)
SGA_BLA_TX	(ITU-China) (ITU-Israel, Australia, ETSI: Release 4.4.0, 4.5) (Israel and Australia are not supported)
SGA_BLA_TX	(Thailand) (Release 4.2)
SGA_BLA_TX	(ITU-Hong Kong) Release 4.2
SGA_BLA_TX	(ITU-Chile) (Release 4.4.0) (Not supported)
SGA_BLA_TX	(ITU-Mexico) (Release 4.5.1)
SGA_BLO_RX	(ITU-China) (ITU-Israel, Australia, ETSI: Release 4.4.0, 4.5) (Israel and Australia are not supported)
SGA_BLO_RX	(Thailand) (Release 4.2)
SGA_BLO_RX	(ITU-Hong Kong) Release 4.2
SGA_BLO_RX	(ITU-Chile) (Release 4.4.0) (Not supported)
SGA_BLO_RX	(ITU-Mexico) (Release 4.5.1)
SGA_BLO_TX	(ITU-China) (ITU-Israel, Australia, ETSI: Release 4.4.0, 4.5) (Israel and Australia are not supported)
SGA_BLO_TX	(Thailand) (Release 4.2)
SGA_BLO_TX	(ITU-Hong Kong) Release 4.2
SGA_BLO_TX	(ITU-Chile) (Release 4.4.0) (Not supported)
SGA_BLO_TX	(ITU-Mexico) (Release 4.5.1)
SGA_CCL_RX	(ITU-China) (ITU-Israel, Australia, ETSI: Release 4.4.0, 4.5) (Israel and Australia are not supported)
SGA_CCL_RX	(ITU-Mexico) (Release 4.5.1)
SGA_CCL_TX	(ITU-China) (ITU-Israel, Australia, ETSI: Release 4.4.0, 4.5) (Israel and Australia are not supported)
SGA_CCL_TX	(ITU-Mexico) (Release 4.5.1)
SGA_CCR_RX	(ITU-China) (ITU-Israel, Australia, ETSI: Release 4.4.0, 4.5) (Israel and Australia are not supported)
SGA_CCR_RX	(Thailand) (Release 4.2)
SGA_CCR_RX	(ITU-Chile) (Release 4.4.0) (Not supported)
SGA_CCR_RX	(ITU-Mexico) (Release 4.5.1)
SGA_CCR_TX	(ITU-China) (ITU-Israel, Australia, ETSI: Release 4.4.0, 4.5) (Israel and Australia are not supported)
SGA_CCR_TX	(Thailand) (Release 4.2)

SGA_CCR_TX	(ITU-Chile) (Release 4.4.0) (Not supported)
SGA_CCR_TX	(ITU-Mexico) (Release 4.5.1)
SGA_CFN_RX	(Thailand) (Release 4.2)
SGA_CFN_RX	(ITU-Hong Kong) Release 4.2
SGA_CFN_RX	(ITU-Mexico) (Release 4.5.1)
SGA_CFN_TX	(Thailand) (Release 4.2)
SGA_CFN_TX	(ITU-Hong Kong) Release 4.2
SGA_CFN_TX	(ITU-Mexico) (Release 4.5.1)
SGA_CGB_RX	(ITU-China) (ITU-Israel, Australia, ETSI: Release 4.4.0, 4.5) (Israel and Australia are not supported)
SGA_CGB_RX	(Thailand) (Release 4.2)
SGA_CGB_RX	(ITU-Hong Kong) Release 4.2
SGA_CGB_RX	(ITU-Chile) (Release 4.4.0) (Not supported)
SGA_CGB_RX	(ITU-Mexico) (Release 4.5.1)
SGA_CGB_TX	(ITU-China) (ITU-Israel, Australia, ETSI: Release 4.4.0, 4.5) (Israel and Australia are not supported)
SGA_CGB_TX	(Thailand) (Release 4.2)
SGA_CGB_TX	(ITU-Hong Kong) Release 4.2
SGA_CGB_TX	(ITU-Chile) (Release 4.4.0) (Not supported)
SGA_CGB_TX	(ITU-Mexico) (Release 4.5.1)
SGA_CGBA_RX	(ITU-China) (ITU-Israel, Australia, ETSI: Release 4.4.0, 4.5) (Israel and Australia are not supported)
SGA_CGBA_RX	(Thailand) (Release 4.2)
SGA_CGBA_RX	(ITU-Hong Kong) Release 4.2
SGA_CGBA_RX	(ITU-Chile) (Release 4.4.0) (Not supported)
SGA_CGBA_RX	(ITU-Mexico) (Release 4.5.1)
SGA_CGBA_TX	(ITU-China) (ITU-Israel, Australia, ETSI: Release 4.4.0, 4.5) (Israel and Australia are not supported)
SGA_CGBA_TX	(Thailand) (Release 4.2)
SGA_CGBA_TX	(ITU-Hong Kong) Release 4.2
SGA_CGBA_TX	(ITU-Chile) (Release 4.4.0) (Not supported)
SGA_CGBA_TX	(ITU-Mexico) (Release 4.5.1)
SGA_CGU_RX	(ITU-China) (ITU-Israel, Australia, ETSI: Release 4.4.0, 4.5) (Israel and Australia are not supported)
SGA_CGU_RX	(Thailand) (Release 4.2)
SGA_CGU_RX	(ITU-Hong Kong) Release 4.2

SGA_CGU_RX	(ITU-Chile) (Release 4.4.0) (Not supported)
SGA_CGU_RX	(ITU-Mexico) (Release 4.5.1)
SGA_CGU_TX	(ITU-China) (ITU-Israel, Australia, ETSI: Release 4.4.0, 4.5) (Israel and Australia are not supported)
SGA_CGU_TX	(Thailand) (Release 4.2)
SGA_CGU_TX	(ITU-Hong Kong) Release 4.2
SGA_CGU_TX	(ITU-Chile) (Release 4.4.0) (Not supported)
SGA_CGU_TX	(ITU-Mexico) (Release 4.5.1)
SGA_CGUA_RX	(ITU-China) (ITU-Israel, Australia, ETSI: Release 4.4.0, 4.5) (Israel and Australia are not supported)
SGA_CGUA_RX	(ITU-Mexico) (Release 4.5.1)
SGA_CGUA_RX	(Thailand) (Release 4.2)
SGA_CGUA_RX	(ITU-Hong Kong) Release 4.2
SGA_CGUA_RX	(ITU-Chile) (Release 4.4.0) (Not supported)
SGA_CGUA_TX	(ITU-China) (ITU-Israel, Australia, ETSI: Release 4.4.0, 4.5) (Israel and Australia are not supported)
SGA_CGUA_TX	(Thailand) (Release 4.2)
SGA_CGUA_TX	(ITU-Hong Kong) Release 4.2
SGA_CGUA_TX	(ITU-Chile) (Release 4.4.0) (Not supported)
SGA_CGUA_TX	(ITU-Mexico) (Release 4.5.1)
SGA_CON_RX	(ITU-China) (ITU-Israel, Australia, ETSI: Release 4.4.0, 4.5) (Israel and Australia are not supported)
SGA_CON_RX	(Thailand) (Release 4.2)
SGA_CON_RX	(ITU-Hong Kong) Release 4.2
SGA_CON_RX	(ITU-Chile) (Release 4.4.0) (Not supported)
SGA_CON_RX	(ITU-Mexico) (Release 4.5.1)
SGA_CON_TX	(ITU-China) (ITU-Israel, Australia, ETSI: Release 4.4.0, 4.5) (Israel and Australia are not supported)
SGA_CON_TX	(Thailand) (Release 4.2)
SGA_CON_TX	(ITU-Hong Kong) Release 4.2
SGA_CON_TX	(ITU-Chile) (Release 4.4.0) (Not supported)
SGA_CON_TX	(ITU-Mexico) (Release 4.5.1)
SGA_COT_RX	(ITU-China) (ITU-Israel, Australia, ETSI: Release 4.4.0, 4.5) (Israel and Australia are not supported)
SGA_COT_RX	(ITU-Mexico) (Release 4.5.1)
SGA_COT_RX	(Thailand) (Release 4.2)

SGA_COT_RX	(ITU-Hong Kong) Release 4.2
SGA_COT_RX	(ITU-Chile) (Release 4.4.0) (Not supported)
SGA_COT_TX	(ITU-China) (ITU-Israel, Australia, ETSI: Release 4.4.0, 4.5) (Israel and Australia are not supported)
SGA_COT_TX	(ITU-Mexico) (Release 4.5.1)
SGA_COT_TX	(Thailand) (Release 4.2)
SGA_COT_TX	(ITU-Hong Kong) Release 4.2
SGA_COT_TX	(ITU-Chile) (Release 4.4.0) (Not supported)
SGA_CPG_RX	(ITU-China) (ITU-Israel, Australia, ETSI: Release 4.4.0, 4.5) (Israel and Australia are not supported)
SGA_CPG_RX	(Thailand) (Release 4.2)
SGA_CPG_RX	(ITU-Hong Kong) Release 4.2
SGA_CPG_RX	(ITU-Chile) (Release 4.4.0) (Not supported)
SGA_CPG_RX	(ITU-Mexico) (Release 4.5.1)
SGA_CPG_TX	(ITU-China) (ITU-Israel, Australia, ETSI: Release 4.4.0, 4.5) (Israel and Australia are not supported)
SGA_CPG_TX	(Thailand) (Release 4.2)
SGA_CPG_TX	(ITU-Hong Kong) Release 4.2
SGA_CPG_TX	(ITU-Chile) (Release 4.4.0) (Not supported)
SGA_CPG_TX	(ITU-Mexico) (Release 4.5.1)
SGA_CQM_RX	(ITU-Mexico) (Release 4.5.1)
SGA_CQM_RX	(Thailand) (Release 4.2)
SGA_CQM_TX	(ITU-Mexico) (Release 4.5.1)
SGA_CQM_TX	(Thailand) (Release 4.2)
SGA_CQR_RX	(ITU-Mexico) (Release 4.5.1)
SGA_CQR_RX	(Thailand) (Release 4.2)
SGA_CQR_TX	(ITU-Mexico) (Release 4.5.1)
SGA_CQR_TX	(Thailand) (Release 4.2)
SGA_CRG_RX	(ITU-Chile) (Release 4.4.0) (Not supported)
SGA_CRG_TX	(ITU-Chile) (Release 4.4.0) (Not supported)
SGA_FAC_RX	(ITU-Hong Kong) Release 4.2
SGA_FAC_RX	(ITU-Chile) (Release 4.4.0) (Not supported)
SGA_FAC_TX	(ITU-Hong Kong) Release 4.2
SGA_FAC_TX	(ITU-Chile) (Release 4.4.0) (Not supported)
SGA_FAR_RX	(ITU-Chile) (Release 4.4.0) (Not supported)
SGA_FAR_TX	(ITU-Chile) (Release 4.4.0) (Not supported)
SGA_FRJ_RX	(ITU-Chile) (Release 4.4.0) (Not supported)

SGA_FRJ_TX	(ITU-Chile) (Release 4.4.0) (Not supported)
SGA_FWT_RX	(ITU-Chile) (Release 4.4.0) (Not supported)
SGA_FWT_TX	(ITU-Chile) (Release 4.4.0) (Not supported)
SGA_GRA_RX	(ITU-China) (ITU-Israel, Australia, ETSI: Release 4.4.0, 4.5) (Israel and Australia are not supported)
SGA_GRA_RX	(ITU-Mexico) (Release 4.5.1)
SGA_GRA_RX	(Thailand) (Release 4.2)
SGA_GRA_RX	(ITU-Hong Kong) Release 4.2
SGA_GRA_RX	(ITU-Chile) (Release 4.4.0) (Not supported)
SGA_GRA_TX	(ITU-China) (ITU-Israel, Australia, ETSI: Release 4.4.0, 4.5) (Israel and Australia are not supported)
SGA_GRA_TX	(ITU-Mexico) (Release 4.5.1)
SGA_GRA_TX	(Thailand) (Release 4.2)
SGA_GRA_TX	(ITU-Hong Kong) Release 4.2
SGA_GRA_TX	(ITU-Chile) (Release 4.4.0) (Not supported)
SGA_GRS_RX	(ITU-Mexico) (Release 4.5.1)
SGA_GRS_RX	(Thailand) (Release 4.2)
SGA_GRS_RX	(ITU-Hong Kong) Release 4.2
SGA_GRS_RX	(ITU-Chile) (Release 4.4.0) (Not supported)
SGA_GRS_TX	(ITU-Mexico) (Release 4.5.1)
SGA_GRS_TX	(Thailand) (Release 4.2)
SGA_GRS_TX	(ITU-Hong Kong) Release 4.2
SGA_GRS_TX	(ITU-Chile) (Release 4.4.0) (Not supported)
SGA_IAM_RX	(ITU-China) (ITU-Israel, Australia, ETSI: Release 4.4.0, 4.5) (Israel and Australia are not supported)
SGA_IAM_RX	(ITU-Mexico) (Release 4.5.1)
SGA_IAM_RX	(Thailand) (Release 4.2)
SGA_IAM_RX	(ITU-Hong Kong) Release 4.2
SGA_IAM_RX	(ITU-Chile) (Release 4.4.0) (Not supported)
SGA_IAM_TX	(ITU-China) (ITU-Israel, Australia, ETSI: Release 4.4.0, 4.5) (Israel and Australia are not supported)
SGA_IAM_TX	(ITU-Mexico) (Release 4.5.1)
SGA_IAM_TX	(Thailand) (Release 4.2)
SGA_IAM_TX	(ITU-Hong Kong) Release 4.2
SGA_IAM_TX	(ITU-Chile) (Release 4.4.0) (Not supported)
SGA_IDR_RX	(ITU-Chile) (Release 4.4.0) (Not supported)

SGA_IDR_TX	(ITU-Chile) (Release 4.4.0) (Not supported)
SGA_INF_RX	(ITU-Mexico) (Release 4.5.1)
SGA_INF_RX	(Thailand) (Release 4.2)
SGA_INF_RX	(ITU-Hong Kong) Release 4.2
SGA_INF_RX	(ITU-Chile) (Release 4.4.0) (Not supported)
SGA_INF_TX	(ITU-Mexico) (Release 4.5.1)
SGA_INF_TX	(Thailand) (Release 4.2)
SGA_INF_TX	(ITU-Hong Kong) Release 4.2
SGA_INF_TX	(ITU-Chile) (Release 4.4.0) (Not supported)
SGA_INR_RX	(ITU-Mexico) (Release 4.5.1)
SGA_INR_RX	(Thailand) (Release 4.2)
SGA_INR_RX	(ITU-Hong Kong) Release 4.2
SGA_INR_RX	(ITU-Chile) (Release 4.4.0) (Not supported)
SGA_INR_TX	(ITU-Mexico) (Release 4.5.1)
SGA_INR_TX	(Thailand) (Release 4.2)
SGA_INR_TX	(ITU-Hong Kong) Release 4.2
SGA_INR_TX	(ITU-Chile) (Release 4.4.0) (Not supported)
SGA_IRS_RX	(ITU-Chile) (Release 4.4.0) (Not supported)
SGA_IRS_TX	(ITU-Chile) (Release 4.4.0) (Not supported)
SGA_LPM_RX	(ITU-Chile) (Release 4.4.0) (Not supported)
SGA_LPM_TX	(ITU-Chile) (Release 4.4.0) (Not supported)
SGA_MSG_RX	(ITU-China) (ITU-Israel, Australia, ETSI: Release 4.4.0, 4.5) (Israel and Australia are not supported)
SGA_MSG_RX	(Thailand) (Release 4.2)
SGA_MSG_RX	(ITU-Hong Kong) Release 4.2
SGA_MSG_RX	(ITU-Chile) (Release 4.4.0) (Not supported)
SGA_MSG_RX	(ITU-Mexico) (Release 4.5.1)
SGA_MSG_TX	(ITU-China) (ITU-Israel, Australia, ETSI: Release 4.4.0, 4.5)(Israel and Australia are not supported)
SGA_MSG_TX	(Thailand) (Release 4.2)
SGA_MSG_TX	(ITU-Hong Kong) Release 4.2
SGA_MSG_TX	(ITU-Chile) (Release 4.4.0) (Not supported)
SGA_MSG_TX	(ITU-Mexico) (Release 4.5.1)
SGA_NRM_RX	(ITU-Hong Kong) Release 4.2
SGA_NRM_RX	(ITU-Chile) (Release 4.4.0) (Not supported)
SGA_NRM_TX	(ITU-Hong Kong) Release 4.2
SGA_NRM_TX	(ITU-Chile) (Release 4.4.0) (Not supported)

SGA_OPR_RX	(ITU-China) (ITU-Israel, Australia, ETSI: Release 4.4.0, 4.5) (Israel and Australia are not supported)
SGA_OPR_TX)	(ITU-China) (ITU-Israel, Australia, ETSI: Release 4.4.0, 4.5) (Israel and Australia are not supported
SGA_PAM_RX	(ITU-Hong Kong) Release 4.2
SGA_PAM_RX	(ITU-Chile) (Release 4.4.0) (Not supported)
SGA_PAM_TX	(ITU-Hong Kong) Release 4.2
SGA_PAM_TX	(ITU-Chile) (Release 4.4.0) (Not supported)
SGA_PRI_RX	(ITU-Chile) (Release 4.4.0) (Not supported)
SGA_PRI_TX	(ITU-Chile) (Release 4.4.0) (Not supported)
SGA_REL_RX	(ITU-China) (ITU-Israel, Australia, ETSI: Release 4.4.0, 4.5) (Israel and Australia are not supported)
SGA_REL_RX	(ITU-Mexico) (Release 4.5.1)
SGA_REL_RX	(Thailand) (Release 4.2)
SGA_REL_RX	(ITU-Hong Kong) Release 4.2
SGA_REL_RX	(ITU-Chile) (Release 4.4.0) (Not supported)
SGA_REL_TX	(ITU-China) (ITU-Israel, Australia, ETSI: Release 4.4.0, 4.5) (Israel and Australia are not supported)
SGA_REL_TX	(ITU-Mexico) (Release 4.5.1)
SGA_REL_TX	(Thailand) (Release 4.2)
SGA_REL_TX	(ITU-Hong Kong) Release 4.2
SGA_REL_TX	(ITU-Chile) (Release 4.4.0) (Not supported)
SGA_RES_RX	(ITU-China) (ITU-Israel, Australia, ETSI: Release 4.4.0, 4.5) (Israel and Australia are not supported)
SGA_RES_RX	(ITU-Mexico) (Release 4.5.1)
SGA_RES_RX	(Thailand) (Release 4.2)
SGA_RES_RX	(ITU-Hong Kong) Release 4.2
SGA_RES_RX	(ITU-Chile) (Release 4.4.0) (Not supported)
SGA_RES_TX	(ITU-China) (ITU-Israel, Australia, ETSI: Release 4.4.0, 4.5) (Israel and Australia are not supported)
SGA_RES_TX	(ITU-Mexico) (Release 4.5.1)
SGA_RES_TX	(Thailand) (Release 4.2)
SGA_RES_TX	(ITU-Hong Kong) Release 4.2
SGA_RES_TX	(ITU-Chile) (Release 4.4.0) (Not supported)

SGA_RLC_RX	(ITU-China) (ITU-Israel, Australia, ETSI: Release 4.4.0, 4.5) (Israel and Australia are not supported)
SGA_RLC_RX	(ITU-Mexico) (Release 4.5.1)
SGA_RLC_RX	(Thailand) (Release 4.2)
SGA_RLC_RX	(ITU-Hong Kong) Release 4.2
SGA_RLC_RX	(ITU-Chile) (Release 4.4.0) (Not supported)
SGA_RLC_TX	(ITU-China) (ITU-Israel, Australia, ETSI: Release 4.4.0, 4.5) (Israel and Australia are not supported)
SGA_RLC_TX	(ITU-Mexico) (Release 4.5.1)
SGA_RLC_TX	(Thailand) (Release 4.2)
SGA_RLC_TX	(ITU-Hong Kong) Release 4.2
SGA_RLC_TX	(ITU-Chile) (Release 4.4.0) (Not supported)
SGA_RSC_RX	(ITU-China) (ITU-Israel, Australia, ETSI: Release 4.4.0, 4.5) (Israel and Australia are not supported)
SGA_RSC_RX	(ITU-Mexico) (Release 4.5.1)
SGA_RSC_RX	(Thailand) (Release 4.2)
SGA_RSC_RX	(ITU-Hong Kong) Release 4.2
SGA_RSC_RX	(ITU-Chile) (Release 4.4.0) (Not supported)
SGA_RSC_TX	(ITU-China) (ITU-Israel, Australia, ETSI: Release 4.4.0, 4.5) (Israel and Australia are not supported)
SGA_RSC_TX	(ITU-Mexico) (Release 4.5.1)
SGA_RSC_TX	(Thailand) (Release 4.2)
SGA_RSC_TX	(ITU-Hong Kong) Release 4.2
SGA_RSC_TX	(ITU-Chile) (Release 4.4.0) (Not supported)
SGA_SAM_RX	(ITU-China) (ITU-Israel, Australia, ETSI: Release 4.4.0, 4.5) (Israel and Australia are not supported)
SGA_SAM_RX	(ITU-Mexico) (Release 4.5.1)
SGA_SAM_RX	(Thailand) (Release 4.2)
SGA_SAM_RX	(ITU-Hong Kong) Release 4.2
SGA_SAM_RX	(ITU-Chile) (Release 4.4.0) (Not supported)
SGA_SAM_TX	(ITU-China) (ITU-Israel, Australia, ETSI: Release 4.4.0, 4.5) (Israel and Australia are not supported)
SGA_SAM_TX	(ITU-Mexico) (Release 4.5.1)
SGA_SAM_TX	(Thailand) (Release 4.2)
SGA_SAM_TX	(ITU-Hong Kong) Release 4.2
SGA_SAM_TX	(ITU-Chile) (Release 4.4.0) (Not supported)

SGA_SGM_RX	(ITU-Hong Kong) Release 4.2
SGA_SGM_RX	(ITU-Chile) (Release 4.4.0) (Not supported)
SGA_SGM_TX	(ITU-Hong Kong) Release 4.2
SGA_SGM_TX	(ITU-Chile) (Release 4.4.0) (Not supported)
SGA_SUS_RX	(ITU-China) (ITU-Israel, Australia, ETSI: Release 4.4.0, 4.5) (Israel and Australia are not supported)
SGA_SUS_RX	(ITU-Mexico) (Release 4.5.1)
SGA_SUS_RX	(Thailand) (Release 4.2)
SGA_SUS_RX	(ITU-Hong Kong) Release 4.2
SGA_SUS_RX	(ITU-Chile) (Release 4.4.0) (Not supported)
SGA_SUS_TX	(ITU-China) (ITU-Israel, Australia, ETSI: Release 4.4.0, 4.5) (Israel and Australia are not supported)
SGA_SUS_TX	(ITU-Mexico) (Release 4.5.1)
SGA_SUS_TX	(Thailand) (Release 4.2)
SGA_SUS_TX	(ITU-Hong Kong) Release 4.2
SGA_SUS_TX	(ITU-Chile) (Release 4.4.0) (Not supported)
SGA_UBA_RX	(ITU-China) (ITU-Israel, Australia, ETSI: Release 4.4.0, 4.5) (Israel and Australia are not supported)
SGA_UBA_RX	(ITU-Mexico) (Release 4.5.1)
SGA_UBA_RX	(Thailand) (Release 4.2)
SGA_UBA_RX	(ITU-Hong Kong) Release 4.2
SGA_UBA_RX	(ITU-Chile) (Release 4.4.0) (Not supported)
SGA_UBA_TX	(ITU-China) (ITU-Israel, Australia, ETSI: Release 4.4.0, 4.5) (Israel and Australia are not supported)
SGA_UBA_TX	(ITU-Mexico) (Release 4.5.1)
SGA_UBA_TX	(Thailand) (Release 4.2)
SGA_UBA_TX	(ITU-Hong Kong) Release 4.2
SGA_UBA_TX	(ITU-Chile) (Release 4.4.0) (Not supported)
SGA_UBL_RX	(ITU-China) (ITU-Israel, Australia, ETSI: Release 4.4.0, 4.5) (Israel and Australia are not supported)
SGA_UBL_RX	(ITU-Mexico) (Release 4.5.1)
SGA_UBL_RX	(Thailand) (Release 4.2)
SGA_UBL_RX	(ITU-Chile) (Release 4.4.0) (Not supported)
SGA_UBL_TX	(ITU-China) (ITU-Israel, Australia, ETSI: Release 4.4.0, 4.5) (Israel and Australia are not supported)
SGA_UBL_TX	(ITU-Mexico) (Release 4.5.1)

SGA_UBL_TX	(Thailand) (Release 4.2)
SGA_UBL_TX	(ITU-Chile) (Release 4.4.0) (Not supported)
SGA_UCIC_RX	(ITU-Mexico) (Release 4.5.1)
SGA_UCIC_RX	(Thailand) (Release 4.2)
SGA_UCIC_RX	(ITU-Chile) (Release 4.4.0) (Not supported)
SGA_UCIC_TX	(ITU-Mexico) (Release 4.5.1)
SGA_UCIC_TX	(Thailand) (Release 4.2)
SGA_UCIC_TX	(ITU-Chile) (Release 4.4.0) (Not supported)
SGA_UNEXPECT_MSG_RX	(ITU-China) (ITU-Israel, Australia, ETSI: Release 4.4.0, 4.5) (Israel and Australia are not supported)
SGA_UNEXPECT_MSG_RX	(ITU-Mexico) (Release 4.5.1)
SGA_UNEXPECT_MSG_RX	(Thailand) (Release 4.2)
SGA_UNEXPECT_MSG_RX	(ITU-Hong Kong) Release 4.2
SGA_UNEXPECT_MSG_RX	(ITU-Chile) (Release 4.4.0) (Not supported)
SGA_UNRECOG_MSG_RX	(ITU-China) (ITU-Israel, Australia, ETSI: Release 4.4.0, 4.5) (Israel and Australia are not supported)
SGA_UNRECOG_MSG_RX	(ITU-Mexico) (Release 4.5.1)
SGA_UNRECOG_MSG_RX	(Thailand) (Release 4.2)
SGA_UNRECOG_MSG_RX	(ITU-Hong Kong) Release 4.2
SGA_UNRECOG_MSG_RX	(ITU-Chile) (Release 4.4.0) (Not supported)
SGA_USR_RX	(ITU-Chile) (Release 4.4.0) (Not supported)
SGA_USR_TX	(ITU-Chile) (Release 4.4.0) (Not supported)

TIMESTAMP
NODENAME
CONDITION

TIMESTAMP
NODENAME
CONDITION

TIMESTAMP
NODENAME
CONDITION

Measurement M3UA Summary

The Measurement M3UA Summary (measurement-m3ua-summary) table requests a summary report of M3UA-related statistics for all media gateways (MGWs) that occurred during a specified collection interval (time-interval). Each collection interval starts on the hour, half-hour, or quarter-hour.

Table Name: MEASUREMENT-M3UA-SUMMARY

Table Containment Area: OAMP

Command Types

Report, show and clear

Examples

```
show measurement-m3ua-summary;
report measurement-m3ua-summary start-time=2003-03-27 06:00:00; end-time=2003-03-27
06:30:00; call-agent-id =CA146;
clear measurement-m3ua-summary call-agent-id=CA146;
```

Usage Guidelines

Primary Key Token(s): None.

Foreign Key Token(s): call-agent-id

Syntax Description

CALL-AGENT-ID	Mandatory for on-demand requests. Foreign key: Call Agent table. ID of the associated Call Agent. VARCHAR(8): 1–8 ASCII characters in the format CAnnn or cannn.
DISPLAY	Specifies particular report counters to display on the screen. Display token values must be entered with an underscore (_). Do not use hyphens (-). STRING. Permitted values are:
END-TIME	Ending time for measurement summary. Enter all 19 ASCII characters as shown. DATE and TIME: YYYY-MM-DD HH:MM:SS.
INTERVAL	Specifies whether to report measurement entries for all intervals, or to get the current data that is not yet in a report. STRING. CURRENT—Returns the measurement data available for the latest interval that is not yet in a report for the Call Agent and Feature Server. If used with the START-TIME token, the START-TIME token is ignored and the INTERVAL=CURRENT value is used. ALL—returns all the entries in regardless of the timestamp or reported intervals. If used with the START-TIME token, this token is ignored and the START-TIME value is used.
OUTPUT-TYPE	Specifies the desired output format. Permitted values are: CSV (Default)—Comma-separated view XML—Extensible Markup Language

START-TIME	Mandatory for on-demand requests. Starting time for measurements summary. Enter all 19 ASCII characters as shown. Start-time must occur before end-time. Measurement items are available for the current and previous calendar days only (up to a maximum of 48 hours of events). If the time specified is during the current collection interval only, partial measurement counts are displayed. DATE and TIME: YYYY-MM-DD HH:MM:SS.
SUM	Specifies whether the resulting report request must contain the individual interval reports (N) or a summation of all interval reports into one composite report (Y). CHAR(1): Y/N (Default = N).

Table 11-9 lists the values for the Measurement M3UA Summary Display token.

Table 11-9 Measurement M3UA Summary Display Token Values

TIMESTAMP
NODENAME
CONDITION
M3UA-SGP-ID
M3UA_ACTIVE_ACK_RX
M3UA_ACTIVE_TX
M3UA_ASSOC_FAIL
M3UA_BEAT_ACK_RX
M3UA_BEAT_ACK_TX
M3UA_BEAT_RX
M3UA_BEAT_TX
M3UA_DATA_BYTES_RX
M3UA_DATA_BYTES_TX
M3UA_DATA_TRANS_RX
M3UA_DATA_TRANS_TX
M3UA_DAUD_TX
M3UA_DAVA_RX
M3UA_DOWN_ACK_RX
M3UA_DOWN_TX
M3UA_DRST_RX
M3UA_DUNA_RX
M3UA_DUPU_RX
M3UA_ERR_RX
M3UA_ERR_TX
M3UA_INACTIVE_ACK_RX
M3UA_INACTIVE_TX

M3UA_INVALID_SCTP_SIGNALS
M3UA_MSG_CLASS_ERR
M3UA_MSG_LENGTH_ERR
M3UA_MSG_RX_OTHER_ERR
M3UA_MSG_TYPE_ERR
M3UA_NETWORK_APPEAR_ERR
M3UA_NO_MEMORY_ERR
M3UA_NOTIFY_TX
M3UA_NOTIFY_RX
M3UA_PARAM_FIELD_ERR
M3UA_PARAM_VALUE_ERR
M3UA_PROTOCOL_ERR
M3UA_ROUTING_CONTEXT_ERR
M3UA_SCON_TX
M3UA_SCON_RX
M3UA_SCTP_TX_FAIL
M3UA_SGP_ID
M3UA_SINCE_LAST_RESET_ASSOC
M3UA_STREAM_ID_ERR
M3UA_UNEXPECT_MSG_ERR
M3UA_UNEXPECT_PARAM_ERR
M3UA_UP_TX
M3UA_UP_ACK_RX
M3UA_VERSION_ERR

Measurement MGCP Signaling Adapter Summary

The Measurement MGCP Signaling Adapter Summary (measurement-mgcp-summary) table requests a summary report of Media Gateway Control Protocol (MGCP) signaling adapter-related statistics for a specified Call Agent that occurred during a specified collection interval (time-interval). Each collection interval starts on the hour, half-hour, or quarter-hour.

Table Name: MEASUREMENT-MGCP-SUMMARY

Table Containment Area: OAMP

Command Types

Report, show and clear

Examples

```
show measurement-mgcp-summary;
report measurement-mgcp-summary start-time=2003-03-27 06:00:00; end-time=2003-03-27
06:30:00; call-agent-id=CA146; output-type=csv;
```

```
clear measurement-mgcp-summary call-agent-id=CA146;
```

Caution The clear command clears *all* current collecting measurement values for the specified Call Agent. There will not be any announcement data to report until the next interval.

Usage Guidelines

Primary Key Token(s): None.

Foreign Key Token(s): call-agent-id

Syntax Description

CALL-AGENT-ID	Mandatory for on-demand requests. Foreign key: Call Agent table. ID of the associated Call Agent. VARCHAR(8): 1–8 ASCII characters in the format CAnnn or cannn.
DISPLAY	Specifies particular report counters to display on the screen. Display token values must be entered with an underscore (_). Do not use hyphens (-). STRING. Permitted values are: TIMESTAMP NODENAME CONDITION MGCP_AUEP_ACK_RX MGCP_AUEP_NACK_RX MGCP_AUEP_TX MGCP_AUCX_TX (Release 4.5) MGCP_AUCX_ACK_RX (Release 4.5) MGCP_AUCX_NACK_RX (Release 4.5) MGCP_CRCX_ACK_RX MGCP_CRCX_NACK_RX MGCP_CRCX_TX MGCP_DECODE_ERROR MGCP_DLCX_ACK_RX MGCP_DLCX_NACK_RX MGCP_DLCX_RX MGCP_DLCX_TX MGCP_ENCODE_ERROR MGCP_MDCX_ACK_RX MGCP_MDCX_NACK_RX MGCP_MDCX_TX MGCP_NTFY_RX MGCP_RQNT_ACK_RX MGCP_RQNT_NACK_RX MGCP_RQNT_TX MGCP_RSIP_ACK_TX MGCP_RSIP_RX MGCP_SEND_FAILED MGCP_UNREACHABLE
END-TIME	Ending time for measurement summary. Enter all 19 ASCII characters as shown. DATE and TIME: YYYY-MM-DD HH:MM:SS.

INTERVAL	Specifies whether to report measurement entries for all intervals, or to get the current data that is not yet in a report. STRING. CURRENT—Returns the measurement data available for the latest interval that is not yet in a report for the Call Agent and Feature Server. If used with the START-TIME token, the START-TIME token is ignored and the INTERVAL=CURRENT value is used. ALL—returns all the entries in regardless of the timestamp or reported intervals. If used with the START-TIME token, this token is ignored and the START-TIME value is used.
OUTPUT-TYPE	Specifies the desired output format. Permitted values are: CSV (Default)—Comma-separated view XML—Extensible Markup Language
START-TIME	Mandatory for on-demand requests. Starting time for measurements summary. Enter all 19 ASCII characters as shown. Start-time must occur before end-time. Measurement items are available for the current and previous calendar days only (up to a maximum of 48 hours of events). If the time specified is during the current collection interval only, partial measurement counts are displayed. DATE and TIME: YYYY-MM-DD HH:MM:SS
SUM	Specifies whether the resulting report request must contain the individual interval reports (N) or a summation of all interval reports into one composite report (Y). CHAR(1): Y/N (Default = N).

Measurement PCT Tools Summary (Release 4.4.1)

The Measurement POTS/Centrex/Tandem (PCT) Tools Summary (measurement-pct-tools-summary) table collects PCT tools statistics. Each collection interval starts on the hour, half-hour, or quarter-hour.

Table Name: MEASUREMENT-PCT-TOOLS-SUMMARY

Table Containment Area: OAMP

Command Types

Report, show and clear

Examples

```
show measurement-pct-tools-summary;
report measurement-pct-tools-summary start-time=2002-03-27 10:00:00; end-time=2002-03-27
12:00:00; call-agent-id=CA146; output=pct-tools-report; output-type=csv;
clear measurement-pct-tools-summary call-agent-id=CA146;
```

Usage Guidelines

Primary Key Token(s): None.

Foreign Key Token(s): call-agent-id

Syntax Description

FEATURE-SERVER-ID	Mandatory for on-demand requests. Foreign key: Feature Server table. ID of the associated Feature Server. VARCHAR(8): 1–8 ASCII characters in the format FSPTCnnn/fsptcnnn or FSAINnnn/fsainnnn.
DISPLAY	Specifies particular report counters to display on the screen. Display token values must be entered with an underscore (_). Do not use hyphens (-). STRING. Permitted values are: TIMESTAMP NODENAME CONDITION TOOLS_LIDB_QUERY_ATTMP TOOLS_LIDB_QUERY_SUCC
END-TIME	Ending time for measurement summary. Enter all 19 ASCII characters as shown. DATE and TIME: YYYY-MM-DD HH:MM:SS.
OUTPUT-TYPE	Specifies the desired output format. Permitted values are: CSV (Default)—Comma-separated view XML—Extensible Markup Language
START-TIME	Mandatory for on-demand requests. Starting time for measurements summary. Enter all 19 ASCII characters as shown. Start-time must occur before end-time. Measurement items are available for the current and previous calendar days only (up to a maximum of 48 hours of events). If the time specified is during the current collection interval only, partial measurement counts are displayed. DATE and TIME: YYYY-MM-DD HH:MM:SS.
SUM	Specifies whether the resulting report request must contain the individual interval reports (N) or a summation of all interval reports into one composite report (Y). CHAR(1): Y/N (Default = N).

Measurement POTS Auto Callback/Recall/Call Rejection Feature Server Summary

The Measurement POTS Auto Callback/Recall/Call Rejection Feature Server Summary (measurement-pots-acar-summary) table requests a summary report of Auto Callback/Recall/Call Rejection-related statistics for a specified Feature Server that occurred during a specified collection interval (time-interval). Each collection interval starts on the hour, half-hour, or quarter-hour.

Table Name: MEASUREMENT-POTS-ACAR-SUMMARY

Table Containment Area: OAMP

Command Types

Report, show and clear

Examples

```
show measurement-pots-acar-summary;
```

```
report measurement-pots-acar-summary start-time=2003-03-27 06:00:00; end-time=2003-03-27
06:30:00; feature-server-id= FSAIN203;output-type=csv;
clear measurement-pots-acar-summary feature-server-id=fsptc203;
```

Usage Guidelines

Primary Key Token(s): None.

Foreign Key Token(s): feature-server-id

Syntax Description

FEATURE-SERVER-ID	Mandatory for on-demand requests. Foreign key: Feature Server table. ID of the associated Feature Server. VARCHAR(8): 1–8 ASCII characters in the format FSPTCnnn/fsptcnnn or FSAINnnn/fsainnnn.
DISPLAY	Specifies particular report counters to display on the screen. Display token values must be entered with an underscore (_). Do not use hyphens (-). STRING. Permitted values are: TIMESTAMP NODENAME CONDITION POTS_AC_ACT_ATTMP POTS_AC_DEACT_ATTMP POTS_AC_DEACT_BY_SYSTEM POTS_AC_DELAYED_PROC POTS_AC_IMMEDIATE_PROC POTS_AC_INTERLATA_ATTMP POTS_AC_OVERFLOW POTS_ACART_ORIG_SCAN_REQ POTS_ACART_QUEUED_REQ POTS_ACART_REJECT_NO_RSRC POTS_ACART_TERM_SCAN_REQ POTS_ACR_ACT_ATTMP POTS_ACR_ACT_REJECT_NO_RSRC POTS_ACR_DEACT_ATTMP POTS_ACR_DEACT_REJECT_NO_RSRC POTS_ACR_SUCC POTS_AR_ACT_ATTMP POTS_AR_DEACT_ATTMP POTS_AR_DEACT_BY_SYSTEM POTS_AR_DELAYED_PROC POTS_AR_IMMEDIATE_PROC POTS_AR_INTERLATA_ATTMP POTS_AR_OVERFLOW
END-TIME	Ending time for measurement summary. Enter all 19 ASCII characters as shown. DATE and TIME: YYYY-MM-DD HH:MM:SS.

INTERVAL	Specifies whether to report measurement entries for all intervals, or to get the current data that is not yet in a report. STRING. CURRENT—Returns the measurement data available for the latest interval that is not yet in a report for the Call Agent and Feature Server. If used with the START-TIME token, the START-TIME token is ignored and the INTERVAL=CURRENT value is used. ALL—returns all the entries in regardless of the timestamp or reported intervals. If used with the START-TIME token, this token is ignored and the START-TIME value is used.
OUTPUT-TYPE	Specifies the desired output format. Permitted values are: CSV (Default)—Comma-separated view XML—Extensible Markup Language
START-TIME	Mandatory for on-demand requests. Starting time for measurements summary. Enter all 19 ASCII characters as shown. Start-time must occur before end-time. Measurement items are available for the current and previous calendar days only (up to a maximum of 48 hours of events). If the time specified is during the current collection interval only, partial measurement counts are displayed. DATE and TIME: YYYY-MM-DD HH:MM:SS.
SUM	Specifies whether the resulting report request must contain the individual interval reports (N) or a summation of all interval reports into one composite report (Y). CHAR(1): Y/N (Default = N).

Measurement POTS Class of Service Feature Server Summary

The Measurement POTS Class of Service Feature Server Summary (measurement-pots-cos-summary) table requests a summary report of class of service-related statistics for a specified Feature Server that occurred during a specified collection interval (time-interval). Each collection interval starts on the hour, half-hour, or quarter-hour.

Table Name: MEASUREMENT-POTS-COS-SUMMARY

Table Containment Area: OAMP

Command Types

Report, show and clear

Examples

```
show measurement-pots-cos-summary;
report measurement-pots-cos-summary start-time=2003-03-27 06:00:00; end-time=2003-03-27
06:30:00; feature-server-id= FSAIN203;output-type=csv;
clear measurement-pots-cos-summary feature-server-id=fsptc203;
```

Usage Guidelines

Primary Key Token(s): None.

Foreign Key Token(s): feature-server-id

Syntax Description

FEATURE-SERVER-ID	Mandatory for on-demand requests. Foreign key: Feature Server table. ID of the associated Feature Server. VARCHAR(8): 1–8 ASCII characters in the format FSPTCnnn/fsptcnnn or FSAINnnn/fsainnnn.
DISPLAY	Specifies particular report counters to display on the screen. Display token values must be entered with an underscore (_). Do not use hyphens (-). STRING. See Table 11-10 for permitted values.
END-TIME	Ending time for measurement summary. Enter all 19 ASCII characters as shown. DATE and TIME: YYYY-MM-DD HH:MM:SS.
INTERVAL	Specifies whether to report measurement entries for all intervals, or to get the current data that is not yet in a report. STRING. CURRENT—Returns the measurement data available for the latest interval that is not yet in a report for the Call Agent and Feature Server. If used with the START-TIME token, the START-TIME token is ignored and the INTERVAL=CURRENT value is used. ALL—returns all the entries in regardless of the timestamp or reported intervals. If used with the START-TIME token, this token is ignored and the START-TIME value is used.
OUTPUT-TYPE	Specifies the desired output format. Permitted values are: CSV (Default)—Comma-separated view XML—Extensible Markup Language
START-TIME	Mandatory for on-demand requests. Starting time for measurements summary. Enter all 19 ASCII characters as shown. Start-time must occur before end-time. Measurement items are available for the current and previous calendar days only (up to a maximum of 48 hours of events). If the time specified is during the current collection interval only, partial measurement counts are displayed. DATE and TIME: YYYY-MM-DD HH:MM:SS.
SUM	Specifies whether the resulting report request must contain the individual interval reports (N) or a summation of all interval reports into one composite report (Y). CHAR(1): Y/N (Default = N).

Table 11-10 lists the values for the Measurement POTS Class of Service Feature Server Summary Display token.

Table 11-10 Measurement POTS Class of Service Feature Server Summary

TIMESTAMP
NODENAME

CONDITION	
POTS_COS_900_BLOCKED	
POTS_COS_976_BLOCKED	
POTS_COS_ACCT_CODE_FAIL	
POTS_COS_ACCT_CODE_SUCC	
POTS_COS_ANI_ATTMP_SUCC	
POTS_COS_ANI_BLOCKED_CALL	
POTS_COS_AUTH_CODE_FAIL	
POTS_COS_AUTH_CODE_SUCC	
POTS_COS_CASUAL_RESTRICT	
POTS_COS_DA_BLOCKED	
POTS_COS_INTL_BLOCKED_BW	
POTS_COS_INTL_OP_BLOCKED	
POTS_COS_INTL_RESTRICT	
POTS_COS_NANP_BLOCKED_BW	
POTS_COS_NANP_OP_BLOCKED	
POTS_COS_NANP_RESTRICT	
POTS_COS_TOLLFREE_BLOCKED	(Release 4.5)
POTS_COS_TOT_ACCT_IVR_SESSION	(Release 4.5)
POTS_COS_TOT_AUTH_IVR_SESSION	(Release 4.5)
POTS_COS_TOT_IVR_FAIL	(Release 4.5)
POTS_TDISC_CALLS_OUTG_BLOCKED	(Release 4.5)

Measurement POTS Customer-Originated Trace Feature Server Summary

The Measurement POTS Customer-Originated Trace Feature Server Summary (measurement-pots-cot-summary) table requests a summary report of customer-originated trace-related statistics for a specified Feature Server that occurred during a specified collection interval (time-interval). Each collection interval starts on the hour, half-hour, or quarter-hour.

Table Name: MEASUREMENT-POTS-COT-SUMMARY

Table Containment Area: OAMP

Command Types

Report, show and clear

Examples

```
show measurement-pots-cot-summary;
report measurement-pots-cot-summary start-time=2003-03-27 06:00:00; end-time=2003-03-27
06:30:00; feature-server-id= FSAIN203;output-type=csv;
clear measurement-pots-cot-summary feature-server-id=fsptc203;
```

Usage Guidelines

Primary Key Token(s): None.

Foreign Key Token(s): feature-server-id

Syntax Description

FEATURE-SERVER-ID	Mandatory for on-demand requests. Foreign key: Feature Server table. ID of the associated Feature Server. VARCHAR(8): 1–8 ASCII characters in the format FSPTCnnn/fsptcnnn or FSAINnnn/fsainnnn.
DISPLAY	Specifies particular report counters to display on the screen. Display token values must be entered with an underscore (_). Do not use hyphens (-). STRING. Permitted values are: TIMESTAMP NODENAME CONDITION POTS_COT_ABAND POTS_COT_ACCESS POTS_COT_ACT POTS_COT_DENY POTS_COT_DN_UNAVAIL POTS_COT_TRACE_CONFIRM POTS_COT_TRACE_OUTPUT
END-TIME	Ending time for measurement summary. Enter all 19 ASCII characters as shown. DATE and TIME: YYYY-MM-DD HH:MM:SS.
INTERVAL	Specifies whether to report measurement entries for all intervals, or to get the current data that is not yet in a report. STRING. CURRENT—Returns the measurement data available for the latest interval that is not yet in a report for the Call Agent and Feature Server. If used with the START-TIME token, the START-TIME token is ignored and the INTERVAL=CURRENT value is used. ALL—returns all the entries in regardless of the timestamp or reported intervals. If used with the START-TIME token, this token is ignored and the START-TIME value is used.
OUTPUT-TYPE	Specifies the desired output format. Permitted values are: CSV (Default)—Comma-separated view XML—Extensible Markup Language

START-TIME	Mandatory for on-demand requests. Starting time for measurements summary. Enter all 19 ASCII characters as shown. Start-time must occur before end-time. Measurement items are available for the current and previous calendar days only (up to a maximum of 48 hours of events). If the time specified is during the current collection interval only, partial measurement counts are displayed. DATE and TIME: YYYY-MM-DD HH:MM:SS.
SUM	Specifies whether the resulting report request must contain the individual interval reports (N) or a summation of all interval reports into one composite report (Y). CHAR(1): Y/N (Default = N).

Measurement POTS Local Feature Server Summary

The Measurement POTS Local Feature Server Summary (measurement-pots-local-summary) table requests a summary report of local-related statistics for a specified Feature Server that occurred during a specified collection interval (time-interval). Each collection interval starts on the hour, half-hour, or quarter-hour.

Table Name: MEASUREMENT-POTS-LOCAL-SUMMARY

Table Containment Area: OAMP

Command Types

Report, show and clear

Examples

```
show measurement-pots-local-summary;
report measurement-pots-local-summary start-time=2003-03-27 06:00:00; end-time=2003-03-27
06:30:00; feature-server-id= FSAIN203;output-type=csv;
clear measurement-pots-local-summary feature-server-id=fsptc203;
```

Usage Guidelines

Primary Key Token(s): None.

Foreign Key Token(s): feature-server-id

Syntax Description

FEATURE-SERVER-ID	Mandatory for on-demand requests. Foreign key: Feature Server table. ID of the associated Feature Server. VARCHAR(8): 1–8 ASCII characters in the format FSPTCnnn/fsptcnnn or FSAINnnn/fsainnnn.
DISPLAY	Specifies particular report counters to display on the screen. Display token values must be entered with an underscore (_). Do not use hyphens (-). STRING. See Table 11-11for permitted values.
END-TIME	Ending time for measurement summary. Enter all 19 ASCII characters as shown. DATE and TIME: YYYY-MM-DD HH:MM:SS.

INTERVAL	Specifies whether to report measurement entries for all intervals, or to get the current data that is not yet in a report. STRING. CURRENT—Returns the measurement data available for the latest interval that is not yet in a report for the Call Agent and Feature Server. If used with the START-TIME token, the START-TIME token is ignored and the INTERVAL=CURRENT value is used. ALL—returns all the entries in regardless of the timestamp or reported intervals. If used with the START-TIME token, this token is ignored and the START-TIME value is used.
OUTPUT-TYPE	Specifies the desired output format. Permitted values are: CSV (Default)—Comma-separated view XML—Extensible Markup Language
START-TIME	Mandatory for on-demand requests. Starting time for measurements summary. Enter all 19 ASCII characters as shown. Start-time must occur before end-time. Measurement items are available for the current and previous calendar days only (up to a maximum of 48 hours of events). If the time specified is during the current collection interval only, partial measurement counts are displayed. DATE and TIME: YYYY-MM-DD HH:MM:SS.
SUM	Specifies whether the resulting report request must contain the individual interval reports (N) or a summation of all interval reports into one composite report (Y). CHAR(1): Y/N (Default = N).

Table 11-11 lists the values for the Measurement POTS Local Feature Server Summary Display token.

Table 11-11 Measurement POTS Local Feature Server Summary Display Token Values

TIMESTAMP	
NODENAME	
CONDITION	
POTS_CCW_ATTMP	
POTS_CCW_LENGTH	
POTS_CCW_REJECT_BY_CCW	
POTS_CCW_REJECT_NO_RSRC	
POTS_CFB_ACT_ATTMP	
POTS_CFB_ACT_REFUSED	
POTS_CFB_DEACT_ATTMP	
POTS_CFB_FORWARD_FAIL	
POTS_CFB_FORWARD_SUCC	
POTS_CFB_INTERROG_ATTMP	
POTS_CFC_ACT_ATTMP	(Release 4.5)

POTS_CFC_ACT_FAIL	(Release 4.5)
POTS_CFC_ACT_SUCC	(Release 4.5)
POTS_CFC_DEACT_ATTMP	(Release 4.5)
POTS_CFC_DEACT_FAIL	(Release 4.5)
POTS_CFC_DEACT_SUCC	(Release 4.5)
POTS_CFC_DN_CHG_ACT_ATTMP	(Release 4.5)
POTS_CFC_DN_CHG_ACT_FAIL	(Release 4.5)
POTS_CFC_DN_CHG_ACT_SUCC	(Release 4.5)
POTS_CFC_FORWARD_ATTMP	(Release 4.5)
POTS_CFC_FORWARD_FAIL	(Release 4.5)
POTS_CFC_FORWARD_SUCC	(Release 4.5)
POTS_CFC_INTERROG_ATTMP	(Release 4.5)
POTS_CFC_INTERROG_FAIL	(Release 4.5)
POTS_CFC_INTERROG_SUCC	(Release 4.5)
POTS_CFNA_ACT_ATTMP	
POTS_CFNA_ACT_REFUSED	
POTS_CFNA_DEACT_ATTMP	
POTS_CFNA_FORWARD_FAIL	
POTS_CFNA_FORWARD_SUCC	
POTS_CFNA_INTERROG_ATTMP	
POTS_CFU_ACT_ATTMP	
POTS_CFU_DEACT_ATTMP	
POTS_CFU_ACT_REFUSED	
POTS_CFU_ACT_ANSWERED	
POTS_CFU_ACT_SECOND	
POTS_CFU_FORWARD_FAIL	
POTS_CFU_FORWARD_SUCC	
POTS_CFU_INTERROG_ATTMP	
POTS_CHD_ANSWER	
POTS_CHD_ATTMP	
POTS_CHD_NOT_ANSWER	
POTS_CHD_REJECT_INTERACT	
POTS_CHD_REJECT_NO_RSRC	
POTS_CIDS_ATTMP	
POTS_CIDSS_ATTMP	
POTS_CNAB_ATTMP	
POTS_CNDB_ATTMP	
POTS_CPRK_CLEAR	

POTS_CPRK_FAIL_ATTMP
POTS_CPRK_FAIL_RET_ATTMP
POTS_CPRK_FORWARD
POTS_CPRK_SUCC_ATTMP
POTS_CPRK_SUCC_RET_ATTMP
POTS_CT_ANSWER
POTS_CT_ATTMP
POTS_CT_CONF
POTS_CT_FAIL
POTS_CT_TRANSFER
POTS_CW_ANSWERED
POTS_CW_ATTMP
POTS_CW_NOT_ANSWERED
POTS_CW_REJECT_NO_RSRC
POTS_CW_REJECT_INTERACT
POTS_CWD_ACT_FAIL
POTS_CWD_ACT_SUCC
POTS_CWD_ANSWER
POTS_CWD_ATTMP
POTS_CWD_DEACT_FAIL
POTS_CWD_DEACT_SUCC
POTS_CWD_INTERROG_SUCC
POTS_CWD_INTERROG_FAIL
POTS_DND_ACT_FAIL
POTS_DND_ACT_SUCC
POTS_DND_DEACT_ FAIL
POTS_DND_DEACT_SUCC
POTS_DND_REJECT
POTS_DRCW_ATTMP
POTS_DRCW_REJECT_NO_RSRC
POTS_DRCW_SUCC
POTS_MDC_ATTMP
POTS_MDC_REJECT_INTERACT
POTS_MDC_REJECT_NO_RSRC
POTS_MDC_REJECT_OTHERS
POTS_NSA_INVOKE_ABANDON (Release 4.5)
POTS_NSA_INVOKE_ATTMP (Release 4.5)
POTS_NSA_INVOKE_FAIL (Release 4.5)

POTS_NSA_INVOKE_SUCC (Release 4.5)
POTS_OCB_ACT_SUCC
POTS_OCB_DEACT_SUCC
POTS_OCB_INTERROG_SUCC
POTS_OCB_INTL_BLOCK
POTS_OCB_INVALID_PASSWORD
POTS_OCB_INVOCATION
POTS_OCB_LOCAL_BLOCK
POTS_OCB_NATL_BLOCK
POTS_RACF_ATTMP
POTS_RACF_CFU_ACT
POTS_RACF_CFU_DEACT
POTS_RACF_CFU_UNCHANGED
POTS_RACF_PIN_ATTMP
POTS_RACF_PIN_CHANGE
POTS_RACF_PIN_REFUSE
POTS_RACF_PIN_REJECT_NO_RSRC
POTS_RACF_PIN_UNCHANGE
POTS_RACF_REFUSE
POTS_RACF_REJECT_NO_RSRC
POTS_RC_SUCC
POTS_REFER_ATTMP
POTS_REFER_FAIL
POTS_REFER_SUCC
POTS_SC_1_DIGIT_ATTMP
POTS_SC_2_DIGIT_ATTMP
POTS_SC_SUCC_CCSC
POTS_TWC_ANSWERED
POTS_TWC_ATTMP
POTS_TWC_CONF
POTS_TWC_FAIL
POTS_TWCD_ATTMP
POTS_TWCD_CONF

Measurement POTS Miscellaneous Feature Server Summary

The Measurement POTS Miscellaneous Feature Server Summary (measurement-pots-misc-summary) table requests a summary report of miscellaneous-related statistics for a specified Feature Server that occurred during a specified collection interval (time-interval). Each collection interval starts on the hour, half-hour, or quarter-hour.

Table Name: MEASUREMENT-POTS-MISC-SUMMARY

Table Containment Area: OAMP

Command Types

Report, show and clear

Examples

```
show measurement-pots-misc-summary;
report measurement-pots-misc-summary start-time=2003-03-27 06:00:00; end-time=2003-03-27
06:30:00; feature-server-id= FSAIN203;output-type=csv;
clear measurement-pots-misc-summary feature-server-id=fsptc203;
```

Usage Guidelines

Primary Key Token(s): None.

Foreign Key Token(s): feature-server-id

Syntax Description

FEATURE-SERVER-ID	Mandatory for on-demand requests. Foreign key: Feature Server table. ID of the associated Feature Server. VARCHAR(8): 1–8 ASCII characters in the format FSPTCnnn/fsptcnnn or FSAINnnn/fsainnnn.
DISPLAY	Specifies particular report counters to display on the screen. Display token values must be entered with an underscore (_). Do not use hyphens (-). STRING. See Table 11-12 for permitted values.
END-TIME	Ending time for measurement summary. Enter all 19 ASCII characters as shown. DATE and TIME: YYYY-MM-DD HH:MM:SS.
INTERVAL	Specifies whether to report measurement entries for all intervals, or to get the current data that is not yet in a report. STRING. CURRENT—Returns the measurement data available for the latest interval that is not yet in a report for the Call Agent and Feature Server. If used with the START-TIME token, the START-TIME token is ignored and the INTERVAL=CURRENT value is used. ALL—returns all the entries in regardless of the timestamp or reported intervals. If used with the START-TIME token, this token is ignored and the START-TIME value is used.

OUTPUT-TYPE	Specifies the desired output format. Permitted values are: CSV (Default)—Comma-separated view XML—Extensible Markup Language
START-TIME	Mandatory for on-demand requests. Starting time for measurements summary. Enter all 19 ASCII characters as shown. Start-time must occur before end-time. Measurement items are available for the current and previous calendar days only (up to a maximum of 48 hours of events). If the time specified is during the current collection interval only, partial measurement counts are displayed. DATE and TIME: YYYY-MM-DD HH:MM:SS.
SUM	Specifies whether the resulting report request must contain the individual interval reports (N) or a summation of all interval reports into one composite report (Y). CHAR(1): Y/N (Default = N).

Table 11-12 lists the values for the Measurement POTS Miscellaneous Feature Server Summary Display token.

Table 11-12 Measurement POTS Miscellaneous Feature Server Summary Display Token Values

TIMESTAMP	
NODENAME	
CONDITION	
POTS_BLV_ATTMP	(Release 4.5)
POTS_CTX_SFG_OVERFLOW (Release 4.5)	(Release 4.5)
POTS_HOTLINE_ATTMP (Release 4.5)	(Release 4.5)
POTS_HOTV_ACT_SUCC (Release 4.5)	(Release 4.5)
POTS_HOTV_ATTMP (Release 4.5)	(Release 4.5)
POTS_HOTV_DEACT_SUCC (Release 4.5)	(Release 4.5)
POTS_HOTV_INTERROG_SUCC (Release 4.5)	(Release 4.5)
POTS_LCD_AUTH_ATTEMPTS	(Release 4.4.1) (Obsolete in 4.5)
POTS_LCD_AUTH_ATTMP (Release 4.5)	(Release 4.5)
POTS_LCD_AUTH_FAIL (Release 4.4.1)	(Release 4.5)
POTS_LCD_AUTH_SUCC (Release 4.5)	(Release 4.5)
POTS_LCD_AUTH_SUCCESS	(Release 4.4.1) (Obsolete in 4.5)
POTS_LCD_FORCED_DISC	(Release 4.5)
POTS_LCD_FORCED_DISCONNECT	(Release 4.4.1) (Obsolete in 4.5)
POTS_LCD_REAUTH_FAIL	(Release 4.4.1)
POTS_OP_INTERRUPT_ATTMP	(Release 4.5)
POTS_PS_FAIL	(Release 4.5)
POTS_PS_MANAGE_FAIL	(Release 4.5)
POTS_PS_MANAGE_SUCC	(Release 4.5)

POTS_PS_SUCC	(Release 4.5)
POTS_VM_ACCESS	(Release 4.5)
POTS_VM_ACT_FAIL	(Release 4.5)
POTS_VM_ACT_SUCC	(Release 4.5)
POTS_VM_ATTMP	(Release 4.5)
POTS_VM_DEACT_FAIL	(Release 4.5)
POTS_VM_DEACT_SUCC	(Release 4.5)
POTS_WARMLINE_ATTMP	(Release 4.5)
SIS_100_RX	(Release 4.5)
SIS_100_TX	(Release 4.5)
SIS_18x_RX	(Release 4.5)
SIS_18x_TX	(Release 4.5)
SIS_200_RX	(Release 4.5)
SIS_200_TX	(Release 4.5)
SIS_3xx_RX	(Release 4.5)
SIS_3xx_TX	(Release 4.5)
SIS_4xx_RX	(Release 4.5)
SIS_4xx_TX	(Release 4.5)
SIS_5xx_RX	(Release 4.5)
SIS_5xx_TX	(Release 4.5)
SIS_6xx_RX	(Release 4.5)
SIS_6xx_TX	(Release 4.5)
SIS_7xx_RX	(Release 4.5)
SIS_7xx_TX	(Release 4.5)
SIS_ACK_RX	(Release 4.5)
SIS_ACK_TX	(Release 4.5)
SIS_BYE_RX	(Release 4.5)
SIS_BYE_TX	(Release 4.5)
SIS_CANCEL_RX	(Release 4.5)
SIS_CANCEL_TX	(Release 4.5)
SIS_INFO_RX	(Release 4.5)
SIS_INFO_TX	(Release 4.5)
SIS_INVITE_REPLACES_RX	(Release 4.5)
SIS_INVITE_REPLACES_TX	(Release 4.5)
SIS_INVITE_RX	(Release 4.5)
SIS_INVITE_TX	(Release 4.5)
SIS_NOTIFY_RX	(Release 4.5)
SIS_NOTIFY_TX	(Release 4.5)

SIS_OPTIONS_RX	(Release 4.5)
SIS_OPTIONS_TX	(Release 4.5)
SIS_PRACK_RX	(Release 4.5)
SIS_PRACK_TX	(Release 4.5)
SIS_PROV_RSP_RETRAN_RX	(Release 4.5)
SIS_PROV_RSP_RETRAN_TX	(Release 4.5)
SIS_REFER_RX	(Release 4.5)
SIS_REFER_TX	(Release 4.5)
SIS_REFER_W_REPLACES_RX	(Release 4.5)
SIS_REGISTER_RX	(Release 4.5)
SIS_REGISTER_TX	(Release 4.5)
SIS_REL100_RX	(Release 4.5)
SIS_REL100_TX	(Release 4.5)
SIS_REQ_RETRAN_RX	(Release 4.5)
SIS_REQ_RETRAN_TX	(Release 4.5)
SIS_RSP_RETRAN_RX	(Release 4.5)
SIS_RSP_RETRAN_TX	(Release 4.5)
SIS_SUBSCRIBE_RX	(Release 4.5)
SIS_SUBSCRIBE_TX	(Release 4.5)
SIS_T1_TIMER_EXPIRED	(Release 4.5)
SIS_T2_TIMER_REACHED	(Release 4.5)
SIS_TOTAL_INCOM_MSG	(Release 4.5)
SIS_TOTAL_OUTG_MSG_ATTMP	(Release 4.5)
SIS_TOTAL_SUCC_INCOM_MSG	(Release 4.5)
SIS_TOTAL_SUCC_OUTG_MSG	(Release 4.5)
SIS_UNSUPPORTED_RX	(Release 4.5)
SIS_UPDATE_RX	(Release 4.5)
SIS_UPDATE_TX	(Release 4.5)

Measurement POTS Screening List Editing Feature Server Summary

The Measurement POTS Screening List Editing Feature Server Summary (measurement-pots-sle-summary) table requests a summary report of POTS screening list editing (SLE)-related statistics for a specified Feature Server that occurred during a specified collection interval (time-interval). Each collection interval starts on the hour, half-hour, or quarter-hour.

Table Name: MEASUREMENT-POTS-SLE-SUMMARY

Table Containment Area: OAMP

Command Types

Report, show and clear

Examples

```
show measurement-pots-sle-summary;
report measurement-pots-sle-summary start-time=2003-03-27 06:00:00; end-time=2003-03-27
06:30:00; feature-server-id= FSAIN203;output-type=csv;
clear measurement-pots-sle-summary feature-server-id=fsptc203;
```

Usage Guidelines

Primary Key Token(s): None.

Foreign Key Token(s): feature-server-id

Syntax Description

FEATURE-SERVER-ID	Mandatory for on-demand requests. Foreign key: Feature Server table. ID of the associated Feature Server. VARCHAR(8): 1–8 ASCII characters in the format FSPTCnnn/fsptcnnn or FSAINnnn/fsainnnn.
DISPLAY	Specifies particular report counters to display on the screen. Display token values must be entered with an underscore (_). Do not use hyphens (-). STRING. Permitted values are: TIMESTAMP NODENAME CONDITION POTS_SCA_ATTMP POTS_SCA_REJECT_NO_RSRC POTS_SCA_SUCC POTS_SCF_ATTMP POTS_SCF_REJECT_NO_RSRC POTS_SCF_SUCC POTS_SCR_ATTMP POTS_SCR_REJECT_NO_RSRC POTS_SCR_SUCC
END-TIME	Ending time for measurement summary. Enter all 19 ASCII characters as shown. DATE and TIME: YYYY-MM-DD HH:MM:SS.

INTERVAL	Specifies whether to report measurement entries for all intervals, or to get the current data that is not yet in a report. STRING. CURRENT—Returns the measurement data available for the latest interval that is not yet in a report for the Call Agent and Feature Server. If used with the START-TIME token, the START-TIME token is ignored and the INTERVAL=CURRENT value is used. ALL—returns all the entries in regardless of the timestamp or reported intervals. If used with the START-TIME token, this token is ignored and the START-TIME value is used.
OUTPUT-TYPE	Specifies the desired output format. Permitted values are: CSV (Default)—Comma-separated view XML—Extensible Markup Language
START-TIME	Mandatory for on-demand requests. Starting time for measurements summary. Enter all 19 ASCII characters as shown. Start-time must occur before end-time. Measurement items are available for the current and previous calendar days only (up to a maximum of 48 hours of events). If the time specified is during the current collection interval only, partial measurement counts are displayed. DATE and TIME: YYYY-MM-DD HH:MM:SS.
SUM	Specifies whether the resulting report request must contain the individual interval reports (N) or a summation of all interval reports into one composite report (Y). CHAR(1): Y/N (Default = N).

Measurement Provisioning

The Measurement Provisioning (measurement-provisioning) table collects all current traffic statistics by type.

Table Name: MEASUREMENT-PROVISIONING

Table Containment Area: OAMP

Command Types

Show and change

Examples

```
show measurement-prov type=isup;
change measurement-prov time-interval=60;
```

Usage Guidelines

Primary Key Token(s): None.

Syntax Description

*ENABLE	Indicates whether the specified type is currently being collected. CHAR(1): Y/N (Default = Y). Y—Type is collected. N—Type is not collected.
*TYPE	Specifies what measurements the traffic subsystem supports. **Note** Entering a show command without specifying a TYPE value will return all types as of Release 4.4.1. VARCHAR(10): 1–10 ASCII characters. Permitted values are: ALL—(Default) All types. (Obsolete as of Release 4.4.1) (Supported in Release 4.5.1) AIN-SVC—Advanced Intelligent Network server AIN-TOOLS (Release 4.4.1)—Advanced Intelligent Network tools ANM—Announcement Module AUDIT—Audit BILLING—Billing CALLP—Call Processing CALL-TOOLS (Release 4.4.1)—Call tools DQOS—Dynamic Quality of Service EM—Event Messaging (Billing) H323—H.323 INAP—Intelligent Network Application Protocol ISDN—Integrated Services Digital Network ISUP—ISDN User Part (SS7) M3UA—M3UA signaling protocol MGCP—Media Gateway Control Protocol PCT-TOOLS (Release 4.4.1)—PCT tools POTS-FS—POTS Feature Server POTS-LOCAL—Local Feature POTS-MISC—Miscellaneous Feature POTS-SLE—Screening List Editing POTS-ACAR—Auto Callback/Recall POTS-COS—Class of Service POTS-COT—Customer-Originated Trace SCCP—Signaling Connection Control Part protoco—SCTP signaling protocol SIA—SIP interface adapter SIM—Service Interaction Manager SNMP—Signaling Network Management Protocol SUA—SUA signaling protocol TCAP—Transactional Capabilities Application Part protocol TG-USG—Trunk Group usage TSA—TCAP Signaling Adapter (TSA) application

TIME-INTERVAL	The collection time. SMALLINT: 5, 15, 30, 60 minutes (Default = 15). If type=tg-usg, the default collection time is 100 seconds.

Measurement SCCP Summary

The Measurement SCCP Summary (measurement-sccp-summary) table requests a summary report of Signaling Connection Control Part (SCCP)-related statistics for a specified Call Agent that occurred during a specified collection interval (time-interval). Each collection interval starts on the hour, half-hour, or quarter-hour.

Table Name: MEASUREMENT-SCCP-SUMMARY

Table Containment Area: OAMP

Command Types

Report, show and clear

Examples

```
show measurement-sccp-summary;
report measurement-sccp-summary start-time=2003-03-27 06:00:00; end-time=2003-03-27
06:30:00; call-agent-id=CA146;output-type=csv;
clear measurement-sccp-summary call-agent-id=CA146;
```

Usage Guidelines

Primary Key Token(s): None.

Foreign Key Token(s): call-agent-id

Syntax Description

CALL-AGENT-ID	Mandatory for on-demand requests. Foreign key: Call Agent table. The ID of the selected Call Agent. VARCHAR(8): 1–8 ASCII characters.
DISPLAY	Specifies particular report counters to display on the screen. Display token values must be entered with an underscore (_). Do not use hyphens (-). STRING. See Table 11-13 for permitted values.
END-TIME	Ending time for measurement summary. Enter all 19 ASCII characters as shown. DATE and TIME: YYYY-MM-DD HH:MM:SS.

INTERVAL	Specifies whether to report measurement entries for all intervals, or to get the current data that is not yet in a report. STRING. CURRENT—Returns the measurement data available for the latest interval that is not yet in a report for the Call Agent and Feature Server. If used with the START-TIME token, the START-TIME token is ignored and the INTERVAL=CURRENT value is used. ALL—returns all the entries in regardless of the timestamp or reported intervals. If used with the START-TIME token, this token is ignored and the START-TIME value is used.
OUTPUT-TYPE	Specifies the desired output format. Permitted values are: CSV (Default)—Comma-separated view XML—Extensible Markup Language
START-TIME	Mandatory for on-demand requests. Starting time for measurements summary. Enter all 19 ASCII characters as shown. Start-time must occur before end-time. Measurement items are available for the current and previous calendar days only (up to a maximum of 48 hours of events). If the time specified is during the current collection interval only, partial measurement counts are displayed. DATE and TIME: YYYY-MM-DD HH:MM:SS.
SUM	Specifies whether the resulting report request must contain the individual interval reports (N) or a summation of all interval reports into one composite report (Y). CHAR(1): Y/N (Default = N).

Table 11-13 lists the values for the Measurement SCCP Summary Display token.

Table 11-13 Measurement SCCP Summary Display Token Values

SCCP_HOP_COUNTER_FAIL
SCCP_MSG_TX_BACKUP_SUBSYS
SCCP_NETWORK_CONGEST_FAIL
SCCP_NETWORK_FAIL
SCCP_NO_TRANS_ADDR_FAIL
SCCP_NO_TRANS_SPEC_ADDR_FAIL
SCCP_NSAP_ALLOW_MSG_RX
SCCP_NSAP_ALLOW_MSG_TX
SCCP_NSAP_CONGEST_RX
SCCP_NSAP_CONGEST_TX
SCCP_NSAP_OOS_GRANT_RX
SCCP_NSAP_OOS_GRANT_TX
SCCP_NSAP_OOS_REQ_RX
SCCP_NSAP_OOS_REQ_TX

SCCP_NSAP_PROHIBIT_RX
SCCP_NSAP_PROHIBIT_TX
SCCP_NSAP_STAT_TEST_RX
SCCP_NSAP_STAT_TEST_TX
SCCP_SUBSYS_CONGEST_FAIL
SCCP_SUBSYS_FAIL
SCCP_SUBSYS_OOS_REQ_DENY
SCCP_SUBSYS_OOS_REQ_GRANT
SCCP_SYNTAX_ERR
SCCP_TOTAL_CLASS_0_RX
SCCP_TOTAL_CLASS_0_TX
SCCP_TOTAL_CLASS_1_RX
SCCP_TOTAL_CLASS_1_TX
SCCP_TOTAL_EXT_UDATA_TX
SCCP_TOTAL_EXT_UDATA_SVC_TX
SCCP_TOTAL_EXT_UDATA_RX
SCCP_TOTAL_EXT_UDATA_SVC_RX
SCCP_TOTAL_GLOBAL_ADDR_TRAN
SCCP_TOTAL_LOCAL_MSG
SCCP_TOTAL_LONG_UDATA_RX
SCCP_TOTAL_LONG_UDATA_SVC_RX
SCCP_TOTAL_LONG_UDATA_SVC_TX
SCCP_TOTAL_LONG_UDATA_TX
SCCP_TOTAL_MSG
SCCP_TOTAL_UDATA_RX
SCCP_TOTAL_UDATA_SVC_RX
SCCP_TOTAL_UDATA_SVC_TX
SCCP_TOTAL_UDATA_TX
SCCP_USAP_TOTAL_CLASS_0_RX
SCCP_USAP_TOTAL_CLASS_0_TX
SCCP_USAP_TOTAL_CLASS_1_RX
SCCP_USAP_TOTAL_CLASS_1_TX
SCCP_UNEQUIP_USER_FAIL
SCCP_UNKNOWN_FAIL

Measurement SCTP Summary

The Measurement Stream Control Transmission Protocol (SCTP) Summary (measurement-sctp-summary) table requests a summary report of SCTP-related statistics for a specified Call Agent that occurred during a specified collection interval (time-interval). Each collection interval starts on the hour, half-hour, or quarter-hour.

Table Name: MEASUREMENT-SCTP-SUMMARY

Table Containment Area: OAMP

Command Types

Report, show and clear

Examples

```
show measurement-sctp-summary;
report measurement-sctp-summary start-time=2003-03-27 06:00:00; end-time=2003-03-27
06:30:00; call-agent-id=CA146;
clear measurement-sctp-summary call-agent-id=CA146;
```

Usage Guidelines

Primary Key Token(s): None.

Foreign Key Token(s): call-agent-id

Syntax Description

CALL-AGENT-ID	Mandatory for on-demand requests. Foreign key: Call Agent table. The ID of the selected Call Agent. VARCHAR(8): 1–8 ASCII characters.
DISPLAY	Specifies particular report counters to display on the screen. Display token values must be entered with an underscore (_). Do not use hyphens (-). STRING. See Table 11-14 for permitted values.
END-TIME	Ending time for measurement summary. Enter all 19 ASCII characters as shown. DATE and TIME: YYYY-MM-DD HH:MM:SS.
INTERVAL	Specifies whether to report measurement entries for all intervals, or to get the current data that is not yet in a report. STRING. CURRENT—Returns the measurement data available for the latest interval that is not yet in a report for the Call Agent and Feature Server. If used with the START-TIME token, the START-TIME token is ignored and the INTERVAL=CURRENT value is used. ALL—returns all the entries in regardless of the timestamp or reported intervals. If used with the START-TIME token, this token is ignored and the START-TIME value is used.
OUTPUT-TYPE	Specifies the desired output format. Permitted values are: CSV (Default)—Comma-separated view XML—Extensible Markup Language

START-TIME	Mandatory for on-demand requests. Starting time for measurements summary. Enter all 19 ASCII characters as shown. Start-time must occur before end-time. Measurement items are available for the current and previous calendar days only (up to a maximum of 48 hours of events). If the time specified is during the current collection interval only, partial measurement counts are displayed. DATE and TIME: YYYY-MM-DD HH:MM:SS.
SUM	Specifies whether the resulting report request must contain the individual interval reports (N) or a summation of all interval reports into one composite report (Y). CHAR(1): Y/N (Default = N).

Table 11-14 lists the values for the Measurement SCTP Summary Display token.

Table 11-14 Measurement SCTP Summary Display Token Values

TIMESTAMP
NODENAME
CONDITION
SCTP_ASSOC_COMM_LOST
SCTP_ASSOC_ID
SCTP_CHUNK_ORDER_ERR
SCTP_CHUCK_TOO_LARGE_ERR
SCTP_CHUNK_TOO_SMALL_ERR
SCTP_CONTROL_CHUNK_RX
SCTP_CONTROL_CHUNK_TX
SCTP_COOKIE_IN_SHUTDOWN_ERR_RX
SCTP_CWR_CHUNK_RX
SCTP_DATA_BYTE_RX
SCTP_DATA_BYTE_TX
SCTP_DATA_CHUNK_DISCARD
SCTP_DATA_CHUNK_RETRAN
SCTP_DATA_CHUNK_RX
SCTP_DATA_CHUNK_RX_BUNDLE
SCTP_DATA_CHUNK_RX_ORDER
SCTP_DATA_CHUNK_RX_SEQ_ERR
SCTP_DATA_CHUNK_RX_UNORDER
SCTP_DATA_CHUNK_TX
SCTP_DATA_CHUNK_TX_BUNDLE
SCTP_DATA_CHUNK_TX_ORDER
SCTP_DATA_CHUNK_TX_UNORDER
SCTP_DATAG_RX

SCTP_DATAG_TX
SCTP_DEST_ADDR_FAIL
SCTP_ECNE_CHUNK_RX
SCTP_EMPTY_DATAG_ERR
SCTP_EXPIRED_COOKIE_ERR
SCTP_INVALID_BUNDLE_CHUNK
SCTP_INVALID_CHECKSUM
SCTP_INVALID_COOKIE_SIG
SCTP_INVALID_DATAG_LENGTH
SCTP_INVALID_PARAM_ERR_RX
SCTP_INVALID_STREAM
SCTP_INVALID_STREAM_ERR_RX
SCTP_INVALID_VERIF_TAG
SCTP_MISSING_PARAM_ERR
SCTP_MISSING_PARAM_ERR_RX
SCTP_NO_SPACE_INCOM_ERR
SCTP_NO_USER_DATA_ERR_RX
SCTP_OOTB
SCTP_OUT_OF_RSCR_ERR_RX
SCTP_PARTIAL_CHUNK_ERR
SCTP_PEER_RESTART_ERR
SCTP_STALE_COOKIE_ERR
SCTP_STALE_COOKIE_ERR_RX
SCTP_ULP_QUEUE
SCTP_ULP_READY
SCTP_ULP_RX
SCTP_ULP_TX
SCTP_UNKNOWN_CHUNK_TYPE
SCTP_UNKNOWN_INIT_PARAM
SCTP_UNRECOG_CHUNK_ERR_RX
SCTP_UNRECOG_PARAM_ERR_RX
SCTP_UNRESOLV_ADDR_ERR_RX
SCTP_V6_ADDR_PARAM_RX

Measurement SIA Summary

The Measurement SIA Summary (measurement-sia-summary) table requests a summary report of SIP+ interface adapter (SIA)-related statistics for a specified Call Agent that occurred during a specified collection interval (time-interval). Each collection interval starts on the hour, half-hour, or quarter-hour.

Table Name: MEASUREMENT-SIA-SUMMARY

Table Containment Area: OAMP

Command Types

Report, show and clear

Examples

```
show measurement-sia-summary;
report measurement-sia-summary start-time=2003-03-27 06:00:00; end-time=2003-03-27
06:30:00; call-agent-id=CA146;output-type=csv;
clear measurement-sia-summary call-agent-id=CA146;
```

Usage Guidelines

Primary Key Token(s): None.

Foreign Key Token(s): call-agent-id

Syntax Description

CALL-AGENT-ID	Mandatory for on-demand requests. Foreign key: Call Agent table. The ID of the selected Call Agent. VARCHAR(8): 1–8 ASCII characters.
DISPLAY	Specifies particular report counters to display on the screen. Display token values must be entered with an underscore (_). Do not use hyphens (-). STRING. See Table 11-15 for permitted values.
END-TIME	Ending time for measurement summary. Enter all 19 ASCII characters as shown. DATE and TIME: YYYY-MM-DD HH:MM:SS.
INTERVAL	Specifies whether to report measurement entries for all intervals, or to get the current data that is not yet in a report. STRING. CURRENT—Returns the measurement data available for the latest interval that is not yet in a report for the Call Agent and Feature Server. If used with the START-TIME token, the START-TIME token is ignored and the INTERVAL=CURRENT value is used. ALL—returns all the entries in regardless of the timestamp or reported intervals. If used with the START-TIME token, this token is ignored and the START-TIME value is used.

START-TIME	Mandatory for on-demand requests. Starting time for measurements summary. Enter all 19 ASCII characters as shown. Start-time must occur before end-time. Measurement items are available for the current and previous calendar days only (up to a maximum of 48 hours of events). If the time specified is during the current collection interval only, partial measurement counts are displayed. DATE and TIME: YYYY-MM-DD HH:MM:SS.
SUM	Specifies whether the resulting report request must contain the individual interval reports (N) or a summation of all interval reports into one composite report (Y). CHAR(1): Y/N (Default = N).

Table 11-15 lists the values for the Measurement SIA Summary Display token.

Table 11-15 Measurement SIA Summary Display Token Values

TIMESTAMP	
NODENAME	
CONDITION	
SIA_ATTENDED_TRANSFER	(Obsolete in Release 4.5)
SIA_AUDIT_BCM_CALL_RELEASED	(Release 4.5)
SIA_AUDIT_CALL_RELEASED	(Release 4.5)
SIA_AUDIT_CCB_FREED	(Release 4.5)
SIA_AUDIT_REGCONTACT_FREED	(Release 4.5)
SIA_CALL_FAIL_BY_EXPIRED_REG	
SIA_INCOM_FAIL	(Release 4.5)
SIA_INCOM_INIT	(Release 4.5)
SIA_INCOM_SUCC	(Release 4.5)
SIA_MWI_NOTIFY_RX	
SIA_MWI_NOTIFY_TX	
SIA_MWI_NOTIFY_TX_FAIL	(Obsolete in Release 4.5)
SIA_OUTG_FAIL	(Release 4.5)
SIA_OUTG_INIT	(Release 4.5)
SIA_OUTG_SUCC	(Release 4.5)
SIA_REFRESHES_TX	
SIA_SECURE_FQDN_VIOLATION_REQ	(Release 4.5)
SIA_SECURE_FQDN_VIOLATION_RESP	(Release 4.5)
SIA_SIP_INCOM_FAIL	(Obsolete in Release 4.5)
SIA_SIP_INCOM_INIT	(Obsolete in Release 4.5)
SIA_SIP_INCOM_SUCC	(Obsolete in Release 4.5)
SIA_SIP_OUTG_FAIL	(Obsolete in Release 4.5)
SIA_SIP_OUTG_INIT	(Obsolete in Release 4.5)

SIA_SIP_OUTG_SUCC	(Obsolete in Release 4.5)
SIA_TOTAL_FAIL	(Obsolete in Release 4.5)
SIA_TOTAL_INCOM_MSG_FAIL	(Obsolete in Release 4.5)
SIA_TOTAL_OUTG_MSG_FAIL	(Obsolete in Release 4.5)
SIA_TOTAL_SESS_TIMER_FAIL	
SIA_TOTAL_SUCC	(Obsolete in Release 4.5)
SIA_UNATTENDED_TRANSFER	(Obsolete in Release 4.5)
SIS_100_RX	(Release 4.5)
SIS_100_TX	(Release 4.5)
SIS_18x_RX	(Release 4.5)
SIS_18x_TX	(Release 4.5)
SIS_200_RX	(Release 4.5)
SIS_200_TX	(Release 4.5)
SIS_3xx_RX	(Release 4.5)
SIS_3xx_TX	(Release 4.5)
SIS_4xx_RX	(Release 4.5)
SIS_4xx_TX	(Release 4.5)
SIS_5xx_RX	(Release 4.5)
SIS_5xx_TX	(Release 4.5)
SIS_6xx_RX	(Release 4.5)
SIS_6xx_TX	(Release 4.5)
SIS_7xx_RX	(Release 4.5)
SIS_7xx_TX	(Release 4.5)
SIS_ACK_RX	(Release 4.5)
SIS_ACK_TX	(Release 4.5)
SIS_BYE_RX	(Release 4.5)
SIS_BYE_TX	(Release 4.5)
SIS_CANCEL_RX	(Release 4.5)
SIS_CANCEL_TX	(Release 4.5)
SIS_INFO_RX	(Release 4.5)
SIS_INFO_TX	(Release 4.5)
SIS_INVITE_REPLACES_RX	(Release 4.5)
SIS_INVITE_REPLACES_TX	(Release 4.5)
SIS_INVITE_RX	(Release 4.5)
SIS_INVITE_TX	(Release 4.5)
SIS_NOTIFY_RX	(Release 4.5)
SIS_NOTIFY_TX	(Release 4.5)
SIS_OPTIONS_RX	(Release 4.5)

SIS_OPTIONS_TX	(Release 4.5)
SIS_PRACK_RX	(Release 4.5)
SIS_PRACK_TX	(Release 4.5)
SIS_PROV_RSP_RETRAN_RX	(Release 4.5)
SIS_PROV_RSP_RETRAN_TX	(Release 4.5)
SIS_REFER_RX	(Release 4.5)
SIS_REFER_TX	(Release 4.5)
SIS_REFER_W_REPLACES_RX	(Release 4.5)
SIS_REGISTER_RX	(Release 4.5)
SIS_REGISTER_TX	(Release 4.5)
SIS_REL100_RX	(Release 4.5)
SIS_REL100_TX	(Release 4.5)
SIS_REQ_RETRAN_RX	(Release 4.5)
SIS_REQ_RETRAN_TX	(Release 4.5)
SIS_RSP_RETRAN_RX	(Release 4.5)
SIS_RSP_RETRAN_TX	(Release 4.5)
SIS_SUBSCRIBE_RX	(Release 4.5)
SIS_SUBSCRIBE_TX	(Release 4.5)
SIS_T1_TIMER_EXPIRED	(Release 4.5)
SIS_T2_TIMER_REACHED	(Release 4.5)
SIS_TOTAL_INCOM_MSG	(Release 4.5)
SIS_TOTAL_OUTG_MSG_ATTMP	(Release 4.5)
SIS_TOTAL_SUCC_INCOM_MSG	(Release 4.5)
SIS_TOTAL_SUCC_OUTG_MSG	(Release 4.5)
SIS_UNSUPPORTED_RX	(Release 4.5)
SIS_UPDATE_RX	(Release 4.5)
SIS_UPDATE_TX	(Release 4.5)

Measurement SIM Summary

The Measurement SIM Summary (measurement-sim-summary) table requests a summary report of Service Interaction Module (SIM)-related statistics for a specified Call Agent that occurred during a specified collection interval (time-interval). Each collection interval starts on the hour, half-hour, or quarter-hour.

Table Name: MEASUREMENT-SIM-SUMMARY

Table Containment Area: OAMP

Command Types

Report, show and clear

Examples

```
show measurement-sim-summary;
report measurement-sim-summary start-time=2003-03-27 06:00:00; end-time=2003-03-27
06:30:00; call-agent-id=CA146;output-type=csv;
clear measurement-sim-summary call-agent-id=CA146;
```

Usage Guidelines

Primary Key Token(s): None.

Foreign Key Token(s): call-agent-id

Change Rules: None.

Syntax Description

CALL-AGENT-ID	Mandatory for on-demand requests. Foreign key: Call Agent table. The ID of the selected Call Agent. VARCHAR(8): 1–8 ASCII characters in the format CAnnn or cannn.
DISPLAY	Specifies particular report counters to display on the screen. Display token values must be entered with an underscore (_). Do not use hyphens (-). STRING. See Table 11-16 for permitted values.
END-TIME	Ending time for measurement summary. Enter all 19 ASCII characters as shown. DATE and TIME: YYYY-MM-DD HH:MM:SS.
START-TIME	Mandatory for on-demand requests. Starting time for measurements summary. Enter all 19 ASCII characters as shown. Start-time must occur before end-time. Measurement items are available for the current and previous calendar days only (up to a maximum of 48 hours of events). If the time specified is during the current collection interval only, partial measurement counts are displayed. DATE and TIME: YYYY-MM-DD HH:MM:SS.
SUM	Specifies whether the resulting report request must contain the individual interval reports (N) or a summation of all interval reports into one composite report (Y). CHAR(1): Y/N (Default = N).

Table 11-16 lists the values for the Measurement Sim Summary Display token.

Table 11-16 Measurement Sim Summary Display Token Values

TIMESTAMP	
NODENAME	
CONDITION	
BCM_MESSAGES_CTR	
CA_ASYNC_MESSAGES_SENT_CTR	
CA_RESTART_MESSAGES_SENT_CTR	
EDP_N_CTR	
EDP_R_CTR	
FS_MESSAGES_RECEIVED_CTR	
FS_MESSAGES_SENT_CTR	
FS_PING_MESSAGES_SENT_CTR	
FS_PING_NO_RESPONSE_FAULTY_CTR	
NSTRUCT_CTR	
NSTRUCT_RESPONSE_CTR	
RELATIONS_CTR	
SIM_AUDIT_CCB_FREED	(Release 4.5)
SIM_AUDIT_SIP_CCB_FREED	(Release 4.5)
SIM_BCM_MSG	
SIM_EDP_N	
SIM_EDP_R	
SIM_FS_ASYNC_MSG_TX	
SIM_FS_MSG_RX	
SIM_FS_MSG_TX	
SIM_FS_PING_MSG_TX	
SIM_FS_PING_NO_RSP_FAULTY	
SIM_FS_RESTART_MSG_TX	
SIM_INSTRUCT	
SIM_INSTRUCT_RSP	
SIM_RELATIONS	
SIM_TDP_N	
SIM_TDP_R	
SIM_TERMINATE_RX	
SIM_TERMINATE_TX	
SIS_100_RX	(Release 4.5)
SIS_100_TX	(Release 4.5)
SIS_18x_RX	(Release 4.5)

SIS_18x_TX	(Release 4.5)
SIS_200_RX	(Release 4.5)
SIS_200_TX	(Release 4.5)
SIS_3xx_RX	(Release 4.5)
SIS_3xx_TX	(Release 4.5)
SIS_4xx_RX	(Release 4.5)
SIS_4xx_TX	(Release 4.5)
SIS_5xx_RX	(Release 4.5)
SIS_5xx_TX	(Release 4.5)
SIS_6xx_RX	(Release 4.5)
SIS_6xx_TX	(Release 4.5)
SIS_7xx_RX	(Release 4.5)
SIS_7xx_TX	(Release 4.5)
SIS_ACK_RX	(Release 4.5)
SIS_ACK_TX	(Release 4.5)
SIS_BYE_RX	(Release 4.5)
SIS_BYE_TX	(Release 4.5)
SIS_CANCEL_RX	(Release 4.5)
SIS_CANCEL_TX	(Release 4.5)
SIS_INFO_RX	(Release 4.5)
SIS_INFO_TX	(Release 4.5)
SIS_INVITE_REPLACES_RX	(Release 4.5)
SIS_INVITE_REPLACES_TX	(Release 4.5)
SIS_INVITE_RX	(Release 4.5)
SIS_INVITE_TX	(Release 4.5)
SIS_NOTIFY_RX	(Release 4.5)
SIS_NOTIFY_TX	(Release 4.5)
SIS_OPTIONS_RX	(Release 4.5)
SIS_OPTIONS_TX	(Release 4.5)
SIS_PRACK_RX	(Release 4.5)
SIS_PRACK_TX	(Release 4.5)
SIS_PROV_RSP_RETRAN_RX	(Release 4.5)
SIS_PROV_RSP_RETRAN_TX	(Release 4.5)
SIS_REFER_RX	(Release 4.5)
SIS_REFER_TX	(Release 4.5)
SIS_REFER_W_REPLACES_RX	(Release 4.5)
SIS_REGISTER_RX	(Release 4.5)
SIS_REGISTER_TX	(Release 4.5)

SIS_REL100_RX	(Release 4.5)
SIS_REL100_TX	(Release 4.5)
SIS_REQ_RETRAN_RX	(Release 4.5)
SIS_REQ_RETRAN_TX	(Release 4.5)
SIS_RSP_RETRAN_RX	(Release 4.5)
SIS_RSP_RETRAN_TX	(Release 4.5)
SIS_SUBSCRIBE_RX	(Release 4.5)
SIS_SUBSCRIBE_TX	(Release 4.5)
SIS_T1_TIMER_EXPIRED	(Release 4.5)
SIS_T2_TIMER_REACHED	(Release 4.5)
SIS_TOTAL_INCOM_MSG	(Release 4.5)
SIS_TOTAL_OUTG_MSG_ATTMP	(Release 4.5)
SIS_TOTAL_SUCC_INCOM_MSG	(Release 4.5)
SIS_TOTAL_SUCC_OUTG_MSG	(Release 4.5)
SIS_UNSUPPORTED_RX	(Release 4.5)
SIS_UPDATE_RX	(Release 4.5)
SIS_UPDATE_TX	(Release 4.5)
SIP_100_RX	
SIP_100_TX	
SIP_18x_RX	
SIP_18x_TX	
SIP_200_RX	
SIP_200_TX	
SIP_3xx_RX	
SIP_3xx_TX	
SIP_4xx_RX	
SIP_4xx_TX	
SIP_5xx_RX	
SIP_5xx_TX	
SIP_6xx_RX	
SIP_6xx_TX	
SIP_7xx_RX	
SIP_7xx_TX	
SIP_ACK_RX	
SIP_ACK_TX	
SIP_BYE_RX	
SIP_BYE_TX	
SIP_CANCEL_RX	

SIP_CANCEL_TX
SIP_IC_CALL_FAILED
SIP_IC_CALL_INIT
SIP_IC_CALL_SUCCEEDED
SIP_INFO_RX
SIP_INFO_TX
SIP_INVITE_RX
SIP_INVITE_REPLACED_RX
SIP_INVITE_REPLACES_TX
SIP_INVITE_TX
SIP_NOTIFY_RX
SIP_NOTIFY_TX
SIP_OG_CALL_INIT
SIP_OG_CALL_SUCCEEDED
SIP_OG_CALL_FAILED
SIP_OPTIONS_RX
SIP_OPTIONS_TX
SIP_PRACK_RX
SIP_PRACK_TX
SIP_PROV_RSP_RETRAN_RX
SIP_PROV_RSP_RETRAN_TX
SIP_REFER_RX
SIP_REFER_W_REPLACES_RX
SIP_REFER_TX
SIP_REGISTER_RX
SIP_REGISTER_TX
SIP_REL100_RX
SIP_REL100_TX
SIP_REQ_RETRAN_RX
SIP_REQ_RETRAN_TX
SIP_RSP_RETRAN_RX
SIP_RSP_RETRAN_TX
SIP_SUBSCRIBE_RX
SIP_SUBSCRIBE_TX
SIP_T1_TIMER_EXPIRED
SIP_T2_TIMER_REACHED
SIP_TOTAL_INCOM_MSG
SIP_TOTAL_OUTG_MSG_ATTMP

SIP_TOTAL_SUCC_INCOM_MSG
SIP_TOTAL_SUCC_OUTG_MSG
SIP_UNSUPPORTED_RX
TDP_N_CTR
TDP_R_CTR
TERMINATE_RECEIVED_CTR
TERMINATE_SENT_CTR
TOTAL_SUCCESS_CALL
TOTAL_UNSUCCESS_CALL
TOTAL_UNSUCCESS_INCOMING_MSG
TOTAL_UNSUCCESS_OUTGOING_MSG

Measurement SNMP Summary

The Measurement SNMP Summary (measurement-snmp-summary) provides a summary report of Simple Network Management Protocol (SNMP)-related statistics that occurred during a specified collection interval (time-interval). Each collection interval starts on the hour, half-hour, or quarter-hour.

Table Name: MEASUREMENT-SNMP-SUMMARY

Table Containment Area: OAMP

Command Types

Report, show and clear

Examples

```
show measurement-snmp-summary;
report measurement-snmp-summary start-time=2003-03-27 06:00:00; end-time=2003-03-27
06:30:00;output-type=csv;
clear measurement-snmp-summary;
```

Usage Guidelines

Primary Key Token(s): None.

Change Rules: None.

Syntax Description

EM-ID	Mandatory for the clear command. The EM id. VARCHAR(64): 1–64 ASCII characters.

DISPLAY	Specifies particular report counters to display on the screen. Display token values must be entered with an underscore (_). Do not use hyphens (-). STRING. Permitted values are: TIMESTAMP NODENAME CONDITION SNMP_GET_NEXT_RX SNMP_GET_NEXT_TX SNMP_GET_RX SNMP_GET_TX SNMP_SET_RX SNMP_SET_TX SNMP_TRAP_TX
END-TIME	Ending time for measurement summary. Enter all 19 ASCII characters as shown. DATE and TIME: YYYY-MM-DD HH:MM:SS.
START-TIME	Mandatory for on-demand requests. Starting time for measurements summary. Enter all 19 ASCII characters as shown. Start-time must occur before end-time. Measurement items are available for the current and previous calendar days only (up to a maximum of 48 hours of events). If the time specified is during the current collection interval only, partial measurement counts are displayed. DATE and TIME: YYYY-MM-DD HH:MM:SS.
SUM	Specifies whether the resulting report request must contain the individual interval reports (N) or a summation of all interval reports into one composite report (Y). CHAR(1): Y/N (Default = N).

Measurement SUA Protocol Feature Server Summary

The Measurement SUA Summary (measurement-sua-summary) table requests a summary report of SCCP-User Adaptation Layer (SUA)-related statistics for a specified Call Agent that occurred during a specified collection interval (time-interval). Each collection interval starts on the hour, half-hour, or quarter-hour.

Table Name: MEASUREMENT-SUA-SUMMARY

Table Containment Area: OAMP

Command Types

Report, show and clear

Examples

```
show measurement-sua-summary;
```

```
report measurement-sua-summary start-time=2003-03-27 06:00:00; end-time=2003-03-27
06:30:00; call-agent-id=CA146;
clear measurement-sua-summary call-agent-id=CA146;
```

Usage Guidelines

Primary Key Token(s): None.

Foreign Key Token(s): call-agent-id

Syntax Description

CALL-AGENT-ID	Mandatory for on-demand requests. Foreign key: Call Agent table. The ID of the selected Call Agent. VARCHAR(8): 1–8 ASCII characters.
DISPLAY	Specifies particular report counters to display on the screen. Display token values must be entered with an underscore (_). Do not use hyphens (-). STRING. See Table 11-17 for permitted values.
END-TIME	Ending time for measurement summary. Enter all 19 ASCII characters as shown. DATE and TIME: YYYY-MM-DD HH:MM:SS.
START-TIME	Mandatory for on-demand requests. Starting time for measurements summary. Enter all 19 ASCII characters as shown. Start-time must occur before end-time. Measurement items are available for the current and previous calendar days only (up to a maximum of 48 hours of events). If the time specified is during the current collection interval only, partial measurement counts are displayed. DATE and TIME: YYYY-MM-DD HH:MM:SS.
SUM	Specifies whether the resulting report request must contain the individual interval reports (N) or a summation of all interval reports into one composite report (Y). CHAR(1): Y/N (Default = N).

Table 11-17 lists the values for the Measurement SUA Summary Display token.

Table 11-17 Measurement SUA Summary Display Token Values

TIMESTAMP
NODENAME
CONDITION
SUA_ACTIVE_ACK_RX
SUA_ACTIVE_TX
SUA_ASSOC_FAIL
SUA_BEAT_ACK_RX
SUA_BEAT_ACK_TX
SUA_BEAT_RX
SUA_BEAT_TX
SUA_CLDR_RX

SUA_CLDR_TX
SUA_CLDT_RX
SUA_CLDT_TX
SUA_DATA_BYTES_RX
SUA_DATA_BYTES_TX
SUA_DAUD_TX
SUA_DAVA_RX
SUA_DOWN_ACK_RX
SUA_DOWN_TX
SUA_DRST_RX
SUA_DUNA_RX
SUA_DUPU_RX
SUA_ERR_RX
SUA_ERR_TX
SUA_INACTIVE_ACK_RX
SUA_INACTIVE_TX
SUA_INVALID_SCTP_SIGNALS
SUA_MSG_CLASS_ERR
SUA_MSG_INVALID_LENGTH_RX
SUA_MSG_TYPE_ERR
SUA_NETWORK_APPEAR_ERR
SUA_NO_MEMORY_FAIL
SUA_NOTIFY_RX
SUA_NOTIFY_TX
SUA_PARAM_FIELD_ERR
SUA_PARAM_VALUE_ERR
SUA_PROTOCOL_ERR
SUA_ROUTING_CONTEXT_ERR
SUA_SCON_RX
SUA_SCON_TX
SUA_SCTP_TX_FAIL
SUA_SINCE_LAST_RESET_ASSOC
SUA_STREAM_ID_ERR
SUA_UNEXPECT_MSG_ERR
SUA_UNEXPECT_PARAM_ERR
SUA_UP_ACK_RX
SUA_UP_TX
SUA_VERSION_ERR

Measurement TCAP Protocol Summary

The Measurement Transaction Capabilities Application Part (TCAP) Protocol Summary (measurement-tcap-summary) table requests a summary report of TCAP-related statistics for a specified Call Agent that occurred during a specified collection interval (time-interval). Each collection interval starts on the hour, half-hour, or quarter-hour.

Table Name: MEASUREMENT-TCAP-SUMMARY

Table Containment Area: OAMP

Command Types

Report, show and clear

Examples

```
show measurement-tcap-summary;
report measurement-tcap-summary start-time=2003-03-27 06:00:00; end-time=2003-03-27
06:30:00; call-agent-id=CA146;output-type=csv;
clear measurement-tcap-summary call-agent-id=CA146;
```

Usage Guidelines

Primary Key Token(s): None.

Foreign Key Token(s): call-agent-id

Syntax Description

FEATURE-SERVER-ID	Mandatory for on-demand requests. Foreign key: Feature Server table. The ID of the associated Feature Server. VARCHAR(8): 1–8 ASCII characters in the format fsptcnnn or fsainnnn.
DISPLAY	Specifies particular report counters to display on the screen. Display token values must be entered with an underscore (_). Do not use hyphens (-). STRING. See Table 11-18 for permitted values.
END-TIME	Ending time for measurement summary. Enter all 19 ASCII characters as shown. DATE and TIME: YYYY-MM-DD HH:MM:SS.
OUTPUT-TYPE	Specifies the desired output format. Permitted values are: CSV (Default)—Comma-separated view XML—Extensible Markup Language

START-TIME	Mandatory for on-demand requests. Starting time for measurements summary. Enter all 19 ASCII characters as shown. Start-time must occur before end-time. Measurement items are available for the current and previous calendar days only (up to a maximum of 48 hours of events). If the time specified is during the current collection interval only, partial measurement counts are displayed. DATE and TIME: YYYY-MM-DD HH:MM:SS.
SUM	Specifies whether the resulting report request must contain the individual interval reports (N) or a summation of all interval reports into one composite report (Y). CHAR(1): Y/N (Default = N).

Table 11-18 lists the values for the Measurement TCAP Summary Display token.

Table 11-18 Measurement TCAP Summary Display Token Values

TIMESTAMP	
NODENAME	
CONDITION	
TCAP_ABORT_IND_RX	(Release 4.5)
TCAP_ABORT_MSG_RX	
TCAP_ABORT_MSG_TX	
TCAP_ACT_INVOCATIONS	
TCAP_ACT_TRANSACTIONS	
TCAP_BAD_STRUCT_COMP_PORT_RX	
TCAP_BAD_STRUCT_COMP_PORT_TX	
TCAP_BAD_STRUCT_DIALOG_PORT_RX	
TCAP_BAD_STRUCT_DIALOG_PORT_TX	
TCAP_BAD_STRUCT_TRANS_PORT_RX	
TCAP_BAD_STRUCT_TRANS_PORT_TX	
TCAP_BEGIN_MSG_RX	
TCAP_BEGIN_MSG_TX	
TCAP_BIND_CONFIRM_RX	(Release 4.5)
TCAP_CLOSE_IND_RX	(Release 4.5)
TCAP_COMPONENT_CONFIRM_RX	(Release 4.5)
TCAP_COMPONENT_IND_RX	(Release 4.5)
TCAP_COMPONENT_REQ_RX	(Release 4.5)
TCAP_CONT_MSG_RX	
TCAP_CONT_MSG_TX	
TCAP_DATA_IND_RX	(Release 4.5)
TCAP_DATA_REQ_RX	(Release 4.5)
TCAP_DELIMITER_IND_RX	(Release 4.5)

TCAP_DELIMITER_REQ_RX	(Release 4.5)
TCAP_DIALOG_CONFIRM_RX	(Release 4.5)
TCAP_DUP_INVOKE_ID_RX	
TCAP_DUP_INVOKE_ID_TX	
TCAP_END_MSG_RX	
TCAP_END_MSG_TX	
TCAP_INCONSIST_DIALOG_PORT_RX	
TCAP_INCONSIST_DIALOG_PORT_TX	
TCAP_INCORRECT_COMP_ENCODE_RX	
TCAP_INCORRECT_COMP_ENCODE_TX	
TCAP_INCORRECT_COMP_PORT_RX	
TCAP_INCORRECT_COMP_PORT_TX	
TCAP_INCORRECT_PARAM_RE_RX	
TCAP_INCORRECT_PARAM_RE_TX	
TCAP_INCORRECT_PARAM_RR_RX	
TCAP_INCORRECT_PARAM_RR_TX	
TCAP_INCORRECT_PARAM_RX	
TCAP_INCORRECT_PARAM_TX	
TCAP_INCORRECT_TRANS_PORT_RX	
TCAP_INCORRECT_TRANS_PORT_TX	
TCAP_INIT_REL_RX	
TCAP_INIT_REL_TX	
TCAP_INVOKE_COMP_RX	
TCAP_INVOKE_COMP_TX	
TCAP_INVOKE_RSCR_LIMIT_PROB_RX	
TCAP_INVOKE_RSCR_LIMIT_PROB_TX	
TCAP_MISSING_DIALOG_PORT_RX	
TCAP_MISSING_DIALOG_PORT_TX	
TCAP_NO_PERMISS_CONVERS_RX	
TCAP_NO_PERMISS_CONVERS_TX	
TCAP_NO_PERMISS_QUERY_RX	
TCAP_NO_PERMISS_QUERY_TX	
TCAP_NOTICE_IND_RX	(Release 4.5)
TCAP_OPEN_CONFIRM_RX	(Release 4.5)
TCAP_OPEN_IND_RX	(Release 4.5)
TCAP_OPERATION_CONFIRM_RX	(Release 4.5)
TCAP_OPERATION_IND_RX	(Release 4.5)
TCAP_OPERATION_REQ_RX	(Release 4.5)

TCAP_PERMISS_CONVERS_RX	
TCAP_PERMISS_CONVERS_TX	
TCAP_PERMISS_QUERY_RX	
TCAP_PERMISS_QUERY_TX	
TCAP_REJECT_COMP_RX	
TCAP_REJECT_COMP_TX	
TCAP_RETURN_ERR_COMP_RX	
TCAP_RETURN_ERR_COMP_TX	
TCAP_RETURN_RESULT_COMP_RX	
TCAP_RETURN_RESULT_COMP_TX	
TCAP_RSCR_LIMIT_RX	
TCAP_RSCR_LIMIT_TX	
TCAP_RSP_RX	
TCAP_RSP_TX	
TCAP_STAT_CONFIRM_RX	(Release 4.5)
TCAP_STAT_IND_RX	(Release 4.5)
TCAP_STATUS_IND_RX	(Release 4.5)
TCAP_TOTAL_COMP_RX	
TCAP_TOTAL_COMP_TX	
TCAP_TOTAL_DROPPED_MSG_RX	
TCAP_TOTAL_MSG_RX	
TCAP_TOTAL_MSG_TX	
TCAP_TOTAL_UNI_MSG_RX	
TCAP_TOTAL_UNI_MSG_TX	
TCAP_TRANS_PORT_PERM_REL_RX	
TCAP_TRANS_PORT_PERM_REL_TX	
TCAP_TRANSACTION_IDS_INUSE	
TCAP_UDATA_IND_RX	(Release 4.5)
TCAP_UNEXPECT_ERR_CODE_RX	
TCAP_UNEXPECT_ERR_CODE_TX	
TCAP_UNEXPECT_LINK_OPER_RX	
TCAP_UNEXPECT_LINK_OPER_TX	
TCAP_UNEXPECT_LINK_RSP_RX	
TCAP_UNEXPECT_LINK_RSP_TX	
TCAP_UNEXPECT_RE_RX	
TCAP_UNEXPECT_RE_TX	
TCAP_UNEXPECT_RR_RX	
TCAP_UNEXPECT_RR_TX	

TCAP_UNRECOG_COMP_RX	
TCAP_UNRECOG_COMP_TX	
TCAP_UNRECOG_DIALOG_PORT_ID_RX	
TCAP_UNRECOG_DIALOG_PORT_ID_TX	
TCAP_UNRECOG_ERR_CODE_RX	
TCAP_UNRECOG_ERR_CODE_TX	
TCAP_UNRECOG_INVOKE_ID_RX	
TCAP_UNRECOG_INVOKE_ID_TX	
TCAP_UNRECOG_LINK_ID_RX	
TCAP_UNRECOG_LINK_ID_TX	
TCAP_UNRECOG_MSG_TYPE_RX	
TCAP_UNRECOG_MSG_TYPE_TX	
TCAP_UNRECOG_OPCODE_RX	
TCAP_UNRECOG_OPCODE_TX	
TCAP_UNRECOG_RE_INVOKE_ID_RX	
TCAP_UNRECOG_RE_INVOKE_ID_TX	
TCAP_UNRECOG_TRANS_ID_RX	
TCAP_UNRECOG_TRANS_ID_TX	
TSA_ABORT_IND_RX	(Release 4.5)
TSA_CLOSE_IND_RX	(Release 4.5)
TSA_COMPONENT_CONFIRM_RX	(Release 4.5)
TSA_COMPONENT_IND_RX	(Release 4.5)
TSA_COMPONENT_REQ_RX	(Release 4.5)
TSA_DATA_IND_RX	(Release 4.5)
TSA_DATA_REQ_RX	(Release 4.5)
TSA_DELIMITER_IND_RX	(Release 4.5)
TSA_DELIMITER_REQ_RX	(Release 4.5)
TSA_DIALOG_CONFIRM_RX	(Release 4.5)
TSA_INAP_BIND_CONFIRM_RX	(Release 4.5)
TSA_INAP_NOTICE_IND_RX	(Release 4.5)
TSA_INAP_STAT_CONFIRM_RX	(Release 4.5)
TSA_INAP_STAT_IND_RX	(Release 4.5)
TSA_OPEN_CONFIRM_RX	(Release 4.5)
TSA_OPEN_IND_RX	(Release 4.5)
TSA_OPERATION_CONFIRM_RX	(Release 4.5)
TSA_OPERATION_IND_RX	(Release 4.5)
TSA_OPERATION_REQ_RX	(Release 4.5)
TSA_STATUS_IND_RX	(Release 4.5)

TSA_TCAP_BIND_CONFIRM_RX	(Release 4.5)
TSA_TCAP_NOTICE_IND_RX	(Release 4.5)
TSA_TCAP_STAT_CONFIRM_RX	(Release 4.5)
TSA_TCAP_STAT_IND_RX	(Release 4.5)
TSA_UDATA_IND_RX	(Release 4.5)

Trunk Group Usage Summary

The Trunk Group Usage Summary (tg-usage-summary) table provides trunk group usage information.

Table Name: TG-USAGE-SUMMARY

Table Containment Area: OAMP

Command Types

Report and show

Examples

```
show measurement-tg-usage-summary;
report measurement-tg-usage-summary start-time=2002-03-27 10:00:00; end-time=2002-03-27
12:00:00; tgn-id=dallas01; call-agent-id=CA146; output=tg-report; output-type=csv;
```

The following example uses the reporting option to gather statistics on a per-POP basis:

```
report measurement-tg-usage-summary start-time=2002-03-27 10:00:00; end-time=2002-03-27
12:00:00; trkgrp-exchange=RONLVA31GT; trkgrp-name=RONKVACSDS0_LC; call-agent-id=CA146;
output=tg-report; output-type=csv;
```

Usage Guidelines

Primary Key Token(s): None.

Foreign Key Token(s): tgn-id

Note This table does not support on-demand requests.

Syntax Description

CALL-AGENT-ID	The identity of the call agent that collected the measurement data. VARCHAR(8): 1–8 ASCII characters. The form of the id is CAnnn or cannn where nnn = 000 to 999.

DISPLAY	Specifies particular report counters to display on the screen. Display token values must be entered with an underscore (_). Do not use hyphens (-). STRING. Permitted values are: CONDITION INCOMING_BSY_TRK INCOMING_CALL_ATTMP INCOMING_USAGE NODENAME NUM_OF_OOS_TRK NUM_OF_OVERFLOW NUM_OF_TRUNK OUTBOUND_CALL_FAIL OUTGOING_BSY_TRK OUTGOING_CALL_ATTMP OUTGOING_USAGE TIMESTAMP TOTAL_USAGE TRK_GRP_ID TRK_GRP_TYPE TRKGRP_AVERAGE_USAGE TRKGRP_EXCHANGE (Release 4.5) TRKGRP_GLARE_COUNT (Release 4.5) TRKGRP_INCOM_ATTMP TRKGRP_INCOM_BUSY_TRK TRKGRP_INCOM_USAGE TRKGRP_LBLK_TRK_USAGE (Release 4.5) TRKGRP_MAINT_TRK_USAGE (Release 4.5) TRKGRP_NAME (Release 4.5) TRKGRP_OOS_TRK_USAGE (Release 4.5) TRKGRP_OUTBOUND_FAIL TRKGRP_OUTG_ATTMP TRKGRP_OUTG_BUSY_TRK TRKGRP_OUTG_USAGE TRKGRP_RBLK_TRK_USAGE (Release 4.5) TRKGRP_TOTAL_INS_TRK (Release 4.5) TRKGRP_TOTAL_OOS_TRK TRKGRP_TOTAL_OVERFLOW TRKGRP_TOTAL_TRK TRKGRP_TOTAL_USAGE TRKGRP_UEQP_TRK_USAGE (Release 4.5)
END-TIME	Ending time for measurement summary. Enter all 19 ASCII characters as shown. DATE and TIME: YYYY-MM-DD HH:MM:SS.

OUTPUT-TYPE	Specifies the desired output format. Permitted values are: CSV (Default)—Comma-separated view XML—Extensible Markup Language
START-TIME	Starting time for measurements summary. Enter all 19 ASCII characters as shown. Start-time must occur before end-time. Measurement items are available for the current and previous calendar days only (up to a maximum of 48 hours of events). DATE and TIME: YYYY-MM-DD HH:MM:SS.
TGN-ID (or TG)	Mandatory for on-demand requests. Foreign key: Trunk Group table. Trunk group ID. You can use TG instead of tgn-id. INTEGER: 1–99999999.
TRKGRP-EXCHANGE (Release 4.5)	The trunk group exchange to report measurement data for. This value directly maps to the CLLI Code Id field in the Pop table. Applies only to the tg-usage measurement type. VARCHAR(11): 1–11 ASCII characters.
TRKGRP-NAME (Release 4.5)	The trunk group name to report measurement data for. This value directly maps to the CLLI field in the Trunk Group table. Applies only to the tg-usage measurement type. VARCHAR(15): 1–15 ASCII characters.

Measurement TSA Summary

Note This table is obsoleted in Release 4.5. Display values are now in the Measurement TCAP Summary table.

The Measurement TCAP Signaling Adapter (TSA) Summary (measurement-tsa-summary) table requests a summary report of TSA-related statistics for a specified Call Agent that occurred during a specified collection interval (time-interval). Each collection interval starts on the hour, half-hour, or quarter-hour.

Table Name: MEASUREMENT-TSA-SUMMARY

Table Containment Area: OAMP

Command Types

Report, show and clear

Examples

```
show measurement-tsa-summary;
report measurement-tsa-summary start-time=2001-03-27 06:00:00; end-time=2001-03-27
06:30:00; call-agent-id=CA146;output-type=csv;
clear measurement-tsa-summary call-agent-id=CA146;
```

Usage Guidelines

Primary Key Token(s): None.

Foreign Key Token(s): call-agent-id

Syntax Description

CALL-AGENT-ID	Mandatory for on-demand requests. Foreign key: Call Agent table. The ID of the selected Call Agent. VARCHAR(8): 1–8 ASCII characters.
DISPLAY	Specifies particular report counters to display on the screen. Display token values must be entered with an underscore (_). Do not use hyphens (-). STRING. See Table 11-19 for permitted values.
END-TIME	Ending time for measurement summary. Enter all 19 ASCII characters as shown. DATE and TIME: YYYY-MM-DD HH:MM:SS.
OUTPUT-TYPE	Specifies the desired output format. Permitted values are: CSV (Default)—Comma-separated view XML—Extensible Markup Language
START-TIME	Mandatory for on-demand requests. Starting time for measurements summary. Enter all 19 ASCII characters as shown. Start-time must occur before end-time. Measurement items are available for the current and previous calendar days only (up to a maximum of 48 hours of events). If the time specified is during the current collection interval only, partial measurement counts are displayed. DATE and TIME: YYYY-MM-DD HH:MM:SS.
SUM	Specifies whether the resulting report request must contain the individual interval reports (N) or a summation of all interval reports into one composite report (Y). CHAR(1): Y/N (Default = N).

Table 11-19 lists the values for the Measurement TSA Summary Display token.

Table 11-19 Measurement TSA Summary Display Token Values

TSA_ABORT_IND_RX
TSA_CLOSE_IND_RX
TSA_COMPONENT_CONFIRM_RX
TSA_COMPONENT_IND_RX
TSA_COMPONENT_REQ_RX
TSA_DATA_IND_RX
TSA_DATA_REQ_RX
TSA_DELIMITER_IND_RX
TSA_DELIMITER_REQ_RX
TSA_DIALOG_CONFIRM_RX
TSA_INAP_BIND_CONFIRM_RX
TSA_INAP_NOTICE_IND_RX
TSA_INAP_STAT_CONFIRM_RX
TSA_INAP_STAT_IND_RX

TSA_OPEN_CONFIRM_RX
TSA_OPEN_IND_RX
TSA_OPERATION_CONFIRM_RX
TSA_OPERATION_IND_RX
TSA_OPERATION_REQ_RX
TSA_STATUS_IND_RX
TSA_TCAP_BIND_CONFIRM_RX
TSA_TCAP_NOTICE_IND_RX
TSA_TCAP_STAT_CONFIRM_RX
TSA_TCAP_STAT_IND_RX
TSA_UDATA_IND_RX



CHAPTER 12

Media Gateway Provisioning Command (Obsolete as of Release 4.4.0)

Revised: July 24, 2009, OL-3743-42

The Media Gateway Provisioning (MGP) command allows direct command access to the gateway, and is used to provision configurations on the gateway through the Cisco BTS 10200 Softswitch. It is not associated with any table. After an MGP entry is added to the system, you can access the gateway via the escape command sequence at the command line interface (CLI), FTP adapter, or by using the MGP object interface in the Common Object Request Broker Architecture (CORBA) Adapter.

This command applies only to the following media gateway types:

- Cisco AS5850
- Cisco MGX 8850
- Cisco AS5400

Note In this chapter, an asterisk preceding a token name means the token is mandatory. A token without an asterisk is optional.

Command Types

Show, add, change, and delete

Examples

```
show mgp;
add mgp ip-addr=10.89.224.10; type=As5400; user-name=cisco; password=cisco123;
```

Note After adding a gateway, use your applicable vendor documentation to configure the gateway using the escape command. The format for the escape command is: mgp <IPaddress> gateway command <ENTER>.

The mgp keyword indicates to the CLI that the command is not for the Cisco BTS 10200 Softswitch. It is to be sent to the gateway defined by the IP address. This is the same address as the one used to create the MGP entry in the add mgp command.

```
change mgp gateway1.cisco.com; password=cisco; type=AS5850;
delete mgp ip-addr=10.89.224.10;
```

Syntax Description

IPADDR	Mandatory for the add and change commands. The domain name or physical IP address of the device to manage. This may or may not be the same value as the tsap-addr token, used when adding a gateway for subscriber provisioning. VARCHAR(80): 1–80 ASCII characters.
TYPE	Mandatory for the add and change commands. Type of gateway. VARCHAR(7): 1–7 ASCII characters. Permitted values are: MGX8260 (Not supported) MGX8850 AS5400 AS5850
USER-NAME	Mandatory for the add command. Username to access the gateway. VARCHAR(30): 1–30 ASCII characters.
PASSWORD	Mandatory for the add command. Password to access the gateway. VARCHAR(30): 1–30 ASCII characters.



CHAPTER 14

Query

Revised: July 24, 2009, OL-3743-42

This chapter describes the Cisco BTS 10200 Softswitch Query commands. For information regarding using query commands in troubleshooting, see the *Cisco BTS 10200 Softswitch Troubleshooting Guide*.

In this chapter, an asterisk preceding a token name means the token is mandatory. A token without an asterisk is optional.

Query Call Trace (Release 4.5)

This section describes the query call trace command, which displays the call information of a currently active call. The command applies to originating or terminating calls. With this command, a service provider can enter a directory number (DN) or other suitable input and retrieve information about any call(s) the subscriber is currently involved in. This type of trace is made on a call in progress.

Command parameters are any subscriber specific information such as DN or Fully Qualified Domain Name (FQDN) of a residential gateway. The call processing information displayed includes originating number, terminating number, residential gateway(s) and Session Description Protocol (SDP) IP addresses involved, trunk group number and Carrier Identification Code (CIC) as applicable (such as off-net calling) as well as any other information pertaining to the call made by the subject.

Command Types

Query

Examples

```
query call-trace dn=4695551234;
query call-trace mlhg-id=mlhg1 terminal=23;
query call-trace ctxg-id=ctxg1 ext=1234;
query call-trace tgn-id=123 trunk-id=456;
query call-trace sip-call-id=1494777952@sia1.test.cisco.com;
query call-trace h323-call-id=29C51D96AC1C11D98007C67E816B4BFB;
query call-trace term=aaln/2@x1-6-00-00-ca-30-88-79.ctlab.cisco.com; (This example uses
the MGW termination and FQDN to identify term.)
query call-trace term=aaln/2@10.101.140.231; (This example uses the MGW termination and IP
address to identify term.)
query call-trace rgw=x1-6-00-00-ca-30-88-79.ctlab.cisco.com; (This example uses the FQDN
of the RGW.)
query call-trace rgw=10.101.140.231; (This example uses the IP address of the RGW.)
```

Usage Guidelines

Foreign keys: ctxg-id, ext, dn, mgw, mlhg-id, terminal, term, tgn-id, trunk-id.

The mode token is optional (default=brief).

One token (or token pair) from the following list is mandatory for this command (see the examples):

- ctxg-id and ext
- dn
- h323-call-id
- mlhg-id and terminal
- rgw
- sip-call-id
- term
- tgn-id and trunk-id

Syntax Description

CTXG-ID	Foreign key: Centrex Group table. Valid Centrex group ID. Use for POTS Centrex subscribers. **Note** Use with the EXT token. VARCHAR(16): 1–16 ASCII characters.
DN	Foreign key: Subscriber table. Directory number. Use for POTS/H323/SIP subscribers. VARCHAR(10): 10 digits in the format npaxxxxxxx.
EXT	Foreign key: Extension2Subscriber table. Valid extension in the Centrex group. **Note** Use with the CTXG-ID token. VARCHAR(7): 1–7 digits.
H323-CALL-ID	Where the call originated. Can be obtained from a Call Agent logfile. Use for H.323 trunks.
MLHG-ID	Foreign key: Multiline Hunt Group table. ID for this MLHG in the Multiline Hunt Group table. Use for POTS MLHG terminals. **Note** Use with the TERMINAL token. VARCHAR(16): 1–16 ASCII characters.
MODE	Specifies the information returned by the command. VARCHAR:(8): 1–8 ASCII characters (Default = BRIEF). Permitted values are: BRIEF—See Table 14-1. VERBOSE—See Table 14-1.
RGW	Foreign key: Media Gateway table. The residential gateway TSAP address (either FQDN or IP address) from the MGW table. VARCHAR(32): 1–32 ASCII characters.

SIP-CALL-ID	The SIP call identification. The SIP call id can be obtained from a Call Agent logfile or any switch connected to the Cisco BTS 10200 Softswitch. Use for SIP trunks.
TERM	Foreign keys: Termination table, MGW table. Enter the termination ID (from the Termination table), the @ symbol, and the TSAP address of the MGW (either FQDN or IP address) from the MGW table. See the examples. VARCHAR(32): 1–32 ASCII characters.
TERMINAL	Foreign key: Multiline Hunt Group Terminal table. Valid terminal in the MLHG. **Note** Use with the MLHG-ID token. SMALLINT: 1–512.
TGN-ID	Foreign key: Trunk Group table. Trunk group ID. Use for SS7, ISDN, and CAS trunks. **Note** Use with the TRUNK-ID token. INTEGER: 1–99999999.
TRUNK-ID	Foreign key: Trunk table. Valid trunk ID. **Note** Use with the TGN-ID token. INTEGER: 1–4095. INTEGER: 1–16383 (Release 4.5.1).

Table 14-1 shows the response fields returned when using brief or verbose modes.

Table 14-1 Brief and Verbose Mode Response Fields

Mode	Fields
Brief	CALL-STATE—The state of the call: IDLE | OOS | CALL-SETUP | ALERTING | CONNECTED. TYPE-—The trunk type: POTS-SUB | POTS-MLHG | POTS-CTXG | SIP-SUB | H323-SUB | SS7 | ISDN | CAS | SIP-TG| H323-TG. CALLING-PARTY-INFO/CALLED-PARTY-INFO—The calling or called party information can be one of the following for POTS/H323/SIP subscribers: DN | MLHG-ID | TERMINAL | CTXG-ID | EXT | TGN-ID | TRUNK-ID | SIP-CALL-ID | H323-CALL-ID.
Verbose	CALL-STATE—The state of the call: IDLE | OOS | CALL-SETUP | ALERTING | CONNECTED. CALLED-NUMBER—The called number. CALLING-NUMBER—The calling number. CALL-STATE—IDLE | OOS | CALL-SETUP | ALERTING | CONNECTED CHARGE-NUMBER—The charge number if available. CTXG-ID—The Centrex id. EXT—The Centrex extension. FULL-ENDPOINT-ID—The termination id plus the media gateway id for all POTS subscribers. H323-CALL-ID—The H.323 call id for H.323 trunks. MLHG-ID—The multiline hunt group id. MLHG-TERMINAL—The multiline hung group terminal. ORIGINAL-CALLED-NUMBER—The original called number if available. REDIRECTED-NUMBER—The redirected number if available. SDP-IP-ADDR—The SIP IP address. SDP-IP-PORT—The SDP IP port. SIP-CALL-ID—The SIP call id for SIP trunk groups. TERMINAL-ALIAS—The terminal alias for H323 trunk groups. TG-ID/TGN-ID—The trunk group id for SS7, ISDN and CAS trunks. TYPE—Type of trunk: POTS-SUB | POTS-MLHG | POTS-CTXG | SIP-SUB | H323-SUB | SS7 | ISDN | CAS | SIP-TG| H323-TG.

Note For call-trace scenarios involving forwarded calls and multileg calls, plus an example of a system response display, see the "Operations" chapter of the *Cisco BTS 10200 Softswitch Operations and Maintenance Guide*.

Query Verification (Release 4.4)

The Query Verification command generates Transaction Capabilities Application Part (TCAP) queries to external databases. The command supports the following query types:

- Line Information Database (LIDB)-Generated by the POTS Feature Server
- Toll-Free-Generated by the AIN Feature Server
- LNP-Generated by the AIN Feature Server

Note These query verification commands may also be collectively referred to in documentation as the query verification tool (QVT).

Line Information Database

This section describes the LIDB query verification command.

Command Types Query

Examples

```
query lidb calling-dn=8002550002; opc-id=opc;
```

Usage Guidelines Foreign key(s): opc-id

Syntax Description

* OPC-ID	Foreign key: Origination Point Code (OPC) table. Specifies the OPC to use for TCAP queries originating on behalf of subscribers assigned to this POP. VARCHAR(16): 1–16 ASCII characters.
* CALLING-DN	The caller's directory number. VARCHAR(10): 10 digits in the format npaxxxxxxx.
TABLE-INFO	Specifies whether to show the tables that are accessed when processing the query. CHAR(1): Y/N (Default = N).

Toll-Free and Toll Free Message Type

This section describes the toll-free query verification commands. Use the toll free message type query to determine if the toll free number is IN/1 or AIN0.1.

Command Types

Query

Examples

```
query toll-free opc-id=opc; called-dn=8002550002; user-type=calling-dn;
user-id=2182640018; lata=100;

query toll-free-msg-type opc-id=opc; (An opc-id is the only needed token for this query.
Queries if the toll free is using IN1 or AIN0.1.)
```

Usage Guidelines

Foreign key(s): opc-id

Syntax Description

* CALLED-DN	The called DN. VARCHAR(32): 1–32 ASCII characters in the format: npa-nxx-xxxx.
* CALLING-DN	The caller's directory number. VARCHAR(10): 10 digits in the format npaxxxxxxx.
* LATA	Local access and transport area. INTEGER: 100–65535 (3–5 numeric digits). INTEGER: 100–99999 (Default = 99999) (3–5 numeric digits). (Release 4.5) **Note** There are 5 spaces for entering the LATA code. The last two digits are for entering the LATA sub-zone (only Florida has 5-digit LATA numbers, which represent Equal Access Exchange Areas [EAEAs]), if applicable.
* OPC-ID	Foreign key: Origination Point Code (OPC) table. Specifies the OPC to use for TCAP queries originating on behalf of subscribers assigned to this POP. VARCHAR(16): 1–16 ASCII characters.
* USER-ID	Mandatory for AIN0.1 queries. The trunk group id or calling DN, depending on what was entered for user-type. Not used in IN/1 queries. VARCHAR(32): 1–32 ASCII characters.
* USER-TYPE	Mandatory for AIN0.1 queries. Specifies whether the user-id is a trunk group id or the calling DN. Not used in IN/1 queries. VARCHAR(12): 1–12 ASCII character. Permitted values: TGN_ID CALLING_DN

BEARER-CAPABILITY	Specifies the bearer capability. VARCHAR(12): 1–12 ASCII characters. Permitted values are: SPEECH F31KHZAUDIO B56KBPS B64KBPS
TABLE-INFO	Specifies whether to show the tables that are accessed when processing the query. CHAR(1): Y/N (Default = N).
TRIGGER-CRITERIA	Specifies whether the trigger is npa or npanxxx. Permitted values are: 3—npa 6—npaxxx 7—npaxxxx 8—npaxxxxx 9—npaxxxxxx 10—npaxxxxxxx

Local Number Portability

This section describes the LNP query verification command.

Command Types

Query

Examples

```
query lnp opc-id=opc_tx; user-id=2182640018; called-dn=4692552002; user-type=calling-dn;
lata=100;
```

Usage Guidelines

Foreign key(s): opc-id

Syntax Description

* CALLED-DN	The called DN. VARCHAR(32): 1–32 ASCII characters in the format: npa-nxx-xxxx.
* CALLING-DN	The caller's directory number. VARCHAR(10): 10 digits in the format npaxxxxxxx.

* LATA	Local access and transport area. INTEGER: 100–65535 (3–5 numeric digits). INTEGER: 100–99999 (Default = 99999) (3–5 numeric digits). (Release 4.5) There are 5 spaces for entering the LATA code. The last two digits are for entering the LATA sub-zone (only Florida has 5-digit LATA numbers, which represent Equal Access Exchange Areas [EAEAs]), if applicable.
* OPC-ID	Foreign key: Origination Point Code (OPC) table. Specifies the OPC to use for TCAP queries originating on behalf of subscribers assigned to this POP. VARCHAR(16): 1–16 ASCII characters.
* USER-ID	Mandatory for AIN0.1 queries. The trunk group id or calling DN, depending on what was entered for user-type. Not used in IN/1 queries. VARCHAR(32): 1–32 ASCII characters.
* USER-TYPE	Mandatory for AIN0.1 queries. Specifies whether the user-id is a trunk group id or the calling DN. Not used in IN/1 queries. VARCHAR(12): 1–12 ASCII character. Permitted values are: TGN-ID CALLING-DN
BEARER-CAPABILITY	Specifies the bearer capability. VARCHAR(12): 1–12 ASCII characters. Permitted values are: SPEECH F31KHZAUDIO B56KBPS B64KBPS
OLI	Originating line information; used if message-type = IN/1. SMALLINT: 0–99 or 255. (Default = 0 (POTS)).
TABLE-INFO	Specifies whether to show the tables that are accessed when processing the query. CHAR(1): Y/N (Default = N).
TRIGGER-CRITERIA	Specifies whether the trigger is npa or npanxxx. Permitted values are: 3—npa 6—npaxxx 7—npaxxxx 8—npaxxxxx 9—npaxxxxxx 10—npaxxxxxxx



CHAPTER 15

Security

Revised: July 24, 2009, OL-3743-42

Security tables are used to report user activities and manage user accounts.

Note In this chapter, an asterisk preceding a token name means the token is mandatory. A token without an asterisk is optional.

Activity Summary

See Chapter 9, "History."

Command Level

The Command Level (command-level) table identifies the ten command levels and their descriptions.

Table Name: COMMAND-LEVEL

Table Containment Area: OAMP

Command Types

Show and change

Examples

```
show command-level id=10;
change command-level id=10; description=This is the highest level administration access;
```

Usage Guidelines

Primary Key Token(s): id

Change Rules: None.

Syntax Description

* ID	Primary key. Command level number. NUMERIC: 1–10.
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
DESCRIPTION (EMS-only field)	Mandatory for change command; optional for show command. Described by the service provider. VARCHAR(64): 1–64 ASCII characters.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).

Command Table

The Command Table (command-table) table allows a system administrator to show, change, and reset the command privilege level (CPL) of a specific noun-verb pair. Higher command privilege levels are granted all lower level privileges.

Table Name: COMMAND-TABLE

Table Containment Area: OAMP

Command Types

Show, change, and reset

Examples

```
show command-table noun=mgw; verb=add;
change command-table noun=mgw; verb=add; sec-level=9;
reset command-table noun=mgw; verb=add;
```

Usage Guidelines

Primary Key Token(s): noun

Change Rules: Noun and verb must exist.

Syntax Description

* NOUN	Primary key. The table or command name, such as User, MGW, CA, TGN-ID. VARCHAR(65): 1–65 ASCII characters.
* VERB	Verb used in the reported command. Valid verbs are add, audit, change, clear, control, delete, report, reset, show, and status. VARCHAR(8): 1–8 ASCII characters.
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.

ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
SEC-LEVEL	Mandatory for change command. Security level. Used only in the change command. NUMERIC: 1–10.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).
WORK-GROUPS	Assigns a command to a given workgroup. A workgroup is a logical collection of commands created by the service provider. Valid only for the change command. Use the equal sign (=) to add a command to a workgroup for the first time, or to replace all existing workgroups of that command with one or more new workgroups. A plus sign (+) before the work-groups name adds one or more workgroups to a command. A minus sign (–) before the work-groups name removes one or more workgroups from a command. For example: change command-table noun=somenoun; verb=someverb; work-groups=newworkgroup; VARCHAR(64): 1–64 ASCII characters.

Password

The Password command allows the system administrator to reset any user's password. It also allows setting the number of days that the password is valid and the number of days before password expiration that the user is warned. It also forces the system administrator to enter a new password. Once the user logs in for the first time, the user should execute this command again to change the password.

Users can only reset their own passwords. Users are allowed to reset the days a password is valid, the number of days before password expiration, and the user must enter a new password when executing this command.

This command is not directly associated with any table. It checks if a user exists and manages the system password attributes.

Command Types

Reset

Examples

```
reset password name=wilburwabash; days-valid=15; warn=2; new-password=table1R;
```

Usage Guidelines

Primary Key Token(s): name

Reset Rules: User must exist.

You must construct passwords to meet the following UNIX standards:

- A password must have at least six characters. If it is longer than six characters, only the first eight characters are significant.
- A password must contain at least two alphabetic characters and at least one numeric or special character. In this case, *alphabetic* refers to all upper- or lowercase letters.
- A password must differ from the user's login name and any reverse or circular shift of that login name. For comparison purposes, an uppercase letter and its corresponding lowercase letter are equivalent.
- New passwords must differ from the old by in the first three characters. For comparison purposes, an uppercase letter and its corresponding lowercase letter are equivalent.

Syntax Description

* NAME	Primary key. Username, entered into the system by the system administrator. VARCHAR(16): 1–16 ASCII characters.
* NEW-PASSWORD	Specifies a password for a user. VARCHAR(12): 6–12 ASCII characters.
DAYS-VALID	Number of days a password is valid. NUMERIC: 0–364 (Default = 30).
WARN	Number of days before password expiration to start warning the user. NUMERIC: 0–10 (Default = 4).

Security Summary

The Security Summary (security-summary) command provides a summary report of security infractions by source and start/stop times from the Security Log (securitylog) table. The table logs at least 30 days of infractions. It writes and deletes only when infractions occur. For example, if a security infraction occurred 10 days ago, and none since, that infraction will show up in the database today when a show is performed. On the next infraction, all security violations 7 days prior to the current infraction are lost.

Table Name: SECURITYLOG

Table Containment Area: OAMP

Command Types

Report

Examples

```
report security-summary start-time=2002-03-27 00:00:00; end-time=2002-03-27 00:00:00;
source=all;
```

Note If this command is entered without any tokens, the report shows all security infractions.

Usage Guidelines Primary Key Token(s): None.

Syntax Description

START-TIME	Starting time for a security summary. Enter all 19 ASCII characters as shown. If you enter a start-time—but not an end-time— the report will show security infractions from the start-time to the present. Start-time must occur before end-time. Security items are available for the current and previous calendar days only (up to a maximum of 48 hours of events). If you enter this command without any tokens, the report returns all security infractions. DATE and TIME: yyyy-mm-dd hh:mm:ss.
END-TIME	Ending time for security summary. Enter all 19 ASCII characters as shown. If you enter an end-time—but not a start-time—the report returns all security infractions up to the end-time. DATE and TIME: yyyy-mm-dd hh:mm:ss.
SOURCE	Source of the infraction—name in the Users table. Source is actually the username. If you enter source without a start-time or end-time, all infractions are shown. VARCHAR(16): 1–16 ASCII characters.
AUTO-REFRESH	Specifies whether to display cached data on the screen. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
DISPLAY	Specifies what token information to display on the screen. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
LIMIT	Specifies the number of rows to display on the screen. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
ORDER	Specifies whether to display data on the screen in a sorted order. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
START-ROW	Specifies to begin displaying data on the screen at a specific row. INTEGER: 1–100000000 (Default = 1).

Users

The User (user) command identifies each user with the designated command level in the Security Level (securitylevels) table. The system administrator enters the command level for each user.

Table Name: SECURITYLEVELS

Table Containment Area: OAMP

Command Types

Show, add, change, and delete

Examples

```
show user name=john smith;
add user name=john smith; command-level=1;work-groups=thisworkgroup, thatworkgroup;
```

Note As of Release 4.5, setting a user password is done in one step by using the new mandatory password token in the add user command. For example:

```
add user name=UserABC;command_level=9;warn=5;days-valid=50;shell=CLI;password=secret01;
```

```
change user name=john smith; command-level=5;
```

Note To change a user's shell, delete the user and re-add specifying **shell=maint** or **cli**.
To change a password, use the **reset password** command. See the Password section for more information.

As of Release 4.5, it is possible to change user attributes days-valid and warn by using the change user command. For example:

```
change user name=john; command-level=5;warn=1;
change user name=jobh; command-level=5;warn=2;days-valid=45;
change user name=john; command-level=1;days-valid=4;
```

```
delete user name=john smith;
```

Usage Guidelines

Primary Key Token(s): name

Add Rules:

- user must not exist in the User table.
- name and command-level must both be entered in the add command.
- password must be entered.

Change Rules: User must exist in the User table. Name and command-level must both be entered in the change command.

Delete Rules: User must exist in the User table.

Note A user's actual password is stored in the Cisco BTS 10200 Softswitch EMS. It is not included here. A new user is not prompted to change a new password at first login. Users must change their password themselves at first login. Thereafter, they enter that password upon login to the EMS.

Syntax Description

* COMMAND-LEVEL	User command level, entered into the system by the system administrator. This token is optional for the show command; it is mandatory for the add and change commands. NUMERIC: 1–10.
* NAME	Primary key. Username, entered into the system by the system administrator. VARCHAR(16): 1–16 ASCII characters.
* PASSWORD (Release 4.5)	User password. See the Password section for user password creation requirements. VARCHAR(12): 6–12 ASCII characters.
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
DAYS-VALID	Number of days a password is valid. NUMERIC: 0–364 (Default = 30).
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
FIRST	Not provisionable. Indicates whether an account has been used more than once. On a second login, the “true” indicator of a new account is changed to “false.” CHAR(1): T/F (Default = T).
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.
ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.

SHELL	Specifies the type of interface for the user. This token is valid only for the add command. Delete and then re-add the user to change the type of shell. VARCHAR(5): CLI or MAINT (Default = CLI). CLI—User interface for entering commands and their parameters in command-line format. A user must log in to the active EMS. The session terminates if it is idle for a provisionable number of minutes (see the idle-time parameter in the Session table, default = 30 minutes) or if there is an EMS switchover from active to standby. This shell displays the CLI> prompt. MAINT—Maintenance interface for CLI commands that does not time out or disconnect on switchover. This shell can be used, when necessary, for maintenance and recovery purposes. The MAINT user can login to either the active or standby EMS. This interface displays a prompt based on the username, rather than a CLI> prompt. **Caution** The MAINT shell is not intended for normal provisioning activities. Use it only if the CLI shell is unusable in a maintenance or recovery scenario. An unattended MAINT session does not autodisconnect.
START-DATE	Not provisionable. Specifies the date the account was first used. Used to track and age idle accounts. DATE: YYYY-MM-DD.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).
WARN	Number of days before password expiration to start warning the user. NUMERIC: 0–10 (Default = 4).

WORK-GROUPS	Logical collection of commands created by the service provider. Valid only for the change command. Use the equal sign (=) to add a user to a work-group for the first time, or to replace all existing workgroups of that user with one or more new workgroups. A plus sign (+) before the work-group name adds one or more workgroups to an existing user via the change command. This does not replace any already existing workgroups. A minus sign (–) before the work-group name removes one or more workgroups from an existing user via the change command. The following examples show the ways to specify values for the work-group token: • Specifying work-groups = +somewkgrp adds the user somewkgrp to the workgroups. • Specifying work-groups = -someoldwkgrp deletes the user someoldwkgrp from the work-groups. • Specifying work-groups = somenewworkgroup either adds somenewworkgroup for the first time, or replaces any previously existing work-groups with somenewworkgroup. **Note** The plus or minus sign is not allowed when adding a new user. Use the plus or minus sign only with the change command. VARCHAR(64): 1–64 ASCII characters.



CHAPTER 16

Session Manager

Revised: July 24, 2009, OL-3743-42

The Session Manager (SMG) user management tool tracks the session clients (users) that have logged in to the Cisco BTS 10200 Softswitch. The commands listed in this chapter display and control the behavior of users in the system. For example, when user *wilmer7* logs in to the system, the SMG assigns a terminal ID to the user. A terminal ID is similar in concept to a UNIX terminal port. This terminal ID is then used in the commands below. It allows a service provider to force users off the system during a maintenance procedure such as a database backup.

The SMG supports a craft command interface by messages. These can be incorporated into a RequestManager implementation for use in the Cisco BTS 10200 Softswitch commands. This allows a craft to control the operations of the SMG.

Note In this chapter, an asterisk preceding a token name means the token is mandatory. A token without an asterisk is optional.

Session Management Activity Commands

This section describes the session management activity commands.

Note The **block session terminal** command is not supported during a maintenance (MNT) session. All other block and unblock commands are only available during a MNT session. Mode is for the entire EMS and not just for a specific session.

Command Types

The supported commands are as follows:

- **show**—The interface supports a query listing all terminals in the system. The SMG returns a list of currently defined terminals. It allows the service provider to differentiate the list based on a user ID. If the terminal is not listed, all terminals are shown. The asterisk wildcard (*) is not supported.

```
show session terminal={1-32 characters}
show session terminal={4-5 characters} (Release 4.5.1)
show block-information (Release 4.5.1)
```

- **block**—This command requires a single terminal ID. The terminal is then blocked and a notification is sent to the terminal to suspend all further operation. The state of the specified terminal is changed to *blocked*.

```
block session [terminal={1-32 characters}]
block session [terminal | user | type=#]; (Release 4.5.1)
block session mode = MAINTENANCE | UPGRADE (Release 4.5.1)
block session < type | user> =#; [ level=PROVISION | COMPLETE ] (Release 4.5.1)
```

Caution If the terminal type of a terminal is associated with either an FTP or SNMP application (such as type=ftp or type=snmp), the FTP or SNMP application is blocked as well.

- **change—**This command requires the idle-time token. See the syntax description for its properties.

```
change session idle-time=20;
```

- **unblock**—This command requires a single terminal ID. The terminal is then unblocked and notification is sent to the terminal for the user to resume normal operation. The state of the specified terminal is changed to *unblocked*.

```
unblock session [terminal={1-32 characters}]
unblock session [terminal | type | user] (Release 4.5.1)
unblock session (Release 4.5.1)
unblock session <type | user> =#; (Release 4.5.1)
```

- **stop**—This command requires a single terminal ID. The selected terminal is then notified to terminate and its associated terminal definition in the SMG is removed.

```
stop session [terminal={1-32 characters}]
stop session [terminal={4-52 characters}] (Release 4.5.1)
```

Note The **stop**, **block**, and **unblock** commands cannot be executed on the terminal from which the command was entered.

Note Command information in square brackets ([ ]) is mandatory. There is no mandatory information for the show command.

Command information in curly braces ({ }) is optional.

Examples

```
show session
stop session terminal=USR5
block session terminal=USR5
unblock session terminal=USR5
change session idle-time=20;
```

Syntax Description

*IDLE-TIME	This token defines the number of minutes that a user can be idle on the CLI interface before being automatically logged off the Cisco BTS 10200 Softswitch. INTEGER: 10–30 (Default = 30).
MODE (Release 4.5.1)	Mandatory for the block and unblock commands as of Release 4.5.1. Specifies the operator mode. VARCHAR(12): 1–12 ASCII characters. Permitted values are: MAINTENANCE—Regular maintenance window UPGRADE—Upgrade
TERMINAL	Mandatory for the stop command. Terminal id. VARCHAR(5) 4–5 ASCII characters.
TYPE (Release 4.5.1)	Mandatory for the block and unblock commands as of Release 4.5.1. Blocks or unblocks sessions based on type definition. Must be used in conjunction with the user token. Valid only for the block or unblock command. VARCHAR(6): 1–6 ASCII characters. Permitted values are: ALL—all sessions with type CLI, CORBA, FTP, or SNMP are blocked CLI—all sessions with type CLI are blocked CORBA—all sessions with type CORBA are blocked FTP—all sessions with type FTP are blocked SNMP—all sessions with type SNMP are blocked **Note** MNT is never blocked.
USER (Release 4.5.1)	Mandatory for the block and unblock commands as of Release 4.5.1. Specifies whether one or all users are blocked or unblocked. Must be used in conjunction with the type token. Valid only for the block or unblock command. VARCHAR(16): 1–16 ASCII characters. Permitted values are: <name>—Block or unblock sessions by of a specific user name. suppose <%>—Block or unblock all users. For example, user=% blocks or unblocks all users.
LEVEL (Release 4.5.1)	Specifies the block level. Valid only for the block or unblock command. VARCHAR(10): 1–10 ASCII characters (Default = complete). Permitted values are: PROVISION—All provisioning commands are blocked (change, delete, add, clear, sync, audit, reset, stop, and start) COMPLETE—All commands are blocked.



CHAPTER 17

Simple Network Management Protocol

Revised: July 24, 2009, OL-3743-42

This chapter describes the tables and commands pertaining to the Simple Network Management Protocol (SNMP) in the Cisco BTS 10200 Softswitch.

Note In this chapter, an asterisk preceding a token name means the token is mandatory. A token without an asterisk is optional.

Simple Network Management Protocol Community

The Simple Network Management Protocol (SNMP) Agent uses the SNMP Community (snmpcommunity) table using the snmpconfig command to:

- manually block particular IP addresses (or hostnames) due to abuse, unauthorized access, or access attempts using the SNMP blocking command. In addition, if the Agent detects what appear to be multiple failed attempts from a particular source, it automatically blocks that source IP address, or hostname. To unblock either the manual or automatically blocked hosts, the blocked entries from this table must be manually deleted.
- configure settings for conformance to RFC 1213 using the MIB to System (MIB2SYS) configuration command.
- couple or decouple the SNMP Agent to the Sun Solaris SNMP subagent using the SNMP setting command.
- stores community strings for SNMP agents, which can be modified using the snmpconfig command. A community string is a password-like variable used for Cisco BTS 10200 Softswitch SNMP Agent access.

At installation, this table is initially provisioned with the value PUBLIC for both the READCOMMUNITY and WRITECOMMUNITY tokens. Service providers can delete either value and specify their own value(s). During upgrades, whatever values are in these tables are maintained. READCOMMUNITY and WRITECOMMUNITY are case insensitive. The PUBLIC value is case sensitive.

Table Name: SNMPCOMMUNITY

Table Containment Area: OAMP

Command Types

Show, add change and delete

Examples

Block Command Examples:

```
show snmpconfig type=MANUALBLOCKED
show snmpconfig type=AUTOBLOCKED
add snmpconfig type=MANUALBLOCKED; value=hostnameABC
add snmpconfig type=MANUALBLOCKED; value=192.168.1.192
delete snmpconfig type=MANUALBLOCKED; value=hostnameABC
delete snmpconfig type=AUTOBLOCKED; value=hostnameABC
```

MIB2SYS Command Examples:

```
show snmpconfig type=MIB2SYS; value=sys_name;
add snmpconfig type=MIB2SYS; value=sys_name;
change snmpconfig type=MIB2SYS; value=sys_location; value1=Cisco Systems
delete snmpconfig type=MIB2SYS; value=sys_name;
```

Setting Command Examples:

```
show snmpconfig type=SETTING;
add snmpconfig type=SETTING; value=COUPLE_SUN_AGENT;
delete snmpconfig type=SETTING;
```

Store Command Examples:

```
show snmpconfig type=readcommunity
show snmpconfig type=writecommunity
add snmpconfig type=readcommunity; Value=whateverreadvalue
add snmpconfig type=writecommunity; Value=whateverwritevalue
delete snmpconfig type=readcommunity; Value=whateverreadvalue
delete snmpconfig type=writecommunity; Value=whateverwritevalue
```

Usage Guidelines

Primary Key Token(s): type, value

Add Rules: None.

Delete Rules: None.

Syntax Description

* TYPE	Primary key. Mandatory for show, add, change and delete. Type of blockage. VARCHAR(64): 1–64 ASCII characters. Permitted values are: AUTOBLOCKED—SNMP Agent detects what it perceives are suspicious sources trying to access the system. MANUALBLOCKED—Operator manually blocks a source from accessing the system using SNMP. MIB2SYS—MIB2 definition. SETTING—Setting using the add command couples Agents; setting using the delete command uncouples Agents. READCOMMUNITY—Variable to read agent data. WRITECOMMUNITY—Variable to set agent data.
* VALUE	Mandatory for add, change and delete. Valid for commands: show, add, change and delete. Primary key. IP Address or hostname of the blocked source. VARCHAR(64): 1–64 ASCII characters. Actual value of a community string. Valid only if type=READCOMMUNITY or WRITECOMMUNITY. SYS_NAME—System name. Valid only if type=MIB2SYS. SYS_CONTACT—System contact. Valid only if type=MIB2SYS. SYS_LOCATION—System location. Valid only if type=MIB2SYS. COUPLE_SUN_AGENT—Couples the Cisco BTS 10200 Softswitch SNMP Agent with the Sun SNMP Agent. Valid only if type=SETTING. Use underscores (_) for this value. Do not use hyphens (-).
KEY1	Valid for Commands: show, add, change and delete. Used to specify a privilege level similar to the CLI noun privilege level. This is required when accessing “status” command branches for the SNMP MIB such as when accessing statuses of a media gateway, Call Agent, and so forth. See the Command Level section in the Security chapter for more information. VARCHAR (14): 1–14 ASCII characters. Permitted value is COMMAND-LEVEL.
VALUE1	Valid for commands: show, add, change and delete. Used to further define the type and value tokens. Defined by service provider. VARCHAR(64): 1–64 ASCII characters.

Simple Network Management Protocol Trap Destination

The Simple Network Management Protocol (SNMP) Agent uses the SNMP Trap Destination (snmptrapdest) table to send traps to the network management systems (NMSs) listed in the table. This provides the SNMP Agent with a persistent list of NMSs to send SNMP traps to. When performing trap retransmission, valid destination addresses must be provisioned here.

Table Name: SNMPTRAPDEST

Table Containment Area: EMS

Command Types

Show, add, change, and delete

Examples

```
show snmptrapdest;
add snmptrapdest; trapdestaddress=190.10.100.199; trapdestport=162;
change snmptrapdest trapdestindex=1; trapdestport=16222;
delete snmptrapdest trapdestindex=1;
```

Usage Guidelines

Primary Key Token(s): trapdestindex

Add Rules: None.

Change Rules: None.

Delete Rules: None.

*TRAPDESTADDRESS	IP address, or host name, of the NMS machine. VARCHAR(15): 7–15 ASCII characters in formats ranging from: n.n.n.n to nnn.nnn.nnn.nnn.
*TRAPDESTPORT	Port number to which the NMS machine is listening for incoming traps. INTEGER: 1–65535.
TRAPDESTINDEX	Primary Key. Mandatory for change and delete. Index into the table. INTEGER: 1–4294967296.
TRAPDEST COMMUNITY (Not used)	Community name associated with the trap to be sent to the NMS. VARCHAR(64): 1–64 ASCII characters.
TRAPDESTOWNER (Not used)	Owner of this NMS. VARCHAR(64): 1–64 ASCII characters.
TRAPDESTSTATUS (Not used)	Status state of this entry. INTEGER: 1–6.

FILTERTYPES	Specifies which subsystem events to filter on, or permit to be sent to, this address. Used in combination with FILTERLEVELS to provide a granular filter for traps from the SNMP Agent side. VARCHAR(12) 1–12 ASCII characters. Permitted values are: BILLING CALLP CONFIG DATABASE MAINTENANCE OSS SECURITY SIGNALING STATISTICS SYSTEM AUDIT
FILTERLEVELS	Specifies which event levels to filter on, or permit to be sent to, this address. Used in combination with FILTERTYPES to provide a granular filter for traps from the SNMP Agent side. VARCHAR(8) 1–8 ASCII characters. Permitted values are: DEBUG INFO WARNING MINOR MAJOR CRITICAL



CHAPTER 18

Transactions

Revised: July 24, 2009, OL-3743-42

This chapter describes the following Cisco BTS 10200 Softswitch transaction commands:

- Transaction Queue
- Queue Throttle

Note In this chapter, an asterisk preceding a token name means the token is mandatory. A token without an asterisk is optional.

Transaction Queue

The Transaction Queue (transaction-queue) table allows users to view and delete entries in a transaction-queue, if any exist. The Transaction Queue table tracks updates into the database, as well as into the shared memory of the Call Agent and Feature Servers. Entries should never remain in the transaction-queue for more than a few seconds, unless an Element Management System (EMS), Call Agent (CA), or Feature Server (FS) is in an error state. In the case of an error state, the Transaction Queue table continues to store entries for later updates.

Table Name: TRANSACTION-QUEUE

Table Containment Area: OAMP

Command Types Show and delete

Examples

```
show transaction-queue target=CA146
delete transaction-queue target=CA146 transaction-id=<id>
```

Caution Only a operator of “ciscouser” authority can execute a delete transaction-queue command. No other user can execute this command. Contact the Cisco Technical Assistance Center for assistance. (Release 4.5)

The delete transaction-queue command causes a database inconsistency. Contact the Cisco Technical Assistance Center to determine usage necessity.

Note The **transaction-id** parameter enables you to delete only one transaction at a time from the transaction_queue table. Note that to delete an entry from the transaction-queue, you should login as **ciscouser**.
If there are thousands of entries stuck is the transaction queue, it is recommended to flush all the entries from Oracle after logging in as **oamp** user.

Usage Guidelines

Primary Key Token(s): transaction-id, target

Delete Rules: Transaction-queue must exist; must specify a target.

Syntax Description

ACTIVE-TARGET	System generated. Specifies whether the target is in an active or standby state. CHAR(1): Y/N (Default = Y). Y—Target is in an active state. N—Target is in a standby state.
SEQUENCE-NUM	System generated. Numerical representation of the order of the statement in the transaction. INTEGER: 0–nnn, where nnn represents the number of the transaction in the queue.
STATEMENT	System generated. Oracle and DBM SQL statement applied to the transaction. VARCHAR(4000).
AUTO-REFRESH	Specifies whether to display cached data on the screen. Valid only for the show command. CHAR(1): Y/N (Default = Y). Y—Queries the database for the most current data. N—Queries the database for the most current data only if the cached data is unavailable.
DISPLAY	Specifies what token information to display on the screen. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all tokens are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
LIMIT	Specifies the number of rows to display on the screen. Valid only for the show command. INTEGER: 1–100000000 (Default = 100000000). **Note** The actual maximum number of rows displayed is currently lower than 100000000 due to software limitations.

ORDER	Specifies whether to display data on the screen in a sorted order. Valid only for the show command. VARCHAR(1024): 1–1024 (Default = all rows are displayed). Permitted values are any valid token that can be shown for this command. Multiple tokens can be entered by separating with a comma.
START-ROW	Specifies to begin displaying data on the screen at a specific row. Valid only for the show command. INTEGER: 1–100000000 (Default = 1).

STATUS (Release 4.5)	Status of the transaction. VARCHAR(32): 1-32 ASCII characters. Permitted values are: PENDING - The transaction is queued for execution. ERROR - Got an erroneous response from the TARGET or Request timed out from the OAM. DB_DUPLICATE DB_NOT_FOUND DB_INVALID_ARGS DB_INVALID_DATA DB_OPERATION_FAIL DB_SET_FAIL DB_OUT_OF_MEMORY DB_INVALID_INDEX DB_FREE_INDEX DB_SET_VALIDATE_FAIL ERR_INIT_DEFAULT_BUFFERS ERR_MALLOC_FAILED ERR_UPDATE_INFO_ARR_OVERFLOW ERR_INTERNAL_ERROR ERR_SQL_UPDATE_INFO_ARR_OVERFLOW ERR_INVALID_COL_TYPE ERR_INVALID_TBL_ID ERR_INVALID_ACTION_TYPE ERR_UNKOWN_TABLE_ID ERR_INVALID_TABLE_NAME ERR_COL_VALUE_LIST_MISMATCH ERR_PRIMARY_KEY_SQL_UPDATE ERR_INVALID_COL_NAME ERR_TOO_MANY_FOREIGN_KEYS ERR_INVALID_ENUM_NAME ERR_U8_VALUE_OUT_OF_RANGE ERR_U16_VALUE_OUT_OF_RANGE GENERIC OAM ERROR ERR_NO_REPLY
TARGET	Primary Key. ID of the CA, FS, or EMS where the transaction resides. VARCHAR(32): 1–32 ASCII characters. For example: CAnnn, FSPTCnnn, or FSAINnnn where nnn is the numeric ID of the target.

TERMINAL-ID (Release 4.5)	Unique terminal ID for a user. VARCHAR2(32): 1-32 ASCII characters.
TIMESTAMP	System generated. Day and time of the transaction. DATE and TIME: YYYY-MM-DD HH:MM:SS.
TRANSACTION-ID	System generated. Mandatory for the delete command in Release 4.5.1. Primary key. Transaction number. The numerical value of transaction. The value can be any number larger than 900,000,000,000. The actual value depends on the current system time on the EMS and the time that the command was executed. INTEGER: 12-digit number.
USER-ID (Release 4.5)	Unique user id. VARCHAR(32): 1-32 ASCII characters.

Queue Throttle

The Queue Throttle (queue-throttle) table holds the maximum download capacity used for transaction queuing. Show is the only valid command for this table.

Table Name: QUEUE-THROTTLE

Table Containment Area: OAMP

Command Types

Show

Examples

```
show queue-throttle
```



Note The response to the show command is “The Queuing Manager is operating within normal parameters. Queuing Manager activity can be suspended using the block session command.”



CHAPTER 19

Translation (Release 4.4)

Revised: July 24, 2009, OL-3743-42

This chapter describes the Cisco BTS 10200 Softswitch Translation Verification command is a diagnostic command that simulates a call from the originator to a specific destination based on dialed digits. The command checks system translations and permits determining if routing will occur as expected without making a call. However, it may be necessary to use both a call trace query and a translation query to determine the routing of a call. If the results of a translate command indicate that a toll-free or local number portability (LNP) call is generated, execute a toll-free or LNP query command. Use the results of the toll-free or LNP query to generate another translation query. For more information regarding using the translation command in troubleshooting, see the *Cisco BTS 10200 Softswitch Troubleshooting Guide*.

Note The translation verification command may also be referred to in documentation as the translation verification tool (TVT).

Note In this chapter, an asterisk preceding a token name means the token is mandatory. A token without an asterisk is optional.

Command Types

Translate line, translate trunk

Examples

```
translate line calling-dn=2189722345; called-dn=8002550005
```

Caution Translate line is not supported for Centrex groups.

```
translate trunk tgn-id= 1; called-dn=7034321234;
```

Usage Guidelines

Foreign key(s): tgn-id

Syntax Description

* CALLED-DN	Mandatory for line and trunk translation. The called DN. VARCHAR(32): 1–32 ASCII characters in the format: npa-nxx-xxxx.
CALLING-DN	Mandatory for line translation. The caller's directory number. VARCHAR(10): 10 digits in the format npaxxxxxxx.
TGN-ID	Mandatory for trunk translation. Foreign key: Trunk Group table. Trunk group ID. Use for SS7 and ISDN trunks. INTEGER: 1–99999999.
GAP	The generic address parameter. Used for trunk translation. INTEGER(10): 10 numeric digits.



Appendixes



APPENDIX A

Configurable Parameters and Values

Revised: July 24, 2009, OL-3743-42

This appendix details the Call Agent and Feature Server configurable parameters and check possible values for Releases 4.1, 4.2, 4.4 and 4.5.

Note In this appendix, TCAP means GR-533 format *only*, and AIN0.1 means AIN0.1 *on top of* GR-533 TCAP.

Call Agent and Feature Server Configurable Parameters

Table A-1 shows configurable parameters specific to the Call Agent and Feature Server.

Table A-1 Configurable Parameters for the Call Agent and Feature Server

Group	Type	Datatype	From-Value	To-Value	CHK-POS-VAL	De-fault	Description
AUDIT	AUDIT-LONGTHRESHOLD	INTEGER	0	99999	N	24	The minimum number of hours a trunk must be busy before it is flagged by the long duration CIC audit.
AUDIT	TRUNK-AUDIT-INTERVAL (Release 4.4)	INTEGER	0	10	N	3	The interval, in minutes, for auditing SIP trunk groups. An options request is sent to all trunks during periods of inactivity each time this interval is reached.
BCM	CODEC-G722-PTIME	INTEGER	10	30	N	10 No Default (Release 4.5)	G.722 (or G722)

Table A-1 Configurable Parameters for the Call Agent and Feature Server (continued)

Group	Type	Datatype	From-Value	To-Value	CHK-POS-VAL	De-fault	Description
BCM	CODEC-G723-1A-H-PTIME	INTEGER	10	30	N	10 No Default (Release 4.5)	G.723.1A-H (or G723-1A-H)
BCM	CODEC-G723-1A-L-PTIME	INTEGER	10	30	N	10 No Default (Release 4.5)	G.723.1A-L (or G723-1A-L)
BCM	CODEC-G723-1-H-PTIME	INTEGER	10	30	N	10 No Default (Release 4.5)	G.723.1-H (or G723-1-H)
BCM	CODEC-G723-1-L-PTIME	INTEGER	10	30	N	10 No Default (Release 4.5)	G.723.1-L (or G723-1-L)
BCM	CODEC-G726-16K-PTIME	INTEGER	10	30	N	10 No Default (Release 4.5)	G.726-16K (or G726-16K)
BCM	CODEC-G726-24K-PTIME	INTEGER	10	30	N	10 No Default (Release 4.5)	G.726-24K (or G726-24K)
BCM	CODEC-G726-32K-PTIME	INTEGER	10	30	N	10 No Default (Release 4.5)	G.726-32K (or G726-32K)
BCM	CODEC-G726-40K-PTIME	INTEGER	10	30	N	10 No Default (Release 4.5)	G.726-40K (or G726-40K)

Table A-1 Configurable Parameters for the Call Agent and Feature Server (continued)

Group	Type	Datatype	From-Value	To-Value	CHK-POS-VAL	De-fault	Description
BCM	CODEC-G728-PTIME	INTEGER	10	30	N	10 No Default (Release 4.5)	G.728 (or G728)
BCM	CODEC-G729AB-PTIME	INTEGER	10	30	N	10 No Default (Release 4.5)	G.729AB (or G729AB)
BCM	CODEC-G729B-PTIME	INTEGER	10	30	N	10 No Default (Release 4.5)	G.729B (or G729B)
BCM	CODEC-G729E-PTIME	INTEGER	10	30	N	10 No Default (Release 4.5)	G.729E (or G729E)
BCM	CODEC-G729-PTIME	INTEGER	10	30	N	10 No Default (Release 4.5)	G.729 (or G729)
BCM	CODEC-MOD-DURING-CALL	BOOLEAN			N	N (Release 4.1) Y (Release 4.2)	This flag is used by call processing to determine whether to modify the codec used in the first leg of a call to G711 during a multiparty call. The default uses the same codec as the first leg for the new call.
BCM	CODEC-PCMA-PTIME	INTEGER	10	30	N	10 No Default (Release 4.5)	PCMA (or G.711A or G711A)

Table A-1 Configurable Parameters for the Call Agent and Feature Server (continued)

Group	Type	Datatype	From-Value	To-Value	CHK-POS-VAL	De-fault	Description
BCM	CODEC-PCMU-PTIME	INTEGER	10	30	N	10 No Default (Release 4.5)	PCMU (or G.711U or G711U) (default)
BCM	COLLECT-TMR	INTEGER	30	180	N	50	Maximum amount of time, in seconds, the BCM waits for digits to be collected by the media gateway. If digits are not received within the timer value, the call is given partial dial treatment.
BCM	CONN-ACK-TMR	INTEGER	1	6	N	2	This timer starts (in seconds) when a call is answered but the bearer path is not established. If the bearer path is not established within the timer value, the call is torn down.
BCM	DEFAULT-CODEC-TYPE	STRING			Y	PCMU	Default codec type to be used.
BCM	DEFAULT-CODEC-TYPE	STRING			U	PCMU	Default Codec Type to be used.
BCM	DEFAULT-INTL-DIAL-PLAN-ID	STRING			N	Default	Default international dial plan ID. The string text *default* is used as a default international dial plan ID if no other value is provisioned.
BCM	DEFAULT-ODR	STRING			N	Default	Specifies the default ODR-based route in the Policy ODR table when the received ODR (NPA, NPA-NXX) based match is not found. The string text *default* is used as a match in the Policy ODR table if no other value is provisioned.
BCM	DEFAULT-OFFICE-SERVICE-ID	STRING			N		Specifies the default office-based service ID.
BCM	DEFAULT-OLI	INTEGER	0	255	N	255	Valid oli=00–99, 255.
BCM	DEFAULT-POP	INTEGER	1	255	N	255	Specifies the default POP for POP-based policy routing.

Table A-1 Configurable Parameters for the Call Agent and Feature Server (continued)

Group	Type	Datatype	From-Value	To-Value	CHK-POS-VAL	De-fault	Description
BCM	DEFAULT-QOS-ID	STRING			N	Default	Specifies using the default-qos-id to perform codec selection if a subscriber or trunk group is not provisioned with the qos-id. The string text *default* is used to retrieve the QoS record if no other value is provisioned.
BCM	DEFAULT-REGION	STRING			N	Default	Specifies using the default-region if the called party number does not match in the Region Profile table or a record with the specified region does not exist. The string text *default* is used as a match in the Policy Region table if no other value is provisioned.
BCM	DEFAULT-SIP-CAUSE-CODE-MAP-ID (Not supported)	STRING			N		Default SIP Cause Code Mapping table.
BCM	DEFAULT-SS7-CAUSE-CODE-MAP-ID (Not supported)	STRING			N		Default SS7 Cause Code Mapping table.
BCM	DIAL-TONE-TMR	INTEGER	0	32	N	16	Default dial tone timer.
BCM	DIGIT-TO-TMR	INTEGER	30	300	N	60	The Digit Timeout Timer is started while requesting digits from the media gateway. If no digits are received before the timer expires, the call is given partial dial treatment, in seconds.

Table A-1 Configurable Parameters for the Call Agent and Feature Server (continued)

Group	Type	Datatype	From-Value	To-Value	CHK-POS-VAL	De-fault	Description
BCM	E911-CALLED-PARTY-HOLD	BOOLEAN			N	Y	When a calling party goes on-hook during a 911 call, this token determines if the calling party is released or not. Default is to send a release to the Tandem switch. **Note** This token is not checked if the outgoing trunk group for E911 is SIP or ISUP. Use the CLDPTY-CTRL-REL-ALWD token in the Destination table if called party control is required on any outgoing call.
BCM	INTL-NO-ANSWER-TMR	INTEGER	0	300	N	185	No answer timer, in seconds, for international calls.
BCM	INTL-PIC-REQD	BOOLEAN			N	Y	This token specifies if a PIC is required for international calls.
BCM	INTL-RE-ANSWER-TMR	INTEGER	0	300	N	10	Reanswer timer for international calls. 10 seconds for U.S. 120 seconds for international.
BCM	IVR-DISC-TIMER (Release 4.5)	INTEGER	1	6	N	1	Maximum time, in seconds, to wait for wait for IVR bearer connection disconnect responses (for example, DLCX ACK) before continuing with the call clearing, routing, or announcement.
BCM	IVR-DURATION-TIMER (Release 4.5)	INTEGER	0	60	N	30	Defines the maximum duration, in minutes, of an IVR session. Upon timer expiry, the IVR session is canceled and the call is routed or disconnected per feature requirements. If the timer value is 0, no IVR disconnect procedure is performed until the user hangs up.
BCM	LOCAL-NO-ANSWER-TMR	INTEGER	0	300	N	185	No answer timer, in seconds, for local calls.

Table A-1 Configurable Parameters for the Call Agent and Feature Server (continued)

Group	Type	Datatype	From-Value	To-Value	CHK-POS-VAL	De-fault	Description
BCM	LOCAL-RINGBACK	BOOLEAN			N	Y	Used in PacketCable Networks to turn the local ringback option on or off. Checked for only Basic on-net to on-net calls. **Note** This feature should be turned on for the calling party to receive a local ringback for on-net to on-net calls in a PacketCable network. This feature is different from the "ringback on connection" feature that is provisioned for the MTA in the mgw-profile table.
BCM	MAX-REATTEMPT-COUNT	INTEGER	1	10	N	5	Specifies the maximum number of reattempts.
BCM	NO-ANSWER-TMR (Release 4.5)	INTEGER	1	300	N	185	If the start-no-answer-tmr is set to Y, the no-answer-tmr, in seconds, is started for all calls. **Note** For international calls, this timer is started regardless of the start-no-answer-tmr value.
BCM	NO-RESP-TMR	INTEGER	1	30	N	20	This timer starts for MGCP and SIP subscribers during the Alerting stage. If an Alerting confirmation is not received within the timer value, in seconds, the call is torn down.
BCM	OSI-GUARD-TMR	INTEGER	1	4	N	2	The open switch interval (OSI) guard timer, in seconds, starts once an OSI signal is applied to a termination. The ROH or origination treatment is performed after the expiration of the osi-guard-tmr.

Table A-1 Configurable Parameters for the Call Agent and Feature Server (continued)

Group	Type	Datatype	From-Value	To-Value	CHK-POS-VAL	De-fault	Description
BCM	PST-AFTER-TIMED-RELEASE	BOOLEAN			N	Y	After expiration of a time-release-interval, this flag determines the release treatment if the line remains off-hook. If PST is selected, the line receives permanent signal treatment (GR-505 section 4.5). If idle line is selected, the line receives dial tone. Y—Default. Provide PST. N—Idle line.
BCM	RE-ANSWER-TMR	INTEGER	0	300	N	10	Reanswer timer for local calls. 10 seconds for U.S. 60 seconds for international.
BCM	RECONNECT-TMR	INTEGER	30	185	N	65	When a subscriber hangs up with another call on hold, the subscriber is rung back. The ringing is applied for the duration, in seconds, of this reconnect-tmr. If the subscriber does not answer the call within this time period, the call is torn down.
BCM	ROH-TONE-TIMER	INTEGER	0	180	N	60	Defines the amount of time, in seconds, an ROH tone is played to the user. After the timer, the ROH tone is removed. If the timer value is 0, the tone is played forever or until the user hangs up.
BCM	SEND-QOS-ERROR	BOOLEAN			N	N	Y/N. Specifies whether to send a QoS error.
BCM	SSF-TMR	INTEGER	3	30	N	20	The time, in seconds, Call Processing waits for a response from a Feature Server. If the timer expires before a response is received from the Feature Server, or SCP, Call Processing continues with basic default processing.
BCM	START-NO-ANSWER-TMR	BOOLEAN			N	N	Y/N. Specifies whether to start the no answer timer.

Table A-1 Configurable Parameters for the Call Agent and Feature Server (continued)

Group	Type	Datatype	From-Value	To-Value	CHK-POS-VAL	De-fault	Description
BCM	SUSP-TMR	INTEGER	0	300	N	10	In seconds. When the called party hangs up, the Cisco BTS 10200 Softswitch sends a suspend message to the originating switch and starts the susp-tmr. If the called party picks up the phone before the susp-tmr expires, the call is reconnected. If the phone is not picked up before the susp-tmr expires, the call is released and the Cisco BTS 10200 Softswitch sends a release message to the originating switch.
BCM	TEST-CALL-TMR	INTEGER	0	60	N	20	In minutes. The test call timer is used when an IAM is received for a test call. The Cisco BTS 10200 Softswitch starts a test-call-tmr based on the specified value. The call is released when the test-call-tmr expires.
BCM	TIME-RELEASE-INTERVAL	INTEGER	0	60	N	10	Controls the time duration (in seconds) of a silence tone when a call is torn down. In case of an invalid dialing, or a dial tone timeout, time-release-interval is used to control the time duration of a silence tone after the announcement is played. If the time-release-interval is 0, then an off-hook warning tone (busy tone) is played immediately.

Table A-1 Configurable Parameters for the Call Agent and Feature Server (continued)

Group	Type	Datatype	From-Value	To-Value	CHK-POS-VAL	De-fault	Description
BCM	TIME-RELEASE-TONE	STRING			Y	NO TONE	When the time release procedure is applied, the Cisco BTS 10200 Softswitch checks the time-release-tone values for the tone to play. Valid values for the tone are: NOTONE—No-tone (silence) BT—Busy-tone ROT—Reorder-tone ROH—Receiver-offhook-Warning-tone
BCM	TOLL-NO-ANSWER-TMR	INTEGER	0	300	N	185	No answer timer for toll or national calls.
BCM	TOLL-RE-ANSWER-TMR	INTEGER	0	300	N	10	Reanswer timer for toll or national calls. 10 seconds for U.S. 90 seconds for international.
BCM	TONE-TIMER	INTEGER	0	180	N	6	Defines the amount of tone, in seconds, that is played to a user. After the timer expires, the call is disconnected. However, if the timer value is 0, no disconnect procedure is performed until the user hangs up.
CALEA	CALEA-SNMP-SUPP	BOOLEAN			N	N	Specifies whether CALEA SNMP support is turned on or off.
CALL PARK	CPRK-ANN	INTEGER			N	0	Specifies whether to play an announcement to a parked party. Provision the announcement ID here to play the announcement. Nonzero indicates the announcement ID. If zero (0) or NULL, no announcement is played.

Table A-1 Configurable Parameters for the Call Agent and Feature Server (continued)

Group	Type	Datatype	From-Value	To-Value	CHK-POS-VAL	De-fault	Description
CALL PARK	CPRK-CLEAR	INTEGER			N	0	Specifies whether to play a clearing announcement to a parked party after unsuccessful timed recall attempts. Provision the announcement ID here to play the announcement. Nonzero indicates the announcement ID. If zero (0) or NULL, no announcement is played.
CALL PARK	CPRK-HC-T1	INTEGER	1	48	N	48	Specifies the HC-T1 timer timeout value in hours.
CALL PARK	CPRK-TIMER	INTEGER	0	360	N	60	Specifies the TCPRK timer timeout value in seconds.
CF	HOP-COUNT	INTEGER	3	5	N	5	Specifies the number of HOPs allowed on a call.
CLASS	AC-ACTIVATION-LEVEL	STRING			Y	ONE	Specifies AC activation levels (one-level, two-level).
CLASS	ARAC-ACTIVATION-LEVEL	STRING			N	ONE	Specifies AR/AC activation levels (one-level, two-level).
CLASS	ARAC-ACTIVATION-TO-ANONYMOUS-DN	BOOLEAN			N	N	Specifies AR/AC activation attempt supported by SPCS for anonymous DNs.
CLASS	ARAC-ACTIVATION-TO-COIN	BOOLEAN			N	N	Specifies AR/AC activation attempt toward a DN match to a coin type line.
CLASS	ARAC-ACTIVATION-TO-MLHG	BOOLEAN			N	Y	Specifies AR/AC activation attempt toward a DN match to an MLHG line.
CLASS	ARAC-ACTIVATION-TO-NON-UNIQUE-DN	BOOLEAN			N	N	Specifies whether AR/AC activation attempt is supported by SPCS for nonunique DNs.
CLASS	ARAC-INITIAL-QUERY-RESPONSE-TIMER-T5	INTEGER			N	3	Specifies the amount of time the OSPCS waits for a response to the initial query.
CLASS	ARAC-INTER-BUSY-IDLE-QUERY-DURATION-TIMER-T11	INTEGER			N	95	The TSPCS uses this timer to control the active/inactive status of a queued entry with originating scanning.

Table A-1 Configurable Parameters for the Call Agent and Feature Server (continued)

Group	Type	Datatype	From-Value	To-Value	CHK-POS-VAL	De-fault	Description
CLASS	ARAC-MAX-6SEC-RINGING-CYCLES	INTEGER	2	5	N	4	The maximum number of 6-second ringing cycles given per application of special ringing. Range is 2–5, typical is 4.
CLASS	ARAC-MAX-CONCURRENT-ATTEMPTS	INTEGER	10	30	N	30	The maximum number of concurrent AR/AC activations per customer.
CLASS	ARAC-MAX-QUEUE-SIZE	INTEGER	10	20	N	15	The AR/AC attempts maximum queue size for a DN.
CLASS	ARAC-MAX-UNANSWERED-RING-APPLICATIONS	INTEGER	1	12	N	2	The maximum number of unanswered, special ringing applications.
CLASS	ARAC-MONITORING-TIMER-T6	INTEGER	25	35	N	30	Controls the amount of time the called party of an AR request is monitored for idle notification in minutes. This timer is initialized when an AC request is accepted and delayed processing begins. If a reactivation occurs, this timer is reinitialized. This timer stops when the AC request is completed or deactivated. See GR 215 or GT 227 for more information.
CLASS	ARAC-ORIGINATING-SCAN-RATE	INTEGER	30	90	N	60	Timer to control the frequency at which the OSPCS sends originating scanning in seconds.
CLASS	ARAC-OSPCS-OVERALL-MONITOR-TIMER-T10	INTEGER	2	4	N	3	Maximum amount of continuous time the particular request can be active in OSPCS in hours.
CLASS	ARAC-OUTSTANDING-NOTIFICATION-TIMER-T8	INTEGER	Range is not applicable.		N	35	Specifies the time the TSPCS waits after sending an *idle* notification to the OSPCS, before rechecking the called line's busy/idle status in seconds.

Table A-1 Configurable Parameters for the Call Agent and Feature Server (continued)

Group	Type	Datatype	From-Value	To-Value	CHK-POS-VAL	De-fault	Description
CLASS	ARAC-PERIODIC-SCAN-RATE	INTEGER	5	30	N	30	Periodic scan rate if the SPCS performs periodic scanning of called/calling party's line. Range is in seconds in intervals of 5 seconds.
CLASS	ARAC-QUEUING-SUPPORTED	BOOLEAN			N	Y	Specifies whether AR/AC terminating SPCS support for queue call from originating SPCS is supported.
CLASS	ARAC-RESUME-SCANNING-THRESHOLD-TIME	INTEGER	0	7	N	5	This threshold is used after comparing with the Monitor timer (T6) by OSPCS to determine whether to resume scanning, in minutes.
CLASS	ARAC-RESUME-SCANNING-TIMER-T2	INTEGER	3	12	N	5	Specifies the amount of time the OSPCS waits to resume scanning after a calling party does not answer a special ringing, in minutes.
CLASS	ARAC-SUB-QUERY-RESPONSE-TIMER-T9	INTEGER	1	5	N	3	Specifies the amount of time the OSPCS waits for responses from the TSPCS to any query other than the initial query, in seconds.
CLASS	ARAC-TERMINATING-SCANNING-MONITOR-TIMER-T7	INTEGER	0	30	N	30	Specifies the amount of time the TSPCS does terminating scanning, in minutes.
CLASS	ARAC-TERMINATING-SPCS-SCAN-ALLOW	BOOLEAN			N	Y	Specifies whether terminating SPCS support for scanning is allowed.
CLASS	ARAC-TSPCS-OVERALL-MONITOR-TIMER-T10	INTEGER	2	4	N	3	The terminating SPCS overall monitoring timer is by the terminating SPCS to determine the maximum amount of time, in hours, that an AC request can remain in the queue. This timer is initialized at the terminating SPCS when a call is accepted for queuing. This timer stops when the AC request is deactivated or completed. See GR 215 or GR 227 for more information.

Table A-1 Configurable Parameters for the Call Agent and Feature Server (continued)

Group	Type	Datatype	From-Value	To-Value	CHK-POS-VAL	De-fault	Description
CLASS	AR-ANNOUNCEMENT-RESPONSE-TIMEOUT-COUNTER (Release 4.4.1)	INTEGER	1	3	N	2	The number of times an announcement response timeout can occur after a customer has received dialing instructions. The SPCS allows a client company to set the value of this item to an integer between 1 and 3, with a suggested value of 2. The timeout counter is initialized to 0 when the customer first accesses the feature. The counter is incremented each time the customer fails to enter any input within the timeout interval. The timeout counter is not initialized or incremented if an invalid digit is specified by the customer.
CLASS	AR-ANNOUNCEMENT-RESPONSE-TIMER-TANC (Release 4.4.1)	INTEGER	1	10	N	7	This is a client-settable timer used during two-level AR activation. This timer is initialized when the SPCS prompts a customer to enter information in response to a DN voiceback announcement. If the Announcement Response timer expires, the SPCS increments the announcement response timeout counter and provides the AR activation prompt again.

Table A-1 Configurable Parameters for the Call Agent and Feature Server (continued)

Group	Type	Datatype	From-Value	To-Value	CHK-POS-VAL	De-fault	Description
CLASS	AR-DN-VOICEBACK-OPTION (Release 4.4.1)	INTEGER	1	14	N	All digits	Specifies if the complete DN, only the NPA, or only the NPANXX is included in a DN voiceback announcement. This includes all or part of the DN of the last incoming call, provided the DN is available and is not marked anonymous. The customer hears the NPA, NPA-NXX, or NPANXX-XXXX of the DN depending on the client company selection for the DN voiceback option. The DN voiceback option can have the following values: • Voiceback the complete DN • Voiceback the NPA • Voiceback the NPA-NXX
CLASS	AR-INVALID-DIGIT-COUNTER (Release 4.4.1)	INTEGER	1	3	N	2	The number of times a customer can specify an invalid action after dialing instructions are provided. The SPCS allows a client company to set the value of this item to an integer between 1 and 3, with a suggested value of 2. The invalid digit counter is initialized to 0 when the customer first accesses the feature. The counter is incremented each time the customer enters an invalid digit. The invalid digit counter is not initialized or incremented if announcement response timeout occurs.
CLASS	AR-NAME-VOICEBACK-OPTION (Release 4.4.1)	BOOLEAN			N	N	Used to configure a name voiceback option for the AR feature. If set to Y, the name is voiced back if available.
COS	ACCT-CODE-PROMPT-DELAY (Release 4.5)	INTEGER	0	1000	N	0	Used to introduce a delay, in milliseconds, before playing a prompt for an account code.

Table A-1 Configurable Parameters for the Call Agent and Feature Server (continued)

Group	Type	Datatype	From-Value	To-Value	CHK-POS-VAL	De-fault	Description
COS	ACCT-CODE-PROMPT-TIMEOUT (Release 4.5)	INTEGER	0	16	N	0	Used to prompt a timeout for an account code. 0 means no timeout.
COS	ACCT-CODE-PROMPT-TONE (Release 4.5)	STRING			L	SDL	Prompt an account code tone. Permitted values are: DL—dial tone MWI—message waiting indicator SDL (Default)—stutter dial tone) SL—stutter dial tone CF—confirm tone P—prompt tone
COT	COT-ACTIVATION-LEVEL (Release 4.5)	STRING			U	ONE	Specifies the COT activation levels (one-level, two-level).
CWD/TWCD	FEATURE-RECONNECT-TMR (Release 4.5)	INTEGER	3	30	N	10	Reconnect timer, in seconds, used by the Call Waiting and Three-Way Call features. When a subscriber is connected to a reorder tone or announcement, the user is automatically reconnected to the previous call state after the specified period.
EMG	EMG-SUSPEND-TMR (Release 4.5)	INTEGER	0	3600	N	2700	Suspend timer for Emergency calls in seconds. If 0, no timer is invoked.
ENUM	ENUM-QUERY-RESPONSE-TIMER (Release 4.5)	INTEGER	1	6	N	1	Used when querying an ENUM server. If no response is received within the specified period, the ENUM query is abandoned and the call continues as if the dialed number did not require IP routing.
ENUM	ENUM-QUERY-RETRY-COUNT (Release 4.5)	INTEGER	1	6	N	1	The number of times to retransmit after a enum-query-response-timer timeout.

Table A-1 Configurable Parameters for the Call Agent and Feature Server (continued)

Group	Type	Datatype	From-Value	To-Value	CHK-POS-VAL	De-fault	Description
FSAIN	FSAIN-SIG-TOS-LOWDELAY ⚠ **Caution** Cisco does not recommend using any value other than the specified default. Changing this value from its default may significantly impact network performance. Contact Cisco TAC for further information.	BOOLEAN			N	Y	Specifies whether to set low delay. Low delay refers to the waiting time, or latency involved in sending and receiving a packet. TOS provides an indication of the abstract parameters of the quality of service desired. These parameters are used to guide the selection of the actual service parameters when transmitting a datagram through a particular network. See RFC 1349, RFC 791, and RFC 795 for detailed information. Y—(1) Set to low delay. N—(0) Set to normal delay. **Note** If you prefer to use DSCP values, derive the appropriate TOS values using the DSCP/TOS mapping information in Appendix H, "Data Values for TOS, DSCP, and PHB Parameters."

Table A-1 Configurable Parameters for the Call Agent and Feature Server (continued)

Group	Type	Datatype	From-Value	To-Value	CHK-POS-VAL	De-fault	Description
FSAIN	FSAIN-SIG-TOS-PRECEDENCE **Caution** Cisco does not recommend using any value other than the specified default. Changing this value from its default may significantly impact network performance. Contact Cisco TAC for further information.	INTEGER	0	7	N	3	This token specifies which IP precedence to use for the FSAIN signaling stream. TOS provides an indication of the abstract parameters of the quality of service desired. These parameters are used to guide the selection of the actual service parameters when transmitting a datagram through a particular network. IP precedence utilizes the 3 precedence bits in the type of service (TOS) field in the IP header to specify a class of service assignment for each IP packet. See RFC 1349, RFC 791, and RFC 795 for detailed information Values are: NETCONTROL (=7) INTERNETCONTROL (=6) CRITICAL (=5) FLASHOVERRIDE (=4) FLASH (=3, Default) IMMEDIATE (=2) PRIORITY (=1) ROUTINE (=0) **Note** If you prefer to use DSCP values, derive the appropriate TOS values using the DSCP/TOS mapping information in Appendix H, "Data Values for TOS, DSCP, and PHB Parameters."

Table A-1 Configurable Parameters for the Call Agent and Feature Server (continued)

Group	Type	Datatype	From-Value	To-Value	CHK-POS-VAL	De-fault	Description
FSAIN	FSAIN-SIG-TOS-RELIABILITY ⚠ **Caution** Cisco does not recommend using any value other than the specified default. Changing this value from its default may significantly impact network performance. Contact Cisco TAC for further information.	BOOLEAN			N	N	Specifies whether to set reliability. Reliability refers to the dependability of packet delivery. TOS provides an indication of the abstract parameters of the quality of service desired. These parameters are used to guide the selection of the actual service parameters when transmitting a datagram through a particular network. See RFC 1349, RFC 791, and RFC 795 for detailed information. Y—(1) Set to high reliability. N—(0) Set to normal reliability. **Note** If you prefer to use DSCP values, derive the appropriate TOS values using the DSCP/TOS mapping information in Appendix H, "Data Values for TOS, DSCP, and PHB Parameters."

Table A-1 Configurable Parameters for the Call Agent and Feature Server (continued)

Group	Type	Datatype	From-Value	To-Value	CHK-POS-VAL	De-fault	Description
FSAIN	FSAIN-SIG-TOS-THROUGHPUT **Caution** Cisco does not recommend using any value other than the specified default. Changing this value from its default may significantly impact network performance. Contact Cisco TAC for further information.	BOOLEAN			N	N	Specifies whether to set throughput. Throughput refers to the actual amount of useful and nonredundant information that is transmitted or processed. Throughput is a function of bandwidth, error performance, congestion, and other factors. TOS provides an indication of the abstract parameters of the quality of service desired. These parameters are used to guide the selection of the actual service parameters when transmitting a datagram through a particular network. See RFC 1349, RFC 791, and RFC 795 for detailed information. Y—(1) Set to high throughput. N—(0) Set to normal throughput. **Note** If you prefer to use DSCP values, derive the appropriate TOS values using the DSCP/TOS mapping information in Appendix H, "Data Values for TOS, DSCP, and PHB Parameters."
FSPTC	ACCT-CODE-PROMPT-DELAY (Release 4.4.0)	INTEGER	0	1000	N	0	Specifies a delay, in milliseconds, before playing a prompt for an account code.
FSPTC	ARAC-ACTIVATION-LEVEL	STRING			N	ONE	Specifies AR/AC activation levels (one-level, two-level).
FSPTC	ARAC-ACTIVATION-TO-ANONYMOUS-DN	BOOLEAN			N	N	Specifies AR/AC activation attempt supported by SPCS for anonymous DNs.
FSPTC	ARAC-ACTIVATION-TO-COIN	BOOLEAN			N	N	Specifies AR/AC activation attempt toward a DN match to a coin type line.

Table A-1 Configurable Parameters for the Call Agent and Feature Server (continued)

Group	Type	Datatype	From-Value	To-Value	CHK-POS-VAL	De-fault	Description
FSPTC	ARAC-ACTIVATION-TO-MLHG	BOOLEAN			N	Y	Specifies AR/AC activation attempt toward a DN match to a MLHG line.
FSPTC	ARAC-ACTIVATION-TO-NON-UNIQUE-DN	BOOLEAN			N	N	Specifies whether AR/AC activation attempt is supported by SPCS for non-unique DNs.
FSPTC	ARAC-INITIAL-QUERY-RESPONSE-TIMER-T5	INTEGER	1	5	N	3	Specifies the amount of time, in seconds, that the OSPCS waits for a response to the initial query
FSPTC	ARAC-INTER-BUSY-IDLE-QUERY-DURATION-TIMER-T11	INTEGER			N	95	The terminating SPCS uses this timer (in seconds) to control the active/inactive status of a queued entry with originating scanning. A range is not applicable.
FSPTC	ARAC-MAX-6SEC-RINGING-CYCLES	INTEGER	2	5	N	4	The maximum number of 6-second ringing cycles given per application of special ringing.
FSPTC	ARAC-MAX-CONCURRENT-ATTEMPTS	INTEGER	10	30	N	30	The maximum number of concurrent AR/AC activations per customer.
FSPTC	ARAC-MAX-QUEUE-SIZE	INTEGER	10	20	N	15	The AR/AC attempts maximum queue size for a DN.
FSPTC	ARAC-MAX-UNANSWERED-RING-APPLICATIONS	INTEGER	1	12	N	2	The maximum number of unanswered, special ringing applications.
FSPTC	ARAC-MONITORING-TIMER-T6	INTEGER	25	35	N	30	This timer parameter controls the total time that the called party of an AR/AC request is monitored for an idle notification. This timer is initialized when an AR/AC request is accepted and delayed processing begins. If a reactivation occurs, this timer is reinitialized. This timer stops when the AR/AC request is completed or deactivated.
FSPTC	ARAC-ORIGINATING-SCAN-RATE	INTEGER	30	90	N	60	Timer (in seconds) that controls how frequently the OSPCS sends originating scanning.

Table A-1 Configurable Parameters for the Call Agent and Feature Server (continued)

Group	Type	Datatype	From-Value	To-Value	CHK-POS-VAL	De-fault	Description
FSPTC	ARAC-OSPCS-OVERALL-MONITOR-TIMER-T10	INTEGER	2	4	N	3	This timer parameter is used by the originating SPCS to determine the maximum continuous time the particular request can be in effect for a given customer. This limits the number of times a customer may reactivate an AR/AC request. This timer is initialized when the customer activates the AR/AC feature (that is, when the appropriate access code is received). This timer is not reinitialized when the customer reactivates the AR/AC feature. This timer stops at the originating SPCS when call setup occurs or when the attempt is deactivated.
FSPTC	ARAC-OUTSTANDING-NOTIFICATION-TIMER-T8	INTEGER			N	35	Specifies the time (in seconds) that the Terminating SPCS waits after sending an idle notification to the OSPCS, before rechecking the called line's busy/idle status. A range is not applicable.
FSPTC	ARAC-PERIODIC-SCAN-RATE	INTEGER	5	30	N	30	Periodic scan rate, if the SPCS performs periodic scanning of the called/calling party's line.
FSPTC	ARAC-QUEUING-SUPPORTED	BOOLEAN			N	Y	Specifies whether AR/AC terminating SPCS support for queue call from originating SPCS is supported.
FSPTC	ARAC-RESUME-SCANNING-THRESHOLD-TIME	INTEGER	0	7	N	5	This threshold (in minutes) is used after comparing with the Monitor timer (T6) by OSPCS to determine whether to resume scanning.
FSPTC	ARAC-RESUME-SCANNING-TIMER-T2	INTEGER	3	12	N	5	Specifies the amount of time (in minutes) that the OSPCS waits to resume scanning after a calling party does not answer a special ringing.

Table A-1 Configurable Parameters for the Call Agent and Feature Server (continued)

Group	Type	Datatype	From-Value	To-Value	CHK-POS-VAL	De-fault	Description
FSPTC	ARAC-SUB-QUERY-RESPONSE-TIMER-T9	INTEGER	1	5	N	3	Specifies the amount of time (in seconds) that the OSPCS waits for responses from the TSPCS to any query other than the initial query.
FSPTC	ARAC-TERMINATING-SCANNING-MONITOR-TIMER-T7	INTEGER	0	30	N	30	Specifies the amount of time (in minutes) that the TSPCS does terminating scanning.
FSPTC	ARAC-TERMINATING-SPCS-SCAN-ALLOW	BOOLEAN			N	Y	Specifies whether terminating SPCS support for scanning is allowed.
FSPTC	AR-ACTIVATION-LEVEL	STRING			Y	ONE	Specifies AR/AC activation levels (one-level, two-level).
FSPTC	ARAC-TSPCS-OVERALL-MONITOR-TIMER-T10	INTEGER	2	4	N	3	This timer parameter is used by the terminating SPCS to determine the maximum amount of time an AR/AC request can remain in the queue. This timer is initialized at the terminating SPCS when a call is accepted for queuing. This timer stops when the AR/AC request is deactivated or completed.
FSPTC	AUTH-CODE-PROMPT-DELAY (Release 4.4.0)	INTEGER	0	1000	N	0	Specifies a delay, in milliseconds, before playing prompt for an authorization code.
FSPTC	COT-ACTIVATION-LEVEL	STRING			Y	ONE	Specifies COT activation levels (one-level, two-level).
FSPTC	CPRK-ANN	INTEGER			N	0	Specifies whether to play a clearing announcement to a parked party after unsuccessful timed recall attempts. Provision the announcement ID here to play the announcement. Nonzero indicates the announcement ID. If zero (0) or NULL, no announcement is played.

Table A-1 Configurable Parameters for the Call Agent and Feature Server (continued)

Group	Type	Datatype	From-Value	To-Value	CHK-POS-VAL	De-fault	Description
FSPTC	CPRK-CLEAR	INTEGER			N	0	Specifies whether to play a clearing announcement to a parked party after unsuccessful timed recall attempts. Provision the announcement ID here to play the announcement. Nonzero indicates the announcement ID. If zero (0) or NULL, no announcement is played.
FSPTC	CPRK-HC-T1	INTEGER	1	48	N	48	Specifies the HC-T1 timer timeout value in hours.
FSPTC	CPRK-TIMER	INTEGER	0	360	N	60	Specifies the TCPRK timer timeout value in seconds.
FSPTC	DEFAULT-OCB-PROFILE-ID (Release 4.4.0)	STRING			N		Specifies a default Office-based Outgoing Call Barring (OCB) Profile id. This id is used if the POP-specific ocb-profile-id is not provisioned.
FSPTC	EMG-SUSPEND-TMR	INTEGER	0	3600	N	2700	Suspend Timer for Emergency Call (in seconds). If 0, no timer is invoked.
FSPTC	FEATURE-RECONNECT-TMR	INTEGER	3	30	N	10	Reconnect timer (in seconds). This timer is used by the CW and TWC features. When a caller is connected to a reorder tone or announcement, the caller is automatically reconnected to their previous call state after the specified timeout period.

Table A-1 Configurable Parameters for the Call Agent and Feature Server (continued)

Group	Type	Datatype	From-Value	To-Value	CHK-POS-VAL	De-fault	Description
FSPTC	FSPTC-SIG-TOS-LOWDELAY **Caution** Cisco does not recommend using any value other than the specified default. Changing this value from its default may significantly impact network performance. Contact Cisco TAC for further information.	BOOLEAN			N	Y	Specifies whether to set low delay. Low delay refers to the waiting time, or latency involved in sending and receiving a packet. TOS provides an indication of the abstract parameters of the quality of service desired. These parameters are used to guide the selection of the actual service parameters when transmitting a datagram through a particular network. See RFC 1349, RFC 791, and RFC 795 for detailed information. Y—(1) Set to low delay. N—(0) Set to normal delay. **Note** If you prefer to use DSCP values, derive the appropriate TOS values using the DSCP/TOS mapping information in Appendix H, "Data Values for TOS, DSCP, and PHB Parameters."

Table A-1 Configurable Parameters for the Call Agent and Feature Server (continued)

Group	Type	Datatype	From-Value	To-Value	CHK-POS-VAL	De-fault	Description
FSPTC	FSPTC-SIG-TOS-PRECEDENCE **Caution** Cisco does not recommend using any value other than the specified default. Changing this value from its default may significantly impact network performance. Contact Cisco TAC for further information.	INTEGER	0	7	N	3	This token specifies which IP precedence to use for the FSPTC signaling stream. IP precedence utilizes the 3 precedence bits in the type of service (TOS) field in the IP header to specify a class of service assignment for each IP packet. TOS provides an indication of the abstract parameters of the quality of service desired. These parameters are used to guide the selection of the actual service parameters when transmitting a datagram through a particular network. See RFC 1349, RFC 791, and RFC 795 for detailed information. Values are: NETCONTROL (=7) INTERNETCONTROL (=6) CRITICAL (=5) FLASHOVERRIDE (=4) FLASH (Default = 3) IMMEDIATE (=2) PRIORITY (=1) ROUTINE (=0) **Note** If you prefer to use DSCP values, derive the appropriate TOS values using the DSCP/TOS mapping information in Appendix H, "Data Values for TOS, DSCP, and PHB Parameters."

Table A-1 Configurable Parameters for the Call Agent and Feature Server (continued)

Group	Type	Datatype	From-Value	To-Value	CHK-POS-VAL	De-fault	Description
FSPTC	FSPTC-SIG-TOS-RELIABILITY **Caution** Cisco does not recommend using any value other than the specified default. Changing this value from its default may significantly impact network performance. Contact Cisco TAC for further information.	BOOLEAN			N	N	Specifies whether to set this socket option, FSPTC signaling (SIG) type of service (TOS) reliability (RELIABILITY) to 1 (Y) or 0 (N). Reliability refers to the dependability of packet delivery. TOS provides an indication of the abstract parameters of the quality of service desired. These parameters are used to guide the selection of the actual service parameters when transmitting a datagram through a particular network. See RFC 1349, RFC 791, and RFC 795 for detailed information. Y—(1) Set to high reliability. N—(0) Set to normal reliability. **Note** If you prefer to use DSCP values, derive the appropriate TOS values using the DSCP/TOS mapping information in Appendix H, "Data Values for TOS, DSCP, and PHB Parameters."

Table A-1 Configurable Parameters for the Call Agent and Feature Server (continued)

Group	Type	Datatype	From-Value	To-Value	CHK-POS-VAL	De-fault	Description
FSPTC	FSPTC-SIG-TOS-THROUGHPUT **Caution** Cisco does not recommend using any value other than the specified default. Changing this value from its default may significantly impact network performance. Contact Cisco TAC for further information.	BOOLEAN			N	N	Specifies whether to set throughput. Throughput refers to the actual amount of useful and nonredundant information that is transmitted or processed. The relationship between what went in one end of the network and what came out the other is a measure of the efficiency of that communications network. Throughput is a function of bandwidth, error performance, congestion, and other factors. TOS provides an indication of the abstract parameters of the quality of service desired. These parameters are used to guide the selection of the actual service parameters when transmitting a datagram through a particular network. See RFC 1349, RFC 791, and RFC 795 for detailed information. Y—(1) Set to high throughput. N—(0) Set to normal throughput. **Note** If you prefer to use DSCP values, derive the appropriate TOS values using the DSCP/TOS mapping information in Appendix H, "Data Values for TOS, DSCP, and PHB Parameters."
FSPTC	HOP-COUNT	INTEGER	3	5	N	5	Specifies the TCPRK timer timeout value in seconds.
FSPTC	IVR-DN	DIGITS			N		Directory number for IVR.
FSPTC	SLE-DE-THRESHOLD	INTEGER	2	5	N	3	Specifies the number of consecutive dialing errors allowed.

Table A-1 Configurable Parameters for the Call Agent and Feature Server (continued)

Group	Type	Datatype	From-Value	To-Value	CHK-POS-VAL	De-fault	Description
FSPTC	SLE-LIST-SIZE	INTEGER	2	31	N	31	Defines the maximum size (31 entries per feature per subscriber) of a Screen List Editing table.
FSPTC	SLE-TIMER-T1	INTEGER	2	10	N	4	T1 defines how long the SPCS waits for a customer to confirm an existing remote DN or indicate to change the remote DN.
FSPTC	SLE-TIMER-T2	INTEGER	2	10	N	4	T2 defines how long the SPCS waits for a customer to specify a new remote DN.
FSPTC	SLE-TIMER-T3	INTEGER	2	10	N	4	T3 defines how long the SPCS waits for a customer to specify a list-editing level option. It also defines how long the SPCS waits for the customer to specify #, 12, or 0 when a DN must be added to the list during feature activation.
FSPTC	SLE-TIMER-T4	INTEGER	2	10	N	4	T4 defines how long the SPCS waits for the customer to specify a DN when adding or deleting an entry.
FSPTC	SLE-TIMER-T5	INTEGER	2	4	N	3	T5 specifies the time the originating SPCS waits for a response to the initial query sent to the screened DNs SPCS.
FSPTC	SLE-TIMER-T6	INTEGER	20	40	N	25	In 100 milliseconds (Default = 25 times 100 milliseconds). T6 defines how long the SPCS waits for a customer to specify an option after an entry on the list has been voiced back during list review.
FSPTC	SLE-TIMER-T7	INTEGER	2	9	N	4	Inter-Digit Timer for SLE.
FSPTC	SLE-TO-THRESHOLD	INTEGER	2	5	N	3	Specifies the number of consecutive timeouts allowed.
H323	DEFAULT-H323-CAUSE-CODE-MAP-ID	STRING			N		Specifies the default H.323 Cause Code Map ID from the Cause Code Map table.
H323	H323-IRR-CALL-INFO-COUNT	INTEGER	1	100	N	8	The number of call infos to be put into a single IRR.

Table A-1 Configurable Parameters for the Call Agent and Feature Server (continued)

Group	Type	Datatype	From-Value	To-Value	CHK-POS-VAL	De-fault	Description
H323	H323-MAX-LOOP-COUNT (Release 4.2)	INTEGER	0	10	N	3	Maximum number of times an H.323 call (having same Call Identifier) can hop via the Cisco BTS 10200 Softswitch.
H323	H323-SUPPORTED	BOOLEAN			N	N	If set to Y, the Cisco BTS 10200 Softswitch is configured as H.323 gateway.
IVR	DEFAULT-IVR-ROUTE-GUIDE-ID (Release 4.4.1)	STRING			N		Default IVR route guide to use if it is not supplied by the application.
IVR	DEFAULT-IVR-SCRIPT-PKG-TYPE (Obsoleted in Release 4.5)	STRING			Y	BAU	Default IVR script package type to use if not supplied by the application server.
LNP	DEFAULT-LNP-PROFILE-ID (Release 4.2)	STRING			N		Specifies the default LNP Profile id to use. Only one LNP profile is supported per installation.
MGA	MGA-ADM-RESP-TIME	INTEGER	200	60000	N	900	Time after which bulk ADM responses are sent to the ADM (in msec).
MGA	MGA-ICMP-PING-RETRANSMIT-DURATION	INTEGER	2	10	N	2	Specifies the duration (in seconds) after which ICMP ping is done.
MGA	MGA-ICMP-PING-RETRY-COUNT	INTEGER	1	6	N	2	Specifies the number of times the GSM does ICMP pinging before declaring a media gateway down.
MGA	MGA-INIT-DURATION	INTEGER	1	10	N	1	Specifies the duration (in seconds) after which a media gateway starts initializing *initTerms* terminations.
MGA	MGA-INIT-TERMS	INTEGER	100	5000	N	160	Specifies the number of terminations initialized in every MGW initialization duration time.
MGA	MGA-MAX-FAULT-COUNT	INTEGER	1	10	N	5	Specifies the maximum number of fault counts.
MGA	MGA-MAX-NO-OF-ADM-RESP	INTEGER	1	100	N	24	Specifies the maximum number of ADM responses sent in one message.

Table A-1 Configurable Parameters for the Call Agent and Feature Server (continued)

Group	Type	Datatype	From-Value	To-Value	CHK-POS-VAL	De-fault	Description
MGA	MGA-MAX-RETRANSMIT-COUNT	INTEGER	2	11	N	3	Specifies the maximum retransmit count of an MGCP message. This requires the platform to be stopped and restarted.
MGA	MGA-MAX-UNREACH-COUNT	INTEGER	1	10	N	5	Specifies the maximum number of unreachable counts.
MGA	MGA-MIN-RETRANSMIT-COUNT	INTEGER	1	7	N	2	Specifies the minimum retransmit count of an MGCP message. This requires the platform to be stopped and restarted.
MGA	MGA-PING-ATTEMPTS	INTEGER	1	6	N	2	Specifies the maximum number of times the GSM does MGCP pinging before declaring a media gateway down.
MGA	MGA-PING-DURATION	INTEGER	60	240	N	60	Specifies the duration (in seconds) after which an MGCP ping is done on a media gateway if no activity is detected.
MGA	MGA-RECOVERY-DURATION	INTEGER	1	10	N	2	Specifies the number of seconds before an MGA tries to recover faulty/unreachable endpoints.
MGA	MGA-TIMER-VAL	INTEGER	400	1000	N	400	Specifies the minimum default time (in milliseconds) for MGCP message retransmissions. This requires the platform to be stopped and restarted.
MGCP	CODEC-T38-PTIME (Release 4.5)	INTEGER	10	30	N		Specifies the Image/T38 codec packetization period.
MGCP	INACTIVE-CONN-MODE-BEFORE-ANSWER (Release 4.5)	BOOLEAN			N	N	Used during local ringback. If the flag is set to Y, both connections (A and B) are kept inactive during the ringing state. If set to N, then the connection on party A is set to recv-only and the connection on party B is set to send/recv.

Table A-1 Configurable Parameters for the Call Agent and Feature Server (continued)

Group	Type	Datatype	From-Value	To-Value	CHK-POS-VAL	De-fault	Description
MGCP	MGCP-ADM-RESP-TIME	INTEGER	200	60000	N	900	Time (in milliseconds) after which bulk ADM responses are sent to the ADM.
MGCP	MGCP-ENBLOC-SUPP	BOOLEAN			N	Y	This flag is for internal use to run automated scripts using ACTI. If this flag is set to Y, the MGA queries the BCM to check if any features such as hotline or denied origination apply. If these features do not apply, the MGA plays a dial tone to the subscriber. If this flag is set to N, the MGA does not perform the query function and lets the BCM request the dial tone.
MGCP	MGCP-ICMP-PING-RETRANSMIT-DURATION	INTEGER	2	10	N	2	Specifies the duration (in seconds) after which an ICMP ping is done.
MGCP	MGCP-ICMP-PING-RETRY-COUNT	INTEGER	1	6	N	2	Specifies the number of times the GSM does ICMP pinging before declaring a media gateway down.
MGCP	MGCP-INIT-DURATION	INTEGER	1	10	N	1	Specifies the duration (in seconds) after which a media gateway starts initializing *initTerms* terminations. This requires the platform to be stopped and restarted.

Table A-1 Configurable Parameters for the Call Agent and Feature Server (continued)

Group	Type	Datatype	From-Value	To-Value	CHK-POS-VAL	De-fault	Description
MGCP	MGCP-INIT-TERMS	INTEGER	100	1600 (Release 4.1) 5000 (Release 4.2)	N	160	Specifies the number of terminations to be initialized for every mgcp-init-duration. The mgcp-init-terms and mgcp-init-duration parameters are used whenever: • An RSIP is received from the gateway. • The control or reset command is issued during cold/warm start with 1000 cics. A maximum of 160 terminations can be initialized every second. For example, if mgcp-init-duration is 5, mgcp-init-terms=800 (160x5) can be specified.
MGCP	MGCP-MAX-FAULT-COUNT	INTEGER	1	10	N	5	Specifies the maximum number of fault counts.
MGCP	MGCP-MAX-KEEPALIVE-AUEP (Release 4.5)	INTEGER	1000	100000	N	40000	The maximum number of MGWs to be AUEP pinged in 10 second interval.
MGCP	MGCP-MAX-KEEPALIVE-ICMP (Release 4.5)	INTEGER	100	10000	N	4000	The maximum number of MGWs that can be ICMP pinged in a 10 second interval.
MGCP	MGCP-MAX-NO-OF-ADM-RESP	INTEGER	1	100	N	24	Specifies the maximum number of ADM responses sent in one message.
MGCP	MGCP-MAX-RETRANSMIT-COUNT (Obsoleted in Release 4.5)	INTEGER	2	11	N	3	Specifies the maximum retransmit count of an MGCP message. This requires the platform to be stopped and restarted.
MGCP	MGCP-MAX-UNREACH-COUNT	INTEGER	1	10	N	5	Specifies the maximum number of unreachable counts.
MGCP	MGCP-MIN-RETRANSMIT-COUNT (Obsoleted in Release 4.5)	INTEGER	1	7	N	2	Specifies the minimum retransmit count of an MGCP message. This requires the platform to be stopped and restarted.

Table A-1 Configurable Parameters for the Call Agent and Feature Server (continued)

Group	Type	Datatype	From-Value	To-Value	CHK-POS-VAL	De-fault	Description
MGCP	MGCP-PING-ATTEMPTS (Obsoleted in Release 4.5)	INTEGER	1	20	N	10	Specifies the number of times the Gateway Status Monitoring (GSM) performs MGCP pinging before declaring a media gateway down.
MGCP	MGCP-PING-DURATION (Obsoleted in Release 4.5)	INTEGER	60	240	N	60	Specifies the duration (in seconds) after which an MGCP ping is done on a media gateway if no activity is detected.
MGCP	MGCP-RECOVERY-DURATION	INTEGER	1	10	N	5	Number of seconds before MGA tries to recover faulty/unreachable endpoints.
MGCP	MGCP-RTO-MAX (Release 4.5)	INTEGER	1	30	N	4	The maximum time in seconds allowed between two successive MGCP datagram retransmissions. Note that first retransmission is sent after MGCP-T-TRAN seconds. Cisco recommends using a value of 4, per RFC.

Table A-1 Configurable Parameters for the Call Agent and Feature Server (continued)

Group	Type	Datatype	From-Value	To-Value	CHK-POS-VAL	De-fault	Description
MGCP	MGCP-SIG-TOS-LOWDELAY ⚠ **Caution** Cisco does not recommend using any value other than the specified default. Changing this value from its default may significantly impact network performance. Contact Cisco TAC for further information. **Note** If you change the value of this parameter from the default value in the Call Agent Configuration table, the value will not take effect until a system switchover occurs. Prior to a system switchover, the default value remains in effect (Release 4.4.0).	BOOLEAN			N	Y	Specifies whether to set low delay. Low delay refers to the waiting time, or latency involved in sending and receiving a packet. You can set various options on the TCP socket to tune or optimize for certain performance parameters. TOS provides an indication of the abstract parameters of the quality of service desired. These parameters are used to guide the selection of the actual service parameters when transmitting a datagram through a particular network. See RFC 1349, RFC 791, and RFC 795 for detailed information. Y—(1) Set to low delay. N—(0) Set to normal delay.

Table A-1 Configurable Parameters for the Call Agent and Feature Server (continued)

Group	Type	Datatype	From-Value	To-Value	CHK-POS-VAL	De-fault	Description
MGCP SIM-SIG-TOS	MGCP-SIG-TOS-PRECEDENCE ⚠ **Caution** Cisco does not recommend using any value other than the specified default. Changing this value from its default may significantly impact network performance. Contact Cisco TAC for further information. **Note** If you change the value of this parameter from the default value in the Call Agent Configuration table, the value will not take effect until a system switchover occurs. Prior to a system switchover, the default value remains in effect (Release 4.4.0).	INTEGER	0	7	N	3	This token specifies which IP precedence to use for the MGCP signaling stream. IP precedence utilizes the 3 precedence bits in the type of service (TOS) field in the IP header to specify a class of service assignment for each IP packet. TOS provides an indication of the abstract parameters of the quality of service desired. These parameters are used to guide the selection of the actual service parameters when transmitting a datagram through a particular network. See RFC 1349, RFC 791, and RFC 795 for detailed information. Values are: NETCONTROL (=7) INTERNETCONTROL (=6) CRITICAL (=5) FLASHOVERRIDE (=4) FLASH (=3 Default) IMMEDIATE (=2) PRIORITY (=1) ROUTINE (=0)

Table A-1 Configurable Parameters for the Call Agent and Feature Server (continued)

Group	Type	Datatype	From-Value	To-Value	CHK-POS-VAL	De-fault	Description
MGCP	MGCP-SIG-TOS-RELIABILITY ⚠ **Caution** Cisco does not recommend using any value other than the specified default. Changing this value from its default may significantly impact network performance. Contact Cisco TAC for further information. **Note** If you change the value of this parameter from the default value in the Call Agent Configuration table, the value will not take effect until a system switchover occurs. Prior to a system switchover, the default value remains in effect (Release 4.4.0).	BOOLEAN			N	N	Specifies whether to set reliability. Reliability refers to the dependability of packet delivery. TOS provides an indication of the abstract parameters of the quality of service desired. These parameters are used to guide the selection of the actual service parameters when transmitting a datagram through a particular network. See RFC 1349, RFC 791, and RFC 795 for detailed information. Y—(1) Set to high reliability. N—(0) Set to normal reliability.

Table A-1 Configurable Parameters for the Call Agent and Feature Server (continued)

Group	Type	Datatype	From-Value	To-Value	CHK-POS-VAL	De-fault	Description
MGCP	MGCP-SIG-TOS-THROUGHPUT **Caution** Cisco does not recommend using any value other than the specified default. Changing this value from its default may significantly impact network performance. Contact Cisco TAC for further information. **Note** If you change the value of this parameter from the default value in the Call Agent Configuration table, the value will not take effect until a system switchover occurs. Prior to a system switchover, the default value remains in effect (Release 4.4.0).	BOOLEAN			N	N	Specifies whether to set throughput. Throughput refers to the actual amount of useful and nonredundant information that is transmitted or processed. The relationship between what went in one end of the network and what came out the other is a measure of the efficiency of that communications network. Throughput is a function of bandwidth, error performance, congestion, and other factors. TOS provides an indication of the abstract parameters of the quality of service desired. These parameters are used to guide the selection of the actual service parameters when transmitting a datagram through a particular network. See RFC 1349, RFC 791, and RFC 795 for detailed information. Y—(1) Set to high throughput. N—(0) Set to normal throughput.
MGCP	MGCP-T38-FAX-MODE-PREF1 (Release 4.5—Not provisionable)	STRING			Y	T38-FXR-LOOSE	The following values are permitted: T38-FXR-LOOSE T38-FXR-STRICT—Not supported in this release. T38-FXR-GW—Not supported in this release
MGCP	MGCP-T38-FAX-MODE-PREF2 (Release 4.5—Not provisionable)	STRING			Y	T38-FXR-STRICT	The following values are permitted: T38-FXR-LOOSE—Not supported in this release. T38-FXR-STRICT T38-FXR-GW—Not supported in this release.

Table A-1 Configurable Parameters for the Call Agent and Feature Server (continued)

Group	Type	Datatype	From-Value	To-Value	CHK-POS-VAL	De-fault	Description
MGCP	MGCP-T38-FAX-MODE-PREF3 (Release 4.5—Not provisionable)	STRING			Y	T38-FXR-GW	The following values are permitted: T38-FXR-LOOSE—Not supported in this release. T38-FXR-STRICT—Not supported in this release. T38-FXR-GW
MGCP	MGCP-T-HIST (Release 4.5)	INTEGER	3	120	N	30	The maximum time in seconds allowed before the copy of a Response is destroyed (even though the media gateway does not send a ResponseAck) after sending an initial MGCP datagram. Any message received from the media gateway with same transaction id after MGCP-T-HIST is considered as new command (not a retransmission). Also, if more than 2 times the MGCP-T-HIST has elapsed, the Cisco BTS 10200 Softswitch considers the endpoint disconnected and takes appropriate action. **Note** MGCP-T-HIST must be greater than or equal to the MGCP-T-MAX plus 10, where 10 factors in the maximum propagation delay.
MGCP	MGCP-T-MAX (Release 4.5)	INTEGER	10	60	N	20	The maximum time in seconds allowed before stopping retransmissions after sending an initial MGCP datagram. An endpoint is not considered disconnected until 2 times the MGCP-T-HIST time has elapsed.
MGCP	NCT-TEST-SERVICE-AFFECTING (Release 4.5)	BOOLEAN			N	Y	Specifies whether network continuity testing to line and trunk is service affecting.

Table A-1 Configurable Parameters for the Call Agent and Feature Server (continued)

Group	Type	Datatype	From-Value	To-Value	CHK-POS-VAL	De-fault	Description
MGCP	NLB-TEST-SERVICE-AFFECTING (Release 4.5)	BOOLEAN			N	Y	Specifies whether network loop back testing to line and trunk is service affecting.
MGCP	T38-MAX-BIT-RATE (Release 4.5—Not provisionable)	INTEGER			N	14400	Specifies the default bit rate for a T38 fax that an H.323 interface uses when interworking with a non-H.323 endpoint.
MGCP	T38-MAX-BUFFER-SIZE (Release 4.5—Not provisionable)	INTEGER			N	200	Specifies the default maximum buffer size for a T38 fax that an H.323 interface uses when interworking with a non-H.323 endpoint.
MGCP	T38-MAX-DATAGRAM-SIZE (Release 4.5—Not provisionable)	INTEGER			N	74	Specifies the default maximum datagram size for a T38 fax that an H.323 interface uses when interworking with a non-H.323 endpoint.
MGCP	TEST-TRUNK-GRP-DIGITS (Release 4.5)	INTEGER	1	15	N	4	Number of digits after a test-prefix that indicate the trunk-grp number. The calling party number format for trunk testing is: <test-prefix><TG><TM>, where the field shows the number of digits in <TG> padded with zero on most significant digits.
MGCP	TEST-TRUNK-MEMBER-DIGITS (Release 4.5)	INTEGER	1	15	N	4	Number of digits after a test-prefix and trunk-grp number that indicate the trunk member number. The calling party number format for trunk testing is: <test-prefix><TG><TM>, where the field shows the number of digits in <TG> padded with zero on most significant digits

Table A-1 Configurable Parameters for the Call Agent and Feature Server (continued)

Group	Type	Datatype	From-Value	To-Value	CHK-POS-VAL	De-fault	Description
MGCP (Release 4.5)	INACTIVE-CONN-MODE-BEFORE-ANSWER	BOOLEAN			N	N	Used during local ringback. Y—Both connections (A and B) are kept inactive during the ringing state. N—The A connection is set to recv-only and the B connection is set to send and recv.
OCB	DEFAULT-OCB-PROFILE-ID (Release 4.4.0 and 4.5)	STRING			N		The default Outgoing Call Barring (OCB) Profile id. this office-based OCB Profile id is used if a POP-specific ocb-profile-id is not provisioned.
OFFICE	CLASS5-SUPPORTED	BOOLEAN			N	N	If set to Y, the Cisco BTS 10200 Softswitch is configured as a Class 5 Call Agent.
OFFICE	CLLI	STRING			N		11-character Common Language Location Identifier Code (CLLIC) for the Call Agent.
OFFICE	HOME-COUNTRY-CODE	STRING			N		Home country code. Once added, this code can be changed but not deleted.
OFFICE	SPLIT-NPA-ACTIVE	BOOLEAN			N	N	The split-npa-active flag is set by the EMS. The screening list feature uses this flag to determine if the Split NPA table must be screened.
OFFICE	TANDEM-SUPPORTED	BOOLEAN			N	N	If set to Y, the Cisco BTS 10200 Softswitch is configured as a Tandem Call Agent.
PKT CABLE	EM-PRIVACY-IND-SUPP	BOOLEAN			N	N	Used by EM billing. Determines whether to include Privacy Indicator in an Event Message.

Table A-1 Configurable Parameters for the Call Agent and Feature Server (continued)

Group	Type	Datatype	From-Value	To-Value	CHK-POS-VAL	De-fault	Description
PKT CABLE	LOCAL-RINGBACK	BOOLEAN			N	Y	Specifies whether the Cisco BTS 10200 sends a local ringback to the calling party. The value Y indicates that ringback is turned on; the value N indicates that ringback is turned off. **Note** This feature should be turned on for the calling party to receive a local ringback for on-net to on-net calls in a PacketCable network. This feature is different from the "ringback on connection" feature that is provisioned for the MTA in the mgw-profile table.
PKT-CABLE	BATCH-LATENCY	INTEGER	1	999	N	60	Maximum time in seconds to hold an event message before sending a batched radius message in batch mode EM operation.
PKT-CABLE	BATCH-MODE-SUPP	BOOLEAN			N	N	Specifies if EM Batch Mode is supported. The value Y indicates that batch mode is supported; the value N indicates that batch mode is not supported.
PKT-CABLE	BEST-EFFORT-ON-QOS-FAIL (Release 4.5)	BOOLEAN			N	Y	If set to Y, the PCMM/D-QoS based admission control cannot be performed because of a broken signaling connection between Policy-Server/CMTS, the Cisco BTS 10200 Softswitch continues the calls without bandwidth authorization on a best effort basis.

Table A-1 Configurable Parameters for the Call Agent and Feature Server (continued)

Group	Type	Datatype	From-Value	To-Value	CHK-POS-VAL	De-fault	Description
PKT-CABLE	COPS-DSCP-TOS	INTEGER	0	255	N	96	Specifies the Differentiated Services Code Point (DSCP) value or Type of Service (TOS) value used for the signaling packets on COPS interfaces between CMS and CMTS. For DSCP, only bits 0–5 are used; for TOS, bits 0–2 are used for IP Precedence, and bits 3–6 for IPv4 IP TOS. **Note** For information on specific DSCP and TOS bits, see Appendix H, "Data Values for TOS, DSCP, and PHB Parameters."
PKT-CABLE	DQOS-DS-SLACK-TERM	INTEGER	0	60000	N	0	A value provided by the CMS, and used by the CMTS for tolerated latency for downstream flows, in microseconds. The default value is zero for the downstream direction, which indicates no restrictions on latency.
PKT-CABLE	DQOS-GATE-TIMER	INTEGER	0	10	N	2	This timer defines the CMTS gate operation response timer, in seconds.
PKT-CABLE	DQOS-T1-TIMER	INTEGER	0	500	N	200	This timer is used by the CMTS for dynamic quality of service (DQoS). It starts when a gate is allocated, and is reset when a gate goes into a committed state. The T1 timer is provided by CMS to CMTS in a gate-set message. The DQOS-T1-TIMER value is used by a CMTS to limit the time that can elapse between the authorization and the commit to ensure that DQoS resources are released in case of an error. The recommended T1 timer value is between 200–300 seconds if you do not use the default value.

Table A-1 Configurable Parameters for the Call Agent and Feature Server (continued)

Group	Type	Datatype	From-Value	To-Value	CHK-POS-VAL	De-fault	Description
PKT-CABLE	DQOS-T5-TIMER	INTEGER	1	60	N	5	This timer controls the synchronization between a local MTA resource release and a CMTS verification of the closure of the local gate (ECN-02148-v7). When the CMS (Call Agent) sends the MTA a message to delete (DLCX) a connection, the CMS must ensure that the gate is closed in the CMTS within T5. This timer is cleared when the CMS receives a confirmation for the local gate closure using the gate-close message from the CMTS. On expiration of this timer, the CMS (Call Agent) deletes the gate at the CMTS using gate-delete message with "Local gate-close failure" described in the reason-code.
PKT-CABLE	DQOS-T7-TIMER	INTEGER	0	300	N	200	This timer value is sent from the CMS to the CMTS in a gate-set message and defines the timeout period in seconds that the CMTS must hold resources for a service flow's Admitted QoS Parameter Set when in excess of its Active QoS Parameter Set. It is used by the CMTS to ensure that DQoS resources are released in case of an error.
PKT-CABLE	DQOS-T8-TIMER	INTEGER	0	300	N	0	This timer is sent from the CMS to the CMTS in a gate-set message and defines the period of time in seconds that committed CMTS resources can remain unused. It is used by a CMTS to ensure that DQoS resources are released in case of an error. The default instructs the CMTS not to poll for activity on the service flow.

Table A-1 Configurable Parameters for the Call Agent and Feature Server (continued)

Group	Type	Datatype	From-Value	To-Value	CHK-POS-VAL	De-fault	Description
PKT-CABLE	DQOS-US-SLACK-TERM	INTEGER	0	60000	N	800	A value provided by the CMS, and used by the CMTS for tolerated grant jitter for upstream flows, in microseconds. The default value is for the upstream direction.
PKT-CABLE	EM-FILE-OPEN-TIME	INTEGER	0	1800	N	600	Specifies the maximum amount of time, in seconds, that an EM file can be open. While the file is open, additional EMs can be written to the file. This file is closed and a new file is opened if communication with the RKS has not been reestablished when this time limit is reached. An open EM file does not automatically close when communication to the RKS is restored. The file closes automatically according to the provisioned values in em-file-open-time and em-file-size, whichever occurs first.
PKT-CABLE	EM-FILE-SIZE	INTEGER	0	100	N	20	Specifies the maximum size, in megabytes, of an EM file on a hard disk. If the current file size is under this limit, additional EMs can be written to the file. This file is closed and a new file is opened if communication with the RKS has not yet been reestablished when this limit is reached. An open EM file does not automatically close when communication to the RKS is restored. The file closes automatically according to the provisioned values in em-file-open-time and em-file-size, whichever occurs first.

Table A-1 Configurable Parameters for the Call Agent and Feature Server (continued)

Group	Type	Datatype	From-Value	To-Value	CHK-POS-VAL	De-fault	Description
PKT-CABLE	MAX-MGCP-DATAGRAM	INTEGER	2000	8000	N	4000	Specifies the maximum MGCP datagram size that can include one or more piggybacked messages, in bytes, that the Cisco BTS 10200 Softswitch can decode before discarding the rest of the message part. **Note** The default value of 4000 bytes is adequate for most applications. Cisco does not recommend changing this value unless you are deploying MGCP-based media gateways or MTAs that require larger datagram sizes.
PKT-CABLE	PROTOCOL-VERSION	STRING			N	I03	Specifies the PacketCable EM Specification (protocol) version.
PKT-CABLE	RADIUS-DSCP-TOS	INTEGER	0	255	N	96	Specifies the Differentiated Services Code Point (DSCP) value or type of service (TOS) value. Used for the signaling packets on RADIUS interfaces between CMS and RKS, and CMS and DF server. For DSCP, only bits 0–5 are used; for TOS, bits 0–2 are used for IP Precedence, and bits 3–6 for IPv4 IP TOS. **Note** For information on specific DSCP and TOS bits, see Appendix H, "Data Values for TOS, DSCP, and PHB Parameters."

Table A-1 Configurable Parameters for the Call Agent and Feature Server (continued)

Group	Type	Datatype	From-Value	To-Value	CHK-POS-VAL	De-fault	Description
PKT-CABLE	RETRY-PRI-RKS-TIMER	INTEGER	0	30	N	10	Specifies how many minutes to wait—after losing all communication with both RKSs—before attempting to establish communication with the RKSs again. During this time, the Cisco BTS 10200 Softswitch writes all newly generated EMs to a file on the Call Agent that created the EMs.
PKT-CABLE	SECURED-MEDIA-ONLY	BOOLEAN			N	N	Used to affect the transmission of security parameters from the QOS table when connecting a call. Y—The Cisco BTS 10200 Softswitch forces the security parameters from the QoS and Ciphersuite tables to the endpoint while making the connection. This can result in call failure if either side cannot handle the parameters. N—The Cisco BTS 10200 Softswitch forces the security parameters from the QoS and Ciphersuite tables while making the connection to the endpoint only if both sides can handle the security parameters. This type also affects the setup of calls to unsecured MGWs.
POTS	DEFAULT-OCB-PROFILE-ID (Release 4.5)	STRING			N		Default OCB profile id. Used if the POP-specific ocb-profile-id is not provisioned.
POTS	DEFAULT-PRIVACY-MANAGER-ID (Release 4.5)	STRING			N		Default privacy manager id. Used if the POP-specific privacy-manager-id is not provisioned.
POTS	DEFAULT-VOICE-MAIL-ID (Release 4.5)	STRING			N		Default voice mail id. Used if the POP-specific voice-mail-id is not provisioned.

Table A-1 Configurable Parameters for the Call Agent and Feature Server (continued)

Group	Type	Datatype	From-Value	To-Value	CHK-POS-VAL	De-fault	Description
RADIUS	ENCRYPTION-KEY (Release 4.5)	STRING			N	00000000 00000000	The encryption key. 1-16 characters: (0-9, A-F)
RADIUS	RADIUS-AUTHORIZATION-ALLOWED (Release 4.5)	BOOLEAN			N	N	Not used.
RADIUS	RADIUS-SERVER-ADDRESS (Release 4.5)	STRING			N		Specifies the DNS or IP address. Not used.
RADIUS	WHISPER-TONE-TIMER (Release 4.5)	INTEGER	10	180	N	30	Specifies how long to provide a whisper tone before a call is forcibly disconnected. Not used.
SGA	SCTP-DSCP (Release 4.5)	STRING			Y	CS3	DiffServ code point for the signaling packets on the SCTP associations. Permitted values are: EF AF11 AF12 AF13 AF21 AF22 AF23 AF31 AF32 AF33 AF41 AF42 AF43 CS1 CS2 CS3 (Default) CS4 CS5 CS6 CS7 DEFAULT
SIA	MAX-3XX-COUNT	INTEGER	1	5	N	1	Specifies whether maximum 3XX (redirection) is allowed.

Table A-1 Configurable Parameters for the Call Agent and Feature Server (continued)

Group	Type	Datatype	From-Value	To-Value	CHK-POS-VAL	De-fault	Description
SIA	MAX-SESSION-EXPIRES	INTEGER	1800	7200	N	7200	Maximum session expiry in seconds. This SIP feature session timer is for SIP auditing purposes. A periodic refresh is sent for each session to check the liveness of the session. This conveys the session interval for a SIP call.
SIA	MAX-SUBSCRIPTION-LEVEL	INTEGER			N	3600	Specifies whether to limit/lower the duration, in seconds, of a subscription that is requested by a subscriber.
SIA	MIN-SE (Obsoleted in Release 4.5)	INTEGER	900	1800	N	900	The minimum session-expires, in seconds, allowed to be sent or received.
SIA	NONCE-LIFETIME	INTEGER	0		N	180	Used to limit replay attacks and masquerades by setting an upper limit for the duration in seconds of the validity of a nonce sent out in a challenge. A value of 0 means use one-time nonces (that is, each request is challenged with a new nonce). This token has no upper limit.
SIA	REFER-ABANDON-TIMER-SECS (Release 4.5)	INTEGER			N	180	The number of seconds to wait before giving up on a transfer request and sending a failure notification to the transferee. No range is specified.
SIA	REFER-ACCEPT-TIMER-SECS (Release 4.5)	INTEGER			N	10	The number of seconds to wait for a response from the BCM/FS before rejecting a refer request. No range is specified.
SIA	SESSION-EXPIRES (Release 4.5)	INTEGER	1800	7200	N	1800	Session expiry time in seconds. This SIP feature session timer is for SIP auditing purposes. A periodic refresh is sent for each session to check the liveness of the session. This conveys the session interval for a SIP call.

Table A-1 Configurable Parameters for the Call Agent and Feature Server (continued)

Group	Type	Datatype	From-Value	To-Value	CHK-POS-VAL	De-fault	Description
SIA	SIA-REGISTER-DEFAULT-EXPIRES	INTEGER	3600		N	3600	Expiry time in seconds. A register request can be received without an expires parameter. In that case this value is used to set the expires value for that registration. This parameter has no upper limit.
SIA	SIA-REG-MAX-EXPIRES-SECS (Release 4.5)	INTEGER			N	7200	Used by the registrar to restrict the maximum value for contact expiration.
SIA	SIA-REG-MIN-EXPIRES-SECS (Release 4.5)	INTEGER	1800		N	1800	Registrar rejects a register request having a value less than 3600 and less than the min-expires. This parameter has not upper limit.
SIA	SIA-SIG-TOS-THROUGHPUT ⚠ **Caution** Cisco does not recommend using any value other than the specified default. Changing this value from its default may significantly impact network performance. Contact Cisco TAC for further information.	BOOLEAN			N	N	Specifies whether to set throughput. Throughput refers to the actual amount of useful and nonredundant information that is transmitted or processed. The relationship between what went in one end of the network and what came out the other is a measure of the efficiency of that communications network. Throughput is a function of bandwidth, error performance, congestion, and other factors. TOS provides an indication of the abstract parameters of the quality of service desired. These parameters are used to guide the selection of the actual service parameters when transmitting a datagram through a particular network. See RFC 1349, RFC 791, and RFC 795 for detailed information. Y—(1) Set to high throughput. N—(0) Set to normal throughput.

Table A-1 Configurable Parameters for the Call Agent and Feature Server (continued)

Group	Type	Datatype	From-Value	To-Value	CHK-POS-VAL	De-fault	Description
SIA	SIA-SIG-TOS-LOWDELAY ⚠ **Caution** Cisco does not recommend using any value other than the specified default. Changing this value from its default may significantly impact network performance. Contact Cisco TAC for further information.	BOOLEAN			N	Y	Specifies whether to set low delay. Low delay refers to the waiting time, or latency involved in sending and receiving a packet. You can set various options on the TCP socket to tune or optimize for certain performance parameters. TOS provides an indication of the abstract parameters of the quality of service desired. These parameters are used to guide the selection of the actual service parameters when transmitting a datagram through a particular network. See RFC 1349, RFC 791, and RFC 795 for detailed information. Y—(1) Set to low delay. N—(0) Set to normal delay.

Table A-1 Configurable Parameters for the Call Agent and Feature Server (continued)

Group	Type	Datatype	From-Value	To-Value	CHK-POS-VAL	De-fault	Description
SIA	SIA-SIG-TOS-PRECEDENCE ⚠ **Caution** Cisco does not recommend using any value other than the specified default. Changing this value from its default may significantly impact network performance. Contact Cisco TAC for further information.	INTEGER	0	7	N	2 3 (Release 4.4.0)	This type specifies which IP precedence to use for the SIA signaling stream. IP precedence utilizes the 3 precedence bits in the type of service (TOS) field in the IP header to specify a class of service assignment for each IP packet. TOS provides an indication of the abstract parameters of the quality of service desired. These parameters are used to guide the selection of the actual service parameters when transmitting a datagram through a particular network. See RFC 1349, RFC 791, and RFC 795 for detailed information. Values are: NETCONTROL (=7) INTERNETCONTROL (=6) CRITICAL (=5) FLASHOVERRIDE (=4) FLASH (=3) IMMEDIATE (DEFAULT=2) PRIORITY (=1) ROUTINE (=0)

Table A-1 Configurable Parameters for the Call Agent and Feature Server (continued)

Group	Type	Datatype	From-Value	To-Value	CHK-POS-VAL	De-fault	Description
SIA	SIA-SIG-TOS-RELIABILITY ⚠ **Caution** Cisco does not recommend using any value other than the specified default. Changing this value from its default may significantly impact network performance. Contact Cisco TAC for further information.	BOOLEAN			N	N	Specifies whether to set reliability. Reliability refers to the dependability of packet delivery. See RFC 1349, RFC 791, and RFC 795 for detailed information. TOS provides an indication of the abstract parameters of the quality of service desired. These parameters are used to guide the selection of the actual service parameters when transmitting a datagram through a particular network. Y—(1) Set to high reliability. N—(0) Set to normal reliability.
SIA	SIA-TRUNK-GRP-LEVEL-SIG-TOS	BOOLEAN			N	N	The SIA SIG TOS values define the system-level TOS used for SIP calls. If the flag is set to Y, the system reads the TG-level SIG TOS values and overrides the system-level TOS values if required. If this token is set to Y, system-level TOS tokens should still be set. System-level TOS tokens are used when sending messages when the trunk group is not known.
SIA	SIP-3XX-REROUTE-ON-LOCAL-DOMAIN (Release 4.5)	BOOLEAN			N	N	Specifies whether to select the next trunk in the route set and reattempt a call or reroute the call using number translation. The default, when a 3XX response is received on a SIP trunk for the initial INVITE sent, where the number in the 3XX contact header is the same as the called number, and the domain name is the SIP contact name of the Cisco BTS 10200 Softswitch receiving the 3XX, is to select the next trunk in the route set and reattempt the call.

Table A-1 Configurable Parameters for the Call Agent and Feature Server (continued)

Group	Type	Datatype	From-Value	To-Value	CHK-POS-VAL	De-fault	Description
SIA	SIA-TG-VALIDATE-SOURCE-IP (Release 4.5.1)	BOOLEAN			N	N	Used to enable IP source validation of SIP messages on a Cisco BTS 10200 Softswitch coming over a SIP trunk to prevent security attacks if the packet is sniffed in the network and sent from a different or rogue IP address, or domain, as present in the Via header. IP source verification of SIP messages is disabled on the Cisco BTS 10200 Softswitch by default.
SIA	SIP-TIMER-PROFILE-ID (Release 4.5)	STRING			N		Default timer profile id for the whole system. The default timer profile id is used if the softsw-tg-profile is not populated with the sip-timer-profile-id.
SIA	SUB-MAX-FORWARDS (Release 4.5)	INTEGER	10	80	N	70	Used when the outbound SIP INVITE message requires an initial max-forwards value.
SIA	SUB-SESSION-TIMER-ALLOWED (Release 4.5)	BOOLEAN			N	N	Controls the session timer feature for all Cisco BTS 10200 Softswitch SIP subscribers. When Y, the session timer is activated on every call to or from a SIP subscriber.
SIA	SUB-SESSION-TIMER-ALLOWED (Release 4.2)	BOOLEAN			N	N	This flag controls the session timer feature for all Cisco BTS 10200 Softswitch SIP subscribers. If Y, the session timer is activated on every call to or from a SIP subscriber.
SIM	RELEASE-CALL-ON-LCD-TRIGGER-FAILURE (Release 4.5)	BOOLEAN			N	Y	Used for the limited call duration (LCD) or prepaid feature. When LCD Trigger is invoked, but the LCD Trigger fails, then this parameter determines the action to take. Y—The call is released. N—The call is continued.

Table A-1 Configurable Parameters for the Call Agent and Feature Server (continued)

Group	Type	Datatype	From-Value	To-Value	CHK-POS-VAL	De-fault	Description
SIM	SIM-SIG-TOS-PRECEDENCE **Caution** Cisco does not recommend using any value other than the specified default. Changing this value from its default may significantly impact network performance. Contact Cisco TAC for further information.	INTEGER	0	7	N	3	This token specifies which IP precedence to use for the SIM signaling stream. IP precedence utilizes the 3 precedence bits in the type of service (TOS) field in the IP header to specify a class of service assignment for each IP packet. TOS provides an indication of the abstract parameters of the quality of service desired. These parameters are used to guide the selection of the actual service parameters when transmitting a datagram through a particular network. See RFC 1349, RFC 791, and RFC 795 for detailed information. Values are: FLASH (=3, Default) NETCONTROL (=7) INTERNETCONTROL (=6) CRITICAL (=5) FLASHOVERRIDE (=4) IMMEDIATE (=2) PRIORITY (=1) ROUTINE (=0) If you prefer to use DSCP values, derive the appropriate TOS values using the DSCP/TOS mapping information in Appendix H, "Data Values for TOS, DSCP, and PHB Parameters."

Table A-1 Configurable Parameters for the Call Agent and Feature Server (continued)

Group	Type	Datatype	From-Value	To-Value	CHK-POS-VAL	De-fault	Description
SIM	SIM-SIG-TOS-THROUGHPUT **Caution** Cisco does not recommend using any value other than the specified default. Changing this value from its default may significantly impact network performance. Contact Cisco TAC for further information.	BOOLEAN			N	N	Specifies whether to set throughput. Throughput refers to the actual amount of useful and nonredundant information that is transmitted or processed. The relationship between what went in one end of the network and what came out the other is a measure of the efficiency of that communications network. Throughput is a function of bandwidth, error performance, congestion, and other factors. TOS provides an indication of the abstract parameters of the quality of service desired. These parameters are used to guide the selection of the actual service parameters when transmitting a datagram through a particular network. See RFC 1349, RFC 791, and RFC 795 for detailed information. Y—(1) Set to high throughput. N—(0) Set to normal throughput. **Note** If you prefer to use DSCP values, derive the appropriate TOS values using the DSCP/TOS mapping information in Appendix H, "Data Values for TOS, DSCP, and PHB Parameters."

Table A-1 Configurable Parameters for the Call Agent and Feature Server (continued)

Group	Type	Datatype	From-Value	To-Value	CHK-POS-VAL	De-fault	Description
SIM	SIM-SIG-TOS-LOWDELAY **Caution** Cisco does not recommend using any value other than the specified default. Changing this value from its default may significantly impact network performance. Contact Cisco TAC for further information.	BOOLEAN			N	Y	Specifies whether to set low delay. Low delay refers to the waiting time, or latency involved in sending and receiving a packet. You can set various options on the TCP socket to tune or optimize for certain performance parameters. TOS provides an indication of the abstract parameters of the quality of service desired. These parameters are used to guide the selection of the actual service parameters when transmitting a datagram through a particular network. See RFC 1349, RFC 791, and RFC 795 for detailed information. Y—(1) Set to low delay. N—(0) Set to normal delay. **Note** If you prefer to use DSCP values, derive the appropriate TOS values using the DSCP/TOS mapping information in Appendix H, "Data Values for TOS, DSCP, and PHB Parameters."

Table A-1 Configurable Parameters for the Call Agent and Feature Server (continued)

Group	Type	Datatype	From-Value	To-Value	CHK-POS-VAL	De-fault	Description
SIM	SIM-SIG-TOS-RELIABILITY ⚠ **Caution** Cisco does not recommend using any value other than the specified default. Changing this value from its default may significantly impact network performance. Contact Cisco TAC for further information.	BOOLEAN			N	N	Specifies whether to set reliability. Reliability refers to the dependability of packet delivery. TOS provides an indication of the abstract parameters of the quality of service desired. These parameters are used to guide the selection of the actual service parameters when transmitting a datagram through a particular network. See RFC 1349, RFC 791, and RFC 795 for detailed information. Y—(1) Set to high reliability. N—(0) Set to normal reliability. **Note** If you prefer to use DSCP values, derive the appropriate TOS values using the DSCP/TOS mapping information in Appendix H, "Data Values for TOS, DSCP, and PHB Parameters."
SIP	ENCRYPTION-KEY	STRING			N	00000000 00000000	1–16 ASCII characters, Default = 0000000000000000 (0–9, A–F).
SIP	MAX-SUBSCRIPTION-LEVEL	INTEGER			N	3600	Specifies whether to limit/lower the duration (in seconds) of a subscription that is requested by the subscriber.
SIP	MIN-EXPIRES-SECS	INTEGER	1800		N		Specifies whether the registrar will reject a register request that has a value less than 3600 and less than min-expires-secs. There is no upper limit.
SIP	MIN-SE (Obsoleted in Release 4.5)	INTEGER	900	1800	N	900	In seconds, this is the minimum session-expires allowed to be sent or received.
SIP	RADIUS-AUTHORIZATION-ALLOWED	BOOLEAN			N	N	Not used.

Table A-1 Configurable Parameters for the Call Agent and Feature Server (continued)

Group	Type	Datatype	From-Value	To-Value	CHK-POS-VAL	De-fault	Description
SIP	RADIUS-SERVER-ADDRESS	STRING			N		Specifies the DNS or IP address. (Not used.)
SIP	REFER-ABANDON-TIMER-SECS	INTEGER			N	180	Seconds to wait before giving up on a transfer request and sending a failure notification to the transferee. No range is specified.
SIP	REFER-ACCEPT-TIMER-SECS	INTEGER			N	10	Seconds to wait for response from the BCM/FS before rejecting a refer request. No range is specified.
SIP	SESSION-EXPIRES (Obsoleted in Release 4.5)	INTEGER	1800	7200	N	1800	This SIP feature session timer (in seconds) is used for SIP auditing purpose. A periodic refresh is sent for each session to check the liveness of the session. This conveys the session interval for a SIP call.
SIP	SIA-REG-MAX-EXPIRES-SECS	INTEGER			N	7200	Specifies whether the registrar restricts the maximum value for contact expiration.
SIP	SIA-REG-MIN-EXPIRES-SECS	INTEGER	1800		N	1800 (Release 4.5)	Specifies whether the registrar rejects a register request having a value less than 3600 and less than min-expires-secs. There is no upper limit.
SIP	SIP-SUB-SEND-CPG-ON-HOLD-SIGNAL (Release 4.4.0)	BOOLEAN			N	N	Controls the call hold event signal for all Cisco BTS 10200 Softswitch SIP subscribers. When a SIP subscriber goes on or off hold, and this flag is set to true, a call hold event is signaled to the other party in the call from Cisco BTS 10200 Softswitch. The message sent to mute the media path is sent to the other party regardless of this flag setting.
SIP	SUB-SESSION-TIMER-ALLOWED	BOOLEAN			N	Y	Controls the session timer feature for all Cisco BTS 10200 Softswitch SIP subscribers. When true, the session timer is activated on every call to or from a SIP subscriber.

Table A-1 Configurable Parameters for the Call Agent and Feature Server (continued)

Group	Type	Datatype	From-Value	To-Value	CHK-POS-VAL	De-fault	Description
SIP	WHISPER-TONE-TIMER	INTEGER	10	180	N	30	Specifies how long to provide a whisper tone before the call is forced to disconnect. Not used.
SLE	IVR-DN	DIGITS			N		Directory number for IVR.
SLE	SLE-BLOCK-ICN	BOOLEAN			N	Y	Per-switch blocking of SLE messages with internetwork ICN information. Not used.
SLE	SLE-DE-THRESHOLD	INTEGER	2	5	N	3	Specifies the number of consecutive dialing errors allowed.
SLE	SLE-GRP-OVERRIDE	BOOLEAN			N	Y	Specifies whether to allow override GRP treatment analysis procedures and force messages to be routed without ICN information. (Not used.)
SLE	SLE-LIST-SIZE	INTEGER	2	31	N	31	Defines the maximum size of a Screen List Editing table.
SLE	SLE-TIMER-T	INTEGER	2	10	N	4	T1 defines how long the SPCS waits for a customer to confirm an existing remote DN or indicate to change the remote DN.
SLE	SLE-TIMER-T2	INTEGER	2	10	N	4	T2 defines how long the SPCS waits for a customer to specify a new remote DN.
SLE	SLE-TIMER-T3	INTEGER	2	10	N	4	T3 defines how long the SPCS waits for a customer to specify a list-editing level option. It also defines how long the SPCS waits for the customer to specify #, 12, or 0 when a DN must be added to the list during feature activation.
SLE	SLE-TIMER-T4	INTEGER	2	10	N	4	T4 defines how long the SPCS waits for the customer to specify a DN when adding or deleting an entry.
SLE	SLE-TIMER-T5	INTEGER	2	4	N	3	T5 specifies the time the originating SPCS waits for a response to the initial query sent to the screened DNs SPCS.

Table A-1 Configurable Parameters for the Call Agent and Feature Server (continued)

Group	Type	Datatype	From-Value	To-Value	CHK-POS-VAL	De-fault	Description
SLE	SLE-TIMER-T6	INTEGER	20	40	N	25	In 100 milliseconds (Default = 25 times 100 milliseconds). T6 defines how long the SPCS waits for a customer to specify an option after an entry on the list has been voiced back during list review.
SLE	SLE-TIMER-T7	INTEGER	2	9	N	4	Inter-digit timer for SLE.
SLE	SLE-TO-THRESHOLD	INTEGER	2	5	N	3	Specifies the number of consecutive timeouts allowed.
SS7	EXCHANGE-TYPE (Release 4.4.0)	STRING			Y	A	There are two exchange-types: Type A: 1) Originating exchange 2) Destination exchange 3) Interworking exchange 4) Incoming or outgoing international exchange Type B: National or international transit exchange.
TCAP	ACAR-SLHR-ID	STRING			N		The Service Logic Host Route id to route automatic callback and automatic recall query messages.
TCAP	ARAC-TTYPE	INTEGER	1	255	N		Specifies the global translation type used when an AC or AR query is performed.
TCAP	CAR-800-SSN	INTEGER	1	255	N	254	Not used.
TCAP	CNAM-SSN	INTEGER	1	255	N	254	Not used.
TCAP	DEFAULT-LIDB-SLHR-ID	STRING			N		The Service Logic Host Route table contains the information necessary to route an LIDB request message to an SCP.
TCAP	DEFAULT-LNP-SLHR-ID	STRING			N		The Service Logic Host Route table contains the information necessary to route an LNP request message to an SCP.
TCAP	DEFAULT-SLHR-ID	STRING			N		The Service Logic Host Route table contains the information necessary to route a TDP request message to an SCP.

Table A-1 Configurable Parameters for the Call Agent and Feature Server (continued)

Group	Type	Datatype	From-Value	To-Value	CHK-POS-VAL	De-fault	Description
TCAP	DEFAULT-TOLL-FREE-SLHR-ID	STRING			N		The Service Logic Host Route table contains the information necessary to route a toll-free request message to an SCP.
TCAP	LNP-SSN	INTEGER	1	255	N	247	Not used.
TCAP	NAT-800-SSN	INTEGER	1	255	N	254	Not used.
TCAP	NAT-800-TTYPE	INTEGER	1	255	N	8	Specifies which global translation type to use when performing an AIN 0.1 based 800 query.
TCAP	SCP-RESPONSE-TMR	INTEGER	1	6	N	6 (Release 4.1) 3 (Release 4.2)	Specifies the length of timeout waiting in seconds for an SCP response. **Note** The ssf-tmr value must be greater than the scp-response-tmr.



APPENDIX B

Valid Features

Revised: July 24, 2009, OL-3743-42

This section lists the valid features for this release. The service provider can change the values, star codes, and associated features FNAME1, FNAME2 assigned to the features. See the *Cisco BTS 10200 Softswitch System Description* for more information.

Caution Always enter feature tokens in uppercase, or you will receive the following message: "Reply: Database is void of entries." For example, enter AC_ACT, not ac_act. Also, feature tokens must be typed with an underscore character (_) or you will receive the following message: "Reply: Database is void of entries." For example, you must enter AC_ACT, not AC-ACT.

Feature Information

This section details additional feature provisioning information.

Note To define features, you must specify a type/value pair. Therefore, to change the values for a feature, issue the **change** command according to the following example:

```
change feature fname=OCB; type1=pin-len; value1=5; type2=to; value2=2-; type3=fail-cnt;
value3=4; type4=lock-out; value4=60;
```

General

The following list provides additional general feature provisioning information:

- If a call-agent-id is not configured in the Office Code table, AR, AC and CFNA features will not work.
- The call transfer (CT) feature includes three-way bridging functionality.
- If a subscriber has both call transfer and three-way calling features enabled, then call transfer takes priority.
- Call-Hold (CHD) and Call-Park (CPRK) are Centrex-only features. They are available only to Centrex subscribers.

- For Centrex subscribers: if CHD is assigned CW, CIDCW behaves as CHD. The user is expected to dial the CHD-Star-Code after hookflash to answer a waiting call. A user must hookflash and dial CHD-Star-Code after hookflash to alternate between two calls.
- Features assigned to the main-subscriber of a Centrex or MLH Group are provided to the members of the whole group if the members have the GRP flag set to Y in the Subscriber table. However, this is not applicable to activate or deactivate features. Members of a group must individually activate or deactivate the features, as applicable.
- The Subscriber Feature Data table must be provisioned for hotline and warmline features to work.
- The Call Park Subscriber Group table must be provisioned for the Call Park feature to work.
- SFG control is enabled only if the subscriber is assigned OSFG or ISFG in the Subscriber Service Profile table and the Centrex group table has sfg-control=Y.

Office Table Features

This section provides additional feature provisioning information for office tables.

One service ID (the office service ID) is reserved for provisioning of POP-based features. These office-based features can include certain network features and certain usage-sensitive features, as described below. The service provider provisions the individual features, enters a unique ID in the service table, and provisions this service ID in the POP table. All of the subscribers within the POP are provided with this service (and this set of features).

One service ID (the default office service ID) is reserved for provisioning of switch-based features. The service provider provisions the individual features, enters a unique ID in the service table, and provisions this service ID in the CA-Config table. All of the subscribers on the switch are provided with this service (and this set of features).

Note If the office-service-id is provisioned in the POP table, the system uses this value. However, if the office-service-id is *not* provisioned in the POP table, the system uses the default-office-service-id provisioned in the CA-Config table.

Caution The system does not validate or restrict the provisioning of features on the office service ID. However, entries other than the ones listed below will have undefined results. Do not enter features other than the ones listed below.

- The following features can be provisioned with the office-service-id (POP table) and the default-office-service-id (CA-Config table):
  - USTWC (For three-way-calling, note that USTWC is the feature that can be included in the office service ID, and TWC is the feature that can be assigned to individual subscribers.)
  - COT
  - AR_ACT (or AR, if umbrella feature was created)
  - AR_DEACT (not needed if umbrella feature AR was created)
  - AC_ACT (or AC, if umbrella feature was created)
  - AC_DEACT (not needed if umbrella feature AC was created)
  - 8XX

  - LNP
  - 911
  - BLV
  - REFER—Valid for SIP subscribers only
- The following features are available, if not subscribed, only if the usage-sensitive (usage-sens) token in the Subscriber table is set to Y:
  - USTWC
  - COT
  - AR_ACT
  - AR_DEACT
  - AC_ACT
  - AC_DEACT
- The system checks both the usage-sens token in the Subscriber table and the type token in the Subscriber Feature Data table for the following features. If the type=denied, the feature is not provided.
  - USTWC
  - COT
  - AC_ACT
  - AR_ACT
- The system checks for type=denied for the BLV feature, but it is not restricted by the usage-sens token.
- The system does not check the usage-sens token or if type=denied for the following features:
  - 911
  - LNP
  - 8XX

Additional RACF-Pin assignment information:

- Assign the RACF_PIN feature only to those RACF subscribers that have unique PINs.
- A unique PIN is identified in the subscriber feature data entry for RACF as PINTYPE=PIN or PINTYPE=NEWPIN. (The NEWPIN type indicates that the subscriber has not yet changed the PIN from the default one assigned by service provider. To use the RACF feature, the subscriber must change the PIN at least once from their home number. Once this is done, the PINTYPE in feature data is changed to PIN).
- Subscribers with a nonunique PIN are not allowed to change it. A nonunique PIN can only be changed through the command line interface by the service provider. For nonunique PIN validation, provision an authcode and set the PINTYPE to AUTHCODE.
- Nonunique PINs are typically assigned to a group of subscribers sharing the same PIN, for example: in a Centrex environment.

Office Service id precedence information:

1. The Cisco BTS 10200 Softswitch first checks the Point of Presence (POP) table to see if an office-service id is provisioned. If an office-service-id is provisioned, and LNP is provisioned in the Service table, then LNP can be triggered regardless of any provisioning in the Call Agent Configuration table.

2. If the office-service id is not provisioned in the POP table, the Cisco BTS 10200 Softswitch checks the default-office-service-id in Call Agent Configuration table. If the default-office-service-id is provisioned and LNP is provisioned in the Service table, then LNP can be triggered.
3. If the office-service id is not provisioned in either the POP table or the Call Agent Configuration table, LNP is not triggered.

Feature List

Table B-1 lists the valid features for the Cisco BTS 10200 Softswitch.

Note The TYPEn and VALUEn information in Table B-1 is valid for Release 4.4.x and earlier. For Releases 4.5.x and later, valid TYPEn and VALUEn values are listed in Table B-2, Feature Profile Base Features. See also the applicable tokens in theFeature table.

Table B-1 List of Features

FNAME	TDPn	TIDn	TTYPE1	FNAME1	FNAME2	FNAME3	FNAME4	FNAME5	TYPE1	VALUE1	TYPE2	VALUE2	TYPE3	VALUE3	TYPE4	VALUE4	VALUE5	Office	POTS	Centrex	Tandem	GRP	Description
8XX	COLLECTED_INFORMATION	SPECIFIC_DIGIT_STRING	R															Y				N	Toll-free number.
911	COLLECTED_INFORMATION	911_TRIGGER	R															Y				N	Emergency service.
AC			R	AC_ACT	AC_DEACT													Y	Y	Y		N	Automatic callback.
AC_ACT	COLLECTED_INFORMATION	VERTICAL_SERVICE_CODE	R															Y	Y	Y		N	Automatic callback activation.
AC_DEACT	COLLECTED_INFORMATION	VERTICAL_SERVICE_CODE	R															Y	Y	Y		N	Automatic callback deactivation.
ACR	TERMINATION_ATTEMPT_AUTHORIZED	TERMINATION_ATTEMPT_AUTHORIZED	R																Y	Y		N	Anonymous call rejection.
ACR_ACT	COLLECTED_INFORMATION	VERTICAL_SERVICE_CODE	R																Y	Y		N	Anonymous call rejection activation code.
ACR_DEACT	COLLECTED_INFORMATION	VERTICAL_SERVICE_CODE	R																Y	Y		N	Anonymous call rejection deactivation code.

Table B-1 List of Features (continued)

FNAME	TDPn	TIDn	TTYPE1	FNAME1	FNAME2	FNAME3	FNAME4	FNAME5	TYPE1	VALUE1	TYPE2	VALUE2	TYPE3	VALUE3	TYPE4	VALUE4	VALUE5	Office	POTS	Centrex	Tandem	GRP	Description
ALERT_NOTIFY (Release 4.5)	CALL_ACCEPTED	CALL_ACCEPTED_NOTIFY	R															Y				N	Alerting notification to third-party feature server. **Note** The feature identifier (FNAME) can be any unique string of up to 16 ASCII characters chosen by the service provider.
ANI			R																		Y	N	Automatic number identification.
AR			R	AR_ACT	AR_DEACT													Y	Y	Y		N	Automatic recall.
AR_ACT	COLLECTED_INFORMATION	VERTICAL_SERVICE_CODE	R															Y	Y	Y		N	Automatic recall activation.
AR_DEACT	COLLECTED_INFORMATION	VERTICAL_SERVICE_CODE	R															Y	Y	Y		N	Automatic recall deactivation.
BLV	TERMINATION_ATTEMPT	BLV	R															Y				N	Busy line verification.
CBLK	COLLECTED_INFORMATION	VERTICAL_SERVICE_CODE	R															Y	Y	Y		N	Call block—reject caller.

Table B-1 List of Features (continued)

FNAME	TDPn	TIDn	TTYPE1	FNAME1	FNAME2	FNAME3	FNAME4	FNAME5	TYPE1	VALUE1	TYPE2	VALUE2	TYPE3	VALUE3	TYPE4	VALUE4	VALUE5	Office	POTS	Centrex	Tandem	GRP	Description
CCW	COLLECTED_INFORMATION O_MID_CALL (Release 4.5) T_MID_CALL (Release 4.5)	VERTICAL_SERVICE_CODE O_SWITCH_HOOK_FLASH_IMMEDIATE (Release 4.5) T_SWITCH_HOOK_FLASH_IMMEDIATE (Release 4.5)	R																Y	Y		N	Cancel call waiting.
CDP	COLLECTED_INFORMATION	CUSTOMIZE_DIALING_PLAN	R																	Y		Y	Customize dial plan.
CFB	T_BUSY T_EXCEPTION (Release 4.5.1)	T_BUSY T_NOT_REACHABLE (Release 4.5.1)	R	CFBVA	CFBVD	CFBI			MCF	Y	INTL	N							Y	Y		N	Call forwarding busy. MCF——Multiple call forwarding (Default = N). Multiple call forwarding is enabled by default, but can be disabled. See Table B-2 for Release 4.5.x TYPEn/VALUEn information.
CFBI	COLLECTED_INFORMATION	VERTICAL_SERVICE_CODE	R						SDT	N	FDT	N							Y	Y		N	Call forwarding busy interrogation. See Table B-2 for Release 4.5.x TYPEn/VALUEn information.
CFBVA	COLLECTED_INFORMATION	VERTICAL_SERVICE_CODE	R						SDT	Y	FDT	Y	INTL	N	CC	N			Y	Y		N	Call forwarding busy activation. See Table B-2 for Release 4.5.x TYPEn/VALUEn information.
CFBVD	COLLECTED_INFORMATION	VERTICAL_SERVICE_CODE	R						FDT	Y									Y	Y		N	Call forwarding busy deactivation. See Table B-2 for Release 4.5.x TYPEn/VALUEn information.

Table B-1 List of Features (continued)

FNAME	TDPn	TIDn	TTYPE1	FNAME1	FNAME2	FNAME3	FNAME4	FNAME5	TYPE1	VALUE1	TYPE2	VALUE2	TYPE3	VALUE3	TYPE4	VALUE4	VALUE5	Office	POTS	Centrex	Tandem	GRP	Description
CFC (Release 4.5)	CALL_ ACCEPTED T_BUSY	CALL_ ACCEPTED T_BUSY	R	CFC_ACT	CFC_DEACT	CFC_DN_CHG_ACT	CFCI	CFCI_NO_DN_VRFY															Call forwarding combination. See Table B-2 for Release 4.5.x TYPEn/VALUEn information.
CFC_ DN_ CHG_ ACT (Release 4.5)	COLLECTED_ INFORMATION	VERTICAL_ SERVICE_CODE	R																				Call forwarding combination DN change with activation. See Table B-2 for Release 4.5.x TYPEn/VALUEn information.
CFC_ ACT (Release 4.5)	COLLECTED_ INFORMATION	VERTICAL_ SERVICE_CODE	R																				Call forwarding combination activation. See Table B-2 for Release 4.5.x TYPEn/VALUEn information.
CFC_ DEACT (Release 4.5)	COLLECTED_ INFORMATION	VERTICAL_ SERVICE_CODE	R																				Call forwarding combination deactivation. See Table B-2 for Release 4.5.x TYPEn/VALUEn information.
CFCI (Release 4.5)	COLLECTED_ INFORMATION	VERTICAL_ SERVICE_CODE	R																Y	Y		N	CFC interrogation with DN verification. See Table B-2 for Release 4.5.x TYPEn/VALUEn information.

Table B-1 List of Features (continued)

FNAME	TDPn	TIDn	TTYPE1	FNAME1	FNAME2	FNAME3	FNAME4	FNAME5	TYPE1	VALUE1	TYPE2	VALUE2	TYPE3	VALUE3	TYPE4	VALUE4	VALUE5	Office	POTS	Centrex	Tandem	GRP	Description
CFCI_NO_DN_VRFY (Release 4.5)	COLLECTED_INFORMATION	VERTICAL_SERVICE_CODE	R																Y	Y		N	CFC interrogation with no DN verification. See Table B-2 for Release 4.5.x TYPEn/VALUEn information.
CFNA	CALL_ACCEPTED	CALL_ACCEPTED	R	CFNAVA	CFNAVD	CFNAI			TO	30	INTL	N	MCF	Y					Y	Y		N	Call forwarding no answer. MCF—Multiple call forwarding (Default = N). Multiple call forwarding is enabled by default, but can be disabled. TO—Timeout period in seconds. See Table B-2 for Release 4.5.x TYPEn/VALUEn information.
CFNAI	COLLECTED_INFORMATION	VERTICAL_SERVICE_CODE	R						SDT	N	FDT	N							Y	Y		N	CFNA variable interrogation. See Table B-2 for Release 4.5.x TYPEn/VALUEn information.
CFNAVA	COLLECTED_INFORMATION	VERTICAL_SERVICE_CODE	R						SDT	Y	FDT	Y	INTL	N	CC	N			Y	Y		N	CFNA variable activation. See Table B-2 for Release 4.5.x TYPEn/VALUEn information.
CFNAVD	COLLECTED_INFORMATION	VERTICAL_SERVICE_CODE	R						FDT	Y									Y	Y		N	CFNA variable deactivation. See Table B-2 for Release 4.5.x TYPEn/VALUEn information.

Table B-1 List of Features (continued)

FNAME	TDPn	TIDn	TTYPE1	FNAME1	FNAME2	FNAME3	FNAME4	FNAME5	TYPE1	VALUE1	TYPE2	VALUE2	TYPE3	VALUE3	TYPE4	VALUE4	VALUE5	Office	POTS	Centrex	Tandem	GRP	Description
CFU	TERMINATION_ ATTEMPT_ AUTHORIZED	TERMINATION_ ATTEMPT_ AUTHORIZED	R	CFUA	CFUD	CFUI			RR	Y	INTL	N	MCF	Y					Y	Y		N	Call forwarding unconditional. MCF—Multiple call forwarding allowed. Multiple call forwarding is enabled by default, but can be disabled. RR—Ring reminder. See Table B-2 for Release 4.5.x TYPEn/VALUEn information.
CFUA	COLLECTED_ INFORMATION	VERTICAL_ SERVICE_CODE	R						INTL	N	CC	ANS	FDT	Y	SDT	Y			Y	Y		N	CFU activation. INTL—CF to international directory number (DN). See Table B-2 for Release 4.5.x TYPEn/VALUEn information.
CFUD	COLLECTED_ INFORMATION	VERTICAL_ SERVICE_CODE	R						FDT	Y									Y	Y		N	CFU deactivation. See Table B-2 for Release 4.5.x TYPEn/VALUEn information.
CFUI	COLLECTED_ INFORMATION	VERTICAL_ SERVICE_CODE	R						SDT	N	FDT	N							Y	Y		N	CFU interrogation. See Table B-2 for Release 4.5.x TYPEn/VALUEn information.
CFV ABBG	COLLECTED_ INFORMATION	VERTICAL_ SERVICE_CODE	R						SDT	Y	FDT	Y	INTL	N	CC	N				Y		N	Call forwarding variable activation for business groups. CFVABBG takes precedence over CFU. See Table B-2 for Release 4.5.x TYPEn/VALUEn information.

Table B-1 List of Features (continued)

FNAME	TDPn	TIDn	TTYPE1	FNAME1	FNAME2	FNAME3	FNAME4	FNAME5	TYPE1	VALUE1	TYPE2	VALUE2	TYPE3	VALUE3	TYPE4	VALUE4	VALUE5	Office	POTS	Centrex	Tandem	GRP	Description
CFVBBG	TERMINATION_ ATTEMPT_ AUTHORIZED	TERMINATION_ ATTEMPT_ AUTHORIZED	R	CFVABBG	CFUD	CFUI			MCF	Y	RR	Y	INTL	N						Y		N	Call forwarding variable for business groups. CFVBBG takes precedence over CFU. See Table B-2 for Release 4.5.x TYPEn/VALUEn information.
CHD	O_MID_CALL T_MID_CALL	O_SWITCH_ HOOK_FLASH_ IMMEDIATE T_SWITCH_ HOOK_FLASH_ IMMEDIATE	R																	Y		N	Call hold. For Centrex users, an access code (typically provisioned as *52) can be used in conjunction with the CHD feature.
CIDCW	T_BUSY	T_BUSY	R																Y	Y		N	Caller ID with call waiting.
CIDS			R	CIDSD	CIDSS														Y	Y		N	Calling identity delivery and suppression per call. See Table B-2 for Release 4.5.x TYPEn/VALUEn information.
CIDSD	COLLECTED_ INFORMATION	VERTICAL_ SERVICE_CODE	R																Y	Y		N	Calling identity delivery and suppression, delivery part per call. See Table B-2 for Release 4.5.x TYPEn/VALUEn information.
CIDSS	COLLECTED_ INFORMATION	VERTICAL_ SERVICE_CODE	R																Y	Y		N	Calling identity delivery and suppression, suppression part per call. See Table B-2 for Release 4.5.x TYPEn/VALUEn information.
CLIP	N-A	N-A	R	CNAM	CND																		Calling line identity presentation.

Table B-1 List of Features (continued)

FNAME	TDPn	TIDn	TTYPE1	FNAME1	FNAME2	FNAME3	FNAME4	FNAME5	TYPE1	VALUE1	TYPE2	VALUE2	TYPE3	VALUE3	TYPE4	VALUE4	VALUE5	Office	POTS	Centrex	Tandem	GRP	Description
CLIR	N-A	N-A	R	CNAB	CNDB	CIDSS	CIDSD																Calling line identity restriction.
CNAB	COLLECTED_INFORMATION	VERTICAL_SERVICE_CODE	R																Y	Y		N	Calling name delivery blocking.This feature is not supported on SIP trunks. See the *Cisco BTS 10200 Softswitch Provisioning Guide* and *Release Notes* for more information. See Table B-2 for Release 4.5.x TYPEn/VALUEn information.
CNAM	FACILITY_SELECTED_AND_AVAILABLE	TERMINATION_RESOURCE_AVAILABLE	R																Y	Y		N	Calling name.
CND	FACILITY_SELECTED_AND_AVAILABLE	TERMINATION_RESOURCE_AVAILABLE	R																Y	Y		N	Calling number delivery.
CNDB	COLLECTED_INFORMATION	VERTICAL_SERVICE_CODE	R																Y	Y		N	Calling number delivery blocking (toggles the privacy indicator). See Table B-2 for Release 4.5.x TYPEn/VALUEn information.
COS	COLLECTED_INFORMATION	COS_TRIGGER	R																Y	Y	Y	N	Class of service screening.
COT	COLLECTED_INFORMATION	VERTICAL_SERVICE_CODE	R															Y	Y	Y		N	Customer-originated trace.
CPRK	O_MID_CALL T_MID_CALL	O_SWITCH_HOOK_FLASH_IMMEDIATE T_SWITCH_HOOK_FLASH_IMMEDIATE	R																	Y		N	Call park access code.

Table B-1 List of Features (continued)

FNAME	TDPn	TIDn	TTYPE1	FNAME1	FNAME2	FNAME3	FNAME4	FNAME5	TYPE1	VALUE1	TYPE2	VALUE2	TYPE3	VALUE3	TYPE4	VALUE4	VALUE5	Office	POTS	Centrex	Tandem	GRP	Description
CPRK_RET			R																	Y		N	Call park retrieval access code.
CT	O_MID_CALL T_MID_CALL	O_SWITCH_HOOK_FLASH_IMMEDIATE T_SWITCH_HOOK_FLASH_IMMEDIATE	R																	Y		N	Call transfer.
CW	T_BUSY	T_BUSY	R																Y	Y		N	Call waiting.
CWD	T_BUSY	T_BUSY	R						TO	15									Y	Y		N	Call waiting deluxe. See Table B-2 for Release 4.5.x TYPEn/VALUEn information.
CWDA	COLLECTED_INFORMATION	VERTICAL_SERVICE_CODE	R																				Call waiting feature (CW and CWD) activation.
CWDD	COLLECTED_INFORMATION	VERTICAL_SERVICE_CODE	R																				Call waiting feature (CW and CWD) deactivation.
CWDI	COLLECTED_INFORMATION	VERTICAL_SERVICE_CODE	R																				Call waiting deluxe. interrogation.
DACWI	TERMINATION_ATTEMPT_AUTHORIZED	TERMINATION_ATTEMPT_AUTHORIZED	R																Y	Y		N	Distinctive alerting/call waiting on incoming on DID calls.
DND	TERMINATION_ATTEMPT_AUTHORIZED	TERMINATION_ATTEMPT_AUTHORIZED	R	DND_ACT	DND_DEACT														Y	Y		N	Do not disturb.
DND_ACT	COLLECTED_INFORMATION	CUSTOMIZE_DIALING_PLAN	R																Y	Y		N	Do not disturb activation.
DND_DEACT	COLLECTED_INFORMATION	CUSTOMIZE_DIALING_PLAN	R																Y	Y		N	Do not disturb deactivation.

Table B-1 List of Features (continued)

FNAME	TDPn	TIDn	TTYPE1	FNAME1	FNAME2	FNAME3	FNAME4	FNAME5	TYPE1	VALUE1	TYPE2	VALUE2	TYPE3	VALUE3	TYPE4	VALUE4	VALUE5	Office	POTS	Centrex	Tandem	GRP	Description
DPN	COLLECTED_ INFORMATION	VERTICAL_ SERVICE_CODE	R																	Y		N	Directed call pickup with barge-in.
DPU	COLLECTED_ INFORMATION	VERTICAL_ SERVICE_CODE	R																	Y		N	Directed call pickup.
DRCW	TERMINATION_ ATTEMPT_ AUTHORIZED	TERMINATION_ ATTEMPT_ AUTHORIZED	R																Y	Y		N	Distinctive ringing call waiting.
DRCW_ ACT	COLLECTED_ INFORMATION	VERTICAL_ SERVICE_CODE	R																Y	Y		N	DRCW activation code.
GSC1D	COLLECTED_ INFORMATION	SC1D_TRIGGER	R																Y	Y		Y	1-digit group speed calling.
GSC2D	COLLECTED_ INFORMATION	SC2D_TRIGGER	R																Y	Y		Y	2-digit group speed calling.
HOT LINE	O_ATTEMPT_ AUTHORIZED	O_ATTEMPT_ AUTHD	R																Y	Y		N	Hotline.
HOTV	O_ATTEMPT_ AUTHORIZED	O_ATTEMPT_ AUTHD	R	HOTVA	HOTVD	HOTVI			TO	4									Y	Y		N	Hotline variable. See Table B-2 for Release 4.5.x TYPEn/VALUEn information.
HOTVA	COLLECTED_ INFORMATION	VERTICAL_ SERVICE_CODE	R																Y	Y		N	Hotline variable activation.
HOTVD	COLLECTED_ INFORMATION	VERTICAL_ SERVICE_CODE	R																Y	Y		N	Hotline variable deactivation.
HOTVI	COLLECTED_ INFORMATION	VERTICAL_ SERVICE_CODE	R																Y	Y		N	Hotline variable interrogation.
ISFG	TERMINATION_ ATTEMPT_ AUTHORIZED	TERMINATION_ ATTEMPT_ AUTHORIZED	R																	Y		N	Incoming SFG feature for Centrex.
IVR	T_ANSWER	T_ANSWER	R																			N	Internal IVR feature.
LCD (Release 4.4.1)	COLLECTED_ INFORMATION	LCD_TRIGGER	R																				Limited Call Duration

Table B-1 List of Features (continued)

FNAME	TDPn	TIDn	TTYPE1	FNAME1	FNAME2	FNAME3	FNAME4	FNAME5	TYPE1	VALUE1	TYPE2	VALUE2	TYPE3	VALUE3	TYPE4	VALUE4	VALUE5	Office	POTS	Centrex	Tandem	GRP	Description
LNP	COLLECTED_INFORMATION	LNP_TRIGGER	R															Y				N	Local number portability.
MDN	TERMINATION_ATTEMPT_AUTHORIZED	TERMINATION_ATTEMPT_AUTHORIZED	R																Y	Y		N	Multiple directory numbers. For example, teen service.
NSA (Release 4.5)	TERMINATION_ATTEMPT_AUTHORIZED	TERMINATION_ATTEMPT_AUTHORIZED	R																				No Solicitation Announcement feature.
NSA_ACT (Release 4.5)	COLLECTED_INFORMATION	VERTICAL_SERVICE_CODE	R																				NSA Management feature.
OCB	COLLECTED_INFORMATION	COS_TRIGGER	R	OCBA	OCBD	OCBI			PIN_LEN	4	FAIL_CNT	3	TO	-	TO	30			Y	Y		N	Outgoing call barring. See Table B-2 for Release 4.5.x TYPEn/VALUEn information.
OCBA	COLLECTED_INFORMATION	VERTICAL_SERVICE_CODE	R																Y	Y		N	Outgoing call barring activation.
OCBD	COLLECTED_INFORMATION	VERTICAL_SERVICE_CODE	R																Y	Y		N	Outgoing call barring deactivation.
OCBI	COLLECTED_INFORMATION	VERTICAL_SERVICE_CODE	R																Y	Y		N	Outgoing call barring interrogation.
OSFG	ROUTE_SELECTED	ROUTE_SELECTED	R																	Y		N	Outgoing SFG feature for Centrex.
PS (Release 4.5)	TERMINATION_ATTEMPT_AUTHORIZED	TERMINATION_ATTEMPT_AUTHORIZED	R																				Privacy screening (PS) feature.

Table B-1 List of Features (continued)

FNAME	TDPn	TIDn	TTYPE1	FNAME1	FNAME2	FNAME3	FNAME4	FNAME5	TYPE1	VALUE1	TYPE2	VALUE2	TYPE3	VALUE3	TYPE4	VALUE4	VALUE5	Office	POTS	Centrex	Tandem	GRP	Description
PS_MANAGE (Release 4.5)	COLLECTED_INFORMATION	COLLECTED_INFORMATION	R																				PS management feature.
PS_O (Release 4.5)	COLLECTED_INFORMATION	COLLECTED_INFORMATION	R																			N	PS feature assigned to the incoming trunk from the PS application server.
RACF	T_ANSWER	T_ANSWER	R																Y	Y		N	Remote activation of call forwarding. RACF is an IVR-based function that can be used with CFU.
RACF_PIN	COLLECTED_INFORMATION T_ANSWER	VERTICAL_SERVICE_CODE T_ANSWER	R																Y	Y		N	RACF PIN change.
RCF	TERMINATION_ATTEMPT_AUTHORIZED	TERMINATION_ATTEMPT_AUTHORIZED	R	CFU					MCF	Y	RR	N							Y			N	Remote call forwarding. See Table B-2 for Release 4.5.x TYPEn/VALUEn information.
REFER	O_MID_CALL T_MID_CALL	REFER_TRIGGER REFER_TRIGGER	R															Y				N	Refer capability is inherent to a SIP phone. Refer is used to perform a blind or a consultative call transfer. This is currently defined as a basic SIP capability available to all SIP subscribers and provisioned as part of the Office Service ID.

Table B-1 List of Features (continued)

FNAME	TDPn	TIDn	TTYPE1	FNAME1	FNAME2	FNAME3	FNAME4	FNAME5	TYPE1	VALUE1	TYPE2	VALUE2	TYPE3	VALUE3	TYPE4	VALUE4	VALUE5	Office	POTS	Centrex	Tandem	GRP	Description
SC1D	COLLECTED_INFORMATION	SC1D_TRIGGER	R	SC1D_ACT															Y	Y		N	1-digit speed calling.
SC1D_ACT	COLLECTED_INFORMATION	VERTICAL_SERVICE_CODE	R																Y	Y		N	1-digit speed calling aCtivation code.
SC2D	COLLECTED_INFORMATION	SC2D_TRIGGER	R	SC2D_ACT															Y	Y		N	2-digit speed calling.
SC2D_ACT	COLLECTED_INFORMATION	VERTICAL_SERVICE_CODE	R																Y	Y		N	2-digit speed calling aCtivation code.
SCA	TERMINATION_ATTEMPT_AUTHORIZED	TERMINATION_ATTEMPT_AUTHORIZED	R																Y	Y		N	Selective call acceptance.
SCA_ACT	COLLECTED_INFORMATION	VERTICAL_SERVICE_CODE	R																Y	Y		N	SCA activation code. ACA_ACT provides access to an IVR server for activation, screening list setup and editing, and deactivation of SCA.
SCF	TERMINATION_ATTEMPT_AUTHORIZED	TERMINATION_ATTEMPT_AUTHORIZED	R																Y	Y		N	Selective call forwarding. See Table B-2 for Release 4.5.x TYPEn/VALUEn information.
SCF_ACT	COLLECTED_INFORMATION	VERTICAL_SERVICE_CODE	R																Y	Y		N	Selective call forwarding activation.

Table B-1 List of Features (continued)

FNAME	TDPn	TIDn	TTYPE1	FNAME1	FNAME2	FNAME3	FNAME4	FNAME5	TYPE1	VALUE1	TYPE2	VALUE2	TYPE3	VALUE3	TYPE4	VALUE4	VALUE5	Office	POTS	Centrex	Tandem	GRP	Description
SCR	TERMINATION_ATTEMPT_AUTHORIZED	TERMINATION_ATTEMPT_AUTHORIZED	R																Y	Y		N	Selective call rejection.
SCR_ACT	COLLECTED_INFORMATION	VERTICAL_SERVICE_CODE	R																Y	Y		N	Selective call rejection activation. SCR_ACT provides access to an IVR server for the activation, screening list setup and editing, and deactivation of SCR.
SLE (Release 4.5)			R																				Screening list editing feature. Required for all features needing screening list functionality.
TWC	O_MID_CALL T_MID_CALL	O_SWITCH_HOOK_FLASH_IMMEDIATE T_SWITCH_HOOK_FLASH_IMMEDIATE	R																Y	Y		N	Three-way call.
TWCD	O_MID_CALL T_MID_CALL	O_SWITCH_HOOK_FLASH_IMMEDIATE T_SWITCH_HOOK_FLASH_IMMEDIATE	R																Y	Y		N	Three-way call deluxe.
USTWC	O_MID_CALL T_MID_CALL	O_SWITCH_HOOK_FLASH_IMMEDIATE T_SWITCH_HOOK_FLASH_IMMEDIATE	R															Y				N	Usage-sensitive three-way call.

Table B-1 List of Features (continued)

FNAME	TDPn	TIDn	TTYPE1	FNAME1	FNAME2	FNAME3	FNAME4	FNAME5	TYPE1	VALUE1	TYPE2	VALUE2	TYPE3	VALUE3	TYPE4	VALUE4	VALUE5	Office	POTS	Centrex	Tandem	GRP	Description
VM (Release 4.5)	CALL_ ACCEPTED T_BUSY	CALL_ ACCEPTED T_BUSY	R	VM_ ACTT	VM_ DEAC	VM_ ACCESS												Y					Voice mail feature. See Table B-2 for Release 4.5.x TYPEn/VALUEn information.
VM_ ACCESS (Release 4.5)	COLLECTED_ INFORMATION	VERTICAL_ SERVICE_CODE	R																				Voice mail access feature.
VMA (Release 4.5)	TERMINATION_ ATTEMPT_ AUTHORIZED	TERMINATION_ ATTEMPT_ AUTHORIZED	R	VM_ ACTT	VM_ DEAC	VM_ ACCESS																	Voice mail always feature. See Table B-2 for Release 4.5.x TYPEn/VALUEn information.
VMA_ ACT (Release 4.5)	COLLECTED_ INFORMATION	VERTICAL_ SERVICE_CODE	R																				Voice mail always activation feature.
VM_ ACT (Release 4.5)	COLLECTED_ INFORMATION	VERTICAL_ SERVICE_CODE	R																				Voice mail activation feature.
VMA_ DEACT (Release 4.5)	COLLECTED_ INFORMATION	VERTICAL_ SERVICE_CODE	R																				Voice mail always deactivation feature.

Table B-1 List of Features (continued)

FNAME	TDPn	TIDn	TTYPE1	FNAME1	FNAME2	FNAME3	FNAME4	FNAME5	TYPE1	VALUE1	TYPE2	VALUE2	TYPE3	VALUE3	TYPE4	VALUE4	VALUE5	Office	POTS	Centrex	Tandem	GRP	Description
VM_DEACT (Release 4.5)	COLLECTED_INFORMATION	VERTICAL_SERVICE_CODE	R																				Voice mail deactivation feature.
WARMLINE	O_ATTEMPT_AUTHORIZED	O_ATTEMPT_AUTHD	R						TO	4									Y	Y		N	Warmline feature. See Table B-2 for Release 4.5.x TYPEn/VALUEn information.

Feature Profile Base Feature List (Release 4.5)

Table B-2 lists the features for the "Feature Profile Base (Release 4.5)" table.

Table B-2 Feature Profile Base Features

FNAME	Feature Name	Type	Datatype	From-Value	To-Value	Default	Description
CFB	Call Forwarding Busy	INTL	BOOLEAN			N	Allow forwarding to international numbers (Yes/No).
CFB	Call Forwarding Busy	MCF	BOOLEAN			Y	Allow forwarding of multiple simultaneous calls (Yes/No).
CFBI	Call Forwarding Busy interrogation	FDT	STRING			NO_TONE	Send a final dial tone after a confirmation tone. Permitted values are: NO_TONE DIAL_TONE STUTTER_DIAL_TONE CONFIRMATION_TONE CONFIRMATION_DIAL_TONE
CFBI	Call Forwarding Busy interrogation	SDT	STRING			NO_TONE	Send a second dial tone after a star code. Permitted values are: NO_TONE DIAL_TONE STUTTER_DIAL_TONE CONFIRMATION_TONE CONFIRMATION_DIAL_TONE
CFBVA	Call Forwarding Busy Activation	CC	STRING			N	Courtesy call.
CFBVA	Call Forwarding Busy Activation	FDT	STRING			CONFIRMATION_DIAL_TONE	Send a final dial tone after a confirmation tone. Permitted values are: NO_TONE DIAL_TONE STUTTER_DIAL_TONE CONFIRMATION_TONE CONFIRMATION_DIAL_TONE
CFBVA	Call Forwarding Busy Activation	INTL	BOOLEAN			N	Allow forwarding to international numbers (Yes/No).

Table B-2 Feature Profile Base Features (continued)

FNAME	Feature Name	Type	Datatype	From-Value	To-Value	Default	Description
CFBVA	Call Forwarding Busy Activation	SDT	STRING			DIAL_TONE	Send a second dial tone after a star code. Permitted values are: NO_TONE DIAL_TONE STUTTER_DIAL_TONE CONFIRMATION_TONE CONFIRMATION_DIAL_TONE
CFBVD	Call Forwarding Busy Deactivation	FDT	STRING			CONFIRMATION_DIAL_TONE	Send a final dial tone after a confirmation tone. Permitted values are: NO_TONE DIAL_TONE STUTTER_DIAL_TONE CONFIRMATION_TONE CONFIRMATION_DIAL_TONE
CFC	Call Forwarding Combination	MCF	BOOLEAN			Y	Allow forwarding of multiple simultaneous calls (Yes/No).
CFC	Call Forwarding Combination	TO	INTEGER	6	180	30	TO = TIMEOUT PERIOD in seconds.
CFC_ACT	Call Forwarding Combination Activation	FDT	STRING			STUTTER_DIAL_TONE	Send a final dial tone after a confirmation tone. Permitted values are: NO_TONE DIAL_TONE STUTTER_DIAL_TONE CONFIRMATION_TONE CONFIRMATION_DIAL_TONE
CFC_DEACT	Call Forwarding Combination Deactivation	FDT	STRING			STUTTER_DIAL_TONE	Send a final dial tone after a confirmation tone. Permitted values are: NO_TONE DIAL_TONE STUTTER_DIAL_TONE CONFIRMATION_TONE CONFIRMATION_DIAL_TONE
CFC_DN_CHG_ACT	Call Forwarding Combination Activation DN Change	CC	STRING			N	Courtesy call.

Table B-2 Feature Profile Base Features (continued)

FNAME	Feature Name	Type	Datatype	From-Value	To-Value	Default	Description
CFC_DN_CHG_ACT	Call Forwarding Combination Activation DN Change	FDT	STRING			STUTTER_DIAL_TONE	Send a final dial tone after a confirmation tone. Permitted values are: NO_TONE DIAL_TONE STUTTER_DIAL_TONE CONFIRMATION_TONE CONFIRMATION_DIAL_TONE
CFC_DN_CHG_ACT	Call Forwarding Combination Activation DN Change	INTL	BOOLEAN			N	Allow forwarding to international numbers (Yes/No).
CFC_DN_CHG_ACT	Call Forwarding Combination Activation DN Change	SDT	STRING			DIAL_TONE	Send a second dial tone after a star code. Permitted values are: NO_TONE DIAL_TONE STUTTER_DIAL_TONE CONFIRMATION_TONE CONFIRMATION_DIAL_TONE
CFCI	CFC Interrogation with DN Verification	FDT	STRING			NO_TONE	Send a final dial tone after a confirmation tone. Permitted values are: NO_TONE DIAL_TONE STUTTER_DIAL_TONE CONFIRMATION_TONE CONFIRMATION_DIAL_TONE
CFCI	CFC Interrogation with DN Verification	SDT	STRING			NO_TONE	Send a second dial tone after a star code. Permitted values are: NO_TONE DIAL_TONE STUTTER_DIAL_TONE CONFIRMATION_TONE CONFIRMATION_DIAL_TONE

Table B-2 Feature Profile Base Features (continued)

FNAME	Feature Name	Type	Datatype	From-Value	To-Value	Default	Description
CFCI_NO_DN_VRFY	CFC Interrogation with no DN Verification	FDT	STRING			NO_TONE	Send a final dial tone after a confirmation tone. Permitted values are: NO_TONE DIAL_TONE STUTTER_DIAL_TONE CONFIRMATION_TONE CONFIRMATION_DIAL_TONE
CFCI_NO_DN_VRFY	CFC Interrogation with no DN Verification	SDT	STRING			NO_TONE	Send a second dial tone after a star code. Permitted values are: NO_TONE DIAL_TONE STUTTER_DIAL_TONE CONFIRMATION_TONE CONFIRMATION_DIAL_TONE
CFNA	Call Forwarding No Answer	INTL	BOOLEAN			N	Allow forwarding to international numbers (Yes/No).
CFNA	Call Forwarding No Answer	MCF	BOOLEAN			Y	Allow forwarding of multiple simultaneous calls (Yes/No).
CFNA	Call Forwarding No Answer	TO	INTEGER	6	180	30	TO = TIMEOUT PERIOD in seconds.
CFNAI	CFNA Variable interrogation	FDT	STRING			NO_TONE	Send a final dial tone after a confirmation tone. Permitted values are: NO_TONE DIAL_TONE STUTTER_DIAL_TONE CONFIRMATION_TONE CONFIRMATION_DIAL_TONE
CFNAI	CFNA Variable interrogation	SDT	STRING			NO_TONE	Send a second dial tone after a star code. Permitted values are: NO_TONE DIAL_TONE STUTTER_DIAL_TONE CONFIRMATION_TONE CONFIRMATION_DIAL_TONE

Table B-2 Feature Profile Base Features (continued)

FNAME	Feature Name	Type	Datatype	From-Value	To-Value	Default	Description
CFNAVA	CFNA Variable Activation	CC	STRING			N	Courtesy call.
CFNAVA	CFNA Variable Activation	FDT	STRING			CONFIRMATION_DIAL_TONE	Send a final dial tone after a confirmation tone. Permitted values are: NO_TONE DIAL_TONE STUTTER_DIAL_TONE CONFIRMATION_TONE CONFIRMATION_DIAL_TONE
CFNAVA	CFNA Variable Activation	INTL	BOOLEAN			N	Allow forwarding to international numbers (Yes/No).
CFNAVA	CFNA Variable Activation	SDT	STRING			DIAL_TONE	Send a second dial tone after a star code. Permitted values are: NO_TONE DIAL_TONE STUTTER_DIAL_TONE CONFIRMATION_TONE CONFIRMATION_DIAL_TONE
CFNAVD	CFNA Variable Deactivation	FDT	STRING			CONFIRMATION_DIAL_TONE	Send a final dial tone after a confirmation tone. Permitted values are: NO_TONE DIAL_TONE STUTTER_DIAL_TONE CONFIRMATION_TONE CONFIRMATION_DIAL_TONE
CFU	Call Forwarding Unconditional	INTL	BOOLEAN			N	Allow forwarding to international numbers (Yes/No).
CFU	Call Forwarding Unconditional	MCF	BOOLEAN			Y	Allow forwarding of multiple simultaneous calls (Yes/No).
CFU	Call Forwarding Unconditional	RR	BOOLEAN			Y	Ring reminder.
CFUA	CFU Variable Activation	CC	STRING			ANS	Courtesy call.

Table B-2 Feature Profile Base Features (continued)

FNAME	Feature Name	Type	Datatype	From-Value	To-Value	Default	Description
CFUA	CFU Variable Activation	FDT	STRING			CONFIRMATION_DIAL_TONE	Send a final dial tone after a confirmation tone. Permitted values are: NO_TONE DIAL_TONE STUTTER_DIAL_TONE CONFIRMATION_TONE CONFIRMATION_DIAL_TONE
CFUA	CFU Variable Activation	INTL	BOOLEAN			N	Allow forwarding to international numbers (Yes/No).
CFUA	CFU Variable Activation	SDT	STRING			DIAL_TONE	Send a second dial tone after a star code. Permitted values are: NO_TONE DIAL_TONE STUTTER_DIAL_TONE CONFIRMATION_TONE CONFIRMATION_DIAL_TONE
CFUD	CFU Variable Deactivation	FDT	STRING			CONFIRMATION_DIAL_TONE	Send a final dial tone after a confirmation tone. Permitted values are: NO_TONE DIAL_TONE STUTTER_DIAL_TONE CONFIRMATION_TONE CONFIRMATION_DIAL_TONE
CFUI	CFU interrogation	FDT	STRING			NO_TONE	Send a final dial tone after a confirmation tone. Permitted values are: NO_TONE DIAL_TONE STUTTER_DIAL_TONE CONFIRMATION_TONE CONFIRMATION_DIAL_TONE

Table B-2 Feature Profile Base Features (continued)

FNAME	Feature Name	Type	Datatype	From-Value	To-Value	Default	Description
CFUI	CFU interrogation	SDT	STRING			NO_TONE	Send a second dial tone after a star code. Permitted values are: NO_TONE DIAL_TONE STUTTER_DIAL_TONE CONFIRMATION_TONE CONFIRMATION_DIAL_TONE
CFVABBG	Call Forwarding Variable Activation for Business Groups	CC	STRING			N	Courtesy call.
CFVABBG	Call Forwarding Variable Activation for Business Groups	FDT	STRING			CONFIRMATION_DIAL_TONE	Send a final dial tone after a confirmation tone. Permitted values are: NO_TONE DIAL_TONE STUTTER_DIAL_TONE CONFIRMATION_TONE CONFIRMATION_DIAL_TONE.
CFVABBG	Call Forwarding Variable Activation for Business Groups	INTL	BOOLEAN			N	Allow forwarding to international numbers (Yes/No).
CFVABBG	Call Forwarding Variable Activation for Business Groups	SDT	STRING			DIAL_TONE	Send a second dial tone after a star code. Permitted values are: NO_TONE DIAL_TONE STUTTER_DIAL_TONE CONFIRMATION_TONE CONFIRMATION_DIAL_TONE
CFVBBG	Call Forwarding Variable for Business Groups	INTL	BOOLEAN			N	Allow forwarding to international numbers (Yes/No).
CFVBBG	Call Forwarding Variable for Business Groups	MCF	BOOLEAN			Y	Allow forwarding of multiple simultaneous calls (Yes/No).

Table B-2 Feature Profile Base Features (continued)

FNAME	Feature Name	Type	Datatype	From-Value	To-Value	Default	Description
CFVBBG	Call Forwarding Variable for Business Groups	RR	BOOLEAN			Y	Ring reminder.
CIDS	Calling Identity Delivery / Suppression per call	SDT	STRING			STUTTER_DIAL_TONE	Send a second dial tone after star code. Permitted values are NO_TONE, DIAL_TONE STUTTER_DIAL_TONE CONFIRMATION_TONE CONFIRMATION_DIAL_TONE
CIDSD	Calling Identity Delivery PER CALL	SDT	STRING			STUTTER_DIAL_TONE	Send a second dial tone after star code. Permitted values are: NO_TONE, DIAL_TONE STUTTER_DIAL_TONE CONFIRMATION_TONE CONFIRMATION_DIAL_TONE
CIDSS	Calling Identity Suppression per call	SDT	STRING			STUTTER_DIAL_TONE	Send a second dial tone after star code. Permitted values are: NO_TONE, DIAL_TONE STUTTER_DIAL_TONE CONFIRMATION_TONE CONFIRMATION_DIAL_TONE
CNAB	Calling Name Delivery Blocking	SDT	STRING			STUTTER_DIAL_TONE	Send a second dial tone after star code. Permitted values are: NO_TONE, DIAL_TONE STUTTER_DIAL_TONE CONFIRMATION_TONE CONFIRMATION_DIAL_TONE
CNDB	Calling Number Delivery Blocking	SDT	STRING			STUTTER_DIAL_TONE	Send a second dial tone after star code. Toggles the Privacy Indicator. Permitted values are: NO_TONE, DIAL_TONE STUTTER_DIAL_TONE CONFIRMATION_TONE CONFIRMATION_DIAL_TONE

Table B-2 Feature Profile Base Features (continued)

FNAME	Feature Name	Type	Datatype	From-Value	To-Value	Default	Description
CWD	Call Waiting Deluxe	TO	INTEGER	10	30	15	TO = TIMEOUT PERIOD in seconds. 0 indicates no timeout.
HOTV	Hotline Variable	TO	INTEGER	1	15	4	TO = TIMEOUT PERIOD in seconds.
OCB	Outgoing Call Barring	FAIL_CNT	INTEGER	0	10	3	Fail count
OCB	Outgoing Call Barring	LOCK_OUT	INTEGER	0	180	30	Lockout period. 0 = Lock-out indefinitely.
OCB	Outgoing Call Barring	PIN_LEN	INTEGER	1	8	4	PIN length
OCB	Outgoing Call Barring	TO	INTEGER	0	180		TO = TIMEOUT PERIOD in minutes.
RCF	Remote Call Forwarding	MCF	BOOLEAN			Y	Allow forwarding of multiple simultaneous calls (Yes/No).
RCF	Remote Call Forwarding	RR	BOOLEAN			N	Ring reminder.
SCF	Selective Call Forwarding	RR	BOOLEAN			Y	Ring reminder.
VM	Voice Mail	MCF	BOOLEAN			Y	Allow forwarding of multiple simultaneous calls (Yes/No).
VM	Voice Mail	TO	INTEGER	1	15	4	TO = TIMEOUT PERIOD in seconds.
VMA	Voice Mail Always	MCF	BOOLEAN			Y	Allow forwarding of multiple simultaneous calls (Yes/No).
VMA	Voice Mail Always	RR	BOOLEAN			Y	Ring reminder.
WARMLINE	Warmline Feature	TO	INTEGER	1	15	4	Warmline feature.

Feature Type and Value Definitions (Release 4.5)

Table B-3 lists the valid feature type and value definitions for the "Feature Profile Base (Release 4.5)" table.

Table B-3 Feature Type-Value Definitions

Type	Definition	Feature	Value	Description
CC	Courtesy call	See the "Feature Profile Base (Release 4.5)" table	ANS	Make a courtesy call (CC) during call forwarding activation. Answer on CC is required to activate call forwarding (CF).
			NOANS	Make a courtesy call during call forwarding activation. Answer on CC is not required to activate CF.
			N	No courtesy call during call forwarding activation.
			BBG	Make a courtesy call during call forwarding activation. Answer on CC is required for CF activation to calls external to BBG, but no answer is required for calls internal to BBG. Applies only to CFVABBG.
FDT	Final Dial Tone	See the "Feature Profile Base (Release 4.5)" table	See description.	Send a final dial tone after a confirmation tone. Permitted values are: NO_TONE DIAL_TONE STUTTER_DIAL_TONE CONFIRMATION_TONE CONFIRMATION_DIAL_TONE
FAIL-CNT	Number of consecutive failures allowed before service is locked.	OCB	0	0—indicates no service lockout.
			Range: 1–10	Number of invalid attempts to activate or deactivate OCB before service is locked out.
INTL	International Call Forwarding allowed or not.	See the "Feature Profile Base (Release 4.5)" table	Y	Allows forwarding to international numbers.
			N	Do not allow forwarding to an international number.

Table B-3 Feature Type-Value Definitions (continued)

Type	Definition	Feature	Value	Description
LOCK-OUT	Lockout period for OCB feature	OCB	Range 0–180	Lockout period in minutes.
			0	Lock out indefinitely. Requires a service order to unlock.
			Range: 1–180	The service is locked out for activation or deactivation for the lockout period after the FAIL-CNT reaches the specified threshold. The lockout period begins after the last failed attempt.
MCF	Multiple Call Forwarding—Indicates if multiple call forwarding is allowed when CFU is encountered. By default only 1 call at a time can be forwarded from any subscriber.	See the "Feature Profile Base (Release 4.5)" table	Y	Allow forwarding of multiple simultaneous calls.
			N	Allow forwarding of only one call at a time.
PIN-LEN	Pin length for OCB feature	OCB	Range: 4–12	Specifies the pin length.
RR	Ring reminder—Indicates whether to provide a splash ring when a call is forwarded.	See the "Feature Profile Base (Release 4.5)" table	Y	Send a splash ring if phone is idle when a call is forwarded as a result of call forwarding.
			N	Do not send a splash ring.
SDT	Second Dial Tone	See the "Feature Profile Base (Release 4.5)" table	See description.	Send a second dial tone after a star code. Permitted values are: NO_TONE DIAL_TONE STUTTER_DIAL_TONE CONFIRMATION_TONE CONFIRMATION_DIAL_TONE
TO	Timeout	CFNA	Range: 6–180	Number of seconds to ring a telephone before forwarding. 6 seconds is equivalent to 1 ring.
	Timeout	WARM LINE	Range: 1–15	Number of seconds for dial tone timeout for warmline feature.
	Timeout—Number of minutes before the service is unlocked (see FAIL-CNT).	OCB	0	Failures are ignored.
			Range: 1–180	Tracks the number of consecutive failures in minutes within the TO time span. The time span begins with the first failure.

Feature Configuration Base Types and Values (Release 4.5)

Table B-4 lists the types and values for the "Feature Configuration Base (Release 4.5)" table.

Table B-4 Feature Configuration Base Table Types and Values

Add	Fname	Type	Datatype	From	To	CHK-POS -Values	Default	Description
# IVR based COS Feature								
	COS	FDT-TIMER	INTEGER	10	100	N	40	First digit timer for AUTH/ACCT collection in tenths of a second. **Note** To determine the correct value, use the following formula as a guide: 100 times 1/10 = 10 seconds. In this case, specify 100 to enter a 10 second interval.
	COS	IDT-TIMER	INTEGER	10	100	N	40	Inter-digit timer for AUTH/ACCT collection in tenths of a second. **Note** To determine the correct value, use the following formula as a guide: 100 times 1/10 = 10 seconds. In this case, specify 100 to enter a 10 second interval.
# IVR based NSA Feature								
	NSA	FDT-TIMER	INTEGER	10	100	N	40	First digit timer for AUTH/ACCT collection in tenths of a second. **Note** To determine the correct value, use the following formula as a guide: 100 times 1/10 = 10 seconds. In this case, specify 100 to enter a 10 second interval.
	NSA	IDT-TIMER	INTEGER	10	100	N	40	Inter-digit timer for AUTH/ACCT collection in tenths of a second. **Note** To determine the correct value, use the following formula as a guide: 100 times 1/10 = 10 seconds. In this case, specify 100 to enter a 10 second interval.
	NSA	INVOKE-DIGITS	DIGITS			N	1	Invoke digit(s) for NSA feature.
	NSA	RESTART-KEY	STRING			N	*	Restart key to erase the entered digits and restart entering digits.

Table B-4 Feature Configuration Base Table Types and Values (continued)

Add	Fname	Type	Datatype	From	To	CHK-POS -Values	Default	Description
	NSA	RETURN-KEY	STRING			N	#	Return key to signal that all digits are entered. Do not wait for IDT-TIMER.
# For IVR based NSA Activation (NSA-ACT) # Authentication								
	NSA-ACT	AUTH-ENABLED	BOOLEAN			N	Y	Specifies whether to enable authentication.
	NSA-ACT	AUTH-REPLAY-PIN-OP-CONFIRM	DIGITS			N	1	Operation key to confirm the PIN.
	NSA-ACT	AUTH-REPLAY-PIN-OP-REENTER	DIGITS			N	2	Operation key to reenter the PIN.
# NSA_ACT ATimer and Reattempts								
	NSA-ACT	REPEAT-INSTRUCTION	DIGITS			N	0	Operations key to repeat instructions.
	NSA-ACT	RESTART-KEY	STRING			N	*	Restart key to erase the entered digits and restart entering digits.
	NSA-ACT	RETURN-KEY	STRING			N	#	Return key to signal that all digits are entered. Do not wait for IDT-TIMER.
	NSA-ACT	NUM-ATTEMPTS	INTEGER	1	5	N	3	Specifies the number of attempts to request a valid response. This allows the IVR server to control flow appropriately. **Note** The recommended value is 1.
	NSA-ACT	T-SESSION	INTEGER	300	1200	N	600	Session timer in tenths of a second. The session times out after this amount of idle time during an activation session. **Note** To determine the correct value, use the following formula as a guide: 1200 times 1/10 = 120 seconds. In this case, specify 1200 to enter a 120 second interval.
# For NSA-ACT Time-of-day (TOD) Management								

Table B-4 Feature Configuration Base Table Types and Values (continued)

Add	Fname	Type	Datatype	From	To	CHK-POS -Values	Default	Description
	NSA-ACT	TOD-ENABLED	BOOLEAN			N	*	Specifies whether to enable the TOD management function for a subscriber. When enabled, the subscriber can manage the TOD feature using the handset.
	NSA-ACT	TOD-SET-OLD	DIGITS			N	1	Operations key to set the schedule to the old record.
	NSA-ACT	TOD-SET-NEW	DIGITS			N	2	Operations key to set a new schedule.
# For NSA-ACT SLE # Timer and reattempts								
	SLE	T1-TIMER	INTEGER	20	100	N	40	Specifies in tenths of a second how long the SPCS waits for a customer to confirm an existing remote DN or indicate that the remote DN should be changed. T1 is settable between 2 and 10 seconds with an interval of 1 second and a suggested value of 4 seconds. **Note** To determine the correct value, use the following formula as a guide: 20 times 1/10 = 2 seconds. In this case, specify 20 to enter a 2 second interval.
	SLE	T2-TIMER	INTEGER	20	100	N	40	Specifies in tenths of a second how long the SPCS waits for a customer to specify a new remote DN. T2 defines how long the SPCS waits for the customer to specify a new remote DN. **Note** To determine the correct value, use the following formula as a guide: 20 times 1/10 = 2 seconds. In this case, specify 20 to enter a 2 second interval.
	SLE	T3-TIMER	INTEGER	20	100	N	40	Specifies in tenths of a second how long the SPCS waits for a customer to specify “#”, “12”, or “0” when a DN must be added to the list during feature activation. T3 is settable between 2 and 10 seconds with an interval of 1 second and a suggested value of 4 seconds. **Note** To determine the correct value, use the following formula as a guide: 20 times 1/10 = 2 seconds. In this case, specify 20 to enter a 2 second interval.

Table B-4 Feature Configuration Base Table Types and Values (continued)

Add	Fname	Type	Datatype	From	To	CHK-POS -Values	Default	Description
	SLE	T4-TIMER	INTEGER	20	100	N	40	Specifies in tenths of a second how long the SPCS waits for a customer to specify a DN when adding or deleting an entry. T4 is settable between 2 and 10 seconds with an interval of 1 second and a suggested value of 4 seconds. **Note** To determine the correct value, use the following formula as a guide: 20 times 1/10 = 2 seconds. In this case, specify 20 to enter a 2 second interval.
	SLE	T5-TIMER	INTEGER	20	40	N	30	Specifies in tenths of a second how long the originating SPCS waits for a response to the initial query sent to the screened DN's SPCS. T5 is settable between 2 and 4 seconds with an interval of 1 second and a suggested value of 3 seconds. **Note** To determine the correct value, use the following formula as a guide: 20 times 1/10 = 2 seconds. In this case, specify 20 to enter a 2 second interval.
	SLE	T6-TIMER	INTEGER	20	40	N	35	Specifies in tenths of a second how long the SPCS waits for the customer to specify an option after an entry on the list is voiced back during list review. For DTMF customers, T6 is settable between 2 and 3 seconds with an interval of 0.5 second and a suggested value of 2.5 seconds. For dial pulse customers, it is settable between 3 and 4 seconds with an interval of 0.5 second and a suggested value of 3.5 seconds **Note** (Note: dial pulse capability is dependant on the gateway. The dial pulse default values are used.) **Note** To determine the correct value, use the following formula as a guide: 20 times 1/10 = 2 seconds. In this case, specify 20 to enter a 2 second interval.
	SLE	IDT-TIMER	INTEGER	20	90	N	40	Interdigit timer. The interdigit timing is settable between 2 and 9 seconds with an interval of 1 second and a suggested value of 4 seconds.

SLE Non-GR-220 Reattempts and Session Timer

Table B-4 Feature Configuration Base Table Types and Values (continued)

Add	Fname	Type	Datatype	From	To	CHK-POS -Values	Default	Description
	SLE	NUM-ATTEMPTS	INTEGER	1	5	N	30	Specifies the number of attempts to request a valid response. This allows the IVR server to control flow appropriately. **Note** Recommended value is 1.
	SLE	T-SESSION	INTEGER	300	1200	N	600	Default session timer in tenths of a second. The session times out after this amount of idle time during an SLE session. Not in GR-220.
# GR-220 Operation Keys								
	SLE	REPEAT-INSTRUCTION	DIGITS			N	0	Operations key to go to the repeat instruction menu.
	SLE	LIST-REVIEW	DIGITS			N	1	Operations key to go to the list review menu.
	SLE	TOD	DIGITS			N	2	Operations key to go to the TOD menu, not in GR-220.
	SLE	CHANGE-STATUS	DIGITS			N	3	Operations key to go to the change status menu.
	SLE	ADD-ENTRY	DIGITS			N	#	Operations key to go to the add entry menu.
	SLE	DELETE-ENTRY	DIGITS			N	*	Operations key to go to the delete entry menu.
	SLE	ADD-ENTRY-RETURN-KEY	DIGITS			N	*	Return key for the add entry procedure.
	SLE	DELETE-ENTRY-RETURN-KEY	DIGITS			N	#	Return key for the delete entry procedure.
	SLE	LAST-CALLING-PARTY	DIGITS			N	01	Operations key for the last calling party.
	SLE	INTERCOM-DIALING-CODE	DIGITS			N	02	Operations key for the extension.
	SLE	WILDCARD	DIGITS			N	03	Operations key for the wildcard
	SLE	DELETE-VOICED-BACK-ENTRY	DIGITS			N	07	Operations key to delete the voiced back entry.

Table B-4 Feature Configuration Base Table Types and Values (continued)

Add	Fname	Type	Datatype	From	To	CHK-POS -Values	Default	Description
	SLE	DELETE-ALL-ENTRIES	DIGITS			N	08	Operations key to delete all entri
	SLE	DELETE-ALL-ANONYMOUS-ENTRIES	DIGITS			N	09	Operations key to delete all anon
	SLE	LIST-EDITING-RETURN-KEY	DIGITS			Y	*#	Return key. Both an asterisk (*) a (#) are valid
# Call Forwarding Busy on Unreachable								
	CFB	FORWARD-ON-UNREACHABLE	BOOLEAN			N	Y	Forward calls by CFB when the s unreachable.
# Privacy Screening Feature for ACR and PS								
	PS	PRIVACY-UNKNOWN-TREATMENT	STRING			Y	PUBLIC	Specifies whether to treat an inco unknown privacy received, no pr no calling party information rece anonymous.
	ACR	PRIVACY-UNKNOWN-TREATMENT	STRING			Y	PUBLIC	Specifies whether to treat an inco unknown privacy received, no pr no calling party information rece anonymous..
# Wakeup Call (Release 4.5.1) (Not supported)								
	WKUP	WKUP_RINGTIME	INTEGER	1	180	N	120	Specifies, in seconds, how ma wake call rings.
	WKUP	WKUP_ATTEMPTS	INTEGER	1	4	N	2	Specifies the number of wake
	WKUP	WKUP_INTERVAL	INTEGER	1	20	N	10	Specifies the wakeup interval interval is the time between th attempt and the beginning of
	WKUP	WKUP_TCLSCRIPT	STRING			N		Specifies the TCL script file n media server to play.



APPENDIX C

Vertical Service Codes

Revised: July 24, 2009, OL-3743-42

This appendix lists the preprovisioned Telcordia-based vertical service codes (VSCs) and valid timezones (Release 4.2.1).

Telcordia-based Vertical Service Codes

Table C-1 lists the preprovisioned Telcordia-based vertical service codes (VSCs).

Note VSC(1)1 star codes are used by DTMF subscribers.
Provision the VSC(2)2 start codes for dial-pulse subscribers as required.

Table C-1 Vertical Service Codes Suggested by Telcordia

VSC(1)1	VSC(2)2	FNAME	Description
		LSV	Local service verification (Not supported)
		RACF-PIN	RACF pin change
*52	1152	CHD	Single line variety package call hold (not used)
*57	1157	COT	Customer-originated trace activation code
*60	1160	SCR-ACT	SCR SLE activation code
*61	1161	DRCW-ACT	DRCW SLE activation code
*63	1163	SCF-ACT	SCF SLE activation code
*64	1164	SCA-ACT	SCA SLE activation code
*66	1166	AC-ACT	Automatic callback activation code
*67	1167	CNDB	Calling number delivery blocking (toggles the privacy indicator)
*69	1169	AR-ACT	Automatic recall activation code
*70	1170	CCW	Cancel call waiting
*71	1171	USTWC	Usage-sensitive three-way calling (not used)
*72	1172	CFUA	CFU activation

Table C-1 Vertical Service Codes Suggested by Telcordia (continued)

VSC(1)1	VSC(2)2	FNAME	Description
*73	1173	CFUD	CFU deactivation
*74	1174	SC1D-ACT	One-digit speed calling activation code (8 entries)
*75	1175	SC2D-ACT	Two-digit speed calling activation code (30 entries)
*77	1177	ACR-ACT	ACR activation code
*78	1178	DND-ACT	Do not disturb activation code
*79	1179	DND-DEACT	Do not disturb deactivation code
*80	1180	SCR-ACT	SCR SLE deactivation code
*81	1181	DRCW-ACT	DRCW SLE deactivation code
*82	1182	CIDSD	Calling identity delivery suppression per call
*83	1183	SCF-ACT	SCF SLE deactivation code
*84	1184	SCA-ACT	SCA SLE deactivation code
*86	1186	AC-DEACT	Automatic callback deactivation code
*87	1187	ACR-DEACT	ACR deactivation code
*89	1189	AR-DEACT	Automatic recall deactivation code
*90	1190	CFBVA	Call forwarding busy variable activation
*91	1191	CFBVD	Call forwarding busy variable deactivation
*92	1192	CFNAVA	CFNA variable activation
*93	1193	CFNAVD	CFNA variable deactivation
*95	1195	CNAB	Calling name delivery blocking
*#57#		CFU1	CFU interrogation
52		HOTVA	Variable hotline activation
#52*		HOTVD	Variable hotline deactivation
54		OCBA	Outgoing call barring activation
#54*		OCBD	Outgoing call barring deactivation
*#54#		OCBI	Outgoing call barring interrogation
*#56#		DND-INT	Do not disturb interrogation code
		CIDSS	Calling identity suppression per call



APPENDIX 2

Predefined Database Usage Defaults

Revised: July 24, 2009, OL-3743-42

This appendix details the predefined defaults for the Database Usage tables for configurations in Releases 4.1 through 4.5. This appendix contains the following sections:

- Common Database Usage Defaults and Sizing Rules
- Release 4.1
- Release 4.2
- Release 4.4.x (Includes 4.4.0 and 4.4.1)
- Release 4.5
- Release 4.5.1

Within the tables in the following sections, *Maximum record count* is the total number of records that shared memory allows. For example, this is the total number of subscribers a particular switch or hardware configuration allows. *Licensed record count* indicates the number of records a customer is allowed by purchase. For example, the number of subscriber records that are licensed.

Common Database Usage Defaults and Sizing Rules

Table 2-1 shows the database usage defaults and sizing rules that apply to all configurations and all releases.

Table 2-1 Common Database Usage Defaults and Sizing Rules—All Configurations and Releases

EMS Filename	Split NPA	Audit Table	Maximum Record Count (Old)	Diff (New -Old)	Display if <=10	Sizing Rules
AAA-SERVER-GRP	N	Y	50	0		10 percent of POPs.
ACTIVITY	N	Y	100	0		None.
ACTIVITY-BASE	N	N	100	0		Same as number in the Activity table.
AGGR	N	Y	1000	0		100 Embedded Media Terminal Adapters (MTAs) (media gateways (MGWs)) per Cable Modem Termination System (CMTS).

Table 2-1 Common Database Usage Defaults and Sizing Rules—All Configurations and Releases (continued)

EMS Filename	Split NPA	Audit Table	Maximum Record Count (Old)	Diff (New -Old)	Display if <=10	Sizing Rules
AGGR-PROFILE	N	Y	0	100		No rules.
ANI	Y	Y	400000	0		None. If the Split NPA feature is invoked, not all ANI records are provisioned. Leave room for the split NPA feature.
ANI-SCREENING	Y	Y	12500	6300		10 entries per ANI screening profile.
ANI-SCREENING-PROFILE	N	Y	1000	500		Same as the number of PRI trunk groups.
ANI-WB-LIST	Y	Y	31250	0		Used for 800 service. 10 times the number of customer groups.
ANNC-TG-PROFILE	N	Y	100	0		None.
ANNC-TRUNK	N	Y	12000	0		24 times the number of POPs
ANNOUNCEMENT	N	Y	1000	0		None.
AOR2SUB	N	Y	50000	0		Number of SIP subscribers.
AUDIO-SEGMENT	N	Y	5000	0		5 segments per audio sequence.
AUDIO-SEQ	N	Y	1000	0		10 audio sequences per feature.
AUTH-CODE	N	Y	250000	0		None.
AUTH-CODE-GRP	N	Y	25000	0		Number of authorization codes divided by 10.
AUTH-REALM	N	Y	1000	0		Same as the number of serving domains
BACKHAUL-SET	N	Y	1500 2500 (Release 4.5.1)	0		Number of ISDN PRIs. In Release 4.5.1, for a medium configuration, throttling allows only 2000 active D-channels to process although the system supports 2500. Only 2000 D-channels are available for use.
CA-CONFIG	Y	Y	1000	0		None.
CALL-AGENT	N	Y	10	0	10	None.
CALL-AGENT-PROFILE	N	Y	10	0	10	None.
CALL-CTRL-ROUTE	N	Y	4096	0		2 times the number of DPCs.
CALL-SUBTYPE						
CALL-TYPE	N	N	100	0		None.
CARRIER	N	Y	10000	0		Based on the 4-digit carrier ID.
CAS-TG-PROFILE	N	Y	100	0		None.
CASUAL-WB-LIST	N	Y	75000	0		10 entries for 10 percent of the COS restrict ids.
CAUSE-CODE-MAP	N	Y	2000	0		20 times the number of cause code map profiles.
CAUSE-CODE-MAP-PROFILE	N	Y	100	0		None.
CENTREX-GRP	N	Y	500	0		Number of Centrex groups.

Table 2-1 Common Database Usage Defaults and Sizing Rules—All Configurations and Releases (continued)

EMS Filename	Split NPA	Audit Table	Maximum Record Count (Old)	Diff (New -Old)	Display if <=10	Sizing Rules
CHANGED-NUMBER	Y	Y	2000	0		1 percent of directory numbers (DNs) to save as changed numbers
CIPHERSUITE	N	Y	1000	0		Same as the number of QoSs.
CIPHERSUITE-PROFILE	N	N	1000	0		Same as the number of quality of services (QoSs).
CIRCUIT-CODE	N	Y	500	0		Circuit Code table is AT trunk group specific. Used to populate the Transit Network Selection (TNS) parameter in an SS7 message. Same as the number of POPs.
CLLI-CODE	N	Y	500	0		Same as number of POPs. One local (self) CLLI code is allowed per POP.
COS-RESTRICT	N	Y	75000	0		75percent of subscribers with individual COS restrict ids.
CPSG	N	Y	1000	0		2 times the number of Centrex groups.
CUST-GRP	N	Y	2500	0		100 DNs (800) per DN2customer group.
CUSTOM-DIAL-PLAN	N	Y	10000	0		20 custom dial plan entries per Centrex group.
CUSTOM-DIAL-PLAN-PROFILE	N	N	500	0		Number of Centrex groups.
DB-THRESHOLDS	N	N	1000	0		None.
DB-USAGE	N	N	1000	0		None.
DESTINATION	N	Y	5000	0		10 destinations per POP.
DIAL-PLAN	N	Y	1000000	0		1000 records per dial plan profile.
DIAL-PLAN-PROFILE	N	Y	1000	0		Same as the number of POPs.
DIGIT-MAP	N	Y	1000	0		Number of digit maps. Calculated based on number of POPs plus the number of Centrex Groups.
DIGMAN	N	Y	13500	0		5 rules times the number of digman profiles.
DIGMAN-PROFILE	N	Y	2700	0		2 times the number of dial plan profiles plus 10 percent of the routes plus 10 percent of the destination ids.
DN2CUST-GRP	N	Y	250000	0		Number of supported 800 DNs.
DN2GN	N	Y	100	0		Number of DN2GN records. Used when the LNP database is local to the AIN Feature Server.
DN2SUBSCRIBER	N	Y	150000	0		Number of DNs. Calculated as 1.5 times the number of subscribers. Rule does not apply to Tandem deployments.
DOMAIN2ROUTE	N	Y	1000	0		None.

Table 2-1 Common Database Usage Defaults and Sizing Rules—All Configurations and Releases (continued)

EMS Filename	Split NPA	Audit Table	Maximum Record Count (Old)	Diff (New -Old)	Display if <=10	Sizing Rules
DPC	N	Y	2048	0		256 times the number of OPCs
DS1	N	Y	4200	0		Number of DS1s.
EMERGENCY-NUMBER-LIST	N	Y	50	0		None.
ENUM-CALL-TYPE	N	Y	100	0		None.
ENUM-PROFILE	N	Y	50	0		10 percent of POPs.
ESS	N	Y	500	0		Same as number of POPs.
EXCHANGE-CODE	N	Y	50000	0		Number of exchange codes.
EXT2SUBSCRIBER	N	Y	25000	0		50 times the number of Centrex groups.
FEATURE	N	Y	1000	0		None.
FEATURE-CONFIG	N	Y	1000	0		Number of configurable parameters.
FEATURE-CONFIG-BASE	N	N	1000	0		None.
FEATURE-CONFIG-BASE-POS-VAL	N	N	1000	0		None.
FEATURE-PROFILE-BASE						
FEATURE-SERVER	N	Y	10	0	10	None.
FS-AUDIT-PROFILE	N	Y	10	0	10	Same as number of Feature Servers .
GTD-PARM-VALUES	N	N	100	0		None.
H323-GW	N	Y	4	0	4	Fixed at 4 media gateways.
H323-GW2GK	N	Y	100	0		25times the number of gateways.
H323-TERM	N	Y	10000	0		Number of H323 endpoints (subscribers).
H323-TERM-PROFILE	N	Y	200	0		2 times the number of H323 trunk group profiles.
H323-TG-PROFILE	N	Y	100	0		None.
HTTP-FEATURE-SERVER	N	Y	1	0	1	None.
II-RESTRICT-LIST	N	Y	2500	0		10 times 10 percent times the number of customer groups.
II-WB-LIST	N	Y	9375	0		12.5 percent of the number of COS restricts. Used for Tandem applications.
INTL-DIAL-PLAN	N	Y	60000	0		300 times the number of international dial plan profiles.
INTL-DIAL-PLAN-PROFILE	N	Y	200	0		None.
INTL-WB-LIST	N	Y	75000	0		10 entries for 10 percent of COS restricts.
IPSEC-KERBEROS	N	Y	1	0	1	Only 1 entry is allowed.
IPSEC-KERBEROS-KEYS	N	Y	256	0		Based on the krb-max-old-srv-keys values defined in the IPSEC Kerberos table.

Table 2-1 Common Database Usage Defaults and Sizing Rules—All Configurations and Releases (continued)

EMS Filename	Split NPA	Audit Table	Maximum Record Count (Old)	Diff (New -Old)	Display if <=10	Sizing Rules
IPSEC-POLICY	N	Y	1000	0		Same as number of aggregations.
IPSEC-SA	N	Y	256	0		None.
ISDN-BCHAN	N	Y	36000 60000 (Release 4.5.1)	0		24 times the number of ISDN interfaces.
ISDN-DCHAN	N	Y	1500 2500 (Release 4.5.1)	0		Number of ISDN PRIs. In Release 4.5.1, for a medium configuration, throttling allows only 2000 active D-channels to process although the system supports 2500. Only 2000 d-channels are available for use.
ISDN-INTF	N	Y	1500 2500 (Release 4.5.1)	0		Number of ISDN PRIs. In Release 4.5.1, for a medium configuration, throttling allows only 2000 active D-channels to process although the system supports 2500. Only 2000 d-channels are available for use.
ISDN-TG-PROFILE	N	Y	250	0		Number of ISDN trunk group profiles.
IVR-SCRIPT-PROFILE	N	Y	100	0		100 features requiring IVR.
LANGUAGE	N	N	1000	0		None.
LATA	N	Y	1000	0		Number of LATAs.
LATA-MAP	N	Y	150000	0		150 NPAs divided by the number of NPANXXs per LATA.
LNP-PROFILE	N	Y	10	0	10	Number of LNP profiles.
LSA	Y	Y	30000	0		30 NPAs divided by the number of NXXs per LSA.
LSA-PROFILE	N	N	1000	0		Number of local serving areas.
MAC2SUB	N	Y	50000	0		Same as AOR2SUB.
MGCP-RETCODE-ACTION	N	Y	2000	0		10 codes per MGW profile.
MGW	N	Y	100000	0		Number of MTAs divided by the number of MGWs divided by the number of trunking gateways.
MGW-PROFILE	N	Y	100	0		Number of MGW profiles.
MLHG	N	Y	20000	0		Number of Multiline Hunt groups (MLHGs).
MLHG-PREF-LIST	N	Y	2000	0		10 percent of MLHGs.
MLHG-TERMINAL	N	Y	100000	0		5 terminals per MLHG.
NATIONAL-WB-LIST	Y	Y	94000	0		10 entries for 10 percent of the COS restricts.
NDC	N	Y	800	0		Number of supported local area codes.
NOA	N	N	0	0	0	Not used.

Table 2-1 Common Database Usage Defaults and Sizing Rules—All Configurations and Releases (continued)

EMS Filename	Split NPA	Audit Table	Maximum Record Count (Old)	Diff (New -Old)	Display if <=10	Sizing Rules
NOD	N	N	100	0		Nature of Dial table.
NOD-RESTRICT-LIST	N	Y	1000	0		10 NOD for 10 percent of the features.
NOD-WB-LIST	N	Y	7500	0		10 times the 1 percent of the COS restricts.
OCB-K-VALUE	N	Y	1350	0		Number of OCB profiles times the number of K-values (9) times the number of Call Types (3).
OCB-PROFILE	N	Y	50	0		10 percent of POPs.
OFFICE-CODE	Y	Y	50000	0		Number supported office codes.
OPC	N	Y	8	0	8	Number of supported OPCs.
POLICY-NXX	N	Y	400	0		Number of Policy NXX records.
POLICY-ODR	Y	Y	10000	0		Number of Policy ODR records.
POLICY-OLI	N	Y	100	0		Number of Policy OLI records.
POLICY-PERCENT	N	Y	400	0		Number of Policy Percent records
POLICY-POP	N	Y	12500	0		Number of Policy POP records.
POLICY-PREFIX	N	Y	10000	0		Number of Policy Prefix entries. 1 entry is allowed per carrier.
POLICY-REGION	N	Y	1100	0		Number of Policy Region records.
POLICY-TOD	N	Y	400	0		Number of Policy Time of Day records.
POP	N	Y	500	0		Number of POPs.
PORTED-OFFICE-CODE	Y	Y	640000	0		Number of area codes times 800 NXX codes.
QOS	N	Y	1000	0		One QOS record per 100 MTAs (same as number of AGGRs).
RADIUS-PROFILE	N	Y	20	0		2 per Call Agent—the primary divided by the secondary.
REGION-CODE	N	Y	0	800		Used in NANP installations that require EAOSS signaling.
REGION-PROFILE	Y	Y	25000	0		Number of Region Profile entries. Defines regions based on the NPA or the NPA-NXX or the NPA-NXX-X(X)(X)(X).
RELEASE-CAUSE	N	Y	10000	0		None.
ROUTE	N	Y	2000	0		Number of routes.
ROUTE-GUIDE	N	Y	1000	0		Number of route guides (required for Policy Routing).
ROUTING-KEY	N	Y	4096	0		2 times the number of DPCs.

Table 2-1 Common Database Usage Defaults and Sizing Rules—All Configurations and Releases (continued)

EMS Filename	Split NPA	Audit Table	Maximum Record Count (Old)	Diff (New -Old)	Display if <=10	Sizing Rules
RUDP-BACKHAUL-SESSION	N	Y	6000 10000 (Release 4.5.1)	0		4 times the number of ISDN PRIs. In Release 4.5.1, for a medium configuration, throttling allows only 8000 sessions to process although the system supports 10000. Only 8000 sessions are available for use.
SC1D	N	Y	20000	0		20 percent of the subscribers with 1 digit speed call.
SC2D	N	Y	1000	0		1 percent of the subscribers with 2 digit speed call.
SCCP-NW	N	Y	255	0		None.
SCCP-ROUTE	N	Y	32768	0		Number of DPC times the number of subsystems.
SCRIPT	N	Y	1000	0		None.
SCTP-ASSOC	N	Y	240	0		2 times the number of SCTP association profiles.
SCTP-ASSOC-PROFILE	N	Y	120	0		3 times the number of SGPs (1 for each platform).
SERVICE	N	Y	2000	0		Number of services.
SERVICE-PROVIDER	N	Y	1000	0		Number of service providers. Used primarily for Tandem or route server configurations.
SERVICE-TRIGGER	N	Y	20000	0		10 triggers per service.
SERVING-DOMAIN-NAME	N	Y	1000	0		Number of supported serving domains.
SG	N	Y	20	0		None.
SG-GRP	N	Y	20	0		1 SG per pair.
SGP	N	Y	40	0		2 SGPs per SG.
SIPT-ISUP-VER-ALIAS	N	Y	200	0		None.
SLE	N	Y	20000	0		20 entries per feature (1 feature) for 1 percent of the subscribers.
SLHR	N	Y	96	32		Number of services times the number of OPCs.
SLHR-PROFILE	N	N	16	0		Number of SCCP based services.
SOFTSW-TG-PROFILE	N	Y	100	0		Number of SIP (Soft Switch) trunk group profiles.
SPECIAL-CALL-TYPE	N	Y	100	0		Number of special call type entries.
SPLIT-NPA	N	Y	1100	0		Number of Split NPA records.
SS7_Q761_TG_PROFILE	N	Y	100	0		None.
SS7_Q767_TG_PROFILE	N	Y	100	0		None.

Table 2-1 Common Database Usage Defaults and Sizing Rules—All Configurations and Releases (continued)

EMS Filename	Split NPA	Audit Table	Maximum Record Count (Old)	Diff (New -Old)	Display if <=10	Sizing Rules
SS7-ANSI-TG-PROFILE	N	Y	100	0		None.
SS7-CIC	N	Y	96000	0		Maximum number of supported SS7 CICs.
STATIC-CONTACT	N	Y	5000	0		10 percent of SIP subscribers configured with static contact.
SUBSCRIBER	N	Y	100000	0		Maximum number of supported subscribers.
SUBSCRIBER-FEATURE-DATA	N	Y	600000	0		3 feature data records per subscriber.
SUBSCRIBER-PROFILE	N	Y	5000	0		10 subscriber profiles per POP.
SUBSCRIBER-SERVICE-PROFILE	N	Y	500000	0		Number of service records based on number of subscribers.
SUBSCRIBER-TOD-SCHEDULE	N	Y	1000	0		1 percent of subscribers requiring a time of day (TOD) schedule.
SUBSYSTEM	N	Y	16	0		Number of supported subystems.
SUBSYSTEM-PROFILE	N	Y	16	0		Number of supported subystems.
TECH-PREFIX-GRP	N	Y	1000	0		Number of technical prefix records. Used in H323 networks.
TECH-PREFIX-GRP-PROFILE	N	Y	4	0	4	Number of configurable H323 gateways on Cisco BTS 10200 Softswitch.
TERMINATION	N	Y	180000	0		Maximum number of supported terminations.
TIMEZONE	N	N	200	0		None.
TRIGGER-DETECTION-POINT	N	N	50	0		None.
TRIGGER-ID	N	N	100	0		None.
TRIGGER-NOD-ESCAPE-LIST	N	Y	100	0		None.
TRUNK	N	Y	100000	0		Number of supported trunks.
TRUNK-GRP	N	Y	10000	0		Number of trunk groups.
TRUNK-GRP-FEATURE-DATA	N	Y	1000	0		10 percent times the number of trunk groups. Used in Tandem applications.
TRUNK-GRP-SERVICE-PROFILE	N	Y	1100	0		11percent times the number of trunk groups.
USER-AUTH	N	Y	50000	0		Same as number of AOR2SUB records
USER-PART-VARIANT	N	Y	200	0		None.
VAR-DEFAULT	N	N	1000	0		None.
VSC	N	Y	1000	0		Vertical Service Code table.

Table 2-1 Common Database Usage Defaults and Sizing Rules—All Configurations and Releases (continued)

EMS Filename	Split NPA	Audit Table	Maximum Record Count (Old)	Diff (New -Old)	Display if <=10	Sizing Rules
WIRETAP	Y	Y	2500	0		2 percent of subscribers.
ZZZ-CODE	N	Y	0	500		ZZZ Code table is used in NANP installations that require EAOSS signaling.

Release 4.1

This section describes the Database Usage tables for small and medium configurations in Release 4.1.

Small Configuration Database Usage Defaults

Table 2-2 details the predefined defaults for the Database Usage table for a small configuration for Release 4.1.

Table 2-2 Release 4.1 Small Configuration Database Usage Defaults

Table Name or Noun	Number of Records Before Split NPA	Maximum Record Count	Licensed Record Count	Route CA	Route FSPTC	Route FSAIN
ACTIVITY	100	100	100	Y	Y	Y
ACTIVITY-BASE	100	100	100	N	N	N
AGGR	1000	1000	1000	Y	N	N
ANI	100000	100000	100000	N	Y	N
ANI-WB-LIST	5000	6250	6250	N	N	Y
ANNC-TG-PROFILE	100	100	100	Y	N	N
ANNC-TRUNK	1200	1200	1200	Y	N	N
ANNOUNCEMENT	1000	1000	1000	Y	N	N
AOR2SUB	4500	4500	4500	Y	N	N
AUTH-CODE	50000	50000	50000	N	Y	N
AUTH-CODE-GRP	5000	5000	5000	N	Y	N
AUTH-REALM	4500	4500	4500	Y	N	N
BACKHAUL-SET	100	100	100	Y	N	N
CA-CONFIG	1000	1000	1000	Y	Y	Y
CALL-AGENT	10	10	10	Y	Y	Y
CALL-AGENT-PROFILE	10	10	10	Y	Y	Y
CALL-CTRL-ROUTE	2048	2048	2048	Y	N	N
CALL-TYPE	100	100	100	N	N	N

Table 2-2 Release 4.1 Small Configuration Database Usage Defaults (continued)

Table Name or Noun	Number of Records Before Split NPA	Maximum Record Count	Licensed Record Count	Route CA	Route FSPTC	Route FSAIN
CARRIER	10000	10000	10000	Y	N	N
CAS-TG-PROFILE	100	100	100	Y	N	N
CASUAL-WB-LIST	9000	9000	9000	N	Y	N
CAUSE-CODE-MAP	2000	2000	2000	Y	N	N
CAUSE-CODE-MAP-PROFILE	100	100	100	Y	N	N
CENTREX-GRP	100	100	100	Y	Y	N
CHANGED-NUMBER	675	1000	1000	Y	N	N
CIPHERSUITE	1100	1100	1100	Y	N	N
CIPHERSUITE-PROFILE	1100	1100	1100	N	N	N
CIRCUIT-CODE	1000	1000	1000	Y	N	N
COS-RESTRICT	9000	9000	9000	N	Y	N
CPSG	200	200	200	Y	Y	N
CUST-GRP	500	500	500	N	N	Y
CUSTOM-DIAL-PLAN	2000	2000	2000	N	Y	N
CUSTOM-DIAL-PLAN-PROFILE	100	100	100	N	N	N
DB-THRESHOLDS	1000	1000	1000	N	N	N
DB-USAGE	1000	1000	1000	N	N	N
DESTINATION	500	500	500	Y	N	N
DIAL-PLAN	200000	200000	200000	Y	N	N
DIAL-PLAN-PROFILE	200	200	200	Y	N	N
DIGIT-MAP	150	150	150	Y	N	N
DIGMAN	2375	2375	2375	Y	N	N
DIGMAN-PROFILE	475	475	475	Y	N	N
DN2CUST-GRP	50000	50000	50000	N	N	Y
DN2SUBSCRIBER	67500	67500	67500	Y	N	N
DPC	1024	1024	1024	Y	Y	Y
DS1	1000	1000	1000	Y	N	N
ESS	50	50	50	Y	N	N
EXCHANGE-CODE	5000	5000	5000	Y	N	N
EXT2SUBSCRIBER	5000	5000	5000	Y	Y	N
FEATURE	1000	1000	1000	N	Y	N
FEATURE-SERVER	10	10	10	Y	Y	Y
H323-GW	4	4	4	Y	N	N
H323-GW2GK	100	100	100	Y	N	N
H323-TG-PROFILE	100	100	100	Y	N	N

Table 2-2 Release 4.1 Small Configuration Database Usage Defaults (continued)

Table Name or Noun	Number of Records Before Split NPA	Maximum Record Count	Licensed Record Count	Route CA	Route FSPTC	Route FSAIN
HTTP-FEATURE-SERVER	1	1	1	N	Y	N
II-RESTRICT-LIST	500	500	500	N	N	Y
II-WB-LIST	1125	1125	1125	N	Y	N
INTL-DIAL-PLAN	1200	1200	1200	Y	N	N
INTL-DIAL-PLAN-PROFILE	4	4	4	Y	N	N
INTL-WB-LIST	9000	9000	9000	N	Y	N
IPSEC-KERBEROS	1	1	1	Y	N	N
IPSEC-KERBEROS-KEYS	256	256	256	Y	N	N
IPSEC-POLICY	39070	39070	39070	Y	N	N
IPSEC-SA	256	256	256	Y	N	N
ISDN-BCHAN	2400	2400	2400	Y	N	N
ISDN-DCHAN	100	100	100	Y	N	N
ISDN-INTF	100	100	100	Y	N	N
ISDN-TG-PROFILE	100	100	100	Y	N	N
LATA	1000	1000	1000	Y	Y	N
LATA-MAP	3000	3000	3000	Y	Y	N
LSA	30000	30000	30000	Y	N	N
LSA-PROFILE	1000	1000	1000	N	N	N
MAC2SUB	4500	4500	4500	N	Y	N
MGCP-RETCODE-ACTION	2000	2000	2000	Y	N	N
MGW	38000	38000	38000	Y	N	N
MGW-PROFILE	100	100	100	Y	N	N
MLHG	100	100	100	Y	Y	N
MLHG-PREF-LIST	10	10	10	Y	N	N
MLHG-TERMINAL	500	500	500	Y	N	N
NATIONAL-WB-LIST	9000	11250	11250	N	Y	N
NDC	50	50	50	Y	N	N
NOA	0	0	0	N	N	N
NOD	100	100	100	N	N	N
NOD-RESTRICT-LIST	1000	1000	1000	N	Y	N
NOD-WB-LIST	900	900	900	N	Y	N
OFFICE-CODE	50000	50000	50000	Y	Y	N
OPC	4	4	4	Y	Y	Y
POLICY-NXX	100	100	100	Y	N	Y
POLICY-ODR	2500	2500	2500	Y	N	Y

Table 2-2 Release 4.1 Small Configuration Database Usage Defaults (continued)

Table Name or Noun	Number of Records Before Split NPA	Maximum Record Count	Licensed Record Count	Route CA	Route FSPTC	Route FSAIN
POLICY-OLI	25	25	25	Y	N	Y
POLICY-PERCENT	100	100	100	Y	N	Y
POLICY-POP	625	625	625	Y	N	Y
POLICY-PREFIX	10000	10000	10000	Y	N	Y
POLICY-REGION	275	275	275	Y	N	Y
POLICY-TOD	100	100	100	Y	N	Y
POP	50	50	50	Y	Y	Y
PORTED-OFFICE-CODE	120000	120000	120000	Y	N	N
QOS	1100	1100	1100	Y	N	N
RADIUS-PROFILE	20	20	20	Y	N	N
REGION-PROFILE	25000	31250	31250	Y	N	Y
RELEASE-CAUSE	10000	10000	10000	Y	N	N
ROUTE	250	250	250	Y	N	N
ROUTE-GUIDE	250	250	250	Y	N	Y
ROUTING-KEY	2048	2048	2048	Y	Y	Y
RUDP-BACKHAUL-SESSION	400	400	400	Y	N	N
SC1D	9000	9000	9000	N	Y	N
SC2D	450	450	450	N	Y	N
SCCP-NW	255	255	255	N	Y	Y
SCCP-ROUTE	16384	16384	16384	N	Y	Y
SCTP-ASSOC	240	240	240	Y	Y	Y
SCTP-ASSOC-PROFILE	120	120	120	Y	Y	Y
SERVICE	2000	2000	2000	N	Y	N
SERVICE-PROVIDER	100	100	100	Y	N	N
SERVICE-TRIGGER	20000	20000	20000	Y	N	N
SERVING-DOMAIN-NAME	1000	1000	1000	Y	N	N
SG	20	20	20	Y	Y	Y
SG-GRP	20	20	20	Y	Y	Y
SGP	40	40	40	Y	Y	Y
SLE	9000	9000	9000	N	Y	N
SLHR	96	96	96	N	Y	Y
SLHR-PROFILE	16	16	16	N	N	N
SOFTSW-TG-PROFILE	100	100	100	Y	N	N
SPECIAL-CALL-TYPE	100	100	100	Y	N	N
SPLIT-NPA	1100	1100	1100	Y	Y	N

Table 2-2 Release 4.1 Small Configuration Database Usage Defaults (continued)

Table Name or Noun	Number of Records Before Split NPA	Maximum Record Count	Licensed Record Count	Route CA	Route FSPTC	Route FSAIN
SS7-ANSI-TG-PROFILE	100	100	100	Y	N	N
SS7-CIC	18000	18000	18000	Y	N	N
SS7-Q761-TG-PROFILE	100	100	100	Y	N	N
SS7-Q767-TG-PROFILE	100	100	100	Y	N	N
STATIC-CONTACT	4500	4500	4500	Y	N	N
SUBSCRIBER	45000	45000	45000	Y	Y	N
SUBSCRIBER-FEATURE-DATA	135000	135000	135000	N	Y	N
SUBSCRIBER-PROFILE	500	500	500	Y	Y	N
SUBSCRIBER-SERVICE-PROFILE	225000	225000	225000	Y	Y	N
SUBSYSTEM	16	16	16	N	Y	Y
SUBSYSTEM-PROFILE	16	16	16	N	Y	Y
TECH-PREFIX-GRP	110	110	110	Y	N	N
TECH-PREFIX-GRP-PROFILE	4	4	4	Y	N	N
TERMINATION	60000	60000	60000	Y	N	N
TRIGGER-DETECTION-POINT	50	50	50	N	N	N
TRIGGER-ID	100	100	100	N	N	N
TRUNK	32000	32000	32000	Y	N	N
TRUNK-GRP	1000	1000	1000	Y	N	N
TRUNK-GRP-FEATURE-DATA	100	100	100	N	Y	N
TRUNK-GRP-SERVICE-PROFILE	110	110	110	Y	Y	N
USER-AUTH	4500	4500	4500	Y	N	N
USER-PART-VARIANT	200	200	200	Y	N	N
VAR-DEFAULT	1000	1000	1000	N	N	N
VSC	1000	1000	1000	N	Y	N
WIRETAP	900	1125	1125	Y	N	N

Medium Configuration Database Usage Defaults

Table 2-3 details the predefined defaults for the Database Usage table for a medium configuration for Release 4.1.

Table 2-3 Release 4.1 Medium Configuration Database Usage Defaults

Table Name or Noun	Number of Records Before Split NPA	Maximum Record Count	Licensed Record Count	Route CA	Route FSPTC	Route FSAIN
ACTIVITY	100	100	100	Y	Y	Y
ACTIVITY-BASE	100	100	100	N	N	N
AGGR	1000	1000	1000	Y	N	N
ANI	400000	400000	400000	N	Y	N
ANI-WB-LIST	25000	31250	31250	N	N	Y
ANNC-TG-PROFILE	100	100	100	Y	N	N
ANNC-TRUNK	6120	6120	6120	Y	N	N
ANNOUNCEMENT	1000	1000	1000	Y	N	N
AOR2SUB	10000	10000	10000	Y	N	N
AUTH-CODE	250000	250000	250000	N	Y	N
AUTH-CODE-GRP	25000	25000	25000	N	Y	N
AUTH-REALM	10000	10000	10000	Y	N	N
BACKHAUL-SET	1100	1100	1100	Y	N	N
CA-CONFIG	1000	1000	1000	Y	Y	Y
CALL-AGENT	10	10	10	Y	Y	Y
CALL-AGENT-PROFILE	10	10	10	Y	Y	Y
CALL-CTRL-ROUTE	2560	2560	2560	Y	N	N
CALL-TYPE	100	100	100	N	N	N
CARRIER	10000	10000	10000	Y	N	N
CAS-TG-PROFILE	100	100	100	Y	N	N
CASUAL-WB-LIST	20000	20000	20000	N	Y	N
CAUSE-CODE-MAP	2000	2000	2000	Y	N	N
CAUSE-CODE-MAP-PROFILE	100	100	100	Y	N	N
CENTREX-GRP	500	500	500	Y	Y	N
CHANGED-NUMBER	1500	2000	2000	Y	N	N
CIPHERSUITE	1100	1100	1100	Y	N	N
CIPHERSUITE-PROFILE	1100	1100	1100	N	N	N
CIRCUIT-CODE	1000	1000	1000	Y	N	N
COS-RESTRICT	20000	20000	20000	N	Y	N
CPSG	1000	1000	1000	Y	Y	N
CUST-GRP	2500	2500	2500	N	N	Y
CUSTOM-DIAL-PLAN	10000	10000	10000	N	Y	N
CUSTOM-DIAL-PLAN-PROFILE	500	500	500	N	N	N
DB-THRESHOLDS	1000	1000	1000	N	N	N

Table 2-3 Release 4.1 Medium Configuration Database Usage Defaults (continued)

Table Name or Noun	Number of Records Before Split NPA	Maximum Record Count	Licensed Record Count	Route CA	Route FSPTC	Route FSAIN
DB-USAGE	1000	1000	1000	N	N	N
DESTINATION	2550	2550	2550	Y	N	N
DIAL-PLAN	1000000	1000000	1000000	Y	N	N
DIAL-PLAN-PROFILE	1000	1000	1000	Y	N	N
DIGIT-MAP	1000	1000	1000	Y	N	N
DIGMAN	12275	12275	12275	Y	N	N
DIGMAN-PROFILE	2455	2455	2455	Y	N	N
DN2CUST-GRP	250000	250000	250000	N	N	Y
DN2SUBSCRIBER	150000	150000	150000	Y	N	N
DPC	1280	1280	1280	Y	Y	Y
DS1	4200	4200	4200	Y	N	N
ESS	255	255	255	Y	N	N
EXCHANGE-CODE	50000	5000	50000	Y	N	N
EXT2SUBSCRIBER	25000	25000	25000	Y	Y	N
FEATURE	1000	1000	1000	N	Y	N
FEATURE-SERVER	10	10	10	Y	Y	Y
H323-GW	4	4	4	Y	N	N
H323-GW2GK	100	100	100	Y	N	N
H323-TG-PROFILE	100	100	100	Y	N	N
HTTP-FEATURE-SERVER	1	1	1	N	Y	N
II-RESTRICT-LIST	2500	2500	2500	N	N	Y
II-WB-LIST	2500	2500	2500	N	Y	N
INTL-DIAL-PLAN	3000	3000	3000	Y	N	N
INTL-DIAL-PLAN-PROFILE	10	10	10	Y	N	N
INTL-WB-LIST	20000	20000	20000	N	Y	N
IPSEC-KERBEROS	1	1	1	Y	N	N
IPSEC-KERBEROS-KEYS	256	256	256	Y	N	N
IPSEC-POLICY	101275	101275	101275	Y	N	N
IPSEC-SA	256	256	256	Y	N	N
ISDN-BCHAN	26400	26400	26400	Y	N	N
ISDN-DCHAN	1100	1100	1100	Y	N	N
ISDN-INTF	1100	1100	1100	Y	N	N
ISDN-TG-PROFILE	250	250	250	Y	N	N
LATA	1000	1000	1000	Y	Y	N
LATA-MAP	3000	3000	3000	Y	Y	N

Table 2-3 Release 4.1 Medium Configuration Database Usage Defaults (continued)

Table Name or Noun	Number of Records Before Split NPA	Maximum Record Count	Licensed Record Count	Route CA	Route FSPTC	Route FSAIN
LSA	30000	30000	30000	Y	N	N
LSA-PROFILE	1000	1000	1000	N	N	N
MAC2SUB	10000	10000	10000	N	Y	N
MGCP-RETCODE-ACTION	2000	2000	2000	Y	N	N
MGW	100000	100000	100000	Y	N	N
MGW-PROFILE	100	100	100	Y	N	N
MLHG	10000	10000	10000	Y	Y	N
MLHG-PREF-LIST	1000	1000	1000	Y	N	N
MLHG-TERMINAL	50000	50000	50000	Y	N	N
NATIONAL-WB-LIST	20000	25000	25000	N	Y	N
NDC	800	800	800	Y	N	N
NOA	0	0	0	N	N	N
NOD	100	100	100	N	N	N
NOD-RESTRICT-LIST	1000	1000	1000	N	Y	N
NOD-WB-LIST	2000	2000	2000	N	Y	N
OFFICE-CODE	50000	50000	50000	Y	Y	N
OPC	5	5	5	Y	Y	Y
POLICY-NXX	400	400	400	Y	N	Y
POLICY-ODR	10000	10000	10000	Y	N	Y
POLICY-OLI	100	100	100	Y	N	Y
POLICY-PERCENT	400	400	400	Y	N	Y
POLICY-POP	12750	12750	12750	Y	N	Y
POLICY-PREFIX	10000	10000	10000	Y	N	Y
POLICY-REGION	1100	1100	1100	Y	N	Y
POLICY-TOD	400	400	400	Y	N	Y
POP	255	255	255	Y	Y	Y
PORTED-OFFICE-CODE	640000	640000	640000	Y	N	N
QOS	1100	1100	1100	Y	N	N
RADIUS-PROFILE	20	20	20	Y	N	N
REGION-PROFILE	100000	125000	125000	Y	N	Y
RELEASE-CAUSE	10000	10000	10000	Y	N	N
ROUTE	2000	2000	2000	Y	N	N
ROUTE-GUIDE	1000	1000	1000	Y	N	Y
ROUTING-KEY	2560	2560	2560	Y	Y	Y

Table 2-3 Release 4.1 Medium Configuration Database Usage Defaults (continued)

Table Name or Noun	Number of Records Before Split NPA	Maximum Record Count	Licensed Record Count	Route CA	Route FSPTC	Route FSAIN
RUDP-BACKHAUL-SESSION	4400	4400	4400	Y	N	N
SC1D	20000	20000	20000	N	Y	N
SC2D	1000	1000	1000	N	Y	N
SCCP-NW	255	255	255	N	Y	Y
SCCP-ROUTE	20480	20480	20480	N	Y	Y
SCTP-ASSOC	240	240	240	Y	Y	Y
SCTP-ASSOC-PROFILE	120	120	120	Y	Y	Y
SERVICE	2000	2000	2000	N	Y	N
SERVICE-PROVIDER	1000	1000	1000	Y	N	N
SERVICE-TRIGGER	20000	20000	20000	Y	N	N
SERVING-DOMAIN-NAME	1000	1000	1000	Y	N	N
SG	20	20	20	Y	Y	Y
SG-GRP	20	20	20	Y	Y	Y
SGP	40	40	40	Y	Y	Y
SLE	20000	20000	20000	N	Y	N
SLHR	96	96	96	N	Y	Y
SLHR-PROFILE	16	16	16	N	N	N
SOFTSW-TG-PROFILE	100	100	100	Y	N	N
SPECIAL-CALL-TYPE	100	100	100	Y	N	N
SPLIT-NPA	1100	1100	1100	Y	Y	N
SS7-ANSI-TG-PROFILE	100	100	100	Y	N	N
SS7-CIC	96000	96000	96000	Y	N	N
SS7-Q761-TG-PROFILE	100	100	100	Y	N	N
SS7-Q767-TG-PROFILE	100	100	100	Y	N	N
STATIC-CONTACT	10000	10000	10000	Y	N	N
SUBSCRIBER	100000	100000	100000	Y	Y	N
SUBSCRIBER-FEATURE-DATA	300000	300000	300000	N	Y	N
SUBSCRIBER-PROFILE	2550	2550	2550	Y	Y	N
SUBSCRIBER-SERVICE-PROFILE	500000	500000	500000	Y	Y	N
SUBSYSTEM	16	16	16	N	Y	Y
SUBSYSTEM-PROFILE	16	16	16	N	Y	Y
TECH-PREFIX-GRP	110	110	110	Y	N	N
TECH-PREFIX-GRP-PROFILE	4	4	4	Y	N	N
TERMINATION	180000	180000	180000	Y	N	N
TRIGGER-DETECTION-POINT	50	50	50	N	N	N

Table 2-3 Release 4.1 Medium Configuration Database Usage Defaults (continued)

Table Name or Noun	Number of Records Before Split NPA	Maximum Record Count	Licensed Record Count	Route CA	Route FSPTC	Route FSAIN
TRIGGER-ID	100	100	100	N	N	N
TRUNK	134400	134400	134400	Y	N	N
TRUNK-GRP	10000	10000	10000	Y	N	N
TRUNK-GRP-FEATURE-DATA	1000	1000	1000	N	Y	N
TRUNK-GRP-SERVICE-PROFILE	1100	1100	1100	Y	Y	N
USER-AUTH	10000	10000	10000	Y	N	N
USER-PART-VARIANT	200	200	200	Y	N	N
VAR-DEFAULT	1000	1000	1000	N	N	N
VSC	1000	1000	1000	N	Y	N
WIRETAP	2000	2500	2500	Y	N	N

Release 4.2

This section describes the Database Usage tables for small and medium configurations, Routeserver and Local Number Portability (LNP) in Release 4.2.

Small Configuration Database Usage Defaults

Table 2-4 details the predefined defaults for the Database Usage table for a small configuration for Release 4.2.

Table 2-4 Release 4.2 Small Configuration Database Usage Defaults

Table Name or Noun	Number of Records Before Split NPA	Maximum Record Count	Licensed Record Count	Route CA	Route FSPTC	Route FSAIN
ACTIVITY	100	100	100	Y	Y	Y
ACTIVITY-BASE	100	100	100	N	N	N
AGGR	3000	3000	3000	Y	N	N
ANI	100000	100000	100000	N	Y	N
ANI-WB-LIST	5000	6250	6250	N	N	Y
ANNC-TG-PROFILE	100	100	100	Y	N	N
ANNC-TRUNK	1200	1200	1200	Y	N	N
ANNOUNCEMENT	1000	1000	1000	Y	N	N
AOR2SUB	45000	45000	45000	Y	N	N
AUTH-CODE	50000	50000	50000	N	Y	N

Table 2-4 Release 4.2 Small Configuration Database Usage Defaults (continued)

Table Name or Noun	Number of Records Before Split NPA	Maximum Record Count	Licensed Record Count	Route CA	Route FSPTC	Route FSAIN
AUTH-CODE-GRP	5000	5000	5000	N	Y	N
AUTH-REALM	45000	45000	45000	Y	N	N
BACKHAUL-SET	100	100	100	Y	N	N
CA-CONFIG	1000	1000	1000	Y	Y	Y
CALL-AGENT	10	10	10	Y	Y	Y
CALL-AGENT-PROFILE	10	10	10	Y	Y	Y
CALL-CTRL-ROUTE	2048	2048	2048	Y	N	N
CALL-TYPE	100	100	100	N	N	N
CARRIER	10000	10000	10000	Y	N	N
CAS-TG-PROFILE	100	100	100	Y	N	N
CASUAL-WB-LIST	9000	9000	9000	N	Y	N
CAUSE-CODE-MAP	2000	2000	2000	Y	N	N
CAUSE-CODE-MAP-PROFILE	100	100	100	Y	N	N
CENTREX-GRP	100	100	100	Y	Y	N
CHANGED-NUMBER	675	1000	1000	Y	N	N
CIPHERSUITE-PROFILE	3000	3000	3000	N	N	N
CIPHERSUITE	3000	3000	3000	Y	N	N
CIRCUIT-CODE	1000	1000	1000	Y	N	N
COS-RESTRICT	9000	9000	9000	N	Y	N
CPSG	200	200	200	Y	Y	N
CUST-GRP	500	500	500	N	N	Y
CUSTOM-DIAL-PLAN	2000	2000	2000	N	Y	N
CUSTOM-DIAL-PLAN-PROFILE	100	100	100	N	N	N
DB-THRESHOLDS	1000	1000	1000	N	N	N
DB-USAGE	1000	1000	1000	N	N	N
DESTINATION	500	500	500	Y	N	N
DIAL-PLAN	200000	200000	200000	Y	N	N

Table 2-4 Release 4.2 Small Configuration Database Usage Defaults (continued)

Table Name or Noun	Number of Records Before Split NPA	Maximum Record Count	Licensed Record Count	Route CA	Route FSPTC	Route FSAIN
DIAL-PLAN-PROFILE	200	200	200	Y	N	N
DIGIT-MAP	150	150	150	Y	N	N
DIGMAN-PROFILE	475	475	475	Y	N	N
DIGMAN	2375	2375	2375	Y	N	N
DN2CUST-GRP	50000	50000	50000	N	N	Y
DN2SUBSCRIBER	67500	67500	67500	Y	N	N
DPC	1024	1024	1024	Y	Y	Y
DS1	1000	1000	1000	Y	N	N
ESS	50	50	50	Y	N	N
EXCHANGE-CODE	5000	5000	5000	Y	N	N
EXT2SUBSCRIBER	5000	5000	5000	Y	Y	N
FEATURE	1000	1000	1000	N	Y	N
FEATURE-SERVER	10	10	10	Y	Y	Y
H323-GW	4	4	4	Y	N	N
H323-GW2GK	100	100	100	Y	N	N
H323-TG-PROFILE	100	100	100	Y	N	N
HTTP-FEATURE-SERVER	1	1	1	N	Y	N
II-RESTRICT-LIST	500	500	500	N	N	Y
II-WB-LIST	1125	1125	1125	N	Y	N
INTL-DIAL-PLAN	1200	1200	1200	Y	N	N
INTL-DIAL-PLAN-PROFILE	4	4	4	Y	N	N
INTL-WB-LIST	9000	9000	9000	N	Y	N
IPSEC-KERBEROS	1	1	1	Y	N	N
IPSEC-KERBEROS-KEYS	256	256	256	Y	N	N
IPSEC-POLICY	42000	42000	42000	Y	N	N
IPSEC-SA	256	256	256	Y	N	N
ISDN-BCHAN	2400	2400	2400	Y	N	N
ISDN-DCHAN	100	100	100	Y	N	N
ISDN-INTF	100	100	100	Y	N	N
ISDN-TG-PROFILE	100	100	100	Y	N	N
LATA	1000	1000	1000	Y	Y	N

Table 2-4 Release 4.2 Small Configuration Database Usage Defaults (continued)

Table Name or Noun	Number of Records Before Split NPA	Maximum Record Count	Licensed Record Count	Route CA	Route FSPTC	Route FSAIN
LATA-MAP	150000	150000	150000	Y	Y	N
LSA	30000	30000	30000	Y	N	N
LSA-PROFILE	1000	1000	1000	N	N	N
MAC2SUB	45000	45000	45000	N	Y	N
MGCP-RETCODE-ACTION	2000	2000	2000	Y	N	N
MGW	38000	38000	38000	Y	N	N
MGW-PROFILE	100	100	100	Y	N	N
MLHG	100	100	100	Y	Y	N
MLHG-PREF-LIST	10	10	10	Y	N	N
MLHG-TERMINAL	500	500	500	Y	N	N
NATIONAL-WB-LIST	9000	11250	11250	N	Y	N
NDC	50	50	50	Y	N	N
NOA	0	0	0	N	N	N
NOD	100	100	100	N	N	N
NOD-RESTRICT-LIST	1000	1000	1000	N	Y	N
NOD-WB-LIST	900	900	900	N	Y	N
OFFICE-CODE	50000	50000	50000	Y	Y	N
OPC	4	4	4	Y	Y	Y
POLICY-NXX	100	100	100	Y	N	Y
POLICY-ODR	2500	2500	2500	Y	N	Y
POLICY-OLI	25	25	25	Y	N	Y
POLICY-PERCENT	100	100	100	Y	N	Y
POLICY-POP	625	625	625	Y	N	Y
POLICY-PREFIX	10000	10000	10000	Y	N	Y
POLICY-REGION	275	275	275	Y	N	Y
POLICY-TOD	100	100	100	Y	N	Y
POP	50	50	50	Y	Y	Y
PORTED-OFFICE-CODE	120000	120000	120000	Y	N	N
QOS	3000	3000	3000	Y	N	N
RADIUS-PROFILE	20	20	20	Y	N	N
REGION-PROFILE	25000	31250	31250	Y	N	Y
RELEASE-CAUSE	10000	10000	10000	Y	N	N
ROUTE	250	250	250	Y	N	N

Table 2-4 Release 4.2 Small Configuration Database Usage Defaults (continued)

Table Name or Noun	Number of Records Before Split NPA	Maximum Record Count	Licensed Record Count	Route CA	Route FSPTC	Route FSAIN
ROUTE-GUIDE	250	250	250	Y	N	Y
ROUTING-KEY	2048	2048	2048	Y	Y	Y
RUDP-BACKHAUL-SESSION	400	400	400	Y	N	N
SC1D	9000	9000	9000	N	Y	N
SC2D	450	450	450	N	Y	N
SCCP-NW	255	255	255	N	Y	Y
SCCP-ROUTE	16384	16384	16384	N	Y	Y
SCTP-ASSOC-PROFILE	120	120	120	Y	Y	Y
SCTP-ASSOC	240	240	240	Y	Y	Y
SERVICE	2000	2000	2000	N	Y	N
SERVICE-PROVIDER	100	100	100	Y	N	N
SERVICE-TRIGGER	20000	20000	20000	Y	N	N
SERVING-DOMAIN-NAME	1000	1000	1000	Y	N	N
SG	20	20	20	Y	Y	Y
SG-GRP	20	20	20	Y	Y	Y
SGP	40	40	40	Y	Y	Y
SLE	9000	9000	9000	N	Y	N
SLHR-PROFILE	16	16	16	N	N	N
SLHR	96	96	96	N	Y	Y
SOFTSW-TG-PROFILE	100	100	100	Y	N	N
SPECIAL-CALL-TYPE	100	100	100	Y	N	N
SPLIT-NPA	1100	1100	1100	Y	Y	N
SS7-CIC	18000	18000	18000	Y	N	N
SS7-Q761-TG-PROFILE	100	100	100	Y	N	N
SS7-Q767-TG-PROFILE	100	100	100	Y	N	N
SS7-ANSI-TG-PROFILE	100	100	100	Y	N	N
STATIC-CONTACT	45000	45000	45000	Y	N	N
SUBSCRIBER	45000	45000	45000	Y	Y	N
SUBSCRIBER-FEATURE-DATA	135000	135000	135000	N	Y	N

Table 2-4 Release 4.2 Small Configuration Database Usage Defaults (continued)

Table Name or Noun	Number of Records Before Split NPA	Maximum Record Count	Licensed Record Count	Route CA	Route FSPTC	Route FSAIN
SUBSCRIBER-PROFILE	500	500	500	Y	Y	N
SUBSCRIBER-SERVICE-PROFILE	225000	225000	225000	Y	Y	N
SUBSYSTEM-PROFILE	16	16	16	N	Y	Y
SUBSYSTEM	16	16	16	N	Y	Y
TECH-PREFIX-GRP	110	110	110	Y	N	N
TECH-PREFIX-GRP-PROFILE	4	4	4	Y	N	N
TERMINATION	60000	60000	60000	Y	N	N
TRIGGER-DETECTION-POINT	50	50	50	N	N	N
TRIGGER-ID	100	100	100	N	N	N
TRUNK	32000	32000	32000	Y	N	N
TRUNK-GRP	1000	1000	1000	Y	N	N
TRUNK-GRP-FEATURE-DATA	100	100	100	N	Y	N
TRUNK-GRP-SERVICE-PROFILE	110	110	110	Y	Y	N
USER-AUTH	45000	45000	45000	Y	N	N
USER-PART-VARIANT	200	200	200	Y	N	N
VAR-DEFAULT	1000	1000	1000	N	N	N
VSC	1000	1000	1000	N	Y	N
WIRETAP	900	1125	1125	Y	N	N
ANI-SCREENING	1000	1250	1250	Y	N	N
LNP-PROFILE	10	10	10	Y	Y	Y
DN2GN	2000000	2000000	2000000	N	N	Y
H323-TERM-PROFILE	200	200	200	Y	N	N
H323-TERM	45000	45000	45000	Y	N	N
ANI-SCREENING-PROFILE	100	100	100	Y	N	N
SIPT-ISUP-VER-ALIAS	200	200	200	Y	N	N

Medium Configuration Database Usage Defaults

Table 2-5 details the predefined defaults for the Database Usage table for a medium configuration in Release 4.2.

Table 2-5 Release 4.2 Medium Configuration Database Usage Defaults

Table Name or Noun	Number of Records Before Split NPA	Maximum Record Count	Licensed Record Count	Route CA	Route FSPTC	Route FSAIN
ACTIVITY	100	100	100	Y	Y	Y
ACTIVITY-BASE	100	100	100	N	N	N
AGGR	3000	3000	3000	Y	N	N
ANI	400000	400000	400000	N	Y	N
ANI-WB-LIST	25000	31250	31250	N	N	Y
ANNC-TG-PROFILE	100	100	100	Y	N	N
ANNC-TRUNK	12000	12000	12000	Y	N	N
ANNOUNCEMENT	1000	1000	1000	Y	N	N
AOR2SUB	100000	100000	100000	Y	N	N
AUTH-CODE	250000	250000	250000	N	Y	N
AUTH-CODE-GRP	25000	25000	25000	N	Y	N
AUTH-REALM	100000	100000	100000	Y	N	N
BACKHAUL-SET	1100	1100	1100	Y	N	N
CA-CONFIG	1000	1000	1000	Y	Y	Y
CALL-AGENT	10	10	10	Y	Y	Y
CALL-AGENT-PROFILE	10	10	10	Y	Y	Y
CALL-CTRL-ROUTE	2560	2560	2560	Y	N	N
CALL-TYPE	100	100	100	N	N	N
CARRIER	10000	10000	10000	Y	N	N
CAS-TG-PROFILE	100	100	100	Y	N	N
CASUAL-WB-LIST	20000	20000	20000	N	Y	N
CAUSE-CODE-MAP	2000	2000	2000	Y	N	N
CAUSE-CODE-MAP-PROFILE	100	100	100	Y	N	N
CENTREX-GRP	500	500	500	Y	Y	N
CHANGED-NUMBER	1500	2000	2000	Y	N	N
CIPHERSUITE-PROFILE	3000	3000	3000	N	N	N
CIPHERSUITE	3000	3000	3000	Y	N	N
CIRCUIT-CODE	1000	1000	1000	Y	N	N
COS-RESTRICT	20000	20000	20000	N	Y	N
CPSG	1000	1000	1000	Y	Y	N
CUST-GRP	2500	2500	2500	N	N	Y

Table 2-5 Release 4.2 Medium Configuration Database Usage Defaults (continued)

Table Name or Noun	Number of Records Before Split NPA	Maximum Record Count	Licensed Record Count	Route CA	Route FSPTC	Route FSAIN
CUSTOM-DIAL-PLAN	10000	10000	10000	N	Y	N
CUSTOM-DIAL-PLAN-PROFILE	500	500	500	N	N	N
DB-THRESHOLDS	1000	1000	1000	N	N	N
DB-USAGE	1000	1000	1000	N	N	N
DESTINATION	5000	5000	5000	Y	N	N
DIAL-PLAN	1000000	1000000	1000000	Y	N	N
DIAL-PLAN-PROFILE	1000	1000	1000	Y	N	N
DIGIT-MAP	1000	1000	1000	Y	N	N
DIGMAN-PROFILE	2700	2700	2700	Y	N	N
DIGMAN	13500	13500	13500	Y	N	N
DN2CUST-GRP	250000	250000	250000	N	N	Y
DN2SUBSCRIBER	150000	150000	150000	Y	N	N
DPC	1280	1280	1280	Y	Y	Y
DS1	4200	4200	4200	Y	N	N
ESS	500	500	500	Y	N	N
EXCHANGE-CODE	50000	50000	50000	Y	N	N
EXT2SUBSCRIBER	25000	25000	25000	Y	Y	N
FEATURE	1000	1000	1000	N	Y	N
FEATURE-SERVER	10	10	10	Y	Y	Y
H323-GW	4	4	4	Y	N	N
H323-GW2GK	100	100	100	Y	N	N
H323-TG-PROFILE	100	100	100	Y	N	N
HTTP-FEATURE-SERVER	1	1	1	N	Y	N
II-RESTRICT-LIST	2500	2500	2500	N	N	Y
II-WB-LIST	2500	2500	2500	N	Y	N
INTL-DIAL-PLAN	60000	60000	60000	Y	N	N
INTL-DIAL-PLAN-PROFILE	200	200	200	Y	N	N
INTL-WB-LIST	20000	20000	20000	N	Y	N
IPSEC-KERBEROS	1	1	1	Y	N	N
IPSEC-KERBEROS-KEYS	256	256	256	Y	N	N
IPSEC-POLICY	154000	154000	154000	Y	N	N
IPSEC-SA	256	256	256	Y	N	N
ISDN-BCHAN	26400	26400	26400	Y	N	N
ISDN-DCHAN	1100	1100	1100	Y	N	N

Table 2-5 Release 4.2 Medium Configuration Database Usage Defaults (continued)

Table Name or Noun	Number of Records Before Split NPA	Maximum Record Count	Licensed Record Count	Route CA	Route FSPTC	Route FSAIN
ISDN-INTF	1100	1100	1100	Y	N	N
ISDN-TG-PROFILE	250	250	250	Y	N	N
LATA	1000	1000	1000	Y	Y	N
LATA-MAP	150000	150000	150000	Y	Y	N
LSA	30000	30000	30000	Y	N	N
LSA-PROFILE	1000	1000	1000	N	N	N
MAC2SUB	100000	100000	100000	N	Y	N
MGCP-RETCODE-ACTION	2000	2000	2000	Y	N	N
MGW	150000	150000	150000	Y	N	N
MGW-PROFILE	100	100	100	Y	N	N
MLHG	10000	10000	10000	Y	Y	N
MLHG-PREF-LIST	1000	1000	1000	Y	N	N
MLHG-TERMINAL	50000	50000	50000	Y	N	N
NATIONAL-WB-LIST	20000	25000	25000	N	Y	N
NDC	800	800	800	Y	N	N
NOA	0	0	0	N	N	N
NOD	100	100	100	N	N	N
NOD-RESTRICT-LIST	1000	1000	1000	N	Y	N
NOD-WB-LIST	2000	2000	2000	N	Y	N
OFFICE-CODE	50000	50000	50000	Y	Y	N
OPC	5	5	5	Y	Y	Y
POLICY-NXX	400	400	400	Y	N	Y
POLICY-ODR	10000	10000	10000	Y	N	Y
POLICY-OLI	100	100	100	Y	N	Y
POLICY-PERCENT	400	400	400	Y	N	Y
POLICY-POP	25000	25000	25000	Y	N	Y
POLICY-PREFIX	10000	10000	10000	Y	N	Y
POLICY-REGION	1100	1100	1100	Y	N	Y
POLICY-TOD	400	400	400	Y	N	Y
POP	500	500	500	Y	Y	Y
PORTED-OFFICE-CODE	640000	640000	640000	Y	N	N
QOS	3000	3000	3000	Y	N	N
RADIUS-PROFILE	20	20	20	Y	N	N
REGION-PROFILE	100000	125000	125000	Y	N	Y
RELEASE-CAUSE	10000	10000	10000	Y	N	N

Table 2-5 Release 4.2 Medium Configuration Database Usage Defaults (continued)

Table Name or Noun	Number of Records Before Split NPA	Maximum Record Count	Licensed Record Count	Route CA	Route FSPTC	Route FSAIN
ROUTE	2000	2000	2000	Y	N	N
ROUTE-GUIDE	1000	1000	1000	Y	N	Y
ROUTING-KEY	2560	2560	2560	Y	Y	Y
RUDP-BACKHAUL-SESSION	4400	4400	4400	Y	N	N
SC1D	20000	20000	20000	N	Y	N
SC2D	1000	1000	1000	N	Y	N
SCCP-NW	255	255	255	N	Y	Y
SCCP-ROUTE	20480	20480	20480	N	Y	Y
SCTP-ASSOC-PROFILE	120	120	120	Y	Y	Y
SCTP-ASSOC	240	240	240	Y	Y	Y
SERVICE	2000	2000	2000	N	Y	N
SERVICE-PROVIDER	1000	1000	1000	Y	N	N
SERVICE-TRIGGER	20000	20000	20000	Y	N	N
SERVING-DOMAIN-NAME	1000	1000	1000	Y	N	N
SG	20	20	20	Y	Y	Y
SG-GRP	20	20	20	Y	Y	Y
SGP	40	40	40	Y	Y	Y
SLE	20000	20000	20000	N	Y	N
SLHR-PROFILE	16	16	16	N	N	N
SLHR	96	96	96	N	Y	Y
SOFTSW-TG-PROFILE	100	100	100	Y	N	N
SPECIAL-CALL-TYPE	100	100	100	Y	N	N
SPLIT-NPA	1100	1100	1100	Y	Y	N
SS7-CIC	96000	96000	96000	Y	N	N
SS7-Q761-TG-PROFILE	100	100	100	Y	N	N
SS7-Q767-TG-PROFILE	100	100	100	Y	N	N
SS7-ANSI-TG-PROFILE	100	100	100	Y	N	N
STATIC-CONTACT	100000	100000	100000	Y	N	N
SUBSCRIBER	100000	100000	100000	Y	Y	N
SUBSCRIBER-FEATURE-DATA	300000	300000	300000	N	Y	N
SUBSCRIBER-PROFILE	5000	5000	5000	Y	Y	N
SUBSCRIBER-SERVICE-PROFILE	500000	500000	500000	Y	Y	N
SUBSYSTEM-PROFILE	16	16	16	N	Y	Y
SUBSYSTEM	16	16	16	N	Y	Y
TECH-PREFIX-GRP	1000	1000	1000	Y	N	N

Table 2-5 Release 4.2 Medium Configuration Database Usage Defaults (continued)

Table Name or Noun	Number of Records Before Split NPA	Maximum Record Count	Licensed Record Count	Route CA	Route FSPTC	Route FSAIN
TECH-PREFIX-GRP-PROFILE	4	4	4	Y	N	N
TERMINATION	180000	180000	180000	Y	N	N
TRIGGER-DETECTION-POINT	50	50	50	N	N	N
TRIGGER-ID	100	100	100	N	N	N
TRUNK	134400	134400	134400	Y	N	N
TRUNK-GRP	10000	10000	10000	Y	N	N
TRUNK-GRP-FEATURE-DATA	1000	1000	1000	N	Y	N
TRUNK-GRP-SERVICE-PROFILE	1100	1100	1100	Y	Y	N
USER-AUTH	100000	100000	100000	Y	N	N
USER-PART-VARIANT	200	200	200	Y	N	N
VAR-DEFAULT	1000	1000	1000	N	N	N
VSC	1000	1000	1000	N	Y	N
WIRETAP	2000	2500	2500	Y	N	N
ANI-SCREENING	10000	12500	12500	Y	N	N
LNP-PROFILE	10	10	10	Y	Y	Y
DN2GN	10000	10000	10000	N	N	Y
H323-TERM-PROFILE	200	200	200	Y	N	N
H323-TERM	100000	100000	100000	Y	N	N
ANI-SCREENING-PROFILE	1000	1000	1000	Y	N	N
SIPT-ISUP-VER-ALIAS	200	200	200	Y	N	N

Routeserver Database Usage Defaults

Table 2-6 details the predefined defaults for the Database Usage table for a Routeserver in Release 4.2.

Table 2-6 Release 4.2 Routeserver Database Usage Defaults

Table Name or Noun	Number of Records Before Split NPA	Maximum Record Count	Licensed Record Count	Route CA	Route FSPTC	Route FSAIN
ACTIVITY	100	100	100	Y	Y	Y
ACTIVITY-BASE	100	100	100	N	N	N
AGGR	3000	3000	3000	Y	N	N
ANI	400000	400000	400000	N	Y	N
ANI-WB-LIST	25000	31250	31250	N	N	Y
ANNC-TG-PROFILE	100	100	100	Y	N	N

Table 2-6 Release 4.2 Routeserver Database Usage Defaults (continued)

Table Name or Noun	Number of Records Before Split NPA	Maximum Record Count	Licensed Record Count	Route CA	Route FSPTC	Route FSAIN
ANNC-TRUNK	6120	6120	6120	Y	N	N
ANNOUNCEMENT	1000	1000	1000	Y	N	N
AOR2SUB	45000	45000	45000	Y	N	N
AUTH-CODE	250000	250000	250000	N	Y	N
AUTH-CODE-GRP	25000	25000	25000	N	Y	N
AUTH-REALM	45000	45000	45000	Y	N	N
BACKHAUL-SET	100	100	100	Y	N	N
CA-CONFIG	1000	1000	1000	Y	Y	Y
CALL-AGENT	10	10	10	Y	Y	Y
CALL-AGENT-PROFILE	10	10	10	Y	Y	Y
CALL-CTRL-ROUTE	2560	2560	2560	Y	N	N
CALL-TYPE	100	100	100	N	N	N
CARRIER	10000	10000	10000	Y	N	N
CAS-TG-PROFILE	100	100	100	Y	N	N
CASUAL-WB-LIST	9000	9000	9000	N	Y	N
CAUSE-CODE-MAP	2000	2000	2000	Y	N	N
CAUSE-CODE-MAP-PROFILE	100	100	100	Y	N	N
CENTREX-GRP	100	100	100	Y	Y	N
CHANGED-NUMBER	675	1000	1000	Y	N	N
CIPHERSUITE-PROFILE	3000	3000	3000	N	N	N
CIPHERSUITE	3000	3000	3000	Y	N	N
CIRCUIT-CODE	1000	1000	1000	Y	N	N
COS-RESTRICT	9000	9000	9000	N	Y	N
CPSG	200	200	200	Y	Y	N
CUST-GRP	2500	2500	2500	N	N	Y
CUSTOM-DIAL-PLAN	2000	2000	2000	N	Y	N
CUSTOM-DIAL-PLAN-PROFILE	100	100	100	N	N	N
DB-THRESHOLDS	1000	1000	1000	N	N	N
DB-USAGE	1000	1000	1000	N	N	N
DESTINATION	1000000	1000000	1000000	Y	N	N
DIAL-PLAN	1000000	1000000	1000000	Y	N	N

Table 2-6 Release 4.2 Routeserver Database Usage Defaults (continued)

Table Name or Noun	Number of Records Before Split NPA	Maximum Record Count	Licensed Record Count	Route CA	Route FSPTC	Route FSAIN
DIAL-PLAN-PROFILE	1000	1000	1000	Y	N	N
DIGIT-MAP	355	355	355	Y	N	N
DIGMAN-PROFILE	5000	5000	5000	Y	N	N
DIGMAN	25000	25000	25000	Y	N	N
DN2CUST-GRP	250000	250000	250000	N	N	Y
DN2SUBSCRIBER	67500	67500	67500	Y	N	N
DPC	1280	1280	1280	Y	Y	Y
DS1	1000	1000	1000	Y	N	N
ESS	255	255	255	Y	N	N
EXCHANGE-CODE	5000	5000	5000	Y	N	N
EXT2SUBSCRIBER	5000	5000	5000	Y	Y	N
FEATURE	1000	1000	1000	N	Y	N
FEATURE-SERVER	10	10	10	Y	Y	Y
H323-GW	4	4	4	Y	N	N
H323-GW2GK	100	100	100	Y	N	N
H323-TG-PROFILE	100	100	100	Y	N	N
HTTP-FEATURE-SERVER	1	1	1	N	Y	N
II-RESTRICT-LIST	2500	2500	2500	N	N	Y
II-WB-LIST	1125	1125	1125	N	Y	N
INTL-DIAL-PLAN	3000	3000	3000	Y	N	N
INTL-DIAL-PLAN-PROFILE	10	10	10	Y	N	N
INTL-WB-LIST	9000	9000	9000	N	Y	N
IPSEC-KERBEROS	1	1	1	Y	N	N
IPSEC-KERBEROS-KEYS	256	256	256	Y	N	N
IPSEC-POLICY	42000	42000	42000	Y	N	N
IPSEC-SA	256	256	256	Y	N	N
ISDN-BCHAN	2400	2400	2400	Y	N	N
ISDN-DCHAN	100	100	100	Y	N	N
ISDN-INTF	100	100	100	Y	N	N
ISDN-TG-PROFILE	100	100	100	Y	N	N
LATA	1000	1000	1000	Y	Y	N
LATA-MAP	150000	150000	150000	Y	Y	N

Table 2-6 Release 4.2 Routeserver Database Usage Defaults (continued)

Table Name or Noun	Number of Records Before Split NPA	Maximum Record Count	Licensed Record Count	Route CA	Route FSPTC	Route FSAIN
LSA	30000	30000	30000	Y	N	N
LSA-PROFILE	1000	1000	1000	N	N	N
MAC2SUB	45000	45000	45000	N	Y	N
MGCP-RETCODE-ACTION	2000	2000	2000	Y	N	N
MGW	38000	38000	38000	Y	N	N
MGW-PROFILE	100	100	100	Y	N	N
MLHG	100	100	100	Y	Y	N
MLHG-PREF-LIST	10	10	10	Y	N	N
MLHG-TERMINAL	500	500	500	Y	N	N
NATIONAL-WB-LIST	9000	11250	11250	N	Y	N
NDC	800	800	800	Y	N	N
NOA	0	0	0	N	N	N
NOD	100	100	100	N	N	N
NOD-RESTRICT-LIST	1000	1000	1000	N	Y	N
NOD-WB-LIST	900	900	900	N	Y	N
OFFICE-CODE	50000	50000	50000	Y	Y	N
OPC	5	5	5	Y	Y	Y
POLICY-NXX	8000	8000	8000	Y	N	Y
POLICY-ODR	80000	80000	80000	Y	N	Y
POLICY-OLI	8000	8000	8000	Y	N	Y
POLICY-PERCENT	80000	80000	80000	Y	N	Y
POLICY-POP	80000	80000	80000	Y	N	Y
POLICY-PREFIX	10000	10000	10000	Y	N	Y
POLICY-REGION	88000	88000	88000	Y	N	Y
POLICY-TOD	120000	120000	120000	Y	N	Y
POP	255	255	255	Y	Y	Y
PORTED-OFFICE-CODE	640000	640000	640000	Y	N	N
QOS	3000	3000	3000	Y	N	N
RADIUS-PROFILE	20	20	20	Y	N	N
REGION-PROFILE	80000	100000	100000	Y	N	Y
RELEASE-CAUSE	10000	10000	10000	Y	N	N
ROUTE	600000	600000	600000	Y	N	N

Table 2-6 Release 4.2 Routeserver Database Usage Defaults (continued)

Table Name or Noun	Number of Records Before Split NPA	Maximum Record Count	Licensed Record Count	Route CA	Route FSPTC	Route FSAIN
ROUTE-GUIDE	80000	80000	80000	Y	N	Y
ROUTING-KEY	2560	2560	2560	Y	Y	Y
RUDP-BACKHAUL-SESSION	400	400	400	Y	N	N
SC1D	9000	9000	9000	N	Y	N
SC2D	450	450	450	N	Y	N
SCCP-NW	255	255	255	N	Y	Y
SCCP-ROUTE	20480	20480	20480	N	Y	Y
SCTP-ASSOC-PROFILE	120	120	120	Y	Y	Y
SCTP-ASSOC	240	240	240	Y	Y	Y
SERVICE	2000	2000	2000	N	Y	N
SERVICE-PROVIDER	1000	1000	1000	Y	N	N
SERVICE-TRIGGER	20000	20000	20000	Y	N	N
SERVING-DOMAIN-NAME	1000	1000	1000	Y	N	N
SG	20	20	20	Y	Y	Y
SG-GRP	20	20	20	Y	Y	Y
SGP	40	40	40	Y	Y	Y
SLE	9000	9000	9000	N	Y	N
SLHR-PROFILE	16	16	16	N	N	N
SLHR	96	96	96	N	Y	Y
SOFTSW-TG-PROFILE	100	100	100	Y	N	N
SPECIAL-CALL-TYPE	100	100	100	Y	N	N
SPLIT-NPA	1100	1100	1100	Y	Y	N
SS7-CIC	18000	18000	18000	Y	N	N
SS7-Q761-TG-PROFILE	100	100	100	Y	N	N
SS7-Q767-TG-PROFILE	100	100	100	Y	N	N
SS7-ANSI-TG-PROFILE	100	100	100	Y	N	N
STATIC-CONTACT	45000	45000	45000	Y	N	N
SUBSCRIBER	45000	45000	45000	Y	Y	N
SUBSCRIBER-FEATURE-DATA	135000	135000	135000	N	Y	N

Table 2-6 Release 4.2 Routeserver Database Usage Defaults (continued)

Table Name or Noun	Number of Records Before Split NPA	Maximum Record Count	Licensed Record Count	Route CA	Route FSPTC	Route FSAIN
SUBSCRIBER-PROFILE	2550	2550	2550	Y	Y	N
SUBSCRIBER-SERVICE-PROFILE	225000	225000	225000	Y	Y	N
SUBSYSTEM-PROFILE	16	16	16	N	Y	Y
SUBSYSTEM	16	16	16	N	Y	Y
TECH-PREFIX-GRP	1000	1000	1000	Y	N	N
TECH-PREFIX-GRP-PROFILE	4	4	4	Y	N	N
TERMINATION	60000	60000	60000	Y	N	N
TRIGGER-DETECTION-POINT	50	50	50	N	N	N
TRIGGER-ID	100	100	100	N	N	N
TRUNK	32000	32000	32000	Y	N	N
TRUNK-GRP	25000	25000	25000	Y	N	N
TRUNK-GRP-FEATURE-DATA	2500	2500	2500	N	Y	N
TRUNK-GRP-SERVICE-PROFILE	2750	2750	2750	Y	Y	N
USER-AUTH	45000	45000	45000	Y	N	N
USER-PART-VARIANT	200	200	200	Y	N	N
VAR-DEFAULT	1000	1000	1000	N	N	N
VSC	1000	1000	1000	N	Y	N
WIRETAP	900	1125	1125	Y	N	N
ANI-SCREENING	25000	31250	31250	Y	N	N
LNP-PROFILE	10	10	10	Y	Y	Y
DN2GN	10000	10000	10000	N	N	Y
H323-TERM-PROFILE	200	200	200	Y	N	N
H323-TERM	45000	45000	45000	Y	N	N
ANI-SCREENING-PROFILE	2500	2500	2500	Y	N	N
SIPT-ISUP-VER-ALIAS	200	200	200	Y	N	N

Local Number Portability Database Usage Defaults

Table 2-7 details the predefined defaults for the Database Usage table for Local Number Portability in Release 4.2.

Table 2-7 Release 4.2 Local Number Portability Database Usage Defaults

Table Name or Noun	Number of Records Before Split NPA	Maximum Record Count	Licensed Record Count	Route CA	Route FSPTC	Route FSAIN
ACTIVITY	100	100	100	Y	Y	Y
ACTIVITY-BASE	100	100	100	N	N	N
AGGR	3000	3000	3000	Y	N	N
ANI	400000	400000	400000	N	Y	N
ANI-SCREENING	10000	12500	12500	Y	N	N
ANI-SCREENING-PROFILE	1000	1000	1000	Y	N	N
ANI-WB-LIST	25000	31250	31250	N	N	Y
ANNC-TG-PROFILE	100	100	100	Y	N	N
ANNC-TRUNK	6120	6120	6120	Y	N	N
ANNOUNCEMENT	1000	1000	1000	Y	N	N
AOR2SUB	100000	100000	100000	Y	N	N
AUTH-CODE	250000	250000	250000	N	Y	N
AUTH-CODE-GRP	25000	25000	25000	N	Y	N
AUTH-REALM	100000	100000	100000	Y	N	N
BACKHAUL-SET	1100	1100	1100	Y	N	N
CA-CONFIG	1000	1000	1000	Y	Y	Y
CALL-AGENT	10	10	10	Y	Y	Y
CALL-AGENT-PROFILE	10	10	10	Y	Y	Y
CALL-CTRL-ROUTE	2560	2560	2560	Y	N	N
CALL-TYPE	100	100	100	N	N	N
CARRIER	10000	10000	10000	Y	N	N
CAS-TG-PROFILE	100	100	100	Y	N	N
CASUAL-WB-LIST	20000	20000	20000	N	Y	N
CAUSE-CODE-MAP	2000	2000	2000	Y	N	N
CAUSE-CODE-MAP-PROFILE	100	100	100	Y	N	N
CENTREX-GRP	500	500	500	Y	Y	N
CHANGED-NUMBER	1500	2000	2000	Y	N	N
CIPHERSUITE	3000	3000	3000	Y	N	N
CIPHERSUITE-PROFILE	3000	3000	3000	N	N	N

Table 2-7 Release 4.2 Local Number Portability Database Usage Defaults (continued)

Table Name or Noun	Number of Records Before Split NPA	Maximum Record Count	Licensed Record Count	Route CA	Route FSPTC	Route FSAIN
CIRCUIT-CODE	1000	1000	1000	Y	N	N
COS-RESTRICT	20000	20000	20000	N	Y	N
CPSG	1000	1000	1000	Y	Y	N
CUST-GRP	2500	2500	2500	N	N	Y
CUSTOM-DIAL-PLAN	10000	10000	10000	N	Y	N
CUSTOM-DIAL-PLAN-PROFILE	500	500	500	N	N	N
DB-THRESHOLDS	1000	1000	1000	N	N	N
DB-USAGE	1000	1000	1000	N	N	N
DESTINATION	5000	5000	5000	Y	N	N
DIAL-PLAN	1000000	1000000	1000000	Y	N	N
DIAL-PLAN-PROFILE	1000	1000	1000	Y	N	N
DIGIT-MAP	1000	1000	1000	Y	N	N
DIGMAN	13500	13500	13500	Y	N	N
DIGMAN-PROFILE	2700	2700	2700	Y	N	N
DN2CUST-GRP	250000	250000	250000	N	N	Y
DN2GN	5000000	5000000	5000000	N	N	Y
DN2SUBSCRIBER	150000	150000	150000	Y	N	N
DPC	1280	1280	1280	Y	Y	Y
DS1	4200	4200	4200	Y	N	N
ESS	255	255	255	Y	N	N
EXCHANGE-CODE	5000	5000	5000	Y	N	N
EXT2SUBSCRIBER	25000	25000	25000	Y	Y	N
FEATURE	1000	1000	1000	N	Y	N
FEATURE-SERVER	10	10	10	Y	Y	Y
H323-GW	4	4	4	Y	N	N
H323-GW2GK	100	100	100	Y	N	N
H323-TERM	100000	100000	100000	Y	N	N
H323-TERM-PROFILE	200	200	200	Y	N	N
H323-TG-PROFILE	100	100	100	Y	N	N
HTTP-FEATURE-SERVER	1	1	1	N	Y	N
II-RESTRICT-LIST	2500	2500	2500	N	N	Y
II-WB-LIST	2500	2500	2500	N	Y	N
INTL-DIAL-PLAN	3000	3000	3000	Y	N	N
INTL-DIAL-PLAN-PROFILE	10	10	10	Y	N	N
INTL-WB-LIST	20000	20000	20000	N	Y	N

Table 2-7 Release 4.2 Local Number Portability Database Usage Defaults (continued)

Table Name or Noun	Number of Records Before Split NPA	Maximum Record Count	Licensed Record Count	Route CA	Route FSPTC	Route FSAIN
IPSEC-KERBEROS	1	1	1	Y	N	N
IPSEC-KERBEROS-KEYS	256	256	256	Y	N	N
IPSEC-POLICY	104000	104000	104000	Y	N	N
IPSEC-SA	256	256	256	Y	N	N
ISDN-BCHAN	26400	26400	26400	Y	N	N
ISDN-DCHAN	1100	1100	1100	Y	N	N
ISDN-INTF	1100	1100	1100	Y	N	N
ISDN-TG-PROFILE	250	250	250	Y	N	N
LATA	1000	1000	1000	Y	Y	N
LATA-MAP	150000	150000	150000	Y	Y	N
LNP-PROFILE	10	10	10	Y	Y	Y
LSA	30000	30000	30000	Y	N	N
LSA-PROFILE	1000	1000	1000	N	N	N
MAC2SUB	100000	100000	100000	N	Y	N
MGCP-RETCODE-ACTION	2000	2000	2000	Y	N	N
MGW	100000	100000	100000	Y	N	N
MGW-PROFILE	100	100	100	Y	N	N
MLHG	10000	10000	10000	Y	Y	N
MLHG-PREF-LIST	1000	1000	1000	Y	N	N
MLHG-TERMINAL	50000	50000	50000	Y	N	N
NATIONAL-WB-LIST	20000	25000	25000	N	Y	N
NDC	50	50	50	Y	N	N
NOA	0	0	0	N	N	N
NOD	100	100	100	N	N	N
NOD-RESTRICT-LIST	1000	1000	1000	N	Y	N
NOD-WB-LIST	2000	2000	2000	N	Y	N
OFFICE-CODE	50000	50000	50000	Y	Y	N
OPC	5	5	5	Y	Y	Y
POLICY-NXX	400	400	400	Y	N	Y
POLICY-ODR	10000	10000	10000	Y	N	Y
POLICY-OLI	100	100	100	Y	N	Y
POLICY-PERCENT	400	400	400	Y	N	Y
POLICY-POP	25000	25000	25000	Y	N	Y
POLICY-PREFIX	10000	10000	10000	Y	N	Y
POLICY-REGION	1100	1100	1100	Y	N	Y

Table 2-7 Release 4.2 Local Number Portability Database Usage Defaults (continued)

Table Name or Noun	Number of Records Before Split NPA	Maximum Record Count	Licensed Record Count	Route CA	Route FSPTC	Route FSAIN
POLICY-TOD	400	400	400	Y	N	Y
POP	255	255	255	Y	Y	Y
PORTED-OFFICE-CODE	640000	640000	640000	Y	N	N
QOS	3000	3000	3000	Y	N	N
RADIUS-PROFILE	20	20	20	Y	N	N
REGION-PROFILE	100000	125000	125000	Y	N	Y
RELEASE-CAUSE	10000	10000	10000	Y	N	N
ROUTE	2000	2000	2000	Y	N	N
ROUTE-GUIDE	1000	1000	1000	Y	N	Y
ROUTING-KEY	2560	2560	2560	Y	Y	Y
RUDP-BACKHAUL-SESSION	4400	4400	4400	Y	N	N
SC1D	20000	20000	20000	N	Y	N
SC2D	1000	1000	1000	N	Y	N
SCCP-NW	255	255	255	N	Y	Y
SCCP-ROUTE	20480	20480	20480	N	Y	Y
SCTP-ASSOC	240	240	240	Y	Y	Y
SCTP-ASSOC-PROFILE	120	120	120	Y	Y	Y
SERVICE	2000	2000	2000	N	Y	N
SERVICE-PROVIDER	1000	1000	1000	Y	N	N
SERVICE-TRIGGER	20000	20000	20000	Y	N	N
SERVING-DOMAIN-NAME	1000	1000	1000	Y	N	N
SG	20	20	20	Y	Y	Y
SG-GRP	20	20	20	Y	Y	Y
SGP	40	40	40	Y	Y	Y
SIPT-ISUP-VER-ALIAS	200	200	200	Y	N	N
SLE	20000	20000	20000	N	Y	N
SLHR	96	96	96	N	Y	Y
SLHR-PROFILE	16	16	16	N	N	N
SOFTSW-TG-PROFILE	100	100	100	Y	N	N
SPECIAL-CALL-TYPE	100	100	100	Y	N	N
SPLIT-NPA	1100	1100	1100	Y	Y	N
SS7-ANSI-TG-PROFILE	100	100	100	Y	N	N
SS7-CIC	96000	96000	96000	Y	N	N
SS7-Q761-TG-PROFILE	100	100	100	Y	N	N
SS7-Q767-TG-PROFILE	100	100	100	Y	N	N

Table 2-7 Release 4.2 Local Number Portability Database Usage Defaults (continued)

Table Name or Noun	Number of Records Before Split NPA	Maximum Record Count	Licensed Record Count	Route CA	Route FSPTC	Route FSAIN
STATIC-CONTACT	100000	100000	100000	Y	N	N
SUBSCRIBER	100000	100000	100000	Y	Y	N
SUBSCRIBER-FEATURE-DATA	300000	300000	300000	N	Y	N
SUBSCRIBER-PROFILE	2550	2550	2550	Y	Y	N
SUBSCRIBER-SERVICE-PROFILE	500000	500000	500000	Y	Y	N
SUBSYSTEM	16	16	16	N	Y	Y
SUBSYSTEM-PROFILE	16	16	16	N	Y	Y
TECH-PREFIX-GRP	1000	1000	1000	Y	N	N
TECH-PREFIX-GRP-PROFILE	4	4	4	Y	N	N
TERMINATION	180000	180000	180000	Y	N	N
TRIGGER-DETECTION-POINT	50	50	50	N	N	N
TRIGGER-ID	100	100	100	N	N	N
TRUNK	134400	134400	134400	Y	N	N
TRUNK-GRP	10000	10000	10000	Y	N	N
TRUNK-GRP-FEATURE-DATA	1000	1000	1000	N	Y	N
TRUNK-GRP-SERVICE-PROFILE	1100	1100	1100	Y	Y	N
USER-AUTH	100000	100000	100000	Y	N	N
USER-PART-VARIANT	200	200	200	Y	N	N
VAR-DEFAULT	1000	1000	1000	N	N	N
VSC	1000	1000	1000	N	Y	N
WIRETAP	2000	2500	2500	Y	N	N

Release 4.4.x

This section describes the Database Usage tables for Release 4.4.0 and 4.4.1.

Small Configuration Database Usage Defaults

Table 2-8 details the predefined defaults for the Database Usage table for a small configuration in Release 4.4.

Table 2-8 Release 4.4.x Small Configuration Database Usage Defaults

Table Name or Noun	Number of Records Before Split NPA	Maximum Record Count	Licensed Record Count	Route CA	Route FSPTC	Route FSAIN
ACTIVITY	100	100	100	Y	Y	Y
ACTIVITY-BASE	100	100	100	N	N	N
AGGR	3000	3000	3000	Y	N	N
ANI	100000	100000	100000	N	Y	N
ANI-SCREENING	1000	1250	1250	Y	N	N
ANI-SCREENING-PROFILE	100	100	100	Y	N	N
ANI-WB-LIST	5000	6250	6250	N	N	Y
ANNC-TG-PROFILE	100	100	100	Y	N	N
ANNC-TRUNK	1200	1200	1200	Y	N	N
ANNOUNCEMENT	1000	1000	1000	Y	N	N
AOR2SUB	45000	45000	45000	Y	N	N
AUDIO-SEGMENT	25000	25000	25000	N	Y	Y
AUDIO-SEQ	5000	5000	5000	N	Y	Y
AUTH-CODE	50000	50000	50000	N	Y	N
AUTH-CODE-GRP	5000	5000	5000	N	Y	N
AUTH-REALM	45000	45000	45000	Y	N	N
BACKHAUL-SET	100	100	100	Y	N	N
CA-CONFIG	1000	1000	1000	Y	Y	Y
CALL-AGENT	10	10	10	Y	Y	Y
CALL-AGENT-PROFILE	10	10	10	Y	Y	Y
CALL-CTRL-ROUTE	2048	2048	2048	Y	N	N
CALL-TYPE	100	100	100	N	N	N
CARRIER	10000	10000	10000	Y	N	N
CAS-TG-PROFILE	100	100	100	Y	N	N
CASUAL-WB-LIST	9000	9000	9000	N	Y	N
CAUSE-CODE-MAP	2000	2000	2000	Y	N	N
CAUSE-CODE-MAP-PROFILE	100	100	100	Y	N	N
CENTREX-GRP	100	100	100	Y	Y	N
CHANGED-NUMBER	675	1000	1000	Y	N	N
CIPHERSUITE	3000	3000	3000	Y	N	N
CIPHERSUITE-PROFILE	3000	3000	3000	N	N	N
CIRCUIT-CODE	1000	1000	1000	Y	N	N
COS-RESTRICT	9000	9000	9000	N	Y	N
CPSG	200	200	200	Y	Y	N

Table 2-8 Release 4.4.x Small Configuration Database Usage Defaults (continued)

Table Name or Noun	Number of Records Before Split NPA	Maximum Record Count	Licensed Record Count	Route CA	Route FSPTC	Route FSAIN
CUST-GRP	500	500	500	N	N	Y
CUSTOM-DIAL-PLAN	2000	2000	2000	N	Y	N
CUSTOM-DIAL-PLAN-PROFILE	100	100	100	N	N	N
DB-THRESHOLDS	1000	1000	1000	N	N	N
DB-USAGE	1000	1000	1000	N	N	N
DESTINATION	100	100	100	Y	N	N
DIAL-PLAN	200000	200000	200000	Y	N	N
DIAL-PLAN-PROFILE	200	200	200	Y	N	N
DIGIT-MAP	150	150	150	Y	N	N
DIGMAN	2375	2375	2375	Y	N	N
DIGMAN-PROFILE	475	475	475	Y	N	N
DN2CUST-GRP	50000	50000	50000	N	N	Y
DN2GN	2000000	2000000	2000000	N	N	Y
DN2SUBSCRIBER	67500	67500	67500	Y	N	N
DPC	1024	1024	1024	Y	Y	Y
DS1	1000	1000	1000	Y	N	N
ESS	50	50	50	Y	N	N
EXCHANGE-CODE	5000	5000	5000	Y	N	N
EXT2 SUBSCRIBER	5000	5000	5000	Y	Y	N
FEATURE	1000	1000	1000	N	Y	N
FEATURE-CONFIG	1000	1000	1000	N	Y	Y
FEATURE-CONFIG-BASE	1000	1000	1000	N	Y	Y
FEATURE-CONFIG-BASE-POS-VAL	1000	1000	1000	N	N	N
FEATURE-SERVER	10	10	10	Y	Y	Y
H323-GW	4	4	4	Y	N	N
H323-GW2GK	100	100	100	Y	N	N
H323-TERM	45000	45000	45000	Y	N	N
H323-TERM-PROFILE	200	200	200	Y	N	N
H323-TG-PROFILE	100	100	100	Y	N	N
HTTP-FEATURE-SERVER	1	1	1	N	Y	N
II-RESTRICT-LIST	500	500	500	N	N	Y
II-WB-LIST	1125	1125	1125	N	Y	N
INTL-DIAL-PLAN	1200	1200	1200	Y	N	N
INTL-DIAL-PLAN-PROFILE	4	4	4	Y	N	N

Table 2-8 Release 4.4.x Small Configuration Database Usage Defaults (continued)

Table Name or Noun	Number of Records Before Split NPA	Maximum Record Count	Licensed Record Count	Route CA	Route FSPTC	Route FSAIN
INTL-WB-LIST	9000	9000	9000	N	Y	N
IPSEC-KERBEROS	1	1	1	Y	N	N
IPSEC-KERBEROS-KEYS	256	256	256	Y	N	N
IPSEC-POLICY	42000	42000	42000	Y	N	N
IPSEC-SA	256	256	256	Y	N	N
ISDN-BCHAN	2400	2400	2400	Y	N	N
ISDN-DCHAN	100	100	100	Y	N	N
ISDN-INTF	100	100	100	Y	N	N
ISDN-TG-PROFILE	100	100	100	Y	N	N
IVR-SCRIPT-PROFILE	100	100	100	N	Y	Y
LANGUAGE	1000	1000	1000	N	N	N
LATA	1000	1000	1000	Y	Y	N
LATA-MAP	150000	150000	150000	Y	Y	N
LNP-PROFILE	10	10	10	Y	Y	Y
LSA	30000	30000	30000	Y	N	N
LSA-PROFILE	1000	1000	1000	N	N	N
MAC2SUB	45000	45000	45000	N	Y	N
MGCP-RETCODE-ACTION	2000	2000	2000	Y	N	N
MGW	38000	38000	38000	Y	N	N
MGW-PROFILE	100	100	100	Y	N	N
MLHG	100	100	100	Y	Y	N
MLHG-PREF-LIST	10	10	10	Y	N	N
MLHG-TERMINAL	500	500	500	Y	N	N
NATIONAL-WB-LIST	9000	11250	11250	N	Y	N
NDC	50	50	50	Y	N	N
NOA	0	0	0	N	N	N
NOD	100	100	100	N	N	N
NOD-RESTRICT-LIST	1000	1000	1000	N	Y	N
NOD-WB-LIST	900	900	900	N	Y	N
OFFICE-CODE	50000	50000	50000	Y	Y	N
OPC	4	4	4	Y	Y	Y
POLICY-NXX	100	100	100	Y	N	Y
POLICY-ODR	2500	2500	2500	Y	N	Y
POLICY-OLI	25	25	25	Y	N	Y
POLICY-PERCENT	100	100	100	Y	N	Y

Table 2-8 Release 4.4.x Small Configuration Database Usage Defaults (continued)

Table Name or Noun	Number of Records Before Split NPA	Maximum Record Count	Licensed Record Count	Route CA	Route FSPTC	Route FSAIN
POLICY-POP	625	625	625	Y	N	Y
POLICY-PREFIX	10000	10000	10000	Y	N	Y
POLICY-REGION	275	275	275	Y	N	Y
POLICY-TOD	100	100	100	Y	N	Y
POP	50	50	50	Y	Y	Y
PORTED-OFFICE-CODE	120000	120000	120000	Y	N	N
QOS	3000	3000	3000	Y	N	N
RADIUS-PROFILE	20	20	20	Y	N	N
REGION-PROFILE	25000	31250	31250	Y	N	Y
RELEASE-CAUSE	10000	10000	10000	Y	N	N
ROUTE	250	250	250	Y	N	N
ROUTE-GUIDE	250	250	250	Y	N	Y
ROUTING-KEY	2048	2048	2048	Y	Y	Y
RUDP-BACKHAUL-SESSION	400	400	400	Y	N	N
SC1D	9000	9000	9000	N	Y	N
SC2D	450	450	450	N	Y	N
SCCP-NW	255	255	255	N	Y	Y
SCCP-ROUTE	16384	16384	16384	N	Y	Y
SCRIPT	1000	1000	1000	Y	N	N
SCTP-ASSOC	240	240	240	Y	Y	Y
SCTP-ASSOC-PROFILE	120	120	120	Y	Y	Y
SERVICE	2000	2000	2000	N	Y	N
SERVICE-PROVIDER	100	100	100	Y	N	N
SERVICE-TRIGGER	20000	20000	20000	Y	N	N
SERVING-DOMAIN-NAME	1000	1000	1000	Y	N	N
SG	20	20	20	Y	Y	Y
SG-GRP	20	20	20	Y	Y	Y
SGP	40	40	40	Y	Y	Y
SIPT-ISUP-VER-ALIAS	200	200	200	Y	N	N
SLE	9000	9000	9000	N	Y	N
SLHR	96	96	96	N	Y	Y
SLHR-PROFILE	16	16	16	N	N	N

Table 2-8 Release 4.4.x Small Configuration Database Usage Defaults (continued)

Table Name or Noun	Number of Records Before Split NPA	Maximum Record Count	Licensed Record Count	Route CA	Route FSPTC	Route FSAIN
SOFTSW-TG-PROFILE	100	100	100	Y	N	N
SPECIAL-CALL-TYPE	100	100	100	Y	N	N
SPLIT-NPA	1100	1100	1100	Y	Y	N
SS7-ANSI-TG-PROFILE	100	100	100	Y	N	N
SS7-CIC	18000	18000	18000	Y	N	N
SS7-Q761-TG-PROFILE	100	100	100	Y	N	N
SS7-Q767-TG-PROFILE	100	100	100	Y	N	N
STATIC-CONTACT	45000	45000	45000	Y	N	N
SUBSCRIBER	45000	45000	45000	Y	Y	N
SUBSCRIBER-FEATURE-DATA	135000	135000	135000	N	Y	N
SUBSCRIBER-PROFILE	500	500	500	Y	Y	N
SUBSCRIBER-SERVICE-PROFILE	225000	225000	225000	Y	Y	N
SUBSYSTEM	16	16	16	N	Y	Y
SUBSYSTEM-PROFILE	16	16	16	N	Y	Y
TECH-PREFIX-GRP	110	110	110	Y	N	N
TECH-PREFIX-GRP-PROFILE	4	4	4	Y	N	N
TERMINATION	60000	60000	60000	Y	N	N
TIMEZONE	200	200	200	N	N	N
TRIGGER-DETECTION-POINT	50	50	50	N	N	N
TRIGGER-ID	100	100	100	N	N	N
TRUNK	32000	32000	32000	Y	N	N
TRUNK-GRP	1000	1000	1000	Y	N	N
TRUNK-GRP-FEATURE-DATA	100	100	100	N	Y	N
TRUNK-GRP-SERVICE-PROFILE	110	110	110	Y	Y	N
USER-AUTH	45000	45000	45000	Y	N	N
USER-PART-VARIANT	200	200	200	Y	N	N
VAR-DEFAULT	1000	1000	1000	N	N	N
VSC	1000	1000	1000	N	Y	N
WIRETAP	900	1125	1125	Y	N	N

Medium Configuration Database Usage Defaults

Table 2-9 details the predefined defaults for the Database Usage table for a medium configuration in Release 4.4.

Table 2-9 Release 4.4.x Medium Configuration Database Usage Defaults

Table Name or Noun	Number of Records Before Split NPA	Maximum Record Count	Licensed Record Count	Route CA	Route FSPTC	Route FSAIN
ACTIVITY	100	100	100	Y	Y	Y
ACTIVITY-BASE	100	100	100	N	N	N
AGGR	3000	3000	3000	Y	N	N
ANI	400000	400000	400000	N	Y	N
ANI-WB-LIST	25000	31250	31250	N	N	Y
ANNC-TG-PROFILE	100	100	100	Y	N	N
ANNC-TRUNK	12000	12000	12000	Y	N	N
ANNOUNCEMENT	1000	1000	1000	Y	N	N
AOR2SUB	100000	100000	100000	Y	N	N
AUTH-CODE	250000	250000	250000	N	Y	N
AUTH-CODE-GRP	25000	25000	25000	N	Y	N
AUTH-REALM	100000	100000	100000	Y	N	N
BACKHAUL-SET	1100	1100	1100	Y	N	N
CA-CONFIG	1000	1000	1000	Y	Y	Y
CALL-AGENT	10	10	10	Y	Y	Y
CALL-AGENT-PROFILE	10	10	10	Y	Y	Y
CALL-CTRL-ROUTE	2560	2560	2560	Y	N	N
CALL-TYPE	100	100	100	N	N	N
CARRIER	10000	10000	10000	Y	N	N
CAS-TG-PROFILE	100	100	100	Y	N	N
CASUAL-WB-LIST	20000	20000	20000	N	Y	N
CAUSE-CODE-MAP	2000	2000	2000	Y	N	N
CAUSE-CODE-MAP-PROFILE	100	100	100	Y	N	N
CENTREX-GRP	500	500	500	Y	Y	N
CHANGED-NUMBER	1500	2000	2000	Y	N	N
CIPHERSUITE-PROFILE	3000	3000	3000	N	N	N
CIPHERSUITE	3000	3000	3000	Y	N	N
CIRCUIT-CODE	1000	1000	1000	Y	N	N
COS-RESTRICT	20000	20000	20000	N	Y	N
CPSG	1000	1000	1000	Y	Y	N
CUST-GRP	2500	2500	2500	N	N	Y
CUSTOM-DIAL-PLAN	10000	10000	10000	N	Y	N
CUSTOM-DIAL-PLAN-PROFILE	500	500	500	N	N	N

Table 2-9 Release 4.4.x Medium Configuration Database Usage Defaults (continued)

Table Name or Noun	Number of Records Before Split NPA	Maximum Record Count	Licensed Record Count	Route CA	Route FSPTC	Route FSAIN
DB-THRESHOLDS	1000	1000	1000	N	N	N
DB-USAGE	1000	1000	1000	N	N	N
DESTINATION	5000	5000	5000	Y	N	N
DIAL-PLAN	1000000	1000000	1000000	Y	N	N
DIAL-PLAN-PROFILE	1000	1000	1000	Y	N	N
DIGIT-MAP	1000	1000	1000	Y	N	N
DIGMAN-PROFILE	2700	2700	2700	Y	N	N
DIGMAN	13500	13500	13500	Y	N	N
DN2CUST-GRP	250000	250000	250000	N	N	Y
DN2SUBSCRIBER	150000	150000	150000	Y	N	N
DPC	1280	1280	1280	Y	Y	Y
DS1	4200	4200	4200	Y	N	N
ESS	500	500	500	Y	N	N
EXCHANGE-CODE	50000	50000	50000	Y	N	N
EXT2SUBSCRIBER	25000	25000	25000	Y	Y	N
FEATURE	1000	1000	1000	N	Y	N
FEATURE-SERVER	10	10	10	Y	Y	Y
H323-GW	4	4	4	Y	N	N
H323-GW2GK	100	100	100	Y	N	N
H323-TG-PROFILE	100	100	100	Y	N	N
HTTP-FEATURE-SERVER	1	1	1	N	Y	N
II-RESTRICT-LIST	2500	2500	2500	N	N	Y
II-WB-LIST	2500	2500	2500	N	Y	N
INTL-DIAL-PLAN	60000	60000	60000	Y	N	N
INTL-DIAL-PLAN-PROFILE	200	200	200	Y	N	N
INTL-WB-LIST	20000	20000	20000	N	Y	N
IPSEC-KERBEROS	1	1	1	Y	N	N
IPSEC-KERBEROS-KEYS	256	256	256	Y	N	N
IPSEC-POLICY	154000	154000	154000	Y	N	N
IPSEC-SA	256	256	256	Y	N	N
ISDN-BCHAN	26400	26400	26400	Y	N	N
ISDN-DCHAN	1100	1100	1100	Y	N	N
ISDN-INTF	1100	1100	1100	Y	N	N
ISDN-TG-PROFILE	250	250	250	Y	N	N
LATA	1000	1000	1000	Y	Y	N

Table 2-9 Release 4.4.x Medium Configuration Database Usage Defaults (continued)

Table Name or Noun	Number of Records Before Split NPA	Maximum Record Count	Licensed Record Count	Route CA	Route FSPTC	Route FSAIN
LATA-MAP	150000	150000	150000	Y	Y	N
LSA	30000	30000	30000	Y	N	N
LSA-PROFILE	1000	1000	1000	N	N	N
MAC2SUB	100000	100000	100000	N	Y	N
MGCP-RETCODE-ACTION	2000	2000	2000	Y	N	N
MGW	150000	150000	150000	Y	N	N
MGW-PROFILE	100	100	100	Y	N	N
MLHG	10000	10000	10000	Y	Y	N
MLHG-PREF-LIST	1000	1000	1000	Y	N	N
MLHG-TERMINAL	50000	50000	50000	Y	N	N
NATIONAL-WB-LIST	20000	25000	25000	N	Y	N
NDC	800	800	800	Y	N	N
NOA	0	0	0	N	N	N
NOD	100	100	100	N	N	N
NOD-RESTRICT-LIST	1000	1000	1000	N	Y	N
NOD-WB-LIST	2000	2000	2000	N	Y	N
OFFICE-CODE	50000	50000	50000	Y	Y	N
OPC	5	5	5	Y	Y	Y
POLICY-NXX	400	400	400	Y	N	Y
POLICY-ODR	10000	10000	10000	Y	N	Y
POLICY-OLI	100	100	100	Y	N	Y
POLICY-PERCENT	400	400	400	Y	N	Y
POLICY-POP	25000	25000	25000	Y	N	Y
POLICY-PREFIX	10000	10000	10000	Y	N	Y
POLICY-REGION	1100	1100	1100	Y	N	Y
POLICY-TOD	400	400	400	Y	N	Y
POP	500	500	500	Y	Y	Y
PORTED-OFFICE-CODE	640000	640000	640000	Y	N	N
QOS	3000	3000	3000	Y	N	N
RADIUS-PROFILE	20	20	20	Y	N	N
REGION-PROFILE	100000	125000	125000	Y	N	Y
RELEASE-CAUSE	10000	10000	10000	Y	N	N
ROUTE	2000	2000	2000	Y	N	N
ROUTE-GUIDE	1000	1000	1000	Y	N	Y
ROUTING-KEY	2560	2560	2560	Y	Y	Y

Table 2-9 Release 4.4.x Medium Configuration Database Usage Defaults (continued)

Table Name or Noun	Number of Records Before Split NPA	Maximum Record Count	Licensed Record Count	Route CA	Route FSPTC	Route FSAIN
RUDP-BACKHAUL-SESSION	4400	4400	4400	Y	N	N
SC1D	20000	20000	20000	N	Y	N
SC2D	1000	1000	1000	N	Y	N
SCCP-NW	255	255	255	N	Y	Y
SCCP-ROUTE	20480	20480	20480	N	Y	Y
SCTP-ASSOC-PROFILE	120	120	120	Y	Y	Y
SCTP-ASSOC	240	240	240	Y	Y	Y
SERVICE	2000	2000	2000	N	Y	N
SERVICE-PROVIDER	1000	1000	1000	Y	N	N
SERVICE-TRIGGER	20000	20000	20000	Y	N	N
SERVING-DOMAIN-NAME	1000	1000	1000	Y	N	N
SG	20	20	20	Y	Y	Y
SG-GRP	20	20	20	Y	Y	Y
SGP	40	40	40	Y	Y	Y
SLE	20000	20000	20000	N	Y	N
SLHR-PROFILE	16	16	16	N	N	N
SLHR	96	96	96	N	Y	Y
SOFTSW-TG-PROFILE	100	100	100	Y	N	N
SPECIAL-CALL-TYPE	100	100	100	Y	N	N
SPLIT-NPA	1100	1100	1100	Y	Y	N
SS7-CIC	96000	96000	96000	Y	N	N
SS7-Q761-TG-PROFILE	100	100	100	Y	N	N
SS7-Q767-TG-PROFILE	100	100	100	Y	N	N
SS7-ANSI-TG-PROFILE	100	100	100	Y	N	N
STATIC-CONTACT	100000	100000	100000	Y	N	N
SUBSCRIBER	100000	100000	100000	Y	Y	N
SUBSCRIBER-FEATURE-DATA	300000	300000	300000	N	Y	N
SUBSCRIBER-PROFILE	5000	5000	5000	Y	Y	N
SUBSCRIBER-SERVICE-PROFILE	500000	500000	500000	Y	Y	N
SUBSYSTEM-PROFILE	16	16	16	N	Y	Y
SUBSYSTEM	16	16	16	N	Y	Y
TECH-PREFIX-GRP	1000	1000	1000	Y	N	N
TECH-PREFIX-GRP-PROFILE	4	4	4	Y	N	N
TERMINATION	180000	180000	180000	Y	N	N

Table 2-9 Release 4.4.x Medium Configuration Database Usage Defaults (continued)

Table Name or Noun	Number of Records Before Split NPA	Maximum Record Count	Licensed Record Count	Route CA	Route FSPTC	Route FSAIN
TRIGGER-DETECTION-POINT	50	50	50	N	N	N
TRIGGER-ID	100	100	100	N	N	N
TRUNK	134400	134400	134400	Y	N	N
TRUNK-GRP	10000	10000	10000	Y	N	N
TRUNK-GRP-FEATURE-DATA	1000	1000	1000	N	Y	N
TRUNK-GRP-SERVICE-PROFILE	1100	1100	1100	Y	Y	N
USER-AUTH	100000	100000	100000	Y	N	N
USER-PART-VARIANT	200	200	200	Y	N	N
VAR-DEFAULT	1000	1000	1000	N	N	N
VSC	1000	1000	1000	N	Y	N
WIRETAP	2000	2500	2500	Y	N	N
ANI-SCREENING	10000	12500	12500	Y	N	N
LNP-PROFILE	10	10	10	Y	Y	Y
DN2GN	10000	10000	10000	N	N	Y
H323-TERM-PROFILE	200	200	200	Y	N	N
H323-TERM	100000	100000	100000	Y	N	N
ANI-SCREENING-PROFILE	1000	1000	1000	Y	N	N
SIPT-ISUP-VER-ALIAS	200	200	200	Y	N	N
TIMEZONE	200	200	200	N	N	N
SCRIPT	1000	1000	1000	Y	N	N
IVR-SCRIPT-PROFILE	100	100	100	N	Y	Y
LANGUAGE	1000	1000	1000	N	N	N
AUDIO-SEQ	5000	5000	5000	N	Y	Y
AUDIO-SEGMENT	25000	25000	25000	N	Y	Y
FEATURE-CONFIG	1000	1000	1000	N	Y	Y
FEATURE-CONFIG-BASE	1000	1000	1000	N	Y	Y
FEATURE-CONFIG-BASE-POS-VAL	1000	1000	1000	N	N	N

Large Configuration Database Usage Defaults

Table 2-10 details the predefined defaults for the Database Usage table for a large configuration in Release 4.4.x.

Table 2-10 Release 4.4.x Large Configuration Database Usage Defaults

Table Name or Noun	Number of Records Before Split NPA	Maximum Record Count	Licensed Record Count	Route CA	Route FSPTC	Route FSAIN
ACTIVITY	100	100	100	Y	Y	Y
ACTIVITY-BASE	100	100	100	N	N	N
AGGR	3000	3000	3000	Y	N	N
ANI	400000	400000	400000	N	Y	N
ANI-SCREENING	10000	12500	12500	Y	N	N
ANI-SCREENING-PROFILE	1000	1000	1000	Y	N	N
ANI-WB-LIST	25000	31250	31250	N	N	Y
ANNC-TG-PROFILE	100	100	100	Y	N	N
ANNC-TRUNK	12000	12000	12000	Y	N	N
ANNOUNCEMENT	1000	1000	1000	Y	N	N
AOR2SUB	300000	300000	300000	Y	N	N
AUDIO-SEGMENT	25000	25000	25000	N	Y	Y
AUDIO-SEQ	5000	5000	5000	N	Y	Y
AUTH-CODE	250000	250000	250000	N	Y	N
AUTH-CODE-GRP	25000	25000	25000	N	Y	N
AUTH-REALM	300000	300000	300000	Y	N	N
BACKHAUL-SET	2000	2000	2000	Y	N	N
CA-CONFIG	1000	1000	1000	Y	Y	Y
CALL-AGENT	10	10	10	Y	Y	Y
CALL-AGENT-PROFILE	10	10	10	Y	Y	Y
CALL-CTRL-ROUTE	15360	15360	15360	Y	N	N
CALL-TYPE	100	100	100	N	N	N
CARRIER	10000	10000	10000	Y	N	N
CAS-TG-PROFILE	100	100	100	Y	N	N
CASUAL-WB-LIST	60000	60000	60000	N	Y	N
CAUSE-CODE-MAP	2000	2000	2000	Y	N	N
CAUSE-CODE-MAP-PROFILE	100	100	100	Y	N	N
CENTREX-GRP	1000	1000	1000	Y	Y	N
CHANGED-NUMBER	4500	6000	6000	Y	N	N
CIPHERSUITE	3000	3000	3000	Y	N	N
CIPHERSUITE-PROFILE	3000	3000	3000	N	N	N
CIRCUIT-CODE	1000	1000	1000	Y	N	N
COS-RESTRICT	60000	60000	60000	N	Y	N
CPSG	2000	2000	2000	Y	Y	N

Table 2-10 Release 4.4.x Large Configuration Database Usage Defaults (continued)

Table Name or Noun	Number of Records Before Split NPA	Maximum Record Count	Licensed Record Count	Route CA	Route FSPTC	Route FSAIN
CUST-GRP	2500	2500	2500	N	N	Y
CUSTOM-DIAL-PLAN	20000	20000	20000	N	Y	N
CUSTOM-DIAL-PLAN-PROFILE	1000	1000	1000	N	N	N
DB-THRESHOLDS	1000	1000	1000	N	N	N
DB-USAGE	1000	1000	1000	N	N	N
DESTINATION	5000	5000	5000	Y	N	N
DIAL-PLAN	1000000	1000000	1000000	Y	N	N
DIAL-PLAN-PROFILE	1000	1000	1000	Y	N	N
DIGIT-MAP	1500	1500	1500	Y	N	N
DIGMAN	13500	13500	13500	Y	N	N
DIGMAN-PROFILE	2700	2700	2700	Y	N	N
DN2CUST-GRP	250000	250000	250000	N	N	Y
DN2GN	10000	10000	10000	N	N	Y
DN2SUBSCRIBER	450000	450000	450000	Y	N	N
DPC	7680	7680	7680	Y	Y	Y
DS1	5000	5000	5000	Y	N	N
ESS	500	500	500	Y	N	N
EXCHANGE-CODE	50000	50000	50000	Y	N	N
EXT2SUBSCRIBER	50000	50000	50000	Y	Y	N
FEATURE	1000	1000	1000	N	Y	N
FEATURE-CONFIG	1000	1000	1000	N	Y	Y
FEATURE-CONFIG-BASE	1000	1000	1000	N	Y	Y
FEATURE-CONFIG-BASE-POS-VAL	1000	1000	1000	N	N	N
FEATURE-SERVER	10	10	10	Y	Y	Y
H323-GW	4	4	4	Y	N	N
H323-GW2GK	100	100	100	Y	N	N
H323-TERM	300000	300000	300000	Y	N	N
H323-TERM-PROFILE	200	200	200	Y	N	N
H323-TG-PROFILE	100	100	100	Y	N	N
HTTP-FEATURE-SERVER	1	1	1	N	Y	N
II-RESTRICT-LIST	2500	2500	2500	N	N	Y
II-WB-LIST	7500	7500	7500	N	Y	N
INTL-DIAL-PLAN	60000	60000	60000	Y	N	N
INTL-DIAL-PLAN-PROFILE	200	200	200	Y	N	N
INTL-WB-LIST	60000	60000	60000	N	Y	N

Table 2-10 Release 4.4.x Large Configuration Database Usage Defaults (continued)

Table Name or Noun	Number of Records Before Split NPA	Maximum Record Count	Licensed Record Count	Route CA	Route FSPTC	Route FSAIN
IPSEC-KERBEROS	1	1	1	Y	N	N
IPSEC-KERBEROS-KEYS	256	256	256	Y	N	N
IPSEC-POLICY	254000	254000	254000	Y	N	N
IPSEC-SA	256	256	256	Y	N	N
ISDN-BCHAN	48000	48000	48000	Y	N	N
ISDN-DCHAN	2000	2000	2000	Y	N	N
ISDN-INTF	2000	2000	2000	Y	N	N
ISDN-TG-PROFILE	250	250	250	Y	N	N
IVR-SCRIPT-PROFILE	100	100	100	N	Y	Y
LANGUAGE	1000	1000	1000	N	N	N
LATA	1000	1000	1000	Y	Y	N
LATA-MAP	150000	150000	150000	Y	Y	N
LNP-PROFILE	10	10	10	Y	Y	Y
LSA	30000	30000	30000	Y	N	N
LSA-PROFILE	1000	1000	1000	N	N	N
MAC2SUB	300000	300000	300000	N	Y	N
MGCP-RETCODE-ACTION	2000	2000	2000	Y	N	N
MGW	250000	250000	250000	Y	N	N
MGW-PROFILE	100	100	100	Y	N	N
MLHG	10000	10000	10000	Y	Y	N
MLHG-PREF-LIST	1000	1000	1000	Y	N	N
MLHG-TERMINAL	50000	50000	50000	Y	N	N
NATIONAL-WB-LIST	60000	75000	75000	N	Y	N
NDC	800	800	800	Y	N	N
NOA	0	0	0	N	N	N
NOD	100	100	100	N	N	N
NOD-RESTRICT-LIST	1000	1000	1000	N	Y	N
NOD-WB-LIST	6000	6000	6000	N	Y	N
OFFICE-CODE	50000	50000	50000	Y	Y	N
OPC	30	30	30	Y	Y	Y
POLICY-NXX	400	400	400	Y	N	Y
POLICY-ODR	10000	10000	10000	Y	N	Y
POLICY-OLI	100	100	100	Y	N	Y
POLICY-PERCENT	400	400	400	Y	N	Y

Table 2-10 Release 4.4.x Large Configuration Database Usage Defaults (continued)

Table Name or Noun	Number of Records Before Split NPA	Maximum Record Count	Licensed Record Count	Route CA	Route FSPTC	Route FSAIN
POLICY-POP	25000	25000	25000	Y	N	Y
POLICY-PREFIX	10000	10000	10000	Y	N	Y
POLICY-REGION	1100	1100	1100	Y	N	Y
POLICY-TOD	400	400	400	Y	N	Y
POP	500	500	500	Y	Y	Y
PORTED-OFFICE-CODE	640000	640000	640000	Y	N	N
QOS	3000	3000	3000	Y	N	N
RADIUS-PROFILE	20	20	20	Y	N	N
REGION-PROFILE	100000	125000	125000	Y	N	Y
RELEASE-CAUSE	10000	10000	10000	Y	N	N
ROUTE	2000	2000	2000	Y	N	N
ROUTE-GUIDE	1000	1000	1000	Y	N	Y
ROUTING-KEY	15360	15360	15360	Y	Y	Y
RUDP-BACKHAUL-SESSION	8000	8000	8000	Y	N	N
SC1D	60000	60000	60000	N	Y	N
SC2D	3000	3000	3000	N	Y	N
SCCP-NW	255	255	255	N	Y	Y
SCCP-ROUTE	122880	122880	122880	N	Y	Y
SCRIPT	1000	1000	1000	Y	N	N
SCTP-ASSOC	240	240	240	Y	Y	Y
SCTP-ASSOC-PROFILE	120	120	120	Y	Y	Y
SERVICE	2000	2000	2000	N	Y	N
SERVICE-PROVIDER	1000	1000	1000	Y	N	N
SERVICE-TRIGGER	20000	20000	20000	Y	N	N
SERVING-DOMAIN-NAME	1000	1000	1000	Y	N	N
SG	20	20	20	Y	Y	Y
SG-GRP	20	20	20	Y	Y	Y
SGP	40	40	40	Y	Y	Y
SIPT-ISUP-VER-ALIAS	200	200	200	Y	N	N
SLE	60000	60000	60000	N	Y	N
SLHR	96	96	96	N	Y	Y
SLHR-PROFILE	16	16	16	N	N	N
SOFTSW-TG-PROFILE	100	100	100	Y	N	N
SPECIAL-CALL-TYPE	100	100	100	Y	N	N
SPLIT-NPA	1100	1100	1100	Y	Y	N

Table 2-10 Release 4.4.x Large Configuration Database Usage Defaults (continued)

Table Name or Noun	Number of Records Before Split NPA	Maximum Record Count	Licensed Record Count	Route CA	Route FSPTC	Route FSAIN
SS7-ANSI-TG-PROFILE	100	100	100	Y	N	N
SS7-CIC	128000	128000	128000	Y	N	N
SS7-Q761-TG-PROFILE	100	100	100	Y	N	N
SS7-Q767-TG-PROFILE	100	100	100	Y	N	N
STATIC-CONTACT	300000	300000	300000	Y	N	N
SUBSCRIBER	300000	300000	300000	Y	Y	N
SUBSCRIBER-FEATURE-DATA	900000	900000	900000	N	Y	N
SUBSCRIBER-PROFILE	5000	5000	5000	Y	Y	N
SUBSCRIBER-SERVICE-PROFILE	1500000	1500000	1500000	Y	Y	N
SUBSYSTEM	16	16	16	N	Y	Y
SUBSYSTEM-PROFILE	16	16	16	N	Y	Y
TECH-PREFIX-GRP	1000	1000	1000	Y	N	N
TECH-PREFIX-GRP-PROFILE	4	4	4	Y	N	N
TERMINATION	400000	400000	400000	Y	N	N
TIMEZONE	200	200	200	N	N	N
TRIGGER-DETECTION-POINT	50	50	50	N	N	N
TRIGGER-ID	100	100	100	N	N	N
TRUNK	160000	160000	160000	Y	N	N
TRUNK-GRP	10000	10000	10000	Y	N	N
TRUNK-GRP-FEATURE-DATA	1000	1000	1000	N	Y	N
TRUNK-GRP-SERVICE-PROFILE	1100	1100	1100	Y	Y	N
USER-AUTH	300000	300000	300000	Y	N	N
USER-PART-VARIANT	200	200	200	Y	N	N
VAR-DEFAULT	1000	1000	1000	N	N	N
VSC	1000	1000	1000	N	Y	N
WIRETAP	6000	7500	7500	Y	N	N

Routeserver Database Usage Defaults

Table 2-11 details the predefined defaults for the Database Usage table for a small configuration in Release 4.4.

Table 2-11 Release 4.4.x Routeserver Database Usage Defaults

Table Name or Noun	Number of Records Before Split NPA	Maximum Record Count	Licensed Record Count	Route CA	Route FSPTC	Route FSAIN
ACTIVITY	100	100	100	Y	Y	Y
ACTIVITY-BASE	100	100	100	N	N	N
AGGR	3000	3000	3000	Y	N	N
ANI	400000	400000	400000	N	Y	N
ANI-SCREENING	25000	31250	31250	Y	N	N
ANI-SCREENING-PROFILE	2500	2500	2500	Y	N	N
ANI-WB-LIST	25000	31250	31250	N	N	Y
ANNC-TG-PROFILE	100	100	100	Y	N	N
ANNC-TRUNK	6120	6120	6120	Y	N	N
ANNOUNCEMENT	1000	1000	1000	Y	N	N
AOR2SUB	45000	45000	45000	Y	N	N
AUDIO-SEGMENT	25000	25000	25000	N	Y	Y
AUDIO-SEQ	5000	5000	5000	N	Y	Y
AUTH-CODE	250000	250000	250000	N	Y	N
AUTH-CODE-GRP	25000	25000	25000	N	Y	N
AUTH-REALM	45000	45000	45000	Y	N	N
BACKHAUL-SET	100	100	100	Y	N	N
CA-CONFIG	1000	1000	1000	Y	Y	Y
CALL-AGENT	10	10	10	Y	Y	Y
CALL-AGENT-PROFILE	10	10	10	Y	Y	Y
CALL-CTRL-ROUTE	2560	2560	2560	Y	N	N
CALL-TYPE	100	100	100	N	N	N
CARRIER	10000	10000	10000	Y	N	N
CAS-TG-PROFILE	100	100	100	Y	N	N
CASUAL-WB-LIST	9000	9000	9000	N	Y	N
CAUSE-CODE-MAP	2000	2000	2000	Y	N	N
CAUSE-CODE-MAP-PROFILE	100	100	100	Y	N	N
CENTREX-GRP	100	100	100	Y	Y	N
CHANGED-NUMBER	675	1000	1000	Y	N	N
CIPHERSUITE	3000	3000	3000	Y	N	N
CIPHERSUITE-PROFILE	3000	3000	3000	N	N	N
CIRCUIT-CODE	1000	1000	1000	Y	N	N
COS-RESTRICT	9000	9000	9000	N	Y	N
CPSG	200	200	200	Y	Y	N

Table 2-11 Release 4.4.x Routeserver Database Usage Defaults (continued)

Table Name or Noun	Number of Records Before Split NPA	Maximum Record Count	Licensed Record Count	Route CA	Route FSPTC	Route FSAIN
CUST-GRP	2500	2500	2500	N	N	Y
CUSTOM-DIAL-PLAN	2000	2000	2000	N	Y	N
CUSTOM-DIAL-PLAN-PROFILE	100	100	100	N	N	N
DB-THRESHOLDS	1000	1000	1000	N	N	N
DB-USAGE	1000	1000	1000	N	N	N
DESTINATION	1000000	1000000	1000000	Y	N	N
DIAL-PLAN	1000000	1000000	1000000	Y	N	N
DIAL-PLAN-PROFILE	1000	1000	1000	Y	N	N
DIGIT-MAP	355	355	355	Y	N	N
DIGMAN	25000	25000	25000	Y	N	N
DIGMAN-PROFILE	5000	5000	5000	Y	N	N
DN2CUST-GRP	250000	250000	250000	N	N	Y
DN2GN	10000	10000	10000	N	N	Y
DN2SUBSCRIBER	67500	67500	67500	Y	N	N
DPC	1280	1280	1280	Y	Y	Y
DS1	1000	1000	1000	Y	N	N
ESS	255	255	255	Y	N	N
EXCHANGE-CODE	5000	5000	5000	Y	N	N
EXT2SUBSCRIBER	5000	5000	5000	Y	Y	N
FEATURE	1000	1000	1000	N	Y	N
FEATURE-CONFIG	1000	1000	1000	N	Y	Y
FEATURE-CONFIG-BASE	1000	1000	1000	N	Y	Y
FEATURE-CONFIG-BASE-POS-VAL	1000	1000	1000	N	N	N
FEATURE-SERVER	10	10	10	Y	Y	Y
H323-GW	4	4	4	Y	N	N
H323-GW2GK	100	100	100	Y	N	N
H323-TERM	45000	45000	45000	Y	N	N
H323-TERM-PROFILE	200	200	200	Y	N	N
H323-TG-PROFILE	100	100	100	Y	N	N
HTTP-FEATURE-SERVER	1	1	1	N	Y	N
II-RESTRICT-LIST	2500	2500	2500	N	N	Y
II-WB-LIST	1125	1125	1125	N	Y	N
INTL-DIAL-PLAN	3000	3000	3000	Y	N	N
INTL-DIAL-PLAN-PROFILE	10	10	10	Y	N	N

Table 2-11 Release 4.4.x Routeserver Database Usage Defaults (continued)

Table Name or Noun	Number of Records Before Split NPA	Maximum Record Count	Licensed Record Count	Route CA	Route FSPTC	Route FSAIN
INTL-WB-LIST	9000	9000	9000	N	Y	N
IPSEC-KERBEROS	1	1	1	Y	N	N
IPSEC-KERBEROS-KEYS	256	256	256	Y	N	N
IPSEC-POLICY	42000	42000	42000	Y	N	N
IPSEC-SA	256	256	256	Y	N	N
ISDN-BCHAN	2400	2400	2400	Y	N	N
ISDN-DCHAN	100	100	100	Y	N	N
ISDN-INTF	100	100	100	Y	N	N
ISDN-TG-PROFILE	100	100	100	Y	N	N
IVR-SCRIPT-PROFILE	100	100	100	N	Y	Y
LANGUAGE	1000	1000	1000	N	N	N
LATA	1000	1000	1000	Y	Y	N
LATA-MAP	150000	150000	150000	Y	Y	N
LNP-PROFILE	10	10	10	Y	Y	Y
LSA	30000	30000	30000	Y	N	N
LSA-PROFILE	1000	1000	1000	N	N	N
MAC2SUB	45000	45000	45000	N	Y	N
MGCP-RETCODE-ACTION	2000	2000	2000	Y	N	N
MGW	38000	38000	38000	Y	N	N
MGW-PROFILE	100	100	100	Y	N	N
MLHG	100	100	100	Y	Y	N
MLHG-PREF-LIST	10	10	10	Y	N	N
MLHG-TERMINAL	500	500	500	Y	N	N
NATIONAL-WB-LIST	9000	11250	11250	N	Y	N
NDC	800	800	800	Y	N	N
NOA	0	0	0	N	N	N
NOD	100	100	100	N	N	N
NOD-RESTRICT-LIST	1000	1000	1000	N	Y	N
NOD-WB-LIST	900	900	900	N	Y	N
OFFICE-CODE	50000	50000	50000	Y	Y	N
OPC	5	5	5	Y	Y	Y
POLICY-NXX	8000	8000	8000	Y	N	Y
POLICY-ODR	80000	80000	80000	Y	N	Y
POLICY-OLI	8000	8000	8000	Y	N	Y
POLICY-PERCENT	80000	80000	80000	Y	N	Y

Table 2-11 Release 4.4.x Routeserver Database Usage Defaults (continued)

Table Name or Noun	Number of Records Before Split NPA	Maximum Record Count	Licensed Record Count	Route CA	Route FSPTC	Route FSAIN
POLICY-POP	80000	80000	80000	Y	N	Y
POLICY-PREFIX	10000	10000	10000	Y	N	Y
POLICY-REGION	88000	88000	88000	Y	N	Y
POLICY-TOD	120000	120000	120000	Y	N	Y
POP	255	255	255	Y	Y	Y
PORTED-OFFICE-CODE	640000	640000	640000	Y	N	N
QOS	3000	3000	3000	Y	N	N
RADIUS-PROFILE	20	20	20	Y	N	N
REGION-PROFILE	800000	1000000	1000000	Y	N	Y
RELEASE-CAUSE	10000	10000	10000	Y	N	N
ROUTE	600000	600000	600000	Y	N	N
ROUTE-GUIDE	80000	80000	80000	Y	N	Y
ROUTING-KEY	2560	2560	2560	Y	Y	Y
RUDP-BACKHAUL-SESSION	400	400	400	Y	N	N
SC1D	9000	9000	9000	N	Y	N
SC2D	450	450	450	N	Y	N
SCCP-NW	255	255	255	N	Y	Y
SCCP-ROUTE	20480	20480	20480	N	Y	Y
SCRIPT	1000	1000	1000	Y	N	N
SCTP-ASSOC	240	240	240	Y	Y	Y
SCTP-ASSOC-PROFILE	120	120	120	Y	Y	Y
SERVICE	2000	2000	2000	N	Y	N
SERVICE-PROVIDER	1000	1000	1000	Y	N	N
SERVICE-TRIGGER	20000	20000	20000	Y	N	N
SERVING-DOMAIN-NAME	1000	1000	1000	Y	N	N
SG	20	20	20	Y	Y	Y
SG-GRP	20	20	20	Y	Y	Y
SGP	40	40	40	Y	Y	Y
SIPT-ISUP-VER-ALIAS	200	200	200	Y	N	N
SLE	9000	9000	9000	N	Y	N
SLHR	96	96	96	N	Y	Y
SLHR-PROFILE	16	16	16	N	N	N
SOFTSW-TG-PROFILE	100	100	100	Y	N	N
SPECIAL-CALL-TYPE	100	100	100	Y	N	N
SPLIT-NPA	1100	1100	1100	Y	Y	N

Table 2-11 Release 4.4.x Routeserver Database Usage Defaults (continued)

Table Name or Noun	Number of Records Before Split NPA	Maximum Record Count	Licensed Record Count	Route CA	Route FSPTC	Route FSAIN
SS7-ANSI-TG-PROFILE	100	100	100	Y	N	N
SS7-CIC	18000	18000	18000	Y	N	N
SS7-Q761-TG-PROFILE	100	100	100	Y	N	N
SS7-Q767-TG-PROFILE	100	100	100	Y	N	N
STATIC-CONTACT	45000	45000	45000	Y	N	N
SUBSCRIBER	45000	45000	45000	Y	Y	N
SUBSCRIBER-FEATURE-DATA	135000	135000	135000	N	Y	N
SUBSCRIBER-PROFILE	2550	2550	2550	Y	Y	N
SUBSCRIBER-SERVICE-PROFILE	225000	225000	225000	Y	Y	N
SUBSYSTEM	16	16	16	N	Y	Y
SUBSYSTEM-PROFILE	16	16	16	N	Y	Y
TECH-PREFIX-GRP	1000	1000	1000	Y	N	N
TECH-PREFIX-GRP-PROFILE	4	4	4	Y	N	N
TERMINATION	60000	60000	60000	Y	N	N
TIMEZONE	200	200	200	N	N	N
TRIGGER-DETECTION-POINT	50	50	50	N	N	N
TRIGGER-ID	100	100	100	N	N	N
TRUNK	32000	32000	32000	Y	N	N
TRUNK-GRP	25000	25000	25000	Y	N	N
TRUNK-GRP-FEATURE-DATA	2500	2500	2500	N	Y	N
TRUNK-GRP-SERVICE-PROFILE	2750	2750	2750	Y	Y	N
USER-AUTH	45000	45000	45000	Y	N	N
USER-PART-VARIANT	200	200	200	Y	N	N
VAR-DEFAULT	1000	1000	1000	N	N	N
VSC	1000	1000	1000	N	Y	N
WIRETAP	900	1125	1125	Y	N	N

Local Number Portability Database Usage Defaults

Table 2-12 details the predefined defaults for the Database Usage table for a small configuration in Release 4.4.x.

Table 2-12 Release 4.4.x Local Number Portability Database Usage Defaults

Table Name or Noun	Number of Records Before Split NPA	Maximum Record Count	Licensed Record Count	Route CA	Route FSPTC	Route FSAIN
ACTIVITY	100	100	100	Y	Y	Y
ACTIVITY-BASE	100	100	100	N	N	N
AGGR	3000	3000	3000	Y	N	N
ANI	400000	400000	400000	N	Y	N
ANI-SCREENING	10000	12500	12500	Y	N	N
ANI-SCREENING-PROFILE	1000	1000	1000	Y	N	N
ANI-WB-LIST	25000	31250	31250	N	N	Y
ANNC-TG-PROFILE	100	100	100	Y	N	N
ANNC-TRUNK	6120	6120	6120	Y	N	N
ANNOUNCEMENT	1000	1000	1000	Y	N	N
AOR2SUB	100000	100000	100000	Y	N	N
AUDIO-SEGMENT	25000	25000	25000	N	Y	Y
AUDIO-SEQ	5000	5000	5000	N	Y	Y
AUTH-CODE	250000	250000	250000	N	Y	N
AUTH-CODE-GRP	25000	25000	25000	N	Y	N
AUTH-REALM	100000	100000	100000	Y	N	N
BACKHAUL-SET	1100	1100	1100	Y	N	N
CA-CONFIG	1000	1000	1000	Y	Y	Y
CALL-AGENT	10	10	10	Y	Y	Y
CALL-AGENT-PROFILE	10	10	10	Y	Y	Y
CALL-CTRL-ROUTE	2560	2560	2560	Y	N	N
CALL-TYPE	100	100	100	N	N	N
CARRIER	10000	10000	10000	Y	N	N
CAS-TG-PROFILE	100	100	100	Y	N	N
CASUAL-WB-LIST	20000	20000	20000	N	Y	N
CAUSE-CODE-MAP	2000	2000	2000	Y	N	N
CAUSE-CODE-MAP-PROFILE	100	100	100	Y	N	N
CENTREX-GRP	500	500	500	Y	Y	N
CHANGED-NUMBER	1500	2000	2000	Y	N	N
CIPHERSUITE	3000	3000	3000	Y	N	N
CIPHERSUITE-PROFILE	3000	3000	3000	N	N	N
CIRCUIT-CODE	1000	1000	1000	Y	N	N
COS-RESTRICT	20000	20000	20000	N	Y	N
CPSG	1000	1000	1000	Y	Y	N

Table 2-12 Release 4.4.x Local Number Portability Database Usage Defaults (continued)

Table Name or Noun	Number of Records Before Split NPA	Maximum Record Count	Licensed Record Count	Route CA	Route FSPTC	Route FSAIN
CUST-GRP	2500	2500	2500	N	N	Y
CUSTOM-DIAL-PLAN	10000	10000	10000	N	Y	N
CUSTOM-DIAL-PLAN-PROFILE	500	500	500	N	N	N
DB-THRESHOLDS	1000	1000	1000	N	N	N
DB-USAGE	1000	1000	1000	N	N	N
DESTINATION	5000	5000	5000	Y	N	N
DIAL-PLAN	1000000	1000000	1000000	Y	N	N
DIAL-PLAN-PROFILE	1000	1000	1000	Y	N	N
DIGIT-MAP	1000	1000	1000	Y	N	N
DIGMAN	13500	13500	13500	Y	N	N
DIGMAN-PROFILE	2700	2700	2700	Y	N	N
DN2CUST-GRP	250000	250000	250000	N	N	Y
DN2GN	5000000	5000000	5000000	N	N	Y
DN2SUBSCRIBER	150000	150000	150000	Y	N	N
DPC	1280	1280	1280	Y	Y	Y
DS1	4200	4200	4200	Y	N	N
ESS	255	255	255	Y	N	N
EXCHANGE-CODE	5000	5000	5000	Y	N	N
EXT2SUBSCRIBER	25000	25000	25000	Y	Y	N
FEATURE	1000	1000	1000	N	Y	N
FEATURE-CONFIG	1000	1000	1000	N	Y	Y
FEATURE-CONFIG-BASE	1000	1000	1000	N	Y	Y
FEATURE-CONFIG-BASE-POS-VAL	1000	1000	1000	N	N	N
FEATURE-SERVER	10	10	10	Y	Y	Y
H323-GW	4	4	4	Y	N	N
H323-GW2GK	100	100	100	Y	N	N
H323-TERM	100000	100000	100000	Y	N	N
H323-TERM-PROFILE	200	200	200	Y	N	N
H323-TG-PROFILE	100	100	100	Y	N	N
HTTP-FEATURE-SERVER	1	1	1	N	Y	N
II-RESTRICT-LIST	2500	2500	2500	N	N	Y
II-WB-LIST	2500	2500	2500	N	Y	N
INTL-DIAL-PLAN	3000	3000	3000	Y	N	N
INTL-DIAL-PLAN-PROFILE	10	10	10	Y	N	N
INTL-WB-LIST	20000	20000	20000	N	Y	N

Table 2-12 Release 4.4.x Local Number Portability Database Usage Defaults (continued)

Table Name or Noun	Number of Records Before Split NPA	Maximum Record Count	Licensed Record Count	Route CA	Route FSPTC	Route FSAIN
IPSEC-KERBEROS	1	1	1	Y	N	N
IPSEC-KERBEROS-KEYS	256	256	256	Y	N	N
IPSEC-POLICY	104000	104000	104000	Y	N	N
IPSEC-SA	256	256	256	Y	N	N
ISDN-BCHAN	26400	26400	26400	Y	N	N
ISDN-DCHAN	1100	1100	1100	Y	N	N
ISDN-INTF	1100	1100	1100	Y	N	N
ISDN-TG-PROFILE	250	250	250	Y	N	N
IVR-SCRIPT-PROFILE	100	100	100	N	Y	Y
LANGUAGE	1000	1000	1000	N	N	N
LATA	1000	1000	1000	Y	Y	N
LATA-MAP	150000	150000	150000	Y	Y	N
LNP-PROFILE	10	10	10	Y	Y	Y
LSA	30000	30000	30000	Y	N	N
LSA-PROFILE	1000	1000	1000	N	N	N
MAC2SUB	100000	100000	100000	N	Y	N
MGCP-RETCODE-ACTION	2000	2000	2000	Y	N	N
MGW	100000	100000	100000	Y	N	N
MGW-PROFILE	100	100	100	Y	N	N
MLHG	10000	10000	10000	Y	Y	N
MLHG-PREF-LIST	1000	1000	1000	Y	N	N
MLHG-TERMINAL	50000	50000	50000	Y	N	N
NATIONAL-WB-LIST	20000	25000	25000	N	Y	N
NDC	50	50	50	Y	N	N
NOA	0	0	0	N	N	N
NOD	100	100	100	N	N	N
NOD-RESTRICT-LIST	1000	1000	1000	N	Y	N
NOD-WB-LIST	2000	2000	2000	N	Y	N
OFFICE-CODE	50000	50000	50000	Y	Y	N
OPC	5	5	5	Y	Y	Y
POLICY-NXX	400	400	400	Y	N	Y
POLICY-ODR	10000	10000	10000	Y	N	Y
POLICY-OLI	100	100	100	Y	N	Y
POLICY-PERCENT	400	400	400	Y	N	Y
POLICY-POP	25000	25000	25000	Y	N	Y

Table 2-12 Release 4.4.x Local Number Portability Database Usage Defaults (continued)

Table Name or Noun	Number of Records Before Split NPA	Maximum Record Count	Licensed Record Count	Route CA	Route FSPTC	Route FSAIN
POLICY-PREFIX	10000	10000	10000	Y	N	Y
POLICY-REGION	1100	1100	1100	Y	N	Y
POLICY-TOD	400	400	400	Y	N	Y
POP	255	255	255	Y	Y	Y
PORTED-OFFICE-CODE	640000	640000	640000	Y	N	N
QOS	3000	3000	3000	Y	N	N
RADIUS-PROFILE	20	20	20	Y	N	N
REGION-PROFILE	100000	125000	125000	Y	N	Y
RELEASE-CAUSE	10000	10000	10000	Y	N	N
ROUTE	2000	2000	2000	Y	N	N
ROUTE-GUIDE	1000	1000	1000	Y	N	Y
ROUTING-KEY	2560	2560	2560	Y	Y	Y
RUDP-BACKHAUL-SESSION	4400	4400	4400	Y	N	N
SC1D	20000	20000	20000	N	Y	N
SC2D	1000	1000	1000	N	Y	N
SCCP-NW	255	255	255	N	Y	Y
SCCP-ROUTE	20480	20480	20480	N	Y	Y
SCRIPT	1000	1000	1000	Y	N	N
SCTP-ASSOC	240	240	240	Y	Y	Y
SCTP-ASSOC-PROFILE	120	120	120	Y	Y	Y
SERVICE	2000	2000	2000	N	Y	N
SERVICE-PROVIDER	1000	1000	1000	Y	N	N
SERVICE-TRIGGER	20000	20000	20000	Y	N	N
SERVING-DOMAIN-NAME	1000	1000	1000	Y	N	N
SG	20	20	20	Y	Y	Y
SG-GRP	20	20	20	Y	Y	Y
SGP	40	40	40	Y	Y	Y
SIPT-ISUP-VER-ALIAS	200	200	200	Y	N	N
SLE	20000	20000	20000	N	Y	N
SLHR	96	96	96	N	Y	Y
SLHR-PROFILE	16	16	16	N	N	N
SOFTSW-TG-PROFILE	100	100	100	Y	N	N
SPECIAL-CALL-TYPE	100	100	100	Y	N	N
SPLIT-NPA	1100	1100	1100	Y	Y	N

Table 2-12 Release 4.4.x Local Number Portability Database Usage Defaults (continued)

Table Name or Noun	Number of Records Before Split NPA	Maximum Record Count	Licensed Record Count	Route CA	Route FSPTC	Route FSAIN
SS7-ANSI-TG-PROFILE	100	100	100	Y	N	N
SS7-CIC	96000	96000	96000	Y	N	N
SS7-Q761-TG-PROFILE	100	100	100	Y	N	N
SS7-Q767-TG-PROFILE	100	100	100	Y	N	N
STATIC-CONTACT	100000	100000	100000	Y	N	N
SUBSCRIBER	100000	100000	100000	Y	Y	N
SUBSCRIBER-FEATURE-DATA	300000	300000	300000	N	Y	N
SUBSCRIBER-PROFILE	2550	2550	2550	Y	Y	N
SUBSCRIBER-SERVICE-PROFILE	500000	500000	500000	Y	Y	N
SUBSYSTEM	16	16	16	N	Y	Y
SUBSYSTEM-PROFILE	16	16	16	N	Y	Y
TECH-PREFIX-GRP	1000	1000	1000	Y	N	N
TECH-PREFIX-GRP-PROFILE	4	4	4	Y	N	N
TERMINATION	180000	180000	180000	Y	N	N
TIMEZONE	200	200	200	N	N	N
TRIGGER-DETECTION-POINT	50	50	50	N	N	N
TRIGGER-ID	100	100	100	N	N	N
TRUNK	134400	134400	134400	Y	N	N
TRUNK-GRP	10000	10000	10000	Y	N	N
TRUNK-GRP-FEATURE-DATA	1000	1000	1000	N	Y	N
TRUNK-GRP-SERVICE-PROFILE	1100	1100	1100	Y	Y	N
USER-AUTH	100000	100000	100000	Y	N	N
USER-PART-VARIANT	200	200	200	Y	N	N
VAR-DEFAULT	1000	1000	1000	N	N	N
VSC	1000	1000	1000	N	Y	N
WIRETAP	2000	2500	2500	Y	N	N

Release 4.5

This section describes the Database Usage tables for small, medium, routeserver, LNP and Cable8 configurations in Release 4.5.

Small Configuration Database Usage Defaults

Table 2-13 details the predefined defaults for the Database Usage table for a small configuration in Release 4.5.

Table 2-13 Release 4.5 Small Configuration Database Usage Defaults

Table Name or Noun	Number of Records Before Split NPA	Maximum Record Count	Licensed Record Count	Route CA	Route FSPTC	Route FSAIN
AAA-SERVER-GRP	1	1	1	N	Y	N
ACTIVITY	100	100	100	Y	Y	Y
AGGR	380	380	380	Y	N	N
AGGR-PROFILE	10	10	10	Y	N	N
ANI	100000	100000	100000	N	Y	N
ANI-SCREENING	1000	1300	1300	Y	N	N
ANI-SCREENING-PROFILE	100	100	100	Y	N	N
ANI-WB-LIST	5000	6250	6250	N	N	Y
ANNC-TG-PROFILE	100	100	100	Y	N	N
ANNC-TRUNK	240	240	240	Y	N	N
ANNOUNCEMENT	1000	1000	1000	Y	N	N
AOR2SUB	22500	22500	22500	Y	N	N
APP-SERVER	10	10	10	Y	Y	N
AUDIO-SEGMENT	5000	5000	5000	N	Y	Y
AUDIO-SEQ	1000	1000	1000	N	Y	Y
AUTH-CODE	50000	50000	50000	N	Y	N
AUTH-CODE-GRP	5000	5000	5000	N	Y	N
AUTH-REALM	1000	1000	1000	Y	N	N
BACKHAUL-SET	100	100	100	Y	N	N
CA-CONFIG	1000	1000	1000	Y	Y	Y
CALL-AGENT	10	10	10	Y	Y	Y
CALL-AGENT-PROFILE	10	10	10	Y	Y	Y
CALL-CTRL-ROUTE	4096	4096	4096	Y	N	N
CARRIER	10000	10000	10000	Y	N	N
CAS-TG-PROFILE	100	100	100	Y	N	N
CASUAL-WB-LIST	33750	33750	33750	N	Y	N
CAUSE-CODE-MAP	2000	2000	2000	Y	N	N
CAUSE-CODE-MAP-PROFILE	100	100	100	Y	N	N
CENTREX-GRP	100	100	100	Y	Y	N
CHANGED-NUMBER	675	1000	1000	Y	N	N
CIPHERSUITE	380	380	380	Y	N	N

Table 2-13 Release 4.5 Small Configuration Database Usage Defaults (continued)

Table Name or Noun	Number of Records Before Split NPA	Maximum Record Count	Licensed Record Count	Route CA	Route FSPTC	Route FSAIN
CIPHERSUITE-PROFILE	380	380	380	N	N	N
CIRCUIT-CODE	10	10	10	Y	N	N
CLLI-CODE	10	10	10	N	N	N
COS-RESTRICT	33750	33750	33750	N	Y	N
CPSG	200	200	200	Y	Y	N
CUST-GRP	500	500	500	N	N	Y
CUSTOM-DIAL-PLAN	2000	2000	2000	N	Y	N
CUSTOM-DIAL-PLAN-PROFILE	100	100	100	N	N	N
DESTINATION	100	100	100	Y	N	N
DIAL-PLAN	200000	200000	200000	Y	N	N
DIAL-PLAN-PROFILE	200	200	200	Y	N	N
DIGIT-MAP	110	110	110	Y	N	N
DIGMAN	2175	2175	2175	Y	N	N
DIGMAN-PROFILE	435	435	435	Y	N	N
DN2CUST-GRP	50000	50000	50000	N	N	Y
DN2GN	100	100	100	N	N	Y
DN2SUBSCRIBER	67500	67500	67500	Y	N	N
DOMAIN2ROUTE	1000	1000	1000	Y	N	N
DPC	2048	2048	2048	Y	Y	Y
DS1	800	800	800	Y	N	N
EMERGENCY-NUMBER-LIST	50	50	50	Y	N	N
ENUM-CALL-TYPE	100	100	100	Y	N	N
ENUM-PROFILE	1	1	1	Y	N	Y
ESS	10	10	10	Y	N	N
EXCHANGE-CODE	5000	5000	5000	Y	N	N
EXT2SUBSCRIBER	5000	5000	5000	Y	Y	N
FEATURE	1000	1000	1000	N	Y	N
FEATURE-CONFIG	1000	1000	1000	N	Y	Y
FEATURE-SERVER	10	10	10	Y	Y	Y
FS-AUDIT-PROFILE	10	10	10	N	Y	Y
H323-GW	4	4	4	Y	N	N
H323-GW2GK	100	100	100	Y	N	N
H323-TERM	4500	4500	4500	Y	N	N
H323-TERM-PROFILE	200	200	200	Y	N	N
H323-TG-PROFILE	100	100	100	Y	N	N

Table 2-13 Release 4.5 Small Configuration Database Usage Defaults (continued)

Table Name or Noun	Number of Records Before Split NPA	Maximum Record Count	Licensed Record Count	Route CA	Route FSPTC	Route FSAIN
HTTP-FEATURE-SERVER	1	1	1	N	Y	N
II-RESTRICT-LIST	500	500	500	N	N	Y
II-WB-LIST	4219	4219	4219	N	Y	N
INTL-DIAL-PLAN	1200	1200	1200	Y	N	N
INTL-DIAL-PLAN-PROFILE	4	4	4	Y	N	N
INTL-WB-LIST	33750	33750	33750	N	Y	N
IPSEC-KERBEROS	1	1	1	Y	N	N
IPSEC-KERBEROS-KEYS	256	256	256	Y	N	N
IPSEC-POLICY	380	380	380	Y	N	N
IPSEC-SA	256	256	256	Y	N	N
ISDN-BCHAN	2400	2400	2400	Y	N	N
ISDN-DCHAN	100	100	100	Y	N	N
ISDN-INTF	100	100	100	Y	N	N
ISDN-TG-PROFILE	100	100	100	Y	N	N
IVR-SCRIPT-PROFILE	100	100	100	N	Y	Y
LANGUAGE	1000	1000	1000	N	N	N
LATA	1000	1000	1000	Y	Y	N
LATA-MAP	150000	150000	150000	Y	Y	N
LNP-PROFILE	10	10	10	Y	Y	Y
LSA	30000	30000	30000	Y	N	N
LSA-PROFILE	1000	1000	1000	N	N	N
MAC2SUB	22500	22500	22500	N	Y	N
MGCP-RETCODE-ACTION	2000	2000	2000	Y	N	N
MGW	38000	38000	38000	Y	N	N
MGW-PROFILE	100	100	100	Y	N	N
MLHG	100	100	100	Y	Y	N
MLHG-PREF-LIST	10	10	10	Y	N	N
MLHG-TERMINAL	500	500	500	Y	N	N
NATIONAL-WB-LIST	33750	43000	43000	N	Y	N
NDC	50	50	50	Y	N	N
NOD-RESTRICT-LIST	1000	1000	1000	N	Y	N
NOD-WB-LIST	3375	3375	3375	N	Y	N
OCB-K-VALUE	27	27	27	N	Y	N
OCB-PROFILE	1	1	1	N	Y	N
OFFICE-CODE	50000	50000	50000	Y	Y	N

Table 2-13 Release 4.5 Small Configuration Database Usage Defaults (continued)

Table Name or Noun	Number of Records Before Split NPA	Maximum Record Count	Licensed Record Count	Route CA	Route FSPTC	Route FSAIN
OPC	8	8	30	Y	Y	Y
POLICY-NXX	100	100	100	Y	N	Y
POLICY-ODR	2500	2500	2500	Y	N	Y
POLICY-OLI	25	25	25	Y	N	Y
POLICY-PERCENT	100	100	100	Y	N	Y
POLICY-POP	125	125	125	Y	N	Y
POLICY-PREFIX	10000	10000	10000	Y	N	Y
POLICY-REGION	275	275	275	Y	N	Y
POLICY-TOD	100	100	100	Y	N	Y
POP	10	10	10	Y	Y	Y
PORTED-OFFICE-CODE	120000	120000	120000	Y	N	N
QOS	380	380	380	Y	N	N
RADIUS-PROFILE	20	20	20	Y	Y	N
REGION-CODE	800	800	800	Y	N	N
REGION-PROFILE	5000	7000	7000	Y	N	Y
RELEASE-CAUSE	10000	10000	10000	Y	N	N
ROUTE	250	250	250	Y	N	N
ROUTE-GUIDE	250	250	250	Y	N	Y
ROUTING-KEY	4096	4096	4096	Y	Y	Y
RUDP-BACKHAUL-SESSION	400	400	400	Y	N	N
SC1D	9000	9000	9000	N	Y	N
SC2D	450	450	450	N	Y	N
SCCP-NW	255	255	255	N	Y	Y
SCCP-ROUTE	65535	65535	65535	N	Y	Y
SCRIPT	1000	1000	1000	Y	N	N
SCTP-ASSOC	240	240	240	Y	Y	Y
SCTP-ASSOC-PROFILE	120	120	120	Y	Y	Y
SERVICE	2000	2000	2000	N	Y	N
SERVICE-PROVIDER	100	100	100	Y	N	N
SERVICE-TRIGGER	20000	20000	20000	Y	N	N
SERVING-DOMAIN-NAME	1000	1000	1000	Y	N	N
SG	20	20	20	Y	Y	Y
SG-GRP	20	20	20	Y	Y	Y
SGP	40	40	40	Y	Y	Y
SIP-TIMER-PROFILE	10	10	10	Y	N	N

Table 2-13 Release 4.5 Small Configuration Database Usage Defaults (continued)

Table Name or Noun	Number of Records Before Split NPA	Maximum Record Count	Licensed Record Count	Route CA	Route FSPTC	Route FSAIN
SIPT-ISUP-VER-ALIAS	200	200	200	Y	N	N
SLE	9000	9000	9000	N	Y	N
SLHR	128	128	128	N	Y	Y
SLHR-PROFILE	16	16	16	N	N	N
SOFTSW-TG-PROFILE	100	100	100	Y	N	N
SPECIAL-CALL-TYPE	100	100	100	Y	N	N
SPLIT-NPA	1100	1100	1100	Y	Y	N
SS7_Q761_TG_PROFILE	100	100	100	Y	N	N
SS7_Q767_TG_PROFILE	100	100	100	Y	N	N
SS7-ANSI-TG-PROFILE	100	100	100	Y	N	N
SS7-CIC	18000	18000	18000	Y	N	N
STATIC-CONTACT	2250	2250	2250	Y	N	N
SUBSCRIBER	45000	45000	45000	Y	Y	N
SUBSCRIBER-FEATURE-DATA	270000	270000	270000	N	Y	N
SUBSCRIBER-PROFILE	100	100	100	Y	Y	N
SUBSCRIBER-SERVICE-PROFILE	225000	225000	225000	Y	Y	N
SUBSCRIBER-TOD-SCHEDULE	450	450	450	N	Y	N
SUBSYSTEM	128	128	128	N	Y	Y
SUBSYSTEM-GRP	16	16	16	N	Y	Y
TECH-PREFIX-GRP	110	110	110	Y	N	N
TECH-PREFIX-GRP-PROFILE	4	4	4	Y	N	N
TERMINATION	60000	60000	60000	Y	N	N
TRIGGER-NOD-ESCAPE-LIST	100	100	100	Y	N	N
TRUNK	24000	24000	24000	Y	N	N
TRUNK-GRP	1000	1000	1000	Y	N	N
TRUNK-GRP-FEATURE-DATA	100	100	100	N	Y	N
TRUNK-GRP-SERVICE-PROFILE	110	110	110	Y	Y	N
USER-AUTH	22500	22500	22500	Y	N	N
USER-PART-VARIANT	200	200	200	Y	N	N
VSC	1000	1000	1000	N	Y	N
WIRETAP	900	1125	1125	Y	N	N
ZZZ-CODE	10	10	10	Y	N	N

Medium Configuration Database Usage Defaults

Table 2-14 details the predefined defaults for the Database Usage table for a medium configuration in Release 4.5.

Table 2-14 Release 4.5 Medium Configuration Database Usage Defaults

Table Name or Noun	Number of Records Before Split NPA	Maximum Record Count	Licensed Record Count	Route CA	Route FSPTC	Route FSAIN
AAA-SERVER-GRP	50	50	50	N	Y	N
ACTIVITY	100	100	100	Y	Y	Y
AGGR	1000	1000	1000	Y	N	N
AGGR-PROFILE	10	10	10	Y	N	N
ANI	400000	400000	400000	N	Y	N
ANI-SCREENING	15000	18800	18800	Y	N	N
ANI-SCREENING-PROFILE	1500	1500	1500	Y	N	N
ANI-WB-LIST	25000	31250	31250	N	N	Y
ANNC-TG-PROFILE	100	100	100	Y	N	N
ANNC-TRUNK	12000	12000	12000	Y	N	N
ANNOUNCEMENT	1000	1000	1000	Y	N	N
AOR2SUB	50000	50000	50000	Y	N	N
APP-SERVER	500	500	500	Y	Y	N
AUDIO-SEGMENT	5000	5000	5000	N	Y	Y
AUDIO-SEQ	1000	1000	1000	N	Y	Y
AUTH-CODE	250000	250000	250000	N	Y	N
AUTH-CODE-GRP	25000	25000	25000	N	Y	N
AUTH-REALM	1000	1000	1000	Y	N	N
BACKHAUL-SET	1500	1500	1500	Y	N	N
CA-CONFIG	1000	1000	1000	Y	Y	Y
CALL-AGENT	10	10	10	Y	Y	Y
CALL-AGENT-PROFILE	10	10	10	Y	Y	Y
CALL-CTRL-ROUTE	15360	15360	15360	Y	N	N
CARRIER	10000	10000	10000	Y	N	N
CAS-TG-PROFILE	100	100	100	Y	N	N
CASUAL-WB-LIST	112500	112500	112500	N	Y	N
CAUSE-CODE-MAP	2000	2000	2000	Y	N	N
CAUSE-CODE-MAP-PROFILE	100	100	100	Y	N	N
CENTREX-GRP	500	500	500	Y	Y	N
CHANGED-NUMBER	2250	3000	3000	Y	N	N
CIPHERSUITE	1000	1000	1000	Y	N	N

Table 2-14 Release 4.5 Medium Configuration Database Usage Defaults (continued)

Table Name or Noun	Number of Records Before Split NPA	Maximum Record Count	Licensed Record Count	Route CA	Route FSPTC	Route FSAIN
CIPHERSUITE-PROFILE	1000	1000	1000	N	N	N
CIRCUIT-CODE	500	500	500	Y	N	N
CLLI-CODE	500	500	500	N	N	N
COS-RESTRICT	112500	112500	112500	N	Y	N
CPSG	1000	1000	1000	Y	Y	N
CUST-GRP	2500	2500	2500	N	N	Y
CUSTOM-DIAL-PLAN	10000	10000	10000	N	Y	N
CUSTOM-DIAL-PLAN-PROFILE	500	500	500	N	N	N
DESTINATION	5000	5000	5000	Y	N	N
DIAL-PLAN	1000000	1000000	1000000	Y	N	N
DIAL-PLAN-PROFILE	1000	1000	1000	Y	N	N
DIGIT-MAP	1000	1000	1000	Y	N	N
DIGMAN	13500	13500	13500	Y	N	N
DIGMAN-PROFILE	2700	2700	2700	Y	N	N
DN2CUST-GRP	250000	250000	250000	N	N	Y
DN2GN	100	100	100	N	N	Y
DN2SUBSCRIBER	225000	225000	225000	Y	N	N
DOMAIN2ROUTE	1000	1000	1000	Y	N	N
DPC	7680	7680	7680	Y	Y	Y
DS1	4200	4200	4200	Y	N	N
EMERGENCY-NUMBER-LIST	50	50	50	Y	N	N
ENUM-CALL-TYPE	100	100	100	Y	N	N
ENUM-PROFILE	50	50	50	Y	N	Y
ESS	500	500	500	Y	N	N
EXCHANGE-CODE	50000	50000	50000	Y	N	N
EXT2SUBSCRIBER	25000	25000	25000	Y	Y	N
FEATURE	1000	1000	1000	N	Y	N
FEATURE-CONFIG	1000	1000	1000	N	Y	Y
FEATURE-SERVER	10	10	10	Y	Y	Y
FS-AUDIT-PROFILE	10	10	10	N	Y	Y
H323-GW	4	4	4	Y	N	N
H323-GW2GK	100	100	100	Y	N	N
H323-TERM	15000	15000	15000	Y	N	N
H323-TERM-PROFILE	200	200	200	Y	N	N
H323-TG-PROFILE	100	100	100	Y	N	N

Table 2-14 Release 4.5 Medium Configuration Database Usage Defaults (continued)

Table Name or Noun	Number of Records Before Split NPA	Maximum Record Count	Licensed Record Count	Route CA	Route FSPTC	Route FSAIN
HTTP-FEATURE-SERVER	1	1	1	N	Y	N
II-RESTRICT-LIST	2500	2500	2500	N	N	Y
II-WB-LIST	14063	14063	14063	N	Y	N
INTL-DIAL-PLAN	60000	60000	60000	Y	N	N
INTL-DIAL-PLAN-PROFILE	200	200	200	Y	N	N
INTL-WB-LIST	112500	112500	112500	N	Y	N
IPSEC-KERBEROS	1	1	1	Y	N	N
IPSEC-KERBEROS-KEYS	256	256	256	Y	N	N
IPSEC-POLICY	1000	1000	1000	Y	N	N
IPSEC-SA	256	256	256	Y	N	N
ISDN-BCHAN	36000	36000	36000	Y	N	N
ISDN-DCHAN	1500	1500	1500	Y	N	N
ISDN-INTF	1500	1500	1500	Y	N	N
ISDN-TG-PROFILE	250	250	250	Y	N	N
IVR-SCRIPT-PROFILE	100	100	100	N	Y	Y
LANGUAGE	1000	1000	1000	N	N	N
LATA	1000	1000	1000	Y	Y	N
LATA-MAP	150000	150000	150000	Y	Y	N
LNP-PROFILE	10	10	10	Y	Y	Y
LSA	30000	30000	30000	Y	N	N
LSA-PROFILE	1000	1000	1000	N	N	N
MAC2SUB	50000	50000	50000	N	Y	N
MGCP-RETCODE-ACTION	2000	2000	2000	Y	N	N
MGW	100000	100000	100000	Y	N	N
MGW-PROFILE	100	100	100	Y	N	N
MLHG	20000	20000	20000	Y	Y	N
MLHG-PREF-LIST	2000	2000	2000	Y	N	N
MLHG-TERMINAL	100000	100000	100000	Y	N	N
NATIONAL-WB-LIST	112500	141000	141000	N	Y	N
NDC	800	800	800	Y	N	N
NOD-RESTRICT-LIST	1000	1000	1000	N	Y	N
NOD-WB-LIST	11250	11250	11250	N	Y	N
OCB-K-VALUE	1350	1350	1350	N	Y	N
OCB-PROFILE	50	50	50	N	Y	N
OFFICE-CODE	50000	50000	50000	Y	Y	N

Table 2-14 Release 4.5 Medium Configuration Database Usage Defaults (continued)

Table Name or Noun	Number of Records Before Split NPA	Maximum Record Count	Licensed Record Count	Route CA	Route FSPTC	Route FSAIN
OPC	30	30	30	Y	Y	Y
POLICY-NXX	400	400	400	Y	N	Y
POLICY-ODR	10000	10000	10000	Y	N	Y
POLICY-OLI	100	100	100	Y	N	Y
POLICY-PERCENT	400	400	400	Y	N	Y
POLICY-POP	12500	12500	12500	Y	N	Y
POLICY-PREFIX	10000	10000	10000	Y	N	Y
POLICY-REGION	1100	1100	1100	Y	N	Y
POLICY-TOD	400	400	400	Y	N	Y
POP	500	500	500	Y	Y	Y
PORTED-OFFICE-CODE	640000	640000	640000	Y	N	N
QOS	1000	1000	1000	Y	N	N
RADIUS-PROFILE	20	20	20	Y	Y	N
REGION-CODE	800	800	800	Y	N	N
REGION-PROFILE	20000	25000	25000	Y	N	Y
RELEASE-CAUSE	10000	10000	10000	Y	N	N
ROUTE	2000	2000	2000	Y	N	N
ROUTE-GUIDE	1000	1000	1000	Y	N	Y
ROUTING-KEY	15360	15360	15360	Y	Y	Y
RUDP-BACKHAUL-SESSION	6000	6000	6000	Y	N	N
SC1D	30000	30000	30000	N	Y	N
SC2D	1500	1500	1500	N	Y	N
SCCP-NW	255	255	255	N	Y	Y
SCCP-ROUTE	65535	65535	65535	N	Y	Y
SCRIPT	1000	1000	1000	Y	N	N
SCTP-ASSOC	240	240	240	Y	Y	Y
SCTP-ASSOC-PROFILE	120	120	120	Y	Y	Y
SERVICE	2000	2000	2000	N	Y	N
SERVICE-PROVIDER	1000	1000	1000	Y	N	N
SERVICE-TRIGGER	20000	20000	20000	Y	N	N
SERVING-DOMAIN-NAME	1000	1000	1000	Y	N	N
SG	20	20	20	Y	Y	Y
SG-GRP	20	20	20	Y	Y	Y
SGP	40	40	40	Y	Y	Y
SIP-TIMER-PROFILE	10	10	10	Y	N	N

Table 2-14 Release 4.5 Medium Configuration Database Usage Defaults (continued)

Table Name or Noun	Number of Records Before Split NPA	Maximum Record Count	Licensed Record Count	Route CA	Route FSPTC	Route FSAIN
SIPT-ISUP-VER-ALIAS	200	200	200	Y	N	N
SLE	30000	30000	30000	N	Y	N
SLHR	480	480	480	N	Y	Y
SLHR-PROFILE	16	16	16	N	N	N
SOFTSW-TG-PROFILE	100	100	100	Y	N	N
SPECIAL-CALL-TYPE	100	100	100	Y	N	N
SPLIT-NPA	1100	1100	1100	Y	Y	N
SS7_Q761_TG_PROFILE	100	100	100	Y	N	N
SS7_Q767_TG_PROFILE	100	100	100	Y	N	N
SS7-ANSI-TG-PROFILE	100	100	100	Y	N	N
SS7-CIC	96000	96000	96000	Y	N	N
STATIC-CONTACT	5000	5000	5000	Y	N	N
SUBSCRIBER	150000	150000	125000	Y	Y	N
SUBSCRIBER-FEATURE-DATA	900000	900000	900000	N	Y	N
SUBSCRIBER-PROFILE	5000	5000	5000	Y	Y	N
SUBSCRIBER-SERVICE-PROFILE	750000	750000	750000	Y	Y	N
SUBSCRIBER-TOD-SCHEDULE	1500	1500	1500	N	Y	N
SUBSYSTEM	480	480	480	N	Y	Y
SUBSYSTEM-GRP	16	16	16	N	Y	Y
TECH-PREFIX-GRP	1000	1000	1000	Y	N	N
TECH-PREFIX-GRP-PROFILE	4	4	4	Y	N	N
TERMINATION	180000	180000	180000	Y	N	N
TRIGGER-NOD-ESCAPE-LIST	100	100	100	Y	N	N
TRUNK	100000	100000	100000	Y	N	N
TRUNK-GRP	10000	10000	10000	Y	N	N
TRUNK-GRP-FEATURE-DATA	1000	1000	1000	N	Y	N
TRUNK-GRP-SERVICE-PROFILE	1100	1100	1100	Y	Y	N
USER-AUTH	50000	50000	50000	Y	N	N
USER-PART-VARIANT	200	200	200	Y	N	N
VSC	1000	1000	1000	N	Y	N
WIRETAP	3000	3750	3750	Y	N	N
ZZZ-CODE	500	500	500	Y	N	N

Medium Database Usage Defaults - Generic Routing

Table 2-15 details the predefined defaults for the Database Usage table for a medium generic routing configuration in Release 4.5.

Table 2-15 Release 4.5 Medium Database Usage Defaults - Generic Routing

Table Name or Noun	Number of Records Before Split NPA	Maximum Record Count	Licensed Record Count	Route CA	Route FSPTC	Route FSAIN
ACTIVITY	100	100	100	Y	Y	Y
ACTIVITY-BASE	100	100	100	N	N	N
AGGR	1000	1000	1000	Y	N	N
ANI	400000	400000	400000	N	Y	N
ANI-WB-LIST	25000	31250	31250	N	N	Y
ANNC-TG-PROFILE	100	100	100	Y	N	N
ANNC-TRUNK	12000	12000	12000	Y	N	N
ANNOUNCEMENT	1000	1000	1000	Y	N	N
AOR2SUB	33000	33000	33000	Y	N	N
AUTH-CODE	250000	250000	250000	N	Y	N
AUTH-CODE-GRP	25000	25000	25000	N	Y	N
AUTH-REALM	1000	1000	1000	Y	N	N
BACKHAUL-SET	1500	1500	1500	Y	N	N
CA-CONFIG	1000	1000	1000	Y	Y	Y
CALL-AGENT	10	10	10	Y	Y	Y
CALL-AGENT-PROFILE	10	10	10	Y	Y	Y
CALL-CTRL-ROUTE	15360	15360	15360	Y	N	N
CALL-TYPE	100	100	100	N	N	N
CARRIER	10000	10000	10000	Y	N	N
CAS-TG-PROFILE	100	100	100	Y	N	N
CASUAL-WB-LIST	75000	75000	75000	N	Y	N
CAUSE-CODE-MAP	2000	2000	2000	Y	N	N
CAUSE-CODE-MAP-PROFILE	100	100	100	Y	N	N
CENTREX-GRP	500	500	500	Y	Y	N
CHANGED-NUMBER	1500	2000	2000	Y	N	N
CIPHERSUITE-PROFILE	1000	1000	1000	N	N	N
CIPHERSUITE	1000	1000	1000	Y	N	N
CIRCUIT-CODE	500	500	500	Y	N	N
COS-RESTRICT	75000	75000	75000	N	Y	N
CPSG	1000	1000	1000	Y	Y	N
CUST-GRP	2500	2500	2500	N	N	Y

Table 2-15 Release 4.5 Medium Database Usage Defaults - Generic Routing (continued)

Table Name or Noun	Number of Records Before Split NPA	Maximum Record Count	Licensed Record Count	Route CA	Route FSPTC	Route FSAIN
CUSTOM-DIAL-PLAN	10000	10000	10000	N	Y	N
CUSTOM-DIAL-PLAN-PROFILE	500	500	500	N	N	N
DB-THRESHOLDS	1000	1000	1000	N	N	N
DB-USAGE	1000	1000	1000	N	N	N
DESTINATION	5000	5000	5000	Y	N	N
DIAL-PLAN	1000000	1000000	1000000	Y	N	N
DIAL-PLAN-PROFILE	1000	1000	1000	Y	N	N
DIGIT-MAP	1000	1000	1000	Y	N	N
DIGMAN-PROFILE	2700	2700	2700	Y	N	N
DIGMAN	13500	13500	13500	Y	N	N
DN2CUST-GRP	250000	250000	250000	N	N	Y
DN2SUBSCRIBER	150000	150000	150000	Y	N	N
DPC	7680	7680	7680	Y	Y	Y
DS1	4200	4200	4200	Y	N	N
ESS	500	500	500	Y	N	N
EXCHANGE-CODE	50000	50000	50000	Y	N	N
EXT2SUBSCRIBER	25000	25000	25000	Y	Y	N
FEATURE	1000	1000	1000	N	Y	N
FEATURE-SERVER	10	10	10	Y	Y	Y
H323-GW	4	4	4	Y	N	N
H323-GW2GK	100	100	100	Y	N	N
H323-TG-PROFILE	100	100	100	Y	N	N
HTTP-FEATURE-SERVER	1	1	1	N	Y	N
II-RESTRICT-LIST	2500	2500	2500	N	N	Y
II-WB-LIST	9375	9375	9375	N	Y	N
INTL-DIAL-PLAN	60000	60000	60000	Y	N	N
INTL-DIAL-PLAN-PROFILE	200	200	200	Y	N	N
INTL-WB-LIST	75000	75000	75000	N	Y	N
IPSEC-KERBEROS	1	1	1	Y	N	N
IPSEC-KERBEROS-KEYS	256	256	256	Y	N	N
IPSEC-POLICY	1000	1000	1000	Y	N	N
IPSEC-SA	256	256	256	Y	N	N
ISDN-BCHAN	36000	36000	36000	Y	N	N
ISDN-DCHAN	1500	1500	1500	Y	N	N
ISDN-INTF	1500	1500	1500	Y	N	N

Table 2-15 Release 4.5 Medium Database Usage Defaults - Generic Routing (continued)

Table Name or Noun	Number of Records Before Split NPA	Maximum Record Count	Licensed Record Count	Route CA	Route FSPTC	Route FSAIN
ISDN-TG-PROFILE	250	250	250	Y	N	N
LATA	1000	1000	1000	Y	Y	N
LATA-MAP	150000	150000	150000	Y	Y	N
LSA	30000	30000	30000	Y	N	N
LSA-PROFILE	1000	1000	1000	N	N	N
MAC2SUB	33000	33000	33000	N	Y	N
MGCP-RETCODE-ACTION	2000	2000	2000	Y	N	N
MGW	100000	100000	100000	Y	N	N
MGW-PROFILE	100	100	100	Y	N	N
MLHG	20000	20000	20000	Y	Y	N
MLHG-PREF-LIST	2000	2000	2000	Y	N	N
MLHG-TERMINAL	100000	100000	100000	Y	N	N
NATIONAL-WB-LIST	75000	94000	94000	N	Y	N
NDC	800	800	800	Y	N	N
NOA	0	0	0	N	N	N
NOD	100	100	100	N	N	N
NOD-RESTRICT-LIST	1000	1000	1000	N	Y	N
NOD-WB-LIST	7500	7500	7500	N	Y	N
OFFICE-CODE	50000	50000	50000	Y	Y	N
OPC	30	30	30	Y	Y	Y
POLICY-NXX	400	400	400	Y	N	Y
POLICY-ODR	10000	10000	10000	Y	N	Y
POLICY-OLI	100	100	100	Y	N	Y
POLICY-PERCENT	400	400	400	Y	N	Y
POLICY-POP	12500	12500	12500	Y	N	Y
POLICY-PREFIX	10000	10000	10000	Y	N	Y
POLICY-REGION	1100	1100	1100	Y	N	Y
POLICY-TOD	400	400	400	Y	N	Y
POP	500	500	500	Y	Y	Y
PORTED-OFFICE-CODE	640000	640000	640000	Y	N	N
QOS	1000	1000	1000	Y	N	N
RADIUS-PROFILE	20	20	20	Y	Y	N
REGION-PROFILE	20000	25000	25000	Y	N	Y
RELEASE-CAUSE	10000	10000	10000	Y	N	N
ROUTE	2000	2000	2000	Y	N	N

Table 2-15 Release 4.5 Medium Database Usage Defaults - Generic Routing (continued)

Table Name or Noun	Number of Records Before Split NPA	Maximum Record Count	Licensed Record Count	Route CA	Route FSPTC	Route FSAIN
ROUTE-GUIDE	1000	1000	1000	Y	N	Y
ROUTING-KEY	15360	15360	15360	Y	Y	Y
RUDP-BACKHAUL-SESSION	6000	6000	6000	Y	N	N
SC1D	20000	20000	20000	N	Y	N
SC2D	20000	20000	20000	N	Y	N
SCCP-NW	255	255	255	N	Y	Y
SCCP-ROUTE	65535	65535	65535	N	Y	Y
SCTP-ASSOC-PROFILE	120	120	120	Y	Y	Y
SCTP-ASSOC	240	240	240	Y	Y	Y
SERVICE	2000	2000	2000	N	Y	N
SERVICE-PROVIDER	1000	1000	1000	Y	N	N
SERVICE-TRIGGER	20000	20000	20000	Y	N	N
SERVING-DOMAIN-NAME	1000	1000	1000	Y	N	N
SG	20	20	20	Y	Y	Y
SG-GRP	20	20	20	Y	Y	Y
SGP	40	40	40	Y	Y	Y
SLE	20000	20000	20000	N	Y	N
SLHR-PROFILE	16	16	16	N	N	N
SLHR	480	480	480	N	Y	Y
SOFTSW-TG-PROFILE	100	100	100	Y	N	N
SPECIAL-CALL-TYPE	100	100	100	Y	N	N
SPLIT-NPA	1100	1100	1100	Y	Y	N
SS7-CIC	96000	96000	96000	Y	N	N
SS7_Q761_TG_PROFILE	100	100	100	Y	N	N
SS7_Q767_TG_PROFILE	100	100	100	Y	N	N
SS7-ANSI-TG-PROFILE	100	100	100	Y	N	N
STATIC-CONTACT	3300	3300	3300	Y	N	N
SUBSCRIBER	100000	100000	100000	Y	Y	N
SUBSCRIBER-FEATURE-DATA	600000	600000	600000	N	Y	N
SUBSCRIBER-PROFILE	5000	5000	5000	Y	Y	N
SUBSCRIBER-SERVICE-PROFILE	1000000	1000000	1000000	Y	Y	N
SUBSYSTEM-GRP	16	16	16	N	Y	Y
SUBSYSTEM	480	480	480	N	Y	Y
TECH-PREFIX-GRP	1000	1000	1000	Y	N	N
TECH-PREFIX-GRP-PROFILE	4	4	4	Y	N	N

Table 2-15 Release 4.5 Medium Database Usage Defaults - Generic Routing (continued)

Table Name or Noun	Number of Records Before Split NPA	Maximum Record Count	Licensed Record Count	Route CA	Route FSPTC	Route FSAIN
TERMINATION	180000	180000	180000	Y	N	N
TRIGGER-DETECTION-POINT	50	50	50	N	N	N
TRIGGER-ID	100	100	100	N	N	N
TRUNK	100000	100000	100000	Y	N	N
TRUNK-GRP	10000	10000	10000	Y	N	N
TRUNK-GRP-FEATURE-DATA	1000	1000	1000	N	Y	N
TRUNK-GRP-SERVICE-PROFILE	1100	1100	1100	Y	Y	N
USER-AUTH	33000	33000	33000	Y	N	N
USER-PART-VARIANT	200	200	200	Y	N	N
VAR-DEFAULT	1000	1000	1000	N	N	N
VSC	1000	1000	1000	N	Y	N
WIRETAP	2000	2500	2500	Y	N	N
ANI-SCREENING	15000	18800	18800	Y	N	N
LNP-PROFILE	10	10	10	Y	Y	Y
DN2GN	100	100	100	N	N	Y
H323-TERM-PROFILE	200	200	200	Y	N	N
H323-TERM	10000	10000	10000	Y	N	N
ANI-SCREENING-PROFILE	1500	1500	1500	Y	N	N
SIPT-ISUP-VER-ALIAS	200	200	200	Y	N	N
TIMEZONE	400	400	400	N	N	N
SCRIPT	1000	1000	1000	Y	N	N
IVR-SCRIPT-PROFILE	100	100	100	N	Y	Y
LANGUAGE	1000	1000	1000	N	N	N
AUDIO-SEQ	1000	1000	1000	N	Y	Y
AUDIO-SEGMENT	5000	5000	5000	N	Y	Y
FEATURE-CONFIG	1000	1000	1000	N	Y	Y
FEATURE-CONFIG-BASE	1000	1000	1000	N	N	N
FEATURE-CONFIG-BASE-POS-VAL	1000	1000	1000	N	N	N
OCB-PROFILE	50	50	50	N	Y	N
OCB-K-VALUE	1350	1350	1350	N	Y	N
ENUM-PROFILE	50	50	50	Y	N	Y
ENUM-CALL-TYPE	100	100	100	Y	N	N
DOMAIN2ROUTE	1000	1000	1000	Y	N	N
CLLI-CODE	500	500	500	N	N	N
SUBSCRIBER-TOD-SCHEDULE	1000	1000	1000	N	Y	N

Table 2-15 Release 4.5 Medium Database Usage Defaults - Generic Routing (continued)

Table Name or Noun	Number of Records Before Split NPA	Maximum Record Count	Licensed Record Count	Route CA	Route FSPTC	Route FSAIN
EMERGENCY-NUMBER-LIST	50	50	50	Y	N	N
FS-AUDIT-PROFILE	10	10	10	N	Y	Y
TRIGGER-NOD-ESCAPE-LIST	100	100	100	Y	N	N
GTD-PARM-VALUES	100	100	100	N	N	N
AAA-SERVER-GRP	50	50	50	N	Y	N
REGION-CODE	800	800	800	Y	N	N
ZZZ-CODE	500	500	500	Y	N	N
AGGR-PROFILE	10	10	10	Y	N	N
CALL-SUBTYPE	1000	1000	1000	N	N	N
CA-CONFIG-BASE	1000	1000	1000	Y	Y	Y
APP-SERVER	500	500	500	Y	Y	N
SIP-TIMER-PROFILE	10	10	10	Y	N	N
ENUM-ROOT	10	10	10	Y	N	Y
SUBSYSTEM-PROFILE	16	16	16	N	Y	Y
CALL-TYPE-PROFILE	100	100	100	Y	N	N
NOA-ROUTE-PROFILE	100	100	100	Y	N	N
NOA-ROUTE	100	100	100	Y	N	N
DN2RN	100	100	100	N	N	Y

Routeserver Database Usage Defaults

Table 2-16 details the predefined defaults for the Database Usage table for a routeserver configuration in Release 4.5.

Table 2-16 Release 4.5 Routeserver Database Usage Defaults

Table Name or Noun	Number of Records Before Split NPA	Maximum Record Count	Licensed Record Count	Route CA	Route FSPTC	Route FSAIN
AAA-SERVER-GRP	26	26	26	N	Y	N
ACTIVITY	100	100	100	Y	Y	Y
AGGR	380	380	380	Y	N	N
AGGR-PROFILE	10	10	10	Y	N	N
ANI	400000	400000	400000	N	Y	N
ANI-SCREENING	1000	1300	1300	Y	N	N
ANI-SCREENING-PROFILE	100	100	100	Y	N	N
ANI-WB-LIST	25000	31250	31250	N	N	Y

Table 2-16 Release 4.5 Routeserver Database Usage Defaults (continued)

Table Name or Noun	Number of Records Before Split NPA	Maximum Record Count	Licensed Record Count	Route CA	Route FSPTC	Route FSAIN
ANNC-TG-PROFILE	100	100	100	Y	N	N
ANNC-TRUNK	6120	6120	6120	Y	N	N
ANNOUNCEMENT	1000	1000	1000	Y	N	N
AOR2SUB	4500	4500	4500	Y	N	N
APP-SERVER	255	255	255	Y	Y	N
AUDIO-SEGMENT	5000	5000	5000	N	Y	Y
AUDIO-SEQ	1000	1000	1000	N	Y	Y
AUTH-CODE	250000	250000	250000	N	Y	N
AUTH-CODE-GRP	25000	25000	25000	N	Y	N
AUTH-REALM	1000	1000	1000	Y	N	N
BACKHAUL-SET	100	100	100	Y	N	N
CA-CONFIG	1000	1000	1000	Y	Y	Y
CALL-AGENT	10	10	10	Y	Y	Y
CALL-AGENT-PROFILE	10	10	10	Y	Y	Y
CALL-CTRL-ROUTE	10240	10240	10240	Y	N	N
CARRIER	10000	10000	10000	Y	N	N
CAS-TG-PROFILE	100	100	100	Y	N	N
CASUAL-WB-LIST	33750	33750	33750	N	Y	N
CAUSE-CODE-MAP	2000	2000	2000	Y	N	N
CAUSE-CODE-MAP-PROFILE	100	100	100	Y	N	N
CENTREX-GRP	100	100	100	Y	Y	N
CHANGED-NUMBER	675	1000	1000	Y	N	N
CIPHERSUITE	380	380	380	Y	N	N
CIPHERSUITE-PROFILE	380	380	380	N	N	N
CIRCUIT-CODE	255	255	255	Y	N	N
CLLI-CODE	255	255	255	N	N	N
COS-RESTRICT	33750	33750	33750	N	Y	N
CPSG	200	200	200	Y	Y	N
CUST-GRP	2500	2500	2500	N	N	Y
CUSTOM-DIAL-PLAN	2000	2000	2000	N	Y	N
CUSTOM-DIAL-PLAN-PROFILE	100	100	100	N	N	N
DESTINATION	1000000	1000000	1000000	Y	N	N
DIAL-PLAN	1000000	1000000	1000000	Y	N	N
DIAL-PLAN-PROFILE	1000	1000	1000	Y	N	N
DIGIT-MAP	1000	1000	1000	Y	N	N

Table 2-16 Release 4.5 Routeserver Database Usage Defaults (continued)

Table Name or Noun	Number of Records Before Split NPA	Maximum Record Count	Licensed Record Count	Route CA	Route FSPTC	Route FSAIN
DIGMAN	25000	25000	25000	Y	N	N
DIGMAN-PROFILE	5000	5000	5000	Y	N	N
DN2CUST-GRP	250000	250000	250000	N	N	Y
DN2GN	10000	10000	10000	N	N	Y
DN2SUBSCRIBER	67500	67500	67500	Y	N	N
DOMAIN2ROUTE	1000	1000	1000	Y	N	N
DPC	5120	5120	5120	Y	Y	Y
DS1	1000	1000	1000	Y	N	N
EMERGENCY-NUMBER-LIST	50	50	50	Y	N	N
ENUM-CALL-TYPE	100	100	100	Y	N	N
ENUM-PROFILE	26	26	26	Y	N	Y
ESS	255	255	255	Y	N	N
EXCHANGE-CODE	5000	5000	5000	Y	N	N
EXT2SUBSCRIBER	5000	5000	5000	Y	Y	N
FEATURE	1000	1000	1000	N	Y	N
FEATURE-CONFIG	1000	1000	1000	N	Y	Y
FEATURE-SERVER	10	10	10	Y	Y	Y
FS-AUDIT-PROFILE	10	10	10	N	Y	Y
H323-GW	4	4	4	Y	N	N
H323-GW2GK	100	100	100	Y	N	N
H323-TERM	4500	4500	4500	Y	N	N
H323-TERM-PROFILE	200	200	200	Y	N	N
H323-TG-PROFILE	100	100	100	Y	N	N
HTTP-FEATURE-SERVER	1	1	1	N	Y	N
II-RESTRICT-LIST	2500	2500	2500	N	N	Y
II-WB-LIST	4219	4219	4219	N	Y	N
INTL-DIAL-PLAN	3000	3000	3000	Y	N	N
INTL-DIAL-PLAN-PROFILE	10	10	10	Y	N	N
INTL-WB-LIST	33750	33750	33750	N	Y	N
IPSEC-KERBEROS	1	1	1	Y	N	N
IPSEC-KERBEROS-KEYS	256	256	256	Y	N	N
IPSEC-POLICY	380	380	380	Y	N	N
IPSEC-SA	256	256	256	Y	N	N
ISDN-BCHAN	2400	2400	2400	Y	N	N
ISDN-DCHAN	100	100	100	Y	N	N

Table 2-16 Release 4.5 Routeserver Database Usage Defaults (continued)

Table Name or Noun	Number of Records Before Split NPA	Maximum Record Count	Licensed Record Count	Route CA	Route FSPTC	Route FSAIN
ISDN-INTF	100	100	100	Y	N	N
ISDN-TG-PROFILE	100	100	100	Y	N	N
IVR-SCRIPT-PROFILE	100	100	100	N	Y	Y
LANGUAGE	1000	1000	1000	N	N	N
LATA	1000	1000	1000	Y	Y	N
LATA-MAP	150000	150000	150000	Y	Y	N
LNP-PROFILE	10	10	10	Y	Y	Y
LSA	30000	30000	30000	Y	N	N
LSA-PROFILE	1000	1000	1000	N	N	N
MAC2SUB	4500	4500	4500	N	Y	N
MGCP-RETCODE-ACTION	2000	2000	2000	Y	N	N
MGW	38000	38000	38000	Y	N	N
MGW-PROFILE	100	100	100	Y	N	N
MLHG	100	100	100	Y	Y	N
MLHG-PREF-LIST	10	10	10	Y	N	N
MLHG-TERMINAL	500	500	500	Y	N	N
NATIONAL-WB-LIST	33750	43000	43000	N	Y	N
NDC	800	800	800	Y	N	N
NOD-RESTRICT-LIST	1000	1000	1000	N	Y	N
NOD-WB-LIST	3375	3375	3375	N	Y	N
OCB-K-VALUE	689	689	689	N	Y	N
OCB-PROFILE	26	26	26	N	Y	N
OFFICE-CODE	50000	50000	50000	Y	Y	N
OPC	20	20	30	Y	Y	Y
POLICY-NXX	8000	8000	8000	Y	N	Y
POLICY-ODR	80000	80000	80000	Y	N	Y
POLICY-OLI	8000	8000	8000	Y	N	Y
POLICY-PERCENT	80000	80000	80000	Y	N	Y
POLICY-POP	80000	80000	80000	Y	N	Y
POLICY-PREFIX	10000	10000	10000	Y	N	Y
POLICY-REGION	88000	88000	88000	Y	N	Y
POLICY-TOD	120000	120000	120000	Y	N	Y
POP	255	255	255	Y	Y	Y
PORTED-OFFICE-CODE	640000	640000	640000	Y	N	N
QOS	380	380	380	Y	N	N

Table 2-16 Release 4.5 Routeserver Database Usage Defaults (continued)

Table Name or Noun	Number of Records Before Split NPA	Maximum Record Count	Licensed Record Count	Route CA	Route FSPTC	Route FSAIN
RADIUS-PROFILE	20	20	20	Y	Y	N
REGION-CODE	800	800	800	Y	N	N
REGION-PROFILE	800000	1000000	1000000	Y	N	Y
RELEASE-CAUSE	10000	10000	10000	Y	N	N
ROUTE	600000	600000	600000	Y	N	N
ROUTE-GUIDE	80000	80000	80000	Y	N	Y
ROUTING-KEY	10240	10240	10240	Y	Y	Y
RUDP-BACKHAUL-SESSION	400	400	400	Y	N	N
SC1D	9000	9000	9000	N	Y	N
SC2D	450	450	450	N	Y	N
SCCP-NW	255	255	255	N	Y	Y
SCCP-ROUTE	65535	65535	65535	N	Y	Y
SCRIPT	1000	1000	1000	Y	N	N
SCTP-ASSOC	240	240	240	Y	Y	Y
SCTP-ASSOC-PROFILE	120	120	120	Y	Y	Y
SERVICE	2000	2000	2000	N	Y	N
SERVICE-PROVIDER	1000	1000	1000	Y	N	N
SERVICE-TRIGGER	20000	20000	20000	Y	N	N
SERVING-DOMAIN-NAME	1000	1000	1000	Y	N	N
SG	20	20	20	Y	Y	Y
SG-GRP	20	20	20	Y	Y	Y
SGP	40	40	40	Y	Y	Y
SIP-TIMER-PROFILE	10	10	10	Y	N	N
SIPT-ISUP-VER-ALIAS	200	200	200	Y	N	N
SLE	9000	9000	9000	N	Y	N
SLHR	320	320	320	N	Y	Y
SLHR-PROFILE	16	16	16	N	N	N
SOFTSW-TG-PROFILE	100	100	100	Y	N	N
SPECIAL-CALL-TYPE	100	100	100	Y	N	N
SPLIT-NPA	1100	1100	1100	Y	Y	N
SS7_Q761_TG_PROFILE	100	100	100	Y	N	N
SS7_Q767_TG_PROFILE	100	100	100	Y	N	N
SS7-ANSI-TG-PROFILE	100	100	100	Y	N	N
SS7-CIC	18000	18000	18000	Y	N	N
STATIC-CONTACT	450	450	450	Y	N	N

Table 2-16 Release 4.5 Routeserver Database Usage Defaults (continued)

Table Name or Noun	Number of Records Before Split NPA	Maximum Record Count	Licensed Record Count	Route CA	Route FSPTC	Route FSAIN
SUBSCRIBER	45000	45000	45000	Y	Y	N
SUBSCRIBER-FEATURE-DATA	270000	270000	270000	N	Y	N
SUBSCRIBER-PROFILE	2550	2550	2550	Y	Y	N
SUBSCRIBER-SERVICE-PROFILE	225000	225000	225000	Y	Y	N
SUBSCRIBER-TOD-SCHEDULE	450	450	450	N	Y	N
SUBSYSTEM	320	320	320	N	Y	Y
SUBSYSTEM-GRP	16	16	16	N	Y	Y
TECH-PREFIX-GRP	1000	1000	1000	Y	N	N
TECH-PREFIX-GRP-PROFILE	4	4	4	Y	N	N
TERMINATION	60000	60000	60000	Y	N	N
TRIGGER-NOD-ESCAPE-LIST	100	100	100	Y	N	N
TRUNK	32000	32000	32000	Y	N	N
TRUNK-GRP	25000	25000	25000	Y	N	N
TRUNK-GRP-FEATURE-DATA	2500	2500	2500	N	Y	N
TRUNK-GRP-SERVICE-PROFILE	2750	2750	2750	Y	Y	N
USER-AUTH	4500	4500	4500	Y	N	N
USER-PART-VARIANT	200	200	200	Y	N	N
VSC	1000	1000	1000	N	Y	N
WIRETAP	900	1125	1125	Y	N	N
ZZZ-CODE	255	255	255	Y	N	N

Local Number Portability Database Usage Defaults

Table 2-17 details the predefined defaults for the Database Usage table for an LNP configuration in Release 4.5.

Table 2-17 Release 4.5 Local Number Portability Database Usage Defaults

Table Name or Noun	Number of Records Before Split NPA	Maximum Record Count	Licensed Record Count	Route CA	Route FSPTC	Route FSAIN
AAA-SERVER-GRP	26	26	26	N	Y	N
ACTIVITY	100	100	100	Y	Y	Y
AGGR	1000	1000	1000	Y	N	N
AGGR-PROFILE	10	10	10	Y	N	N
ANI	400000	400000	400000	N	Y	N
ANI-SCREENING	15000	18800	18800	Y	N	N

Table 2-17 Release 4.5 Local Number Portability Database Usage Defaults (continued)

Table Name or Noun	Number of Records Before Split NPA	Maximum Record Count	Licensed Record Count	Route CA	Route FSPTC	Route FSAIN
ANI-SCREENING-PROFILE	1500	1500	1500	Y	N	N
ANI-WB-LIST	25000	31250	31250	N	N	Y
ANNC-TG-PROFILE	100	100	100	Y	N	N
ANNC-TRUNK	6120	6120	6120	Y	N	N
ANNOUNCEMENT	1000	1000	1000	Y	N	N
AOR2SUB	50000	50000	50000	Y	N	N
APP-SERVER	255	255	255	Y	Y	N
AUDIO-SEGMENT	5000	5000	5000	N	Y	Y
AUDIO-SEQ	1000	1000	1000	N	Y	Y
AUTH-CODE	250000	250000	250000	N	Y	N
AUTH-CODE-GRP	25000	25000	25000	N	Y	N
AUTH-REALM	1000	1000	1000	Y	N	N
BACKHAUL-SET	1500	1500	1500	Y	N	N
CA-CONFIG	1000	1000	1000	Y	Y	Y
CALL-AGENT	10	10	10	Y	Y	Y
CALL-AGENT-PROFILE	10	10	10	Y	Y	Y
CALL-CTRL-ROUTE	15360	15360	15360	Y	N	N
CARRIER	10000	10000	10000	Y	N	N
CAS-TG-PROFILE	100	100	100	Y	N	N
CASUAL-WB-LIST	112500	112500	112500	N	Y	N
CAUSE-CODE-MAP	2000	2000	2000	Y	N	N
CAUSE-CODE-MAP-PROFILE	100	100	100	Y	N	N
CENTREX-GRP	500	500	500	Y	Y	N
CHANGED-NUMBER	2250	3000	3000	Y	N	N
CIPHERSUITE	1000	1000	1000	Y	N	N
CIPHERSUITE-PROFILE	1000	1000	1000	N	N	N
CIRCUIT-CODE	255	255	255	Y	N	N
CLLI-CODE	255	255	255	N	N	N
COS-RESTRICT	112500	112500	112500	N	Y	N
CPSG	1000	1000	1000	Y	Y	N
CUST-GRP	2500	2500	2500	N	N	Y
CUSTOM-DIAL-PLAN	10000	10000	10000	N	Y	N
CUSTOM-DIAL-PLAN-PROFILE	500	500	500	N	N	N
DESTINATION	5000	5000	5000	Y	N	N
DIAL-PLAN	1000000	1000000	1000000	Y	N	N

Table 2-17 Release 4.5 Local Number Portability Database Usage Defaults (continued)

Table Name or Noun	Number of Records Before Split NPA	Maximum Record Count	Licensed Record Count	Route CA	Route FSPTC	Route FSAIN
DIAL-PLAN-PROFILE	1000	1000	1000	Y	N	N
DIGIT-MAP	1000	1000	1000	Y	N	N
DIGMAN	13500	13500	13500	Y	N	N
DIGMAN-PROFILE	2700	2700	2700	Y	N	N
DN2CUST-GRP	250000	250000	250000	N	N	Y
DN2GN	5000000	5000000	5000000	N	N	Y
DN2SUBSCRIBER	225000	225000	225000	Y	N	N
DOMAIN2ROUTE	1000	1000	1000	Y	N	N
DPC	7680	7680	7680	Y	Y	Y
DS1	4200	4200	4200	Y	N	N
EMERGENCY-NUMBER-LIST	50	50	50	Y	N	N
ENUM-CALL-TYPE	100	100	100	Y	N	N
ENUM-PROFILE	26	26	26	Y	N	Y
ESS	255	255	255	Y	N	N
EXCHANGE-CODE	5000	5000	5000	Y	N	N
EXT2SUBSCRIBER	25000	25000	25000	Y	Y	N
FEATURE	1000	1000	1000	N	Y	N
FEATURE-CONFIG	1000	1000	1000	N	Y	Y
FEATURE-SERVER	10	10	10	Y	Y	Y
FS-AUDIT-PROFILE	10	10	10	N	Y	Y
H323-GW	4	4	4	Y	N	N
H323-GW2GK	100	100	100	Y	N	N
H323-TERM	15000	15000	15000	Y	N	N
H323-TERM-PROFILE	200	200	200	Y	N	N
H323-TG-PROFILE	100	100	100	Y	N	N
HTTP-FEATURE-SERVER	1	1	1	N	Y	N
II-RESTRICT-LIST	2500	2500	2500	N	N	Y
II-WB-LIST	14063	14063	14063	N	Y	N
INTL-DIAL-PLAN	3000	3000	3000	Y	N	N
INTL-DIAL-PLAN-PROFILE	10	10	10	Y	N	N
INTL-WB-LIST	112500	112500	112500	N	Y	N
IPSEC-KERBEROS	1	1	1	Y	N	N
IPSEC-KERBEROS-KEYS	256	256	256	Y	N	N
IPSEC-POLICY	1000	1000	1000	Y	N	N
IPSEC-SA	256	256	256	Y	N	N

Table 2-17 Release 4.5 Local Number Portability Database Usage Defaults (continued)

Table Name or Noun	Number of Records Before Split NPA	Maximum Record Count	Licensed Record Count	Route CA	Route FSPTC	Route FSAIN
ISDN-BCHAN	36000	36000	36000	Y	N	N
ISDN-DCHAN	1500	1500	1500	Y	N	N
ISDN-INTF	1500	1500	1500	Y	N	N
ISDN-TG-PROFILE	250	250	250	Y	N	N
IVR-SCRIPT-PROFILE	100	100	100	N	Y	Y
LANGUAGE	1000	1000	1000	N	N	N
LATA	1000	1000	1000	Y	Y	N
LATA-MAP	150000	150000	150000	Y	Y	N
LNP-PROFILE	10	10	10	Y	Y	Y
LSA	30000	30000	30000	Y	N	N
LSA-PROFILE	1000	1000	1000	N	N	N
MAC2SUB	50000	50000	50000	N	Y	N
MGCP-RETCODE-ACTION	2000	2000	2000	Y	N	N
MGW	100000	100000	100000	Y	N	N
MGW-PROFILE	100	100	100	Y	N	N
MLHG	10000	10000	10000	Y	Y	N
MLHG-PREF-LIST	1000	1000	1000	Y	N	N
MLHG-TERMINAL	50000	50000	50000	Y	N	N
NATIONAL-WB-LIST	112500	141000	141000	N	Y	N
NDC	50	50	50	Y	N	N
NOD-RESTRICT-LIST	1000	1000	1000	N	Y	N
NOD-WB-LIST	11250	11250	11250	N	Y	N
OCB-K-VALUE	689	689	689	N	Y	N
OCB-PROFILE	26	26	26	N	Y	N
OFFICE-CODE	50000	50000	50000	Y	Y	N
OPC	30	30	30	Y	Y	Y
POLICY-NXX	400	400	400	Y	N	Y
POLICY-ODR	10000	10000	10000	Y	N	Y
POLICY-OLI	100	100	100	Y	N	Y
POLICY-PERCENT	400	400	400	Y	N	Y
POLICY-POP	12500	12500	12500	Y	N	Y
POLICY-PREFIX	10000	10000	10000	Y	N	Y
POLICY-REGION	1100	1100	1100	Y	N	Y
POLICY-TOD	400	400	400	Y	N	Y
POP	255	255	255	Y	Y	Y

Table 2-17 Release 4.5 Local Number Portability Database Usage Defaults (continued)

Table Name or Noun	Number of Records Before Split NPA	Maximum Record Count	Licensed Record Count	Route CA	Route FSPTC	Route FSAIN
PORTED-OFFICE-CODE	640000	640000	640000	Y	N	N
QOS	1000	1000	1000	Y	N	N
RADIUS-PROFILE	20	20	20	Y	Y	N
REGION-CODE	800	800	800	Y	N	N
REGION-PROFILE	20000	25000	25000	Y	N	Y
RELEASE-CAUSE	10000	10000	10000	Y	N	N
ROUTE	2000	2000	2000	Y	N	N
ROUTE-GUIDE	1000	1000	1000	Y	N	Y
ROUTING-KEY	15360	15360	15360	Y	Y	Y
RUDP-BACKHAUL-SESSION	6000	6000	6000	Y	N	N
SC1D	30000	30000	30000	N	Y	N
SC2D	1500	1500	1500	N	Y	N
SCCP-NW	255	255	255	N	Y	Y
SCCP-ROUTE	65535	65535	65535	N	Y	Y
SCRIPT	1000	1000	1000	Y	N	N
SCTP-ASSOC	240	240	240	Y	Y	Y
SCTP-ASSOC-PROFILE	120	120	120	Y	Y	Y
SERVICE	2000	2000	2000	N	Y	N
SERVICE-PROVIDER	1000	1000	1000	Y	N	N
SERVICE-TRIGGER	20000	20000	20000	Y	N	N
SERVING-DOMAIN-NAME	1000	1000	1000	Y	N	N
SG	20	20	20	Y	Y	Y
SG-GRP	20	20	20	Y	Y	Y
SGP	40	40	40	Y	Y	Y
SIP-TIMER-PROFILE	10	10	10	Y	N	N
SIPT-ISUP-VER-ALIAS	200	200	200	Y	N	N
SLE	30000	30000	30000	N	Y	N
SLHR	480	480	480	N	Y	Y
SLHR-PROFILE	16	16	16	N	N	N
SOFTSW-TG-PROFILE	100	100	100	Y	N	N
SPECIAL-CALL-TYPE	100	100	100	Y	N	N
SPLIT-NPA	1100	1100	1100	Y	Y	N
SS7_Q761_TG_PROFILE	100	100	100	Y	N	N
SS7_Q767_TG_PROFILE	100	100	100	Y	N	N
SS7-ANSI-TG-PROFILE	100	100	100	Y	N	N

Table 2-17 Release 4.5 Local Number Portability Database Usage Defaults (continued)

Table Name or Noun	Number of Records Before Split NPA	Maximum Record Count	Licensed Record Count	Route CA	Route FSPTC	Route FSAIN
SS7-CIC	96000	96000	96000	Y	N	N
STATIC-CONTACT	5000	5000	5000	Y	N	N
SUBSCRIBER	150000	150000	125000	Y	Y	N
SUBSCRIBER-FEATURE-DATA	900000	900000	900000	N	Y	N
SUBSCRIBER-PROFILE	2550	2550	2550	Y	Y	N
SUBSCRIBER-SERVICE-PROFILE	750000	750000	750000	Y	Y	N
SUBSCRIBER-TOD-SCHEDULE	1500	1500	1500	N	Y	N
SUBSYSTEM	480	480	480	N	Y	Y
SUBSYSTEM-GRP	16	16	16	N	Y	Y
TECH-PREFIX-GRP	1000	1000	1000	Y	N	N
TECH-PREFIX-GRP-PROFILE	4	4	4	Y	N	N
TERMINATION	180000	180000	180000	Y	N	N
TRIGGER-NOD-ESCAPE-LIST	100	100	100	Y	N	N
TRUNK	100000	100000	100000	Y	N	N
TRUNK-GRP	10000	10000	10000	Y	N	N
TRUNK-GRP-FEATURE-DATA	1000	1000	1000	N	Y	N
TRUNK-GRP-SERVICE-PROFILE	1100	1100	1100	Y	Y	N
USER-AUTH	50000	50000	50000	Y	N	N
USER-PART-VARIANT	200	200	200	Y	N	N
VSC	1000	1000	1000	N	Y	N
WIRETAP	3000	3750	3750	Y	N	N
ZZZ-CODE	255	255	255	Y	N	N

Local Number Portability Database Usage Defaults - Routing Number

Table 2-18 details the predefined defaults for the Database Usage table for an LNP routing number configuration in Release 4.5. Used for Europe, the Middle East and Africa (EMEA).

Table 2-18 Release 4.5 Local Number Portability Database Usage Defaults - Routing Number

Table Name or Noun	Number of Records Before Split NPA	Maximum Record Count	Licensed Record Count	Route CA	Route FSPTC	Route FSAIN
ACTIVITY	100	100	100	Y	Y	Y
ACTIVITY-BASE	100	100	100	N	N	N
AGGR	1000	1000	1000	Y	N	N
ANI	400000	400000	400000	N	Y	N

Table 2-18 Release 4.5 Local Number Portability Database Usage Defaults - Routing Number (continued)

Table Name or Noun	Number of Records Before Split NPA	Maximum Record Count	Licensed Record Count	Route CA	Route FSPTC	Route FSAIN
ANI-WB-LIST	25000	31250	31250	N	N	Y
ANNC-TG-PROFILE	100	100	100	Y	N	N
ANNC-TRUNK	6120	6120	6120	Y	N	N
ANNOUNCEMENT	1000	1000	1000	Y	N	N
AOR2SUB	50000	50000	50000	Y	N	N
AUTH-CODE	250000	250000	250000	N	Y	N
AUTH-CODE-GRP	25000	25000	25000	N	Y	N
AUTH-REALM	1000	1000	1000	Y	N	N
BACKHAUL-SET	1500	1500	1500	Y	N	N
CA-CONFIG	1000	1000	1000	Y	Y	Y
CALL-AGENT	10	10	10	Y	Y	Y
CALL-AGENT-PROFILE	10	10	10	Y	Y	Y
CALL-CTRL-ROUTE	15360	15360	15360	Y	N	N
CALL-TYPE	100	100	100	N	N	N
CARRIER	10000	10000	10000	Y	N	N
CAS-TG-PROFILE	100	100	100	Y	N	N
CASUAL-WB-LIST	112500	112500	112500	N	Y	N
CAUSE-CODE-MAP	2000	2000	2000	Y	N	N
CAUSE-CODE-MAP-PROFILE	100	100	100	Y	N	N
CENTREX-GRP	500	500	500	Y	Y	N
CHANGED-NUMBER	2250	3000	3000	Y	N	N
CIPHERSUITE-PROFILE	1000	1000	1000	N	N	N
CIPHERSUITE	1000	1000	1000	Y	N	N
CIRCUIT-CODE	255	255	255	Y	N	N
COS-RESTRICT	112500	112500	112500	N	Y	N
CPSG	1000	1000	1000	Y	Y	N
CUST-GRP	2500	2500	2500	N	N	Y
CUSTOM-DIAL-PLAN	10000	10000	10000	N	Y	N
CUSTOM-DIAL-PLAN-PROFILE	500	500	500	N	N	N
DB-THRESHOLDS	1000	1000	1000	N	N	N
DB-USAGE	1000	1000	1000	N	N	N
DESTINATION	5000	5000	5000	Y	N	N
DIAL-PLAN	1000000	1000000	1000000	Y	N	N
DIAL-PLAN-PROFILE	1000	1000	1000	Y	N	N
DIGIT-MAP	1000	1000	1000	Y	N	N

Table 2-18 Release 4.5 Local Number Portability Database Usage Defaults - Routing Number (continued)

Table Name or Noun	Number of Records Before Split NPA	Maximum Record Count	Licensed Record Count	Route CA	Route FSPTC	Route FSAIN
DIGMAN-PROFILE	2700	2700	2700	Y	N	N
DIGMAN	13500	13500	13500	Y	N	N
DN2CUST-GRP	250000	250000	250000	N	N	Y
DN2SUBSCRIBER	225000	225000	225000	Y	N	N
DPC	7680	7680	7680	Y	Y	Y
DS1	4200	4200	4200	Y	N	N
ESS	255	255	255	Y	N	N
EXCHANGE-CODE	5000	5000	5000	Y	N	N
EXT2SUBSCRIBER	25000	25000	25000	Y	Y	N
FEATURE	1000	1000	1000	N	Y	N
FEATURE-SERVER	10	10	10	Y	Y	Y
H323-GW	4	4	4	Y	N	N
H323-GW2GK	100	100	100	Y	N	N
H323-TG-PROFILE	100	100	100	Y	N	N
HTTP-FEATURE-SERVER	1	1	1	N	Y	N
II-RESTRICT-LIST	2500	2500	2500	N	N	Y
II-WB-LIST	14063	14063	14063	N	Y	N
INTL-DIAL-PLAN	3000	3000	3000	Y	N	N
INTL-DIAL-PLAN-PROFILE	10	10	10	Y	N	N
INTL-WB-LIST	112500	112500	112500	N	Y	N
IPSEC-KERBEROS	1	1	1	Y	N	N
IPSEC-KERBEROS-KEYS	256	256	256	Y	N	N
IPSEC-POLICY	1000	1000	1000	Y	N	N
IPSEC-SA	256	256	256	Y	N	N
ISDN-BCHAN	36000	36000	36000	Y	N	N
ISDN-DCHAN	1500	1500	1500	Y	N	N
ISDN-INTF	1500	1500	1500	Y	N	N
ISDN-TG-PROFILE	250	250	250	Y	N	N
LATA	1000	1000	1000	Y	Y	N
LATA-MAP	150000	150000	150000	Y	Y	N
LSA	30000	30000	30000	Y	N	N
LSA-PROFILE	1000	1000	1000	N	N	N
MAC2SUB	50000	50000	50000	N	Y	N
MGCP-RETCODE-ACTION	2000	2000	2000	Y	N	N
MGW	100000	100000	100000	Y	N	N

Table 2-18 Release 4.5 Local Number Portability Database Usage Defaults - Routing Number (continued)

Table Name or Noun	Number of Records Before Split NPA	Maximum Record Count	Licensed Record Count	Route CA	Route FSPTC	Route FSAIN
MGW-PROFILE	100	100	100	Y	N	N
MLHG	10000	10000	10000	Y	Y	N
MLHG-PREF-LIST	1000	1000	1000	Y	N	N
MLHG-TERMINAL	50000	50000	50000	Y	N	N
NATIONAL-WB-LIST	112500	141000	141000	N	Y	N
NDC	50	50	50	Y	N	N
NOA	0	0	0	N	N	N
NOD	100	100	100	N	N	N
NOD-RESTRICT-LIST	1000	1000	1000	N	Y	N
NOD-WB-LIST	11250	11250	11250	N	Y	N
OFFICE-CODE	50000	50000	50000	Y	Y	N
OPC	30	30	30	Y	Y	Y
POLICY-NXX	400	400	400	Y	N	Y
POLICY-ODR	10000	10000	10000	Y	N	Y
POLICY-OLI	100	100	100	Y	N	Y
POLICY-PERCENT	400	400	400	Y	N	Y
POLICY-POP	12500	12500	12500	Y	N	Y
POLICY-PREFIX	10000	10000	10000	Y	N	Y
POLICY-REGION	1100	1100	1100	Y	N	Y
POLICY-TOD	400	400	400	Y	N	Y
POP	255	255	255	Y	Y	Y
PORTED-OFFICE-CODE	640000	640000	640000	Y	N	N
QOS	1000	1000	1000	Y	N	N
RADIUS-PROFILE	20	20	20	Y	Y	N
REGION-PROFILE	20000	25000	25000	Y	N	Y
RELEASE-CAUSE	10000	10000	10000	Y	N	N
ROUTE	2000	2000	2000	Y	N	N
ROUTE-GUIDE	1000	1000	1000	Y	N	Y
ROUTING-KEY	15360	15360	15360	Y	Y	Y
RUDP-BACKHAUL-SESSION	6000	6000	6000	Y	N	N
SC1D	30000	30000	30000	N	Y	N
SC2D	30000	30000	30000	N	Y	N
SCCP-NW	255	255	255	N	Y	Y
SCCP-ROUTE	65535	65535	65535	N	Y	Y
SCTP-ASSOC-PROFILE	120	120	120	Y	Y	Y

Table 2-18 Release 4.5 Local Number Portability Database Usage Defaults - Routing Number (continued)

Table Name or Noun	Number of Records Before Split NPA	Maximum Record Count	Licensed Record Count	Route CA	Route FSPTC	Route FSAIN
SCTP-ASSOC	240	240	240	Y	Y	Y
SERVICE	2000	2000	2000	N	Y	N
SERVICE-PROVIDER	1000	1000	1000	Y	N	N
SERVICE-TRIGGER	20000	20000	20000	Y	N	N
SERVING-DOMAIN-NAME	1000	1000	1000	Y	N	N
SG	20	20	20	Y	Y	Y
SG-GRP	20	20	20	Y	Y	Y
SGP	40	40	40	Y	Y	Y
SLE	30000	30000	30000	N	Y	N
SLHR-PROFILE	16	16	16	N	N	N
SLHR	480	480	480	N	Y	Y
SOFTSW-TG-PROFILE	100	100	100	Y	N	N
SPECIAL-CALL-TYPE	100	100	100	Y	N	N
SPLIT-NPA	1100	1100	1100	Y	Y	N
SS7-CIC	96000	96000	96000	Y	N	N
SS7_Q761_TG_PROFILE	100	100	100	Y	N	N
SS7_Q767_TG_PROFILE	100	100	100	Y	N	N
SS7-ANSI-TG-PROFILE	100	100	100	Y	N	N
STATIC-CONTACT	5000	5000	5000	Y	N	N
SUBSCRIBER	150000	150000	125000	Y	Y	N
SUBSCRIBER-FEATURE-DATA	900000	900000	900000	N	Y	N
SUBSCRIBER-PROFILE	2550	2550	2550	Y	Y	N
SUBSCRIBER-SERVICE-PROFILE	1500000	1500000	1500000	Y	Y	N
SUBSYSTEM-GRP	16	16	16	N	Y	Y
SUBSYSTEM	480	480	480	N	Y	Y
TECH-PREFIX-GRP	1000	1000	1000	Y	N	N
TECH-PREFIX-GRP-PROFILE	4	4	4	Y	N	N
TERMINATION	180000	180000	180000	Y	N	N
TRIGGER-DETECTION-POINT	50	50	50	N	N	N
TRIGGER-ID	100	100	100	N	N	N
TRUNK	100000	100000	100000	Y	N	N
TRUNK-GRP	10000	10000	10000	Y	N	N
TRUNK-GRP-FEATURE-DATA	1000	1000	1000	N	Y	N
TRUNK-GRP-SERVICE-PROFILE	1100	1100	1100	Y	Y	N
USER-AUTH	50000	50000	50000	Y	N	N

Table 2-18 Release 4.5 Local Number Portability Database Usage Defaults - Routing Number (continued)

Table Name or Noun	Number of Records Before Split NPA	Maximum Record Count	Licensed Record Count	Route CA	Route FSPTC	Route FSAIN
USER-PART-VARIANT	200	200	200	Y	N	N
VAR-DEFAULT	1000	1000	1000	N	N	N
VSC	1000	1000	1000	N	Y	N
WIRETAP	3000	3750	3750	Y	N	N
ANI-SCREENING	15000	18800	18800	Y	N	N
LNP-PROFILE	10	10	10	Y	Y	Y
DN2GN	100	100	100	N	N	Y
H323-TERM-PROFILE	200	200	200	Y	N	N
H323-TERM	15000	15000	15000	Y	N	N
ANI-SCREENING-PROFILE	1500	1500	1500	Y	N	N
SIPT-ISUP-VER-ALIAS	200	200	200	Y	N	N
TIMEZONE	400	400	400	N	N	N
SCRIPT	1000	1000	1000	Y	N	N
IVR-SCRIPT-PROFILE	100	100	100	N	Y	Y
LANGUAGE	1000	1000	1000	N	N	N
AUDIO-SEQ	1000	1000	1000	N	Y	Y
AUDIO-SEGMENT	5000	5000	5000	N	Y	Y
FEATURE-CONFIG	1000	1000	1000	N	Y	Y
FEATURE-CONFIG-BASE	1000	1000	1000	N	N	N
FEATURE-CONFIG-BASE-POS-VAL	1000	1000	1000	N	N	N
OCB-PROFILE	26	26	26	N	Y	N
OCB-K-VALUE	689	689	689	N	Y	N
ENUM-PROFILE	26	26	26	Y	N	Y
ENUM-CALL-TYPE	100	100	100	Y	N	N
DOMAIN2ROUTE	1000	1000	1000	Y	N	N
CLLI-CODE	255	255	255	N	N	N
SUBSCRIBER-TOD-SCHEDULE	1500	1500	1500	N	Y	N
EMERGENCY-NUMBER-LIST	50	50	50	Y	N	N
FS-AUDIT-PROFILE	10	10	10	N	Y	Y
TRIGGER-NOD-ESCAPE-LIST	100	100	100	Y	N	N
GTD-PARM-VALUES	100	100	100	N	N	N
AAA-SERVER-GRP	26	26	26	N	Y	N
REGION-CODE	800	800	800	Y	N	N
ZZZ-CODE	255	255	255	Y	N	N
AGGR-PROFILE	10	10	10	Y	N	N

Table 2-18 Release 4.5 Local Number Portability Database Usage Defaults - Routing Number (continued)

Table Name or Noun	Number of Records Before Split NPA	Maximum Record Count	Licensed Record Count	Route CA	Route FSPTC	Route FSAIN
CALL-SUBTYPE	1000	1000	1000	N	N	N
CA-CONFIG-BASE	1000	1000	1000	Y	Y	Y
APP-SERVER	255	255	255	Y	Y	N
SIP-TIMER-PROFILE	10	10	10	Y	N	N
ENUM-ROOT	10	10	10	Y	N	Y
SUBSYSTEM-PROFILE	16	16	16	N	Y	Y
CALL-TYPE-PROFILE	100	100	100	Y	N	N
NOA-ROUTE-PROFILE	100	100	100	Y	N	N
NOA-ROUTE	100	100	100	Y	N	N
DN2RN	5000000	5000000	5000000	N	N	Y

Cable8 Database Usage Defaults

Table 2-19 details the predefined defaults for the Database Usage table for a Cable8 configuration in Release 4.5.

Table 2-19 Release 4.5 Cable8 Database Usage Defaults

Table Name or Noun	Number of Records Before Split NPA	Maximum Record Count	Licensed Record Count	Route CA	Route FSPTC	Route FSAIN
AAA-SERVER-GRP	100	100	100	N	Y	N
ACTIVITY	100	100	100	Y	Y	Y
AGGR	2100	2100	2100	Y	N	N
AGGR-PROFILE	10	10	10	Y	N	N
ANI	400000	400000	400000	N	Y	N
ANI-SCREENING	15000	18800	18800	Y	N	N
ANI-SCREENING-PROFILE	1500	1500	1500	Y	N	N
ANI-WB-LIST	25000	31250	31250	N	N	Y
ANNC-TG-PROFILE	100	100	100	Y	N	N
ANNC-TRUNK	24000	24000	24000	Y	N	N
ANNOUNCEMENT	1000	1000	1000	Y	N	N
AOR2SUB	10000	10000	10000	Y	N	N
APP-SERVER	1000	1000	1000	Y	Y	N
AUDIO-SEGMENT	5000	5000	5000	N	Y	Y
AUDIO-SEQ	1000	1000	1000	N	Y	Y
AUTH-CODE	250000	250000	250000	N	Y	N

Table 2-19 Release 4.5 Cable8 Database Usage Defaults (continued)

Table Name or Noun	Number of Records Before Split NPA	Maximum Record Count	Licensed Record Count	Route CA	Route FSPTC	Route FSAIN
AUTH-CODE-GRP	25000	25000	25000	N	Y	N
AUTH-REALM	1000	1000	1000	Y	N	N
BACKHAUL-SET	1500	1500	1500	Y	N	N
CA-CONFIG	1000	1000	1000	Y	Y	Y
CALL-AGENT	10	10	10	Y	Y	Y
CALL-AGENT-PROFILE	10	10	10	Y	Y	Y
CALL-CTRL-ROUTE	15360	15360	15360	Y	N	N
CARRIER	10000	10000	10000	Y	N	N
CAS-TG-PROFILE	100	100	100	Y	N	N
CASUAL-WB-LIST	187500	187500	187500	N	Y	N
CAUSE-CODE-MAP	2000	2000	2000	Y	N	N
CAUSE-CODE-MAP-PROFILE	100	100	100	Y	N	N
CENTREX-GRP	1000	1000	1000	Y	Y	N
CHANGED-NUMBER	3750	5000	5000	Y	N	N
CIPHERSUITE	2100	2100	2100	Y	N	N
CIPHERSUITE-PROFILE	2100	2100	2100	N	N	N
CIRCUIT-CODE	1000	1000	1000	Y	N	N
CLLI-CODE	1000	1000	1000	N	N	N
COS-RESTRICT	187500	187500	187500	N	Y	N
CPSG	2000	2000	2000	Y	Y	N
CUST-GRP	2500	2500	2500	N	N	Y
CUSTOM-DIAL-PLAN	20000	20000	20000	N	Y	N
CUSTOM-DIAL-PLAN-PROFILE	1000	1000	1000	N	N	N
DESTINATION	10000	10000	10000	Y	N	N
DIAL-PLAN	1000000	1000000	1000000	Y	N	N
DIAL-PLAN-PROFILE	1000	1000	1000	Y	N	N
DIGIT-MAP	2000	2000	2000	Y	N	N
DIGMAN	16000	16000	16000	Y	N	N
DIGMAN-PROFILE	3200	3200	3200	Y	N	N
DN2CUST-GRP	250000	250000	250000	N	N	Y
DN2GN	100	100	100	N	N	Y
DN2SUBSCRIBER	375000	375000	375000	Y	N	N
DOMAIN2ROUTE	1000	1000	1000	Y	N	N
DPC	7680	7680	7680	Y	Y	Y
DS1	5000	5000	5000	Y	N	N

Table 2-19 Release 4.5 Cable8 Database Usage Defaults (continued)

Table Name or Noun	Number of Records Before Split NPA	Maximum Record Count	Licensed Record Count	Route CA	Route FSPTC	Route FSAIN
EMERGENCY-NUMBER-LIST	50	50	50	Y	N	N
ENUM-CALL-TYPE	100	100	100	Y	N	N
ENUM-PROFILE	100	100	100	Y	N	Y
ESS	1000	1000	1000	Y	N	N
EXCHANGE-CODE	64000	64000	64000	Y	N	N
EXT2SUBSCRIBER	50000	50000	50000	Y	Y	N
FEATURE	1000	1000	1000	N	Y	N
FEATURE-CONFIG	1000	1000	1000	N	Y	Y
FEATURE-SERVER	10	10	10	Y	Y	Y
FS-AUDIT-PROFILE	10	10	10	N	Y	Y
H323-GW	4	4	4	Y	N	N
H323-GW2GK	100	100	100	Y	N	N
H323-TERM	250	250	250	Y	N	N
H323-TERM-PROFILE	200	200	200	Y	N	N
H323-TG-PROFILE	100	100	100	Y	N	N
HTTP-FEATURE-SERVER	1	1	1	N	Y	N
II-RESTRICT-LIST	2500	2500	2500	N	N	Y
II-WB-LIST	23438	23438	23438	N	Y	N
INTL-DIAL-PLAN	60000	60000	60000	Y	N	N
INTL-DIAL-PLAN-PROFILE	200	200	200	Y	N	N
INTL-WB-LIST	187500	187500	187500	N	Y	N
IPSEC-KERBEROS	1	1	1	Y	N	N
IPSEC-KERBEROS-KEYS	256	256	256	Y	N	N
IPSEC-POLICY	2100	2100	2100	Y	N	N
IPSEC-SA	256	256	256	Y	N	N
ISDN-BCHAN	36000	36000	36000	Y	N	N
ISDN-DCHAN	1500	1500	1500	Y	N	N
ISDN-INTF	1500	1500	1500	Y	N	N
ISDN-TG-PROFILE	250	250	250	Y	N	N
IVR-SCRIPT-PROFILE	100	100	100	N	Y	Y
LANGUAGE	1000	1000	1000	N	N	N
LATA	1000	1000	1000	Y	Y	N
LATA-MAP	150000	150000	150000	Y	Y	N
LNP-PROFILE	10	10	10	Y	Y	Y
LSA	30000	30000	30000	Y	N	N

Table 2-19 Release 4.5 Cable8 Database Usage Defaults (continued)

Table Name or Noun	Number of Records Before Split NPA	Maximum Record Count	Licensed Record Count	Route CA	Route FSPTC	Route FSAIN
LSA-PROFILE	1000	1000	1000	N	N	N
MAC2SUB	10000	10000	10000	N	Y	N
MGCP-RETCODE-ACTION	2000	2000	2000	Y	N	N
MGW	210000	210000	210000	Y	N	N
MGW-PROFILE	100	100	100	Y	N	N
MLHG	20000	20000	20000	Y	Y	N
MLHG-PREF-LIST	2000	2000	2000	Y	N	N
MLHG-TERMINAL	100000	100000	100000	Y	N	N
NATIONAL-WB-LIST	187500	235000	235000	N	Y	N
NDC	800	800	800	Y	N	N
NOD-RESTRICT-LIST	1000	1000	1000	N	Y	N
NOD-WB-LIST	18750	18750	18750	N	Y	N
OCB-K-VALUE	2700	2700	2700	N	Y	N
OCB-PROFILE	100	100	100	N	Y	N
OFFICE-CODE	200000	200000	200000	Y	Y	N
OPC	30	30	30	Y	Y	Y
POLICY-NXX	400	400	400	Y	N	Y
POLICY-ODR	10000	10000	10000	Y	N	Y
POLICY-OLI	100	100	100	Y	N	Y
POLICY-PERCENT	400	400	400	Y	N	Y
POLICY-POP	25000	25000	25000	Y	N	Y
POLICY-PREFIX	10000	10000	10000	Y	N	Y
POLICY-REGION	1100	1100	1100	Y	N	Y
POLICY-TOD	400	400	400	Y	N	Y
POP	1000	1000	1000	Y	Y	Y
PORTED-OFFICE-CODE	640000	640000	640000	Y	N	N
QOS	2100	2100	2100	Y	N	N
RADIUS-PROFILE	20	20	20	Y	Y	N
REGION-CODE	800	800	800	Y	N	N
REGION-PROFILE	20000	25000	25000	Y	N	Y
RELEASE-CAUSE	10000	10000	10000	Y	N	N
ROUTE	2000	2000	2000	Y	N	N
ROUTE-GUIDE	1000	1000	1000	Y	N	Y
ROUTING-KEY	15360	15360	15360	Y	Y	Y
RUDP-BACKHAUL-SESSION	6000	6000	6000	Y	N	N

Table 2-19 Release 4.5 Cable8 Database Usage Defaults (continued)

Table Name or Noun	Number of Records Before Split NPA	Maximum Record Count	Licensed Record Count	Route CA	Route FSPTC	Route FSAIN
SC1D	50000	50000	50000	N	Y	N
SC2D	2500	2500	2500	N	Y	N
SCCP-NW	255	255	255	N	Y	Y
SCCP-ROUTE	65535	65535	65535	N	Y	Y
SCRIPT	1000	1000	1000	Y	N	N
SCTP-ASSOC	240	240	240	Y	Y	Y
SCTP-ASSOC-PROFILE	120	120	120	Y	Y	Y
SERVICE	2000	2000	2000	N	Y	N
SERVICE-PROVIDER	10	10	10	Y	N	N
SERVICE-TRIGGER	20000	20000	20000	Y	N	N
SERVING-DOMAIN-NAME	1000	1000	1000	Y	N	N
SG	20	20	20	Y	Y	Y
SG-GRP	20	20	20	Y	Y	Y
SGP	40	40	40	Y	Y	Y
SIP-TIMER-PROFILE	10	10	10	Y	N	N
SIPT-ISUP-VER-ALIAS	200	200	200	Y	N	N
SLE	50000	50000	50000	N	Y	N
SLHR	480	480	480	N	Y	Y
SLHR-PROFILE	16	16	16	N	N	N
SOFTSW-TG-PROFILE	100	100	100	Y	N	N
SPECIAL-CALL-TYPE	100	100	100	Y	N	N
SPLIT-NPA	1100	1100	1100	Y	Y	N
SS7_Q761_TG_PROFILE	100	100	100	Y	N	N
SS7_Q767_TG_PROFILE	100	100	100	Y	N	N
SS7-ANSI-TG-PROFILE	100	100	100	Y	N	N
SS7-CIC	60000	60000	60000	Y	N	N
STATIC-CONTACT	1000	1000	1000	Y	N	N
SUBSCRIBER	250000	250000	250000	Y	Y	N
SUBSCRIBER-FEATURE-DATA	1500000	1500000	1500000	N	Y	N
SUBSCRIBER-PROFILE	10000	10000	10000	Y	Y	N
SUBSCRIBER-SERVICE-PROFILE	1250000	1250000	1250000	Y	Y	N
SUBSCRIBER-TOD-SCHEDULE	2500	2500	2500	N	Y	N
SUBSYSTEM	480	480	480	N	Y	Y
SUBSYSTEM-GRP	16	16	16	N	Y	Y
TECH-PREFIX-GRP	10	10	10	Y	N	N

Table 2-19 Release 4.5 Cable8 Database Usage Defaults (continued)

Table Name or Noun	Number of Records Before Split NPA	Maximum Record Count	Licensed Record Count	Route CA	Route FSPTC	Route FSAIN
TECH-PREFIX-GRP-PROFILE	4	4	4	Y	N	N
TERMINATION	370000	370000	370000	Y	N	N
TRIGGER-NOD-ESCAPE-LIST	100	100	100	Y	N	N
TRUNK	120000	120000	120000	Y	N	N
TRUNK-GRP	10000	10000	10000	Y	N	N
TRUNK-GRP-FEATURE-DATA	1000	1000	1000	N	Y	N
TRUNK-GRP-SERVICE-PROFILE	1100	1100	1100	Y	Y	N
USER-AUTH	10000	10000	10000	Y	N	N
USER-PART-VARIANT	200	200	200	Y	N	N
VSC	1000	1000	1000	N	Y	N
WIRETAP	5000	6250	6250	Y	N	N
ZZZ-CODE	1000	1000	1000	Y	N	N

Release 4.5.1

This section describes the Database Usage tables for small, medium, routeserver, LNP and Cable8 configurations in Release 4.5.1.

Small Configuration Database Usage Defaults

Table 2-20 details the predefined defaults for the Database Usage table for a small configuration in Release 4.5.1.

Table 2-20 Release 4.5.1 Small Configuration Database Usage Defaults

Table Name or Noun	Number of Records Before Split-NPA	Maximum Record Count	Licensed Record Count	Route CA	Route FSPTC	Route FSAIN
AAA-SERVER-GRP	1	1	1	N	Y	N
ACTIVITY	100	100	100	Y	Y	Y
ACTIVITY-BASE	100	100	100	N	N	N
AGGR	380	380	380	Y	N	N
AGGR-PROFILE	10	10	10	Y	N	N
ANI	100000	100000	100000	N	Y	N
ANI-SCREENING	1000	1300	1300	Y	N	N
ANI-SCREENING-PROFILE	100	100	100	Y	N	N

Table 2-20 Release 4.5.1 Small Configuration Database Usage Defaults (continued)

Table Name or Noun	Number of Records Before Split-NPA	Maximum Record Count	Licensed Record Count	Route CA	Route FSPTC	Route FSAIN
ANI-WB-LIST	5000	6250	6250	N	N	Y
ANNC-TG-PROFILE	100	100	100	Y	N	N
ANNC-TRUNK	240	240	240	Y	N	N
ANNOUNCEMENT	1000	1000	1000	Y	N	N
AOR2SUB	22500	22500	22500	Y	N	N
APP-SERVER	10	10	10	Y	Y	N
AUDIO-SEGMENT	5000	5000	5000	N	Y	Y
AUDIO-SEQ	1000	1000	1000	N	Y	Y
AUTH-CODE	50000	50000	50000	N	Y	N
AUTH-CODE-GRP	5000	5000	5000	N	Y	N
AUTH-REALM	1000	1000	1000	Y	N	N
BACKHAUL-SET	100	100	100	Y	N	N
CA-CONFIG	1000	1000	1000	Y	Y	Y
CA-CONFIG-BASE	1000	1000	1000	Y	Y	Y
CALL-AGENT	10	10	10	Y	Y	Y
CALL-AGENT-PROFILE	10	10	10	Y	Y	Y
CALL-CTRL-ROUTE	4096	4096	4096	Y	N	N
CALL-SUBTYPE	1000	1000	1000	N	N	N
CALL-TYPE	100	100	100	N	N	N
CALL-TYPE-PROFILE	100	100	100	Y	N	N
CARRIER	10000	10000	10000	Y	N	N
CAS-TG-PROFILE	100	100	100	Y	N	N
CASUAL-WB-LIST	33750	33750	33750	N	Y	N
CAUSE-CODE-MAP	2000	2000	2000	Y	N	N
CAUSE-CODE-MAP-PROFILE	100	100	100	Y	N	N
CENTREX-GRP	100	100	100	Y	Y	N
CHANGED-NUMBER	675	1000	1000	Y	N	N
CIPHERSUITE	380	380	380	Y	N	N
CIPHERSUITE-PROFILE	380	380	380	N	N	N
CIRCUIT-CODE	10	10	10	Y	N	N
CLLI-CODE	10	10	10	N	N	N
COS-RESTRICT	33750	33750	33750	N	Y	N
CPSG	200	200	200	Y	Y	N
CUST-GRP	500	500	500	N	N	Y

Table 2-20 Release 4.5.1 Small Configuration Database Usage Defaults (continued)

Table Name or Noun	Number of Records Before Split-NPA	Maximum Record Count	Licensed Record Count	Route CA	Route FSPTC	Route FSAIN
CUSTOM-DIAL-PLAN	2000	2000	2000	N	Y	N
CUSTOM-DIAL-PLAN-PROFILE	100	100	100	N	N	N
DB-THRESHOLDS	1000	1000	1000	N	N	N
DB-USAGE	1000	1000	1000	N	N	N
DESTINATION	500	500	500	Y	N	N
DIAL-PLAN	200000	200000	200000	Y	N	N
DIAL-PLAN-PROFILE	200	200	200	Y	N	N
DIGIT-MAP	110	110	110	Y	N	N
DIGMAN	2175	2175	2175	Y	N	N
DIGMAN-PROFILE	435	435	435	Y	N	N
DN2CUST-GRP	50000	50000	50000	N	N	Y
DN2GN	100	100	100	N	N	Y
DN2RN	100	100	100	N	N	Y
DN2SUBSCRIBER	67500	67500	67500	Y	N	N
DOMAIN2ROUTE	1000	1000	1000	Y	N	N
DPC	2048	2048	2048	Y	Y	Y
DS1	800	800	800	Y	N	N
EMERGENCY-NUMBER-LIST	50	50	50	Y	N	N
ENUM-CALL-TYPE	100	100	100	Y	N	N
ENUM-PROFILE	1	1	1	Y	N	Y
ENUM-ROOT	10	10	10	Y	N	Y
ESS	10	10	10	Y	N	N
EXCHANGE-CODE	5000	5000	5000	Y	N	N
EXT2SUBSCRIBER	5000	5000	5000	Y	Y	N
FEATURE	1000	1000	1000	N	Y	N
FEATURE-CONFIG	1000	1000	1000	N	Y	Y
FEATURE-CONFIG-BASE	1000	1000	1000	N	N	N
FEATURE-CONFIG-BASE-POS-VAL	1000	1000	1000	N	N	N
FEATURE-SERVER	10	10	10	Y	Y	Y
FS-AUDIT-PROFILE	10	10	10	N	Y	Y
GTD-PARM-VALUES	100	100	100	N	N	N
H323-GW	4	4	4	Y	N	N
H323-GW2GK	100	100	100	Y	N	N
H323-TERM	4500	4500	4500	Y	N	N

Table 2-20 Release 4.5.1 Small Configuration Database Usage Defaults (continued)

Table Name or Noun	Number of Records Before Split-NPA	Maximum Record Count	Licensed Record Count	Route CA	Route FSPTC	Route FSAIN
H323-TERM-PROFILE	200	200	200	Y	N	N
H323-TG-PROFILE	100	100	100	Y	N	N
HTTP-FEATURE-SERVER	1	1	1	N	Y	N
II-RESTRICT-LIST	500	500	500	N	N	Y
II-WB-LIST	4219	4219	4219	N	Y	N
INTL-DIAL-PLAN	1200	1200	1200	Y	N	N
INTL-DIAL-PLAN-PROFILE	4	4	4	Y	N	N
INTL-WB-LIST	33750	33750	33750	N	Y	N
IPSEC-KERBEROS	1	1	1	Y	N	N
IPSEC-KERBEROS-KEYS	256	256	256	Y	N	N
IPSEC-POLICY	380	380	380	Y	N	N
IPSEC-SA	256	256	256	Y	N	N
ISDN-BCHAN	2400	2400	2400	Y	N	N
ISDN-DCHAN	100	100	100	Y	N	N
ISDN-INTF	100	100	100	Y	N	N
ISDN-TG-PROFILE	100	100	100	Y	N	N
IVR-SCRIPT-PROFILE	100	100	100	N	Y	Y
LANGUAGE	1000	1000	1000	N	N	N
LATA	1000	1000	1000	Y	Y	N
LATA-MAP	150000	150000	150000	Y	Y	N
LNP-PROFILE	10	10	10	Y	Y	Y
LSA	30000	30000	30000	Y	N	N
LSA-PROFILE	1000	1000	1000	N	N	N
MAC2SUB	22500	22500	22500	N	Y	N
MGCP-RETCODE-ACTION	2000	2000	2000	Y	N	N
MGW	38000	38000	38000	Y	N	N
MGW-PROFILE	100	100	100	Y	N	N
MLHG	100	100	100	Y	Y	N
MLHG-PREF-LIST	10	10	10	Y	N	N
MLHG-TERMINAL	500	500	500	Y	N	N
NATIONAL-WB-LIST	33750	43000	43000	N	Y	N
NDC	50	50	50	Y	N	N
NOA	0	0	0	N	N	N
NOA-ROUTE	100	100	100	Y	N	N

Table 2-20 Release 4.5.1 Small Configuration Database Usage Defaults (continued)

Table Name or Noun	Number of Records Before Split-NPA	Maximum Record Count	Licensed Record Count	Route CA	Route FSPTC	Route FSAIN
NOA-ROUTE-PROFILE	100	100	100	Y	N	N
NOD	100	100	100	N	N	N
NOD-RESTRICT-LIST	1000	1000	1000	N	Y	N
NOD-WB-LIST	3375	3375	3375	N	Y	N
OCB-K-VALUE	27	27	27	N	Y	N
OCB-PROFILE	1	1	1	N	Y	N
OFFICE-CODE	50000	50000	50000	Y	Y	N
OPC	8	8	30	Y	Y	Y
POLICY-NXX	100	100	100	Y	N	Y
POLICY-ODR	2500	2500	2500	Y	N	Y
POLICY-OLI	25	25	25	Y	N	Y
POLICY-PERCENT	100	100	100	Y	N	Y
POLICY-POP	125	125	125	Y	N	Y
POLICY-PREFIX	10000	10000	10000	Y	N	Y
POLICY-REGION	275	275	275	Y	N	Y
POLICY-TOD	100	100	100	Y	N	Y
POP	10	10	10	Y	Y	Y
PORTED-OFFICE-CODE	120000	120000	120000	Y	N	N
QOS	380	380	380	Y	N	N
RADIUS-PROFILE	20	20	20	Y	Y	N
REGION-CODE	800	800	800	Y	N	N
REGION-PROFILE	5000	7000	7000	Y	N	Y
RELEASE-CAUSE	10000	10000	10000	Y	N	N
ROUTE	250	250	250	Y	N	N
ROUTE-GUIDE	250	250	250	Y	N	Y
ROUTING-KEY	4096	4096	4096	Y	Y	Y
RUDP-BACKHAUL-SESSION	400	400	400	Y	N	N
SC1D	9000	9000	9000	N	Y	N
SC2D	9000	9000	9000	N	Y	N
SCCP-NW	255	255	255	N	Y	Y
SCCP-ROUTE	65535	65535	65535	N	Y	Y
SCRIPT	1000	1000	1000	Y	N	N
SCTP-ASSOC	240	240	240	Y	Y	Y
SCTP-ASSOC-PROFILE	120	120	120	Y	Y	Y

Table 2-20 Release 4.5.1 Small Configuration Database Usage Defaults (continued)

Table Name or Noun	Number of Records Before Split-NPA	Maximum Record Count	Licensed Record Count	Route CA	Route FSPTC	Route FSAIN
SERVICE	2000	2000	2000	N	Y	N
SERVICE-PROVIDER	100	100	100	Y	N	N
SERVICE-TRIGGER	20000	20000	20000	Y	N	N
SERVING-DOMAIN-NAME	1000	1000	1000	Y	N	N
SG	20	20	20	Y	Y	Y
SG-GRP	20	20	20	Y	Y	Y
SGP	40	40	40	Y	Y	Y
SIP-TIMER-PROFILE	10	10	10	Y	N	N
SIPT-ISUP-VER-ALIAS	200	200	200	Y	N	N
SLE	9000	9000	9000	N	Y	N
SLHR	128	128	128	N	Y	Y
SLHR-PROFILE	16	16	16	N	N	N
SOFTSW-TG-PROFILE	100	100	100	Y	N	N
SPECIAL-CALL-TYPE	100	100	100	Y	N	N
SPLIT-NPA	1100	1100	1100	Y	Y	N
SS7_Q761_TG_PROFILE	100	100	100	Y	N	N
SS7_Q767_TG_PROFILE	100	100	100	Y	N	N
SS7-ANSI-TG-PROFILE	100	100	100	Y	N	N
SS7-CIC	18000	18000	18000	Y	N	N
STATIC-CONTACT	2250	2250	2250	Y	N	N
SUBSCRIBER	45000	45000	45000	Y	Y	N
SUBSCRIBER-FEATURE-DATA	270000	270000	270000	N	Y	N
SUBSCRIBER-PROFILE	100	100	100	Y	Y	N
SUBSCRIBER-SERVICE-PROFILE	225000	225000	225000	Y	Y	N
SUBSCRIBER-TOD-SCHEDULE	450	450	450	N	Y	N
SUBSYSTEM	128	128	128	N	Y	Y
SUBSYSTEM-GRP	16	16	16	N	Y	Y
SUBSYSTEM-PROFILE	16	16	16	N	Y	Y
TECH-PREFIX-GRP	110	110	110	Y	N	N
TECH-PREFIX-GRP-PROFILE	4	4	4	Y	N	N
TERMINATION	60000	60000	60000	Y	N	N
TIMEZONE	400	400	400	N	N	N
TRIGGER-DETECTION-POINT	50	50	50	N	N	N
TRIGGER-ID	100	100	100	N	N	N

Table 2-20 Release 4.5.1 Small Configuration Database Usage Defaults (continued)

Table Name or Noun	Number of Records Before Split-NPA	Maximum Record Count	Licensed Record Count	Route CA	Route FSPTC	Route FSAIN
TRIGGER-NOD-ESCAPE-LIST	100	100	100	Y	N	N
TRUNK	24000	24000	24000	Y	N	N
TRUNK-GRP	1000	1000	1000	Y	N	N
TRUNK-GRP-FEATURE-DATA	100	100	100	N	Y	N
TRUNK-GRP-SERVICE-PROFILE	110	110	110	Y	Y	N
USER-AUTH	22500	22500	22500	Y	N	N
USER-PART-VARIANT	200	200	200	Y	N	N
VAR-DEFAULT	1000	1000	1000	N	N	N
VSC	1000	1000	1000	N	Y	N
WIRETAP	900	1125	1125	Y	N	N
ZZZ-CODE	10	10	10	Y	N	N

Medium Configuration Database Usage Defaults

Table 2-21 details the predefined defaults for the Database Usage table for a medium configuration in Release 4.5.1.

Table 2-21 Release 4.5.1 Medium Configuration Database Usage Defaults

Table Name or Noun	Number of Records Before Split-NPA	Maximum Record Count	Licensed Record Count	Route CA	Route FSPTC	Route FSAIN
AAA-SERVER-GRP	50	50	50	N	Y	N
ACTIVITY	100	100	100	Y	Y	Y
ACTIVITY-BASE	100	100	100	N	N	N
AGGR	3000	3000	3000	Y	N	N
AGGR-PROFILE	10	10	10	Y	N	N
ANI	400000	400000	400000	N	Y	N
ANI-SCREENING	15000	18800	18800	Y	N	N
ANI-SCREENING-PROFILE	1500	1500	1500	Y	N	N
ANI-WB-LIST	25000	31250	31250	N	N	Y
ANNC-TG-PROFILE	100	100	100	Y	N	N
ANNC-TRUNK	12000	12000	12000	Y	N	N
ANNOUNCEMENT	1000	1000	1000	Y	N	N
AOR2SUB	50000	50000	50000	Y	N	N

Table 2-21 Release 4.5.1 Medium Configuration Database Usage Defaults (continued)

Table Name or Noun	Number of Records Before Split-NPA	Maximum Record Count	Licensed Record Count	Route CA	Route FSPTC	Route FSAIN
APP-SERVER	500	500	500	Y	Y	N
AUDIO-SEGMENT	5000	5000	5000	N	Y	Y
AUDIO-SEQ	1000	1000	1000	N	Y	Y
AUTH-CODE	250000	250000	250000	N	Y	N
AUTH-CODE-GRP	25000	25000	25000	N	Y	N
AUTH-REALM	1000	1000	1000	Y	N	N
BACKHAUL-SET	2500	2500	2500	Y	N	N
CA-CONFIG	1000	1000	1000	Y	Y	Y
CA-CONFIG-BASE	1000	1000	1000	Y	Y	Y
CALL-AGENT	10	10	10	Y	Y	Y
CALL-AGENT-PROFILE	10	10	10	Y	Y	Y
CALL-CTRL-ROUTE	15360	15360	15360	Y	N	N
CALL-SUBTYPE	1000	1000	1000	N	N	N
CALL-TYPE	100	100	100	N	N	N
CALL-TYPE-PROFILE	100	100	100	Y	N	N
CARRIER	10000	10000	10000	Y	N	N
CAS-TG-PROFILE	100	100	100	Y	N	N
CASUAL-WB-LIST	112500	112500	112500	N	Y	N
CAUSE-CODE-MAP	2000	2000	2000	Y	N	N
CAUSE-CODE-MAP-PROFILE	100	100	100	Y	N	N
CENTREX-GRP	500	500	500	Y	Y	N
CHANGED-NUMBER	2250	3000	3000	Y	N	N
CIPHERSUITE	3000	3000	3000	Y	N	N
CIPHERSUITE-PROFILE	3000	3000	3000	N	N	N
CIRCUIT-CODE	1000	1000	1000	Y	N	N
CLLI-CODE	500	500	500	N	N	N
COS-RESTRICT	112500	112500	112500	N	Y	N
CPSG	1000	1000	1000	Y	Y	N
CUST-GRP	2500	2500	2500	N	N	Y
CUSTOM-DIAL-PLAN	10000	10000	10000	N	Y	N
CUSTOM-DIAL-PLAN-PROFILE	500	500	500	N	N	N
DB-THRESHOLDS	1000	1000	1000	N	N	N
DB-USAGE	1000	1000	1000	N	N	N
DESTINATION	5000	5000	5000	Y	N	N

Table 2-21 Release 4.5.1 Medium Configuration Database Usage Defaults (continued)

Table Name or Noun	Number of Records Before Split-NPA	Maximum Record Count	Licensed Record Count	Route CA	Route FSPTC	Route FSAIN
DIAL-PLAN	1000000	1000000	1000000	Y	N	N
DIAL-PLAN-PROFILE	1000	1000	1000	Y	N	N
DIGIT-MAP	1000	1000	1000	Y	N	N
DIGMAN	13500	13500	13500	Y	N	N
DIGMAN-PROFILE	2700	2700	2700	Y	N	N
DN2CUST-GRP	250000	250000	250000	N	N	Y
DN2GN	100	100	100	N	N	Y
DN2RN	100	100	100	N	N	Y
DN2SUBSCRIBER	225000	225000	225000	Y	N	N
DOMAIN2ROUTE	1000	1000	1000	Y	N	N
DPC	7680	7680	7680	Y	Y	Y
DS1	4200	4200	4200	Y	N	N
EMERGENCY-NUMBER-LIST	50	50	50	Y	N	N
ENUM-CALL-TYPE	100	100	100	Y	N	N
ENUM-PROFILE	50	50	50	Y	N	Y
ENUM-ROOT	10	10	10	Y	N	Y
ESS	500	500	500	Y	N	N
EXCHANGE-CODE	50000	50000	50000	Y	N	N
EXT2SUBSCRIBER	25000	25000	25000	Y	Y	N
FEATURE	1000	1000	1000	N	Y	N
FEATURE-CONFIG	1000	1000	1000	N	Y	Y
FEATURE-CONFIG-BASE	1000	1000	1000	N	N	N
FEATURE-CONFIG-BASE-POS-VAL	1000	1000	1000	N	N	N
FEATURE-SERVER	10	10	10	Y	Y	Y
FS-AUDIT-PROFILE	10	10	10	N	Y	Y
GTD-PARM-VALUES	100	100	100	N	N	N
H323-GW	4	4	4	Y	N	N
H323-GW2GK	100	100	100	Y	N	N
H323-TERM	15000	15000	15000	Y	N	N
H323-TERM-PROFILE	200	200	200	Y	N	N
H323-TG-PROFILE	100	100	100	Y	N	N
HTTP-FEATURE-SERVER	1	1	1	N	Y	N
II-RESTRICT-LIST	2500	2500	2500	N	N	Y
II-WB-LIST	14063	14063	14063	N	Y	N

Table 2-21 Release 4.5.1 Medium Configuration Database Usage Defaults (continued)

Table Name or Noun	Number of Records Before Split-NPA	Maximum Record Count	Licensed Record Count	Route CA	Route FSPTC	Route FSAIN
INTL-DIAL-PLAN	60000	60000	60000	Y	N	N
INTL-DIAL-PLAN-PROFILE	200	200	200	Y	N	N
INTL-WB-LIST	112500	112500	112500	N	Y	N
IPSEC-KERBEROS	1	1	1	Y	N	N
IPSEC-KERBEROS-KEYS	256	256	256	Y	N	N
IPSEC-POLICY	3000	3000	3000	Y	N	N
IPSEC-SA	256	256	256	Y	N	N
ISDN-BCHAN	60000	60000	60000	Y	N	N
ISDN-DCHAN	2500	2500	2500	Y	N	N
ISDN-INTF	2500	2500	2500	Y	N	N
ISDN-TG-PROFILE	250	250	250	Y	N	N
IVR-SCRIPT-PROFILE	100	100	100	N	Y	Y
LANGUAGE	1000	1000	1000	N	N	N
LATA	1000	1000	1000	Y	Y	N
LATA-MAP	150000	150000	150000	Y	Y	N
LNP-PROFILE	10	10	10	Y	Y	Y
LSA	30000	30000	30000	Y	N	N
LSA-PROFILE	1000	1000	1000	N	N	N
MAC2SUB	50000	50000	50000	N	Y	N
MGCP-RETCODE-ACTION	2000	2000	2000	Y	N	N
MGW	150000	150000	150000	Y	N	N
MGW-PROFILE	100	100	100	Y	N	N
MLHG	20000	20000	20000	Y	Y	N
MLHG-PREF-LIST	2000	2000	2000	Y	N	N
MLHG-TERMINAL	100000	100000	100000	Y	N	N
NATIONAL-WB-LIST	112500	141000	141000	N	Y	N
NDC	800	800	800	Y	N	N
NOA	0	0	0	N	N	N
NOA-ROUTE	100	100	100	Y	N	N
NOA-ROUTE-PROFILE	100	100	100	Y	N	N
NOD	100	100	100	N	N	N
NOD-RESTRICT-LIST	1000	1000	1000	N	Y	N
NOD-WB-LIST	11250	11250	11250	N	Y	N
OCB-K-VALUE	1350	1350	1350	N	Y	N

Table 2-21 Release 4.5.1 Medium Configuration Database Usage Defaults (continued)

Table Name or Noun	Number of Records Before Split-NPA	Maximum Record Count	Licensed Record Count	Route CA	Route FSPTC	Route FSAIN
OCB-PROFILE	50	50	50	N	Y	N
OFFICE-CODE	50000	50000	50000	Y	Y	N
OPC	30	30	30	Y	Y	Y
POLICY-NXX	400	400	400	Y	N	Y
POLICY-ODR	10000	10000	10000	Y	N	Y
POLICY-OLI	100	100	100	Y	N	Y
POLICY-PERCENT	400	400	400	Y	N	Y
POLICY-POP	12500	12500	12500	Y	N	Y
POLICY-PREFIX	10000	10000	10000	Y	N	Y
POLICY-REGION	1100	1100	1100	Y	N	Y
POLICY-TOD	400	400	400	Y	N	Y
POP	500	500	500	Y	Y	Y
PORTED-OFFICE-CODE	640000	640000	640000	Y	N	N
QOS	3000	3000	3000	Y	N	N
RADIUS-PROFILE	20	20	20	Y	Y	N
REGION-CODE	800	800	800	Y	N	N
REGION-PROFILE	20000	25000	25000	Y	N	Y
RELEASE-CAUSE	10000	10000	10000	Y	N	N
ROUTE	2000	2000	2000	Y	N	N
ROUTE-GUIDE	1000	1000	1000	Y	N	Y
ROUTING-KEY	15360	15360	15360	Y	Y	Y
RUDP-BACKHAUL-SESSION	6000	6000	6000	Y	N	N
SC1D	30000	30000	30000	N	Y	N
SC2D	30000	30000	30000	N	Y	N
SCCP-NW	255	255	255	N	Y	Y
SCCP-ROUTE	65535	65535	65535	N	Y	Y
SCRIPT	1000	1000	1000	Y	N	N
SCTP-ASSOC	240	240	240	Y	Y	Y
SCTP-ASSOC-PROFILE	120	120	120	Y	Y	Y
SERVICE	2000	2000	2000	N	Y	N
SERVICE-PROVIDER	1000	1000	1000	Y	N	N
SERVICE-TRIGGER	20000	20000	20000	Y	N	N
SERVING-DOMAIN-NAME	1000	1000	1000	Y	N	N
SG	20	20	20	Y	Y	Y

Table 2-21 Release 4.5.1 Medium Configuration Database Usage Defaults (continued)

Table Name or Noun	Number of Records Before Split-NPA	Maximum Record Count	Licensed Record Count	Route CA	Route FSPTC	Route FSAIN
SG-GRP	20	20	20	Y	Y	Y
SGP	40	40	40	Y	Y	Y
SIP-TIMER-PROFILE	10	10	10	Y	N	N
SIPT-ISUP-VER-ALIAS	200	200	200	Y	N	N
SLE	30000	30000	30000	N	Y	N
SLHR	480	480	480	N	Y	Y
SLHR-PROFILE	16	16	16	N	N	N
SOFTSW-TG-PROFILE	100	100	100	Y	N	N
SPECIAL-CALL-TYPE	100	100	100	Y	N	N
SPLIT-NPA	1100	1100	1100	Y	Y	N
SS7_Q761_TG_PROFILE	100	100	100	Y	N	N
SS7_Q767_TG_PROFILE	100	100	100	Y	N	N
SS7-ANSI-TG-PROFILE	100	100	100	Y	N	N
SS7-CIC	96000	96000	96000	Y	N	N
STATIC-CONTACT	5000	5000	5000	Y	N	N
SUBSCRIBER	150000	150000	125000	Y	Y	N
SUBSCRIBER-FEATURE-DATA	900000	900000	900000	N	Y	N
SUBSCRIBER-PROFILE	5000	5000	5000	Y	Y	N
SUBSCRIBER-SERVICE-PROFILE	1500000	1500000	1500000	Y	Y	N
SUBSCRIBER-TOD-SCHEDULE	1500	1500	1500	N	Y	N
SUBSYSTEM	480	480	480	N	Y	Y
SUBSYSTEM-GRP	16	16	16	N	Y	Y
SUBSYSTEM-PROFILE	16	16	16	N	Y	Y
TECH-PREFIX-GRP	1000	1000	1000	Y	N	N
TECH-PREFIX-GRP-PROFILE	4	4	4	Y	N	N
TERMINATION	180000	180000	180000	Y	N	N
TIMEZONE	400	400	400	N	N	N
TRIGGER-DETECTION-POINT	50	50	50	N	N	N
TRIGGER-ID	100	100	100	N	N	N
TRIGGER-NOD-ESCAPE-LIST	100	100	100	Y	N	N
TRUNK	100000	100000	100000	Y	N	N
TRUNK-GRP	10000	10000	10000	Y	N	N
TRUNK-GRP-FEATURE-DATA	1000	1000	1000	N	Y	N
TRUNK-GRP-SERVICE-PROFILE	1100	1100	1100	Y	Y	N

Table 2-21 Release 4.5.1 Medium Configuration Database Usage Defaults (continued)

Table Name or Noun	Number of Records Before Split-NPA	Maximum Record Count	Licensed Record Count	Route CA	Route FSPTC	Route FSAIN
USER-AUTH	50000	50000	50000	Y	N	N
USER-PART-VARIANT	200	200	200	Y	N	N
VAR-DEFAULT	1000	1000	1000	N	N	N
VSC	1000	1000	1000	N	Y	N
WIRETAP	3000	3750	3750	Y	N	N
ZZZ-CODE	1000	1000	1000	Y	N	N

Medium Configuration Database Usage Defaults - Generic Routing

Table 2-22 details the predefined defaults for the Database Usage table for a medium configuration - generic routing in Release 4.5.1.

Table 2-22 Release 4.5.1 Medium Configuration Database Usage Defaults - Generic Routing

Table Name or Noun	Records Before Split-NPA	Maximum Record Count	Licensed Record Count	Route CA	Route FSPTCS	Route FSAIN
AAA-SERVER-GRP	50	50	50	N	Y	N
ACTIVITY	100	100	100	Y	Y	Y
ACTIVITY-BASE	100	100	100	N	N	N
AGGR	1000	1000	1000	Y	N	N
AGGR-PROFILE	10	10	10	Y	N	N
ANI	400000	400000	400000	N	Y	N
ANI-SCREENING	15000	18800	18800	Y	N	N
ANI-SCREENING-PROFILE	1500	1500	1500	Y	N	N
ANI-WB-LIST	25000	31250	31250	N	N	Y
ANNC-TG-PROFILE	100	100	100	Y	N	N
ANNC-TRUNK	12000	12000	12000	Y	N	N
ANNOUNCEMENT	1000	1000	1000	Y	N	N
AOR2SUB	33000	33000	33000	Y	N	N
APP-SERVER	500	500	500	Y	Y	N
AUDIO-SEGMENT	5000	5000	5000	N	Y	Y
AUDIO-SEQ	1000	1000	1000	N	Y	Y
AUTH-CODE	250000	250000	250000	N	Y	N
AUTH-CODE-GRP	25000	25000	25000	N	Y	N
AUTH-REALM	1000	1000	1000	Y	N	N

Table 2-22 Release 4.5.1 Medium Configuration Database Usage Defaults - Generic Routing (continued)

Table Name or Noun	Records Before Split-NPA	Maximum Record Count	Licensed Record Count	Route CA	Route FSPTCS	Route FSAIN
BACKHAUL-SET	1500	1500	1500	Y	N	N
CA-CONFIG	1000	1000	1000	Y	Y	Y
CA-CONFIG-BASE	1000	1000	1000	Y	Y	Y
CALL-AGENT	10	10	10	Y	Y	Y
CALL-AGENT-PROFILE	10	10	10	Y	Y	Y
CALL-CTRL-ROUTE	15360	15360	15360	Y	N	N
CALL-SUBTYPE	1000	1000	1000	N	N	N
CALL-TYPE	100	100	100	N	N	N
CALL-TYPE-PROFILE	100	100	100	Y	N	N
CARRIER	10000	10000	10000	Y	N	N
CAS-TG-PROFILE	100	100	100	Y	N	N
CASUAL-WB-LIST	75000	75000	75000	N	Y	N
CAUSE-CODE-MAP	2000	2000	2000	Y	N	N
CAUSE-CODE-MAP-PROFILE	100	100	100	Y	N	N
CENTREX-GRP	500	500	500	Y	Y	N
CHANGED-NUMBER	1500	2000	2000	Y	N	N
CIPHERSUITE	1000	1000	1000	Y	N	N
CIPHERSUITE-PROFILE	1000	1000	1000	N	N	N
CIRCUIT-CODE	500	500	500	Y	N	N
CLLI-CODE	500	500	500	N	N	N
COS-RESTRICT	75000	75000	75000	N	Y	N
CPSG	1000	1000	1000	Y	Y	N
CUST-GRP	2500	2500	2500	N	N	Y
CUSTOM-DIAL-PLAN	10000	10000	10000	N	Y	N
CUSTOM-DIAL-PLAN-PROFILE	500	500	500	N	N	N
DB-THRESHOLDS	1000	1000	1000	N	N	N
DB-USAGE	1000	1000	1000	N	N	N
DESTINATION	5000	5000	5000	Y	N	N
DIAL-PLAN	1000000	1000000	1000000	Y	N	N
DIAL-PLAN-PROFILE	1000	1000	1000	Y	N	N
DIGIT-MAP	1000	1000	1000	Y	N	N
DIGMAN	13500	13500	13500	Y	N	N
DIGMAN-PROFILE	2700	2700	2700	Y	N	N
DN2CUST-GRP	250000	250000	250000	N	N	Y
DN2GN	100	100	100	N	N	Y

Table 2-22 Release 4.5.1 Medium Configuration Database Usage Defaults - Generic Routing (continued)

Table Name or Noun	Records Before Split-NPA	Maximum Record Count	Licensed Record Count	Route CA	Route FSPTCS	Route FSAIN
DN2RN	100	100	100	N	N	Y
DN2SUBSCRIBER	150000	150000	150000	Y	N	N
DOMAIN2ROUTE	1000	1000	1000	Y	N	N
DPC	7680	7680	7680	Y	Y	Y
DS1	4200	4200	4200	Y	N	N
EMERGENCY-NUMBER-LIST	50	50	50	Y	N	N
ENUM-CALL-TYPE	100	100	100	Y	N	N
ENUM-PROFILE	50	50	50	Y	N	Y
ENUM-ROOT	10	10	10	Y	N	Y
ESS	500	500	500	Y	N	N
EXCHANGE-CODE	50000	50000	50000	Y	N	N
EXT2SUBSCRIBER	25000	25000	25000	Y	Y	N
FEATURE	1000	1000	1000	N	Y	N
FEATURE-CONFIG	1000	1000	1000	N	Y	Y
FEATURE-CONFIG-BASE	1000	1000	1000	N	N	N
FEATURE-CONFIG-BASE-POS-VAL	1000	1000	1000	N	N	N
FEATURE-SERVER	10	10	10	Y	Y	Y
FS-AUDIT-PROFILE	10	10	10	N	Y	Y
GTD-PARM-VALUES	100	100	100	N	N	N
H323-GW	4	4	4	Y	N	N
H323-GW2GK	100	100	100	Y	N	N
H323-TERM	10000	10000	10000	Y	N	N
H323-TERM-PROFILE	200	200	200	Y	N	N
H323-TG-PROFILE	100	100	100	Y	N	N
HTTP-FEATURE-SERVER	1	1	1	N	Y	N
II-RESTRICT-LIST	2500	2500	2500	N	N	Y
II-WB-LIST	9375	9375	9375	N	Y	N
INTL-DIAL-PLAN	60000	60000	60000	Y	N	N
INTL-DIAL-PLAN-PROFILE	200	200	200	Y	N	N
INTL-WB-LIST	75000	75000	75000	N	Y	N
IPSEC-KERBEROS	1	1	1	Y	N	N
IPSEC-KERBEROS-KEYS	256	256	256	Y	N	N
IPSEC-POLICY	1000	1000	1000	Y	N	N
IPSEC-SA	256	256	256	Y	N	N
ISDN-BCHAN	36000	36000	36000	Y	N	N

Table 2-22 Release 4.5.1 Medium Configuration Database Usage Defaults - Generic Routing (continued)

Table Name or Noun	Records Before Split-NPA	Maximum Record Count	Licensed Record Count	Route CA	Route FSPTCS	Route FSAIN
ISDN-DCHAN	1500	1500	1500	Y	N	N
ISDN-INTF	1500	1500	1500	Y	N	N
ISDN-TG-PROFILE	250	250	250	Y	N	N
IVR-SCRIPT-PROFILE	100	100	100	N	Y	Y
LANGUAGE	1000	1000	1000	N	N	N
LATA	1000	1000	1000	Y	Y	N
LATA-MAP	150000	150000	150000	Y	Y	N
LNP-PROFILE	10	10	10	Y	Y	Y
LSA	30000	30000	30000	Y	N	N
LSA-PROFILE	1000	1000	1000	N	N	N
MAC2SUB	33000	33000	33000	N	Y	N
MGCP-RETCODE-ACTION	2000	2000	2000	Y	N	N
MGW	100000	100000	100000	Y	N	N
MGW-PROFILE	100	100	100	Y	N	N
MLHG	20000	20000	20000	Y	Y	N
MLHG-PREF-LIST	2000	2000	2000	Y	N	N
MLHG-TERMINAL	100000	100000	100000	Y	N	N
NATIONAL-WB-LIST	75000	94000	94000	N	Y	N
NDC	800	800	800	Y	N	N
NOA	0	0	0	N	N	N
NOA-ROUTE	100	100	100	Y	N	N
NOA-ROUTE-PROFILE	100	100	100	Y	N	N
NOD	100	100	100	N	N	N
NOD-RESTRICT-LIST	1000	1000	1000	N	Y	N
NOD-WB-LIST	7500	7500	7500	N	Y	N
OCB-K-VALUE	1350	1350	1350	N	Y	N
OCB-PROFILE	50	50	50	N	Y	N
OFFICE-CODE	50000	50000	50000	Y	Y	N
OPC	30	30	30	Y	Y	Y
POLICY-NXX	400	400	400	Y	N	Y
POLICY-ODR	10000	10000	10000	Y	N	Y
POLICY-OLI	100	100	100	Y	N	Y
POLICY-PERCENT	400	400	400	Y	N	Y
POLICY-POP	12500	12500	12500	Y	N	Y
POLICY-PREFIX	10000	10000	10000	Y	N	Y

Table 2-22 Release 4.5.1 Medium Configuration Database Usage Defaults - Generic Routing (continued)

Table Name or Noun	Records Before Split-NPA	Maximum Record Count	Licensed Record Count	Route CA	Route FSPTCS	Route FSAIN
POLICY-REGION	1100	1100	1100	Y	N	Y
POLICY-TOD	400	400	400	Y	N	Y
POP	500	500	500	Y	Y	Y
PORTED-OFFICE-CODE	640000	640000	640000	Y	N	N
QOS	1000	1000	1000	Y	N	N
RADIUS-PROFILE	20	20	20	Y	Y	N
REGION-CODE	800	800	800	Y	N	N
REGION-PROFILE	20000	25000	25000	Y	N	Y
RELEASE-CAUSE	10000	10000	10000	Y	N	N
ROUTE	2000	2000	2000	Y	N	N
ROUTE-GUIDE	1000	1000	1000	Y	N	Y
ROUTING-KEY	15360	15360	15360	Y	Y	Y
RUDP-BACKHAUL-SESSION	6000	6000	6000	Y	N	N
SC1D	20000	20000	20000	N	Y	N
SC2D	20000	20000	20000	N	Y	N
SCCP-NW	255	255	255	N	Y	Y
SCCP-ROUTE	65535	65535	65535	N	Y	Y
SCRIPT	1000	1000	1000	Y	N	N
SCTP-ASSOC	240	240	240	Y	Y	Y
SCTP-ASSOC-PROFILE	120	120	120	Y	Y	Y
SERVICE	2000	2000	2000	N	Y	N
SERVICE-PROVIDER	1000	1000	1000	Y	N	N
SERVICE-TRIGGER	20000	20000	20000	Y	N	N
SERVING-DOMAIN-NAME	1000	1000	1000	Y	N	N
SG	20	20	20	Y	Y	Y
SG-GRP	20	20	20	Y	Y	Y
SGP	40	40	40	Y	Y	Y
SIP-TIMER-PROFILE	10	10	10	Y	N	N
SIPT-ISUP-VER-ALIAS	200	200	200	Y	N	N
SLE	20000	20000	20000	N	Y	N
SLHR	480	480	480	N	Y	Y
SLHR-PROFILE	16	16	16	N	N	N
SOFTSW-TG-PROFILE	100	100	100	Y	N	N
SPECIAL-CALL-TYPE	100	100	100	Y	N	N
SPLIT-NPA	1100	1100	1100	Y	Y	N

Table 2-22 Release 4.5.1 Medium Configuration Database Usage Defaults - Generic Routing (continued)

Table Name or Noun	Records Before Split-NPA	Maximum Record Count	Licensed Record Count	Route CA	Route FSPTCS	Route FSAIN
SS7_Q761_TG_PROFILE	100	100	100	Y	N	N
SS7_Q767_TG_PROFILE	100	100	100	Y	N	N
SS7-ANSI-TG-PROFILE	100	100	100	Y	N	N
SS7-CIC	96000	96000	96000	Y	N	N
STATIC-CONTACT	3300	3300	3300	Y	N	N
SUBSCRIBER	100000	100000	100000	Y	Y	N
SUBSCRIBER-FEATURE-DATA	600000	600000	600000	N	Y	N
SUBSCRIBER-PROFILE	5000	5000	5000	Y	Y	N
SUBSCRIBER-SERVICE-PROFILE	1000000	1000000	1000000	Y	Y	N
SUBSCRIBER-TOD-SCHEDULE	1000	1000	1000	N	Y	N
SUBSYSTEM	480	480	480	N	Y	Y
SUBSYSTEM-GRP	16	16	16	N	Y	Y
SUBSYSTEM-PROFILE	16	16	16	N	Y	Y
TECH-PREFIX-GRP	1000	1000	1000	Y	N	N
TECH-PREFIX-GRP-PROFILE	4	4	4	Y	N	N
TERMINATION	180000	180000	180000	Y	N	N
TIMEZONE	400	400	400	N	N	N
TRIGGER-DETECTION-POINT	50	50	50	N	N	N
TRIGGER-ID	100	100	100	N	N	N
TRIGGER-NOD-ESCAPE-LIST	100	100	100	Y	N	N
TRUNK	100000	100000	100000	Y	N	N
TRUNK-GRP	10000	10000	10000	Y	N	N
TRUNK-GRP-FEATURE-DATA	1000	1000	1000	N	Y	N
TRUNK-GRP-SERVICE-PROFILE	1100	1100	1100	Y	Y	N
USER-AUTH	33000	33000	33000	Y	N	N
USER-PART-VARIANT	200	200	200	Y	N	N
VAR-DEFAULT	1000	1000	1000	N	N	N
VSC	1000	1000	1000	N	Y	N
WIRETAP	2000	2500	2500	Y	N	N
ZZZ-CODE	500	500	500	Y	N	N

Routeserver Configuration Database Usage Defaults

Table 2-19 details the predefined defaults for the Database Usage table for a routeserver configuration in Release 4.5.1.

Table 2-23 Release 4.5.1 Routeserver Configuration Database Usage Defaults

Table Name or Noun	Number of Records Before Split-NPA	Maximum Record Count	Licensed Record Count	Route CA	Route FSPTC	Route FSAIN
AAA-SERVER-GRP	26	26	26	N	Y	N
ACTIVITY	100	100	100	Y	Y	Y
ACTIVITY-BASE	100	100	100	N	N	N
AGGR	380	380	380	Y	N	N
AGGR-PROFILE	10	10	10	Y	N	N
ANI	400000	400000	400000	N	Y	N
ANI-SCREENING	25000	31300	31300	Y	N	N
ANI-SCREENING-PROFILE	2500	2500	2500	Y	N	N
ANI-WB-LIST	25000	31250	31250	N	N	Y
ANNC-TG-PROFILE	100	100	100	Y	N	N
ANNC-TRUNK	6120	6120	6120	Y	N	N
ANNOUNCEMENT	1000	1000	1000	Y	N	N
AOR2SUB	4500	4500	4500	Y	N	N
APP-SERVER	255	255	255	Y	Y	N
AUDIO-SEGMENT	5000	5000	5000	N	Y	Y
AUDIO-SEQ	1000	1000	1000	N	Y	Y
AUTH-CODE	250000	250000	250000	N	Y	N
AUTH-CODE-GRP	25000	25000	25000	N	Y	N
AUTH-REALM	1000	1000	1000	Y	N	N
BACKHAUL-SET	100	100	100	Y	N	N
CA-CONFIG	1000	1000	1000	Y	Y	Y
CA-CONFIG-BASE	1000	1000	1000	Y	Y	Y
CALL-AGENT	10	10	10	Y	Y	Y
CALL-AGENT-PROFILE	10	10	10	Y	Y	Y
CALL-CTRL-ROUTE	10240	10240	10240	Y	N	N
CALL-SUBTYPE	1000	1000	1000	N	N	N
CALL-TYPE	100	100	100	N	N	N
CALL-TYPE-PROFILE	100	100	100	Y	N	N
CARRIER	10000	10000	10000	Y	N	N
CAS-TG-PROFILE	100	100	100	Y	N	N
CASUAL-WB-LIST	33750	33750	33750	N	Y	N
CAUSE-CODE-MAP	2000	2000	2000	Y	N	N
CAUSE-CODE-MAP-PROFILE	100	100	100	Y	N	N
CENTREX-GRP	100	100	100	Y	Y	N

Table 2-23 Release 4.5.1 Routeserver Configuration Database Usage Defaults (continued)

Table Name or Noun	Number of Records Before Split-NPA	Maximum Record Count	Licensed Record Count	Route CA	Route FSPTC	Route FSAIN
CHANGED-NUMBER	675	1000	1000	Y	N	N
CIPHERSUITE	380	380	380	Y	N	N
CIPHERSUITE-PROFILE	380	380	380	N	N	N
CIRCUIT-CODE	255	255	255	Y	N	N
CLLI-CODE	255	255	255	N	N	N
COS-RESTRICT	33750	33750	33750	N	Y	N
CPSG	200	200	200	Y	Y	N
CUST-GRP	2500	2500	2500	N	N	Y
CUSTOM-DIAL-PLAN	2000	2000	2000	N	Y	N
CUSTOM-DIAL-PLAN-PROFILE	100	100	100	N	N	N
DB-THRESHOLDS	1000	1000	1000	N	N	N
DB-USAGE	1000	1000	1000	N	N	N
DESTINATION	1000000	1000000	1000000	Y	N	N
DIAL-PLAN	1000000	1000000	1000000	Y	N	N
DIAL-PLAN-PROFILE	1000	1000	1000	Y	N	N
DIGIT-MAP	1000	1000	1000	Y	N	N
DIGMAN	25000	25000	25000	Y	N	N
DIGMAN-PROFILE	5000	5000	5000	Y	N	N
DN2CUST-GRP	250000	250000	250000	N	N	Y
DN2GN	10000	10000	10000	N	N	Y
DN2RN	100	100	100	N	N	Y
DN2SUBSCRIBER	67500	67500	67500	Y	N	N
DOMAIN2ROUTE	1000	1000	1000	Y	N	N
DPC	5120	5120	5120	Y	Y	Y
DS1	1000	1000	1000	Y	N	N
EMERGENCY-NUMBER-LIST	50	50	50	Y	N	N
ENUM-CALL-TYPE	100	100	100	Y	N	N
ENUM-PROFILE	26	26	26	Y	N	Y
ENUM-ROOT	10	10	10	Y	N	Y
ESS	255	255	255	Y	N	N
EXCHANGE-CODE	5000	5000	5000	Y	N	N
EXT2SUBSCRIBER	5000	5000	5000	Y	Y	N
FEATURE	1000	1000	1000	N	Y	N
FEATURE-CONFIG	1000	1000	1000	N	Y	Y
FEATURE-CONFIG-BASE	1000	1000	1000	N	N	N

Table 2-23 Release 4.5.1 Routeserver Configuration Database Usage Defaults (continued)

Table Name or Noun	Number of Records Before Split-NPA	Maximum Record Count	Licensed Record Count	Route CA	Route FSPTC	Route FSAIN
FEATURE-CONFIG-BASE-POS-VAL	1000	1000	1000	N	N	N
FEATURE-SERVER	10	10	10	Y	Y	Y
FS-AUDIT-PROFILE	10	10	10	N	Y	Y
GTD-PARM-VALUES	100	100	100	N	N	N
H323-GW	4	4	4	Y	N	N
H323-GW2GK	100	100	100	Y	N	N
H323-TERM	4500	4500	4500	Y	N	N
H323-TERM-PROFILE	200	200	200	Y	N	N
H323-TG-PROFILE	100	100	100	Y	N	N
HTTP-FEATURE-SERVER	1	1	1	N	Y	N
II-RESTRICT-LIST	2500	2500	2500	N	N	Y
II-WB-LIST	4219	4219	4219	N	Y	N
INTL-DIAL-PLAN	3000	3000	3000	Y	N	N
INTL-DIAL-PLAN-PROFILE	10	10	10	Y	N	N
INTL-WB-LIST	33750	33750	33750	N	Y	N
IPSEC-KERBEROS	1	1	1	Y	N	N
IPSEC-KERBEROS-KEYS	256	256	256	Y	N	N
IPSEC-POLICY	380	380	380	Y	N	N
IPSEC-SA	256	256	256	Y	N	N
ISDN-BCHAN	2400	2400	2400	Y	N	N
ISDN-DCHAN	100	100	100	Y	N	N
ISDN-INTF	100	100	100	Y	N	N
ISDN-TG-PROFILE	100	100	100	Y	N	N
IVR-SCRIPT-PROFILE	100	100	100	N	Y	Y
LANGUAGE	1000	1000	1000	N	N	N
LATA	1000	1000	1000	Y	Y	N
LATA-MAP	150000	150000	150000	Y	Y	N
LNP-PROFILE	10	10	10	Y	Y	Y
LSA	30000	30000	30000	Y	N	N
LSA-PROFILE	1000	1000	1000	N	N	N
MAC2SUB	4500	4500	4500	N	Y	N
MGCP-RETCODE-ACTION	2000	2000	2000	Y	N	N
MGW	38000	38000	38000	Y	N	N
MGW-PROFILE	100	100	100	Y	N	N
MLHG	100	100	100	Y	Y	N

Table 2-23 Release 4.5.1 Routeserver Configuration Database Usage Defaults (continued)

Table Name or Noun	Number of Records Before Split-NPA	Maximum Record Count	Licensed Record Count	Route CA	Route FSPTC	Route FSAIN
MLHG-PREF-LIST	10	10	10	Y	N	N
MLHG-TERMINAL	500	500	500	Y	N	N
NATIONAL-WB-LIST	33750	43000	43000	N	Y	N
NDC	800	800	800	Y	N	N
NOA	0	0	0	N	N	N
NOA-ROUTE	100	100	100	Y	N	N
NOA-ROUTE-PROFILE	100	100	100	Y	N	N
NOD	100	100	100	N	N	N
NOD-RESTRICT-LIST	1000	1000	1000	N	Y	N
NOD-WB-LIST	3375	3375	3375	N	Y	N
OCB-K-VALUE	689	689	689	N	Y	N
OCB-PROFILE	26	26	26	N	Y	N
OFFICE-CODE	50000	50000	50000	Y	Y	N
OPC	20	20	30	Y	Y	Y
POLICY-NXX	8000	8000	8000	Y	N	Y
POLICY-ODR	80000	80000	80000	Y	N	Y
POLICY-OLI	8000	8000	8000	Y	N	Y
POLICY-PERCENT	80000	80000	80000	Y	N	Y
POLICY-POP	80000	80000	80000	Y	N	Y
POLICY-PREFIX	10000	10000	10000	Y	N	Y
POLICY-REGION	88000	88000	88000	Y	N	Y
POLICY-TOD	120000	120000	120000	Y	N	Y
POP	255	255	255	Y	Y	Y
PORTED-OFFICE-CODE	640000	640000	640000	Y	N	N
QOS	380	380	380	Y	N	N
RADIUS-PROFILE	20	20	20	Y	Y	N
REGION-CODE	800	800	800	Y	N	N
REGION-PROFILE	800000	1000000	1000000	Y	N	Y
RELEASE-CAUSE	10000	10000	10000	Y	N	N
ROUTE	600000	600000	600000	Y	N	N
ROUTE-GUIDE	80000	80000	80000	Y	N	Y
ROUTING-KEY	10240	10240	10240	Y	Y	Y
RUDP-BACKHAUL-SESSION	400	400	400	Y	N	N
SC1D	9000	9000	9000	N	Y	N
SC2D	9000	9000	9000	N	Y	N

Table 2-23 Release 4.5.1 Routeserver Configuration Database Usage Defaults (continued)

Table Name or Noun	Number of Records Before Split-NPA	Maximum Record Count	Licensed Record Count	Route CA	Route FSPTC	Route FSAIN
SCCP-NW	255	255	255	N	Y	Y
SCCP-ROUTE	65535	65535	65535	N	Y	Y
SCRIPT	1000	1000	1000	Y	N	N
SCTP-ASSOC	240	240	240	Y	Y	Y
SCTP-ASSOC-PROFILE	120	120	120	Y	Y	Y
SERVICE	2000	2000	2000	N	Y	N
SERVICE-PROVIDER	1000	1000	1000	Y	N	N
SERVICE-TRIGGER	20000	20000	20000	Y	N	N
SERVING-DOMAIN-NAME	1000	1000	1000	Y	N	N
SG	20	20	20	Y	Y	Y
SG-GRP	20	20	20	Y	Y	Y
SGP	40	40	40	Y	Y	Y
SIP-TIMER-PROFILE	10	10	10	Y	N	N
SIPT-ISUP-VER-ALIAS	200	200	200	Y	N	N
SLE	9000	9000	9000	N	Y	N
SLHR	320	320	320	N	Y	Y
SLHR-PROFILE	16	16	16	N	N	N
SOFTSW-TG-PROFILE	100	100	100	Y	N	N
SPECIAL-CALL-TYPE	100	100	100	Y	N	N
SPLIT-NPA	1100	1100	1100	Y	Y	N
SS7_Q761_TG_PROFILE	100	100	100	Y	N	N
SS7_Q767_TG_PROFILE	100	100	100	Y	N	N
SS7-ANSI-TG-PROFILE	100	100	100	Y	N	N
SS7-CIC	18000	18000	18000	Y	N	N
STATIC-CONTACT	450	450	450	Y	N	N
SUBSCRIBER	45000	45000	45000	Y	Y	N
SUBSCRIBER-FEATURE-DATA	270000	270000	270000	N	Y	N
SUBSCRIBER-PROFILE	2550	2550	2550	Y	Y	N
SUBSCRIBER-SERVICE-PROFILE	225000	225000	225000	Y	Y	N
SUBSCRIBER-TOD-SCHEDULE	450	450	450	N	Y	N
SUBSYSTEM	320	320	320	N	Y	Y
SUBSYSTEM-GRP	16	16	16	N	Y	Y
SUBSYSTEM-PROFILE	16	16	16	N	Y	Y
TECH-PREFIX-GRP	1000	1000	1000	Y	N	N
TECH-PREFIX-GRP-PROFILE	4	4	4	Y	N	N

Table 2-23 Release 4.5.1 Routeserver Configuration Database Usage Defaults (continued)

Table Name or Noun	Number of Records Before Split-NPA	Maximum Record Count	Licensed Record Count	Route CA	Route FSPTC	Route FSAIN
TERMINATION	60000	60000	60000	Y	N	N
TIMEZONE	400	400	400	N	N	N
TRIGGER-DETECTION-POINT	50	50	50	N	N	N
TRIGGER-ID	100	100	100	N	N	N
TRIGGER-NOD-ESCAPE-LIST	100	100	100	Y	N	N
TRUNK	32000	32000	32000	Y	N	N
TRUNK-GRP	25000	25000	25000	Y	N	N
TRUNK-GRP-FEATURE-DATA	2500	2500	2500	N	Y	N
TRUNK-GRP-SERVICE-PROFILE	2750	2750	2750	Y	Y	N
USER-AUTH	4500	4500	4500	Y	N	N
USER-PART-VARIANT	200	200	200	Y	N	N
VAR-DEFAULT	1000	1000	1000	N	N	N
VSC	1000	1000	1000	N	Y	N
WIRETAP	900	1125	1125	Y	N	N
ZZZ-CODE	255	255	255	Y	N	N

Local Number Portability Database Usage Defaults

Table 2-24 details the predefined defaults for the Database Usage table for Local Number Portability in Release 4.5.1.

Table 2-24 Release 4.5.1 Local Number Portability Database Usage Defaults

Table Name or Noun	Number of Records Before Split-NPA	Maximum Record Count	Licensed Record Count	Route CA	Route FSPTC	Route FSAIN
AAA-SERVER-GRP	26	26	26	N	Y	N
ACTIVITY	100	100	100	Y	Y	Y
ACTIVITY-BASE	100	100	100	N	N	N
AGGR	1000	1000	1000	Y	N	N
AGGR-PROFILE	10	10	10	Y	N	N
ANI	400000	400000	400000	N	Y	N
ANI-SCREENING	15000	18800	18800	Y	N	N
ANI-SCREENING-PROFILE	1500	1500	1500	Y	N	N
ANI-WB-LIST	25000	31250	31250	N	N	Y
ANNC-TG-PROFILE	100	100	100	Y	N	N
ANNC-TRUNK	6120	6120	6120	Y	N	N

Table 2-24 Release 4.5.1 Local Number Portability Database Usage Defaults (continued)

Table Name or Noun	Number of Records Before Split-NPA	Maximum Record Count	Licensed Record Count	Route CA	Route FSPTC	Route FSAIN
ANNOUNCEMENT	1000	1000	1000	Y	N	N
AOR2SUB	50000	50000	50000	Y	N	N
APP-SERVER	255	255	255	Y	Y	N
AUDIO-SEGMENT	5000	5000	5000	N	Y	Y
AUDIO-SEQ	1000	1000	1000	N	Y	Y
AUTH-CODE	250000	250000	250000	N	Y	N
AUTH-CODE-GRP	25000	25000	25000	N	Y	N
AUTH-REALM	1000	1000	1000	Y	N	N
BACKHAUL-SET	1500	1500	1500	Y	N	N
CA-CONFIG	1000	1000	1000	Y	Y	Y
CA-CONFIG-BASE	1000	1000	1000	Y	Y	Y
CALL-AGENT	10	10	10	Y	Y	Y
CALL-AGENT-PROFILE	10	10	10	Y	Y	Y
CALL-CTRL-ROUTE	15360	15360	15360	Y	N	N
CALL-SUBTYPE	1000	1000	1000	N	N	N
CALL-TYPE	100	100	100	N	N	N
CALL-TYPE-PROFILE	100	100	100	Y	N	N
CARRIER	10000	10000	10000	Y	N	N
CAS-TG-PROFILE	100	100	100	Y	N	N
CASUAL-WB-LIST	112500	112500	112500	N	Y	N
CAUSE-CODE-MAP	2000	2000	2000	Y	N	N
CAUSE-CODE-MAP-PROFILE	100	100	100	Y	N	N
CENTREX-GRP	500	500	500	Y	Y	N
CHANGED-NUMBER	2250	3000	3000	Y	N	N
CIPHERSUITE	1000	1000	1000	Y	N	N
CIPHERSUITE-PROFILE	1000	1000	1000	N	N	N
CIRCUIT-CODE	255	255	255	Y	N	N
CLLI-CODE	255	255	255	N	N	N
COS-RESTRICT	112500	112500	112500	N	Y	N
CPSG	1000	1000	1000	Y	Y	N
CUST-GRP	2500	2500	2500	N	N	Y
CUSTOM-DIAL-PLAN	10000	10000	10000	N	Y	N
CUSTOM-DIAL-PLAN-PROFILE	500	500	500	N	N	N
DB-THRESHOLDS	1000	1000	1000	N	N	N
DB-USAGE	1000	1000	1000	N	N	N

Table 2-24 Release 4.5.1 Local Number Portability Database Usage Defaults (continued)

Table Name or Noun	Number of Records Before Split-NPA	Maximum Record Count	Licensed Record Count	Route CA	Route FSPTC	Route FSAIN
DESTINATION	5000	5000	5000	Y	N	N
DIAL-PLAN	1000000	1000000	1000000	Y	N	N
DIAL-PLAN-PROFILE	1000	1000	1000	Y	N	N
DIGIT-MAP	1000	1000	1000	Y	N	N
DIGMAN	13500	13500	13500	Y	N	N
DIGMAN-PROFILE	2700	2700	2700	Y	N	N
DN2CUST-GRP	250000	250000	250000	N	N	Y
DN2GN	5000000	5000000	5000000	N	N	Y
DN2RN	100	100	100	N	N	Y
DN2SUBSCRIBER	225000	225000	225000	Y	N	N
DOMAIN2ROUTE	1000	1000	1000	Y	N	N
DPC	7680	7680	7680	Y	Y	Y
DS1	4200	4200	4200	Y	N	N
EMERGENCY-NUMBER-LIST	50	50	50	Y	N	N
ENUM-CALL-TYPE	100	100	100	Y	N	N
ENUM-PROFILE	26	26	26	Y	N	Y
ENUM-ROOT	10	10	10	Y	N	Y
ESS	255	255	255	Y	N	N
EXCHANGE-CODE	5000	5000	5000	Y	N	N
EXT2SUBSCRIBER	25000	25000	25000	Y	Y	N
FEATURE	1000	1000	1000	N	Y	N
FEATURE-CONFIG	1000	1000	1000	N	Y	Y
FEATURE-CONFIG-BASE	1000	1000	1000	N	N	N
FEATURE-CONFIG-BASE-POS-VAL	1000	1000	1000	N	N	N
FEATURE-SERVER	10	10	10	Y	Y	Y
FS-AUDIT-PROFILE	10	10	10	N	Y	Y
GTD-PARM-VALUES	100	100	100	N	N	N
H323-GW	4	4	4	Y	N	N
H323-GW2GK	100	100	100	Y	N	N
H323-TERM	15000	15000	15000	Y	N	N
H323-TERM-PROFILE	200	200	200	Y	N	N
H323-TG-PROFILE	100	100	100	Y	N	N
HTTP-FEATURE-SERVER	1	1	1	N	Y	N
II-RESTRICT-LIST	2500	2500	2500	N	N	Y
II-WB-LIST	14063	14063	14063	N	Y	N

Table 2-24 Release 4.5.1 Local Number Portability Database Usage Defaults (continued)

Table Name or Noun	Number of Records Before Split-NPA	Maximum Record Count	Licensed Record Count	Route CA	Route FSPTC	Route FSAIN
INTL-DIAL-PLAN	3000	3000	3000	Y	N	N
INTL-DIAL-PLAN-PROFILE	10	10	10	Y	N	N
INTL-WB-LIST	112500	112500	112500	N	Y	N
IPSEC-KERBEROS	1	1	1	Y	N	N
IPSEC-KERBEROS-KEYS	256	256	256	Y	N	N
IPSEC-POLICY	1000	1000	1000	Y	N	N
IPSEC-SA	256	256	256	Y	N	N
ISDN-BCHAN	36000	36000	36000	Y	N	N
ISDN-DCHAN	1500	1500	1500	Y	N	N
ISDN-INTF	1500	1500	1500	Y	N	N
ISDN-TG-PROFILE	250	250	250	Y	N	N
IVR-SCRIPT-PROFILE	100	100	100	N	Y	Y
LANGUAGE	1000	1000	1000	N	N	N
LATA	1000	1000	1000	Y	Y	N
LATA-MAP	150000	150000	150000	Y	Y	N
LNP-PROFILE	10	10	10	Y	Y	Y
LSA	30000	30000	30000	Y	N	N
LSA-PROFILE	1000	1000	1000	N	N	N
MAC2SUB	50000	50000	50000	N	Y	N
MGCP-RETCODE-ACTION	2000	2000	2000	Y	N	N
MGW	100000	100000	100000	Y	N	N
MGW-PROFILE	100	100	100	Y	N	N
MLHG	10000	10000	10000	Y	Y	N
MLHG-PREF-LIST	1000	1000	1000	Y	N	N
MLHG-TERMINAL	50000	50000	50000	Y	N	N
NATIONAL-WB-LIST	112500	141000	141000	N	Y	N
NDC	50	50	50	Y	N	N
NOA	0	0	0	N	N	N
NOA-ROUTE	100	100	100	Y	N	N
NOA-ROUTE-PROFILE	100	100	100	Y	N	N
NOD	100	100	100	N	N	N
NOD-RESTRICT-LIST	1000	1000	1000	N	Y	N
NOD-WB-LIST	11250	11250	11250	N	Y	N
OCB-K-VALUE	689	689	689	N	Y	N
OCB-PROFILE	26	26	26	N	Y	N

Table 2-24 Release 4.5.1 Local Number Portability Database Usage Defaults (continued)

Table Name or Noun	Number of Records Before Split-NPA	Maximum Record Count	Licensed Record Count	Route CA	Route FSPTC	Route FSAIN
OFFICE-CODE	50000	50000	50000	Y	Y	N
OPC	30	30	30	Y	Y	Y
POLICY-NXX	400	400	400	Y	N	Y
POLICY-ODR	10000	10000	10000	Y	N	Y
POLICY-OLI	100	100	100	Y	N	Y
POLICY-PERCENT	400	400	400	Y	N	Y
POLICY-POP	12500	12500	12500	Y	N	Y
POLICY-PREFIX	10000	10000	10000	Y	N	Y
POLICY-REGION	1100	1100	1100	Y	N	Y
POLICY-TOD	400	400	400	Y	N	Y
POP	255	255	255	Y	Y	Y
PORTED-OFFICE-CODE	640000	640000	640000	Y	N	N
QOS	1000	1000	1000	Y	N	N
RADIUS-PROFILE	20	20	20	Y	Y	N
REGION-CODE	800	800	800	Y	N	N
REGION-PROFILE	20000	25000	25000	Y	N	Y
RELEASE-CAUSE	10000	10000	10000	Y	N	N
ROUTE	2000	2000	2000	Y	N	N
ROUTE-GUIDE	1000	1000	1000	Y	N	Y
ROUTING-KEY	15360	15360	15360	Y	Y	Y
RUDP-BACKHAUL-SESSION	6000	6000	6000	Y	N	N
SC1D	30000	30000	30000	N	Y	N
SC2D	30000	30000	30000	N	Y	N
SCCP-NW	255	255	255	N	Y	Y
SCCP-ROUTE	65535	65535	65535	N	Y	Y
SCRIPT	1000	1000	1000	Y	N	N
SCTP-ASSOC	240	240	240	Y	Y	Y
SCTP-ASSOC-PROFILE	120	120	120	Y	Y	Y
SERVICE	2000	2000	2000	N	Y	N
SERVICE-PROVIDER	1000	1000	1000	Y	N	N
SERVICE-TRIGGER	20000	20000	20000	Y	N	N
SERVING-DOMAIN-NAME	1000	1000	1000	Y	N	N
SG	20	20	20	Y	Y	Y
SG-GRP	20	20	20	Y	Y	Y
SGP	40	40	40	Y	Y	Y

Table 2-24 Release 4.5.1 Local Number Portability Database Usage Defaults (continued)

Table Name or Noun	Number of Records Before Split-NPA	Maximum Record Count	Licensed Record Count	Route CA	Route FSPTC	Route FSAIN
SIP-TIMER-PROFILE	10	10	10	Y	N	N
SIPT-ISUP-VER-ALIAS	200	200	200	Y	N	N
SLE	30000	30000	30000	N	Y	N
SLHR	480	480	480	N	Y	Y
SLHR-PROFILE	16	16	16	N	N	N
SOFTSW-TG-PROFILE	100	100	100	Y	N	N
SPECIAL-CALL-TYPE	100	100	100	Y	N	N
SPLIT-NPA	1100	1100	1100	Y	Y	N
SS7_Q761_TG_PROFILE	100	100	100	Y	N	N
SS7_Q767_TG_PROFILE	100	100	100	Y	N	N
SS7-ANSI-TG-PROFILE	100	100	100	Y	N	N
SS7-CIC	96000	96000	96000	Y	N	N
STATIC-CONTACT	5000	5000	5000	Y	N	N
SUBSCRIBER	150000	150000	125000	Y	Y	N
SUBSCRIBER-FEATURE-DATA	900000	900000	900000	N	Y	N
SUBSCRIBER-PROFILE	2550	2550	2550	Y	Y	N
SUBSCRIBER-SERVICE-PROFILE	1500000	1500000	1500000	Y	Y	N
SUBSCRIBER-TOD-SCHEDULE	1500	1500	1500	N	Y	N
SUBSYSTEM	480	480	480	N	Y	Y
SUBSYSTEM-GRP	16	16	16	N	Y	Y
SUBSYSTEM-PROFILE	16	16	16	N	Y	Y
TECH-PREFIX-GRP	1000	1000	1000	Y	N	N
TECH-PREFIX-GRP-PROFILE	4	4	4	Y	N	N
TERMINATION	180000	180000	180000	Y	N	N
TIMEZONE	400	400	400	N	N	N
TRIGGER-DETECTION-POINT	50	50	50	N	N	N
TRIGGER-ID	100	100	100	N	N	N
TRIGGER-NOD-ESCAPE-LIST	100	100	100	Y	N	N
TRUNK	100000	100000	100000	Y	N	N
TRUNK-GRP	10000	10000	10000	Y	N	N
TRUNK-GRP-FEATURE-DATA	1000	1000	1000	N	Y	N
TRUNK-GRP-SERVICE-PROFILE	1100	1100	1100	Y	Y	N
USER-AUTH	50000	50000	50000	Y	N	N
USER-PART-VARIANT	200	200	200	Y	N	N
VAR-DEFAULT	1000	1000	1000	N	N	N

Table 2-24 Release 4.5.1 Local Number Portability Database Usage Defaults (continued)

Table Name or Noun	Number of Records Before Split-NPA	Maximum Record Count	Licensed Record Count	Route CA	Route FSPTC	Route FSAIN
VSC	1000	1000	1000	N	Y	N
WIRETAP	3000	3750	3750	Y	N	N
ZZZ-CODE	255	255	255	Y	N	N

Local Number Portability Database Usage Defaults - Routing Number

Table 2-25 details the predefined defaults for the Database Usage table for Local Number Portability - Routing Number in Release 4.5.1.

Table 2-25 Release 4.5.1 Local Number Portability Database Usage Defaults - Routing Number

Table Name or Noun	Number of Records Before Split-NPA	Maximum Record Count	Licensed Record Count	Route CA	Route FSPTC	Route FSAIN
AAA-SERVER-GRP	26	26	26	N	Y	N
ACTIVITY	100	100	100	Y	Y	Y
ACTIVITY-BASE	100	100	100	N	N	N
AGGR	1000	1000	1000	Y	N	N
AGGR-PROFILE	10	10	10	Y	N	N
ANI	400000	400000	400000	N	Y	N
ANI-SCREENING	15000	18800	18800	Y	N	N
ANI-SCREENING-PROFILE	1500	1500	1500	Y	N	N
ANI-WB-LIST	25000	31250	31250	N	N	Y
ANNC-TG-PROFILE	100	100	100	Y	N	N
ANNC-TRUNK	6120	6120	6120	Y	N	N
ANNOUNCEMENT	1000	1000	1000	Y	N	N
AOR2SUB	50000	50000	50000	Y	N	N
APP-SERVER	255	255	255	Y	Y	N
AUDIO-SEGMENT	5000	5000	5000	N	Y	Y
AUDIO-SEQ	1000	1000	1000	N	Y	Y
AUTH-CODE	250000	250000	250000	N	Y	N
AUTH-CODE-GRP	25000	25000	25000	N	Y	N
AUTH-REALM	1000	1000	1000	Y	N	N
BACKHAUL-SET	1500	1500	1500	Y	N	N
CA-CONFIG	1000	1000	1000	Y	Y	Y
CA-CONFIG-BASE	1000	1000	1000	Y	Y	Y
CALL-AGENT	10	10	10	Y	Y	Y

Table 2-25 Release 4.5.1 Local Number Portability Database Usage Defaults - Routing Number (continued)

Table Name or Noun	Number of Records Before Split-NPA	Maximum Record Count	Licensed Record Count	Route CA	Route FSPTC	Route FSAIN
CALL-AGENT-PROFILE	10	10	10	Y	Y	Y
CALL-CTRL-ROUTE	15360	15360	15360	Y	N	N
CALL-SUBTYPE	1000	1000	1000	N	N	N
CALL-TYPE	100	100	100	N	N	N
CALL-TYPE-PROFILE	100	100	100	Y	N	N
CARRIER	10000	10000	10000	Y	N	N
CAS-TG-PROFILE	100	100	100	Y	N	N
CASUAL-WB-LIST	112500	112500	112500	N	Y	N
CAUSE-CODE-MAP	2000	2000	2000	Y	N	N
CAUSE-CODE-MAP-PROFILE	100	100	100	Y	N	N
CENTREX-GRP	500	500	500	Y	Y	N
CHANGED-NUMBER	2250	3000	3000	Y	N	N
CIPHERSUITE	1000	1000	1000	Y	N	N
CIPHERSUITE-PROFILE	1000	1000	1000	N	N	N
CIRCUIT-CODE	255	255	255	Y	N	N
CLLI-CODE	255	255	255	N	N	N
COS-RESTRICT	112500	112500	112500	N	Y	N
CPSG	1000	1000	1000	Y	Y	N
CUST-GRP	2500	2500	2500	N	N	Y
CUSTOM-DIAL-PLAN	10000	10000	10000	N	Y	N
CUSTOM-DIAL-PLAN-PROFILE	500	500	500	N	N	N
DB-THRESHOLDS	1000	1000	1000	N	N	N
DB-USAGE	1000	1000	1000	N	N	N
DESTINATION	5000	5000	5000	Y	N	N
DIAL-PLAN	1000000	1000000	1000000	Y	N	N
DIAL-PLAN-PROFILE	1000	1000	1000	Y	N	N
DIGIT-MAP	1000	1000	1000	Y	N	N
DIGMAN	13500	13500	13500	Y	N	N
DIGMAN-PROFILE	2700	2700	2700	Y	N	N
DN2CUST-GRP	250000	250000	250000	N	N	Y
DN2GN	100	100	100	N	N	Y
DN2RN	5000000	5000000	5000000	N	N	Y
DN2SUBSCRIBER	225000	225000	225000	Y	N	N
DOMAIN2ROUTE	1000	1000	1000	Y	N	N
DPC	7680	7680	7680	Y	Y	Y

Table 2-25 Release 4.5.1 Local Number Portability Database Usage Defaults - Routing Number (continued)

Table Name or Noun	Number of Records Before Split-NPA	Maximum Record Count	Licensed Record Count	Route CA	Route FSPTC	Route FSAIN
DS1	4200	4200	4200	Y	N	N
EMERGENCY-NUMBER-LIST	50	50	50	Y	N	N
ENUM-CALL-TYPE	100	100	100	Y	N	N
ENUM-PROFILE	26	26	26	Y	N	Y
ENUM-ROOT	10	10	10	Y	N	Y
ESS	255	255	255	Y	N	N
EXCHANGE-CODE	5000	5000	5000	Y	N	N
EXT2SUBSCRIBER	25000	25000	25000	Y	Y	N
FEATURE	1000	1000	1000	N	Y	N
FEATURE-CONFIG	1000	1000	1000	N	Y	Y
FEATURE-CONFIG-BASE	1000	1000	1000	N	N	N
FEATURE-CONFIG-BASE-POS-VAL	1000	1000	1000	N	N	N
FEATURE-SERVER	10	10	10	Y	Y	Y
FS-AUDIT-PROFILE	10	10	10	N	Y	Y
GTD-PARM-VALUES	100	100	100	N	N	N
H323-GW	4	4	4	Y	N	N
H323-GW2GK	100	100	100	Y	N	N
H323-TERM	15000	15000	15000	Y	N	N
H323-TERM-PROFILE	200	200	200	Y	N	N
H323-TG-PROFILE	100	100	100	Y	N	N
HTTP-FEATURE-SERVER	1	1	1	N	Y	N
II-RESTRICT-LIST	2500	2500	2500	N	N	Y
II-WB-LIST	14063	14063	14063	N	Y	N
INTL-DIAL-PLAN	3000	3000	3000	Y	N	N
INTL-DIAL-PLAN-PROFILE	10	10	10	Y	N	N
INTL-WB-LIST	112500	112500	112500	N	Y	N
IPSEC-KERBEROS	1	1	1	Y	N	N
IPSEC-KERBEROS-KEYS	256	256	256	Y	N	N
IPSEC-POLICY	1000	1000	1000	Y	N	N
IPSEC-SA	256	256	256	Y	N	N
ISDN-BCHAN	36000	36000	36000	Y	N	N
ISDN-DCHAN	1500	1500	1500	Y	N	N
ISDN-INTF	1500	1500	1500	Y	N	N
ISDN-TG-PROFILE	250	250	250	Y	N	N
IVR-SCRIPT-PROFILE	100	100	100	N	Y	Y

Table 2-25 Release 4.5.1 Local Number Portability Database Usage Defaults - Routing Number (continued)

Table Name or Noun	Number of Records Before Split-NPA	Maximum Record Count	Licensed Record Count	Route CA	Route FSPTC	Route FSAIN
LANGUAGE	1000	1000	1000	N	N	N
LATA	1000	1000	1000	Y	Y	N
LATA-MAP	150000	150000	150000	Y	Y	N
LNP-PROFILE	10	10	10	Y	Y	Y
LSA	30000	30000	30000	Y	N	N
LSA-PROFILE	1000	1000	1000	N	N	N
MAC2SUB	50000	50000	50000	N	Y	N
MGCP-RETCODE-ACTION	2000	2000	2000	Y	N	N
MGW	100000	100000	100000	Y	N	N
MGW-PROFILE	100	100	100	Y	N	N
MLHG	10000	10000	10000	Y	Y	N
MLHG-PREF-LIST	1000	1000	1000	Y	N	N
MLHG-TERMINAL	50000	50000	50000	Y	N	N
NATIONAL-WB-LIST	112500	141000	141000	N	Y	N
NDC	50	50	50	Y	N	N
NOA	0	0	0	N	N	N
NOA-ROUTE	100	100	100	Y	N	N
NOA-ROUTE-PROFILE	100	100	100	Y	N	N
NOD	100	100	100	N	N	N
NOD-RESTRICT-LIST	1000	1000	1000	N	Y	N
NOD-WB-LIST	11250	11250	11250	N	Y	N
OCB-K-VALUE	689	689	689	N	Y	N
OCB-PROFILE	26	26	26	N	Y	N
OFFICE-CODE	50000	50000	50000	Y	Y	N
OPC	30	30	30	Y	Y	Y
POLICY-NXX	400	400	400	Y	N	Y
POLICY-ODR	10000	10000	10000	Y	N	Y
POLICY-OLI	100	100	100	Y	N	Y
POLICY-PERCENT	400	400	400	Y	N	Y
POLICY-POP	12500	12500	12500	Y	N	Y
POLICY-PREFIX	10000	10000	10000	Y	N	Y
POLICY-REGION	1100	1100	1100	Y	N	Y
POLICY-TOD	400	400	400	Y	N	Y
POP	255	255	255	Y	Y	Y
PORTED-OFFICE-CODE	640000	640000	640000	Y	N	N

Table 2-25 Release 4.5.1 Local Number Portability Database Usage Defaults - Routing Number (continued)

Table Name or Noun	Number of Records Before Split-NPA	Maximum Record Count	Licensed Record Count	Route CA	Route FSPTC	Route FSAIN
QOS	1000	1000	1000	Y	N	N
RADIUS-PROFILE	20	20	20	Y	Y	N
REGION-CODE	800	800	800	Y	N	N
REGION-PROFILE	20000	25000	25000	Y	N	Y
RELEASE-CAUSE	10000	10000	10000	Y	N	N
ROUTE	2000	2000	2000	Y	N	N
ROUTE-GUIDE	1000	1000	1000	Y	N	Y
ROUTING-KEY	15360	15360	15360	Y	Y	Y
RUDP-BACKHAUL-SESSION	6000	6000	6000	Y	N	N
SC1D	30000	30000	30000	N	Y	N
SC2D	30000	30000	30000	N	Y	N
SCCP-NW	255	255	255	N	Y	Y
SCCP-ROUTE	65535	65535	65535	N	Y	Y
SCRIPT	1000	1000	1000	Y	N	N
SCTP-ASSOC	240	240	240	Y	Y	Y
SCTP-ASSOC-PROFILE	120	120	120	Y	Y	Y
SERVICE	2000	2000	2000	N	Y	N
SERVICE-PROVIDER	1000	1000	1000	Y	N	N
SERVICE-TRIGGER	20000	20000	20000	Y	N	N
SERVING-DOMAIN-NAME	1000	1000	1000	Y	N	N
SG	20	20	20	Y	Y	Y
SG-GRP	20	20	20	Y	Y	Y
SGP	40	40	40	Y	Y	Y
SIP-TIMER-PROFILE	10	10	10	Y	N	N
SIPT-ISUP-VER-ALIAS	200	200	200	Y	N	N
SLE	30000	30000	30000	N	Y	N
SLHR	480	480	480	N	Y	Y
SLHR-PROFILE	16	16	16	N	N	N
SOFTSW-TG-PROFILE	100	100	100	Y	N	N
SPECIAL-CALL-TYPE	100	100	100	Y	N	N
SPLIT-NPA	1100	1100	1100	Y	Y	N
SS7_Q761_TG_PROFILE	100	100	100	Y	N	N
SS7_Q767_TG_PROFILE	100	100	100	Y	N	N
SS7-ANSI-TG-PROFILE	100	100	100	Y	N	N
SS7-CIC	96000	96000	96000	Y	N	N

Table 2-25 Release 4.5.1 Local Number Portability Database Usage Defaults - Routing Number (continued)

Table Name or Noun	Number of Records Before Split-NPA	Maximum Record Count	Licensed Record Count	Route CA	Route FSPTC	Route FSAIN
STATIC-CONTACT	5000	5000	5000	Y	N	N
SUBSCRIBER	150000	150000	125000	Y	Y	N
SUBSCRIBER-FEATURE-DATA	900000	900000	900000	N	Y	N
SUBSCRIBER-PROFILE	2550	2550	2550	Y	Y	N
SUBSCRIBER-SERVICE-PROFILE	1500000	1500000	1500000	Y	Y	N
SUBSCRIBER-TOD-SCHEDULE	1500	1500	1500	N	Y	N
SUBSYSTEM	480	480	480	N	Y	Y
SUBSYSTEM-GRP	16	16	16	N	Y	Y
SUBSYSTEM-PROFILE	16	16	16	N	Y	Y
TECH-PREFIX-GRP	1000	1000	1000	Y	N	N
TECH-PREFIX-GRP-PROFILE	4	4	4	Y	N	N
TERMINATION	180000	180000	180000	Y	N	N
TIMEZONE	400	400	400	N	N	N
TRIGGER-DETECTION-POINT	50	50	50	N	N	N
TRIGGER-ID	100	100	100	N	N	N
TRIGGER-NOD-ESCAPE-LIST	100	100	100	Y	N	N
TRUNK	100000	100000	100000	Y	N	N
TRUNK-GRP	10000	10000	10000	Y	N	N
TRUNK-GRP-FEATURE-DATA	1000	1000	1000	N	Y	N
TRUNK-GRP-SERVICE-PROFILE	1100	1100	1100	Y	Y	N
USER-AUTH	50000	50000	50000	Y	N	N
USER-PART-VARIANT	200	200	200	Y	N	N
VAR-DEFAULT	1000	1000	1000	N	N	N
VSC	1000	1000	1000	N	Y	N
WIRETAP	3000	3750	3750	Y	N	N
ZZZ-CODE	255	255	255	Y	N	N

Cable8 Database Usage Defaults

Table 2-26 details the predefined defaults for the Database Usage table for Cable 8 in Release 4.5.1.

Table 2-26 Release 4.5.1 Cable8 Database Usage Defaults

Table Name or Noun	Number of Records Before Split-NPA	Maximum Record Count	Licensed Record Count	Route CA	Route FSPTC	Route FSAIN
AAA-SERVER-GRP	100	100	100	N	Y	N
ACTIVITY	100	100	100	Y	Y	Y
ACTIVITY-BASE	100	100	100	N	N	N
AGGR	2100	2100	2100	Y	N	N
AGGR-PROFILE	10	10	10	Y	N	N
ANI	400000	400000	400000	N	Y	N
ANI-SCREENING	15000	18800	18800	Y	N	N
ANI-SCREENING-PROFILE	1500	1500	1500	Y	N	N
ANI-WB-LIST	25000	31250	31250	N	N	Y
ANNC-TG-PROFILE	100	100	100	Y	N	N
ANNC-TRUNK	24000	24000	24000	Y	N	N
ANNOUNCEMENT	1000	1000	1000	Y	N	N
AOR2SUB	10000	10000	10000	Y	N	N
APP-SERVER	1000	1000	1000	Y	Y	N
AUDIO-SEGMENT	5000	5000	5000	N	Y	Y
AUDIO-SEQ	1000	1000	1000	N	Y	Y
AUTH-CODE	250000	250000	250000	N	Y	N
AUTH-CODE-GRP	25000	25000	25000	N	Y	N
AUTH-REALM	1000	1000	1000	Y	N	N
BACKHAUL-SET	1500	1500	1500	Y	N	N
CA-CONFIG	1000	1000	1000	Y	Y	Y
CA-CONFIG-BASE	1000	1000	1000	Y	Y	Y
CALL-AGENT	10	10	10	Y	Y	Y
CALL-AGENT-PROFILE	10	10	10	Y	Y	Y
CALL-CTRL-ROUTE	15360	15360	15360	Y	N	N
CALL-SUBTYPE	1000	1000	1000	N	N	N
CALL-TYPE	100	100	100	N	N	N
CALL-TYPE-PROFILE	100	100	100	Y	N	N
CARRIER	10000	10000	10000	Y	N	N
CAS-TG-PROFILE	100	100	100	Y	N	N
CASUAL-WB-LIST	187500	187500	187500	N	Y	N
CAUSE-CODE-MAP	2000	2000	2000	Y	N	N
CAUSE-CODE-MAP-PROFILE	100	100	100	Y	N	N

Table 2-26 Release 4.5.1 Cable8 Database Usage Defaults (continued)

Table Name or Noun	Number of Records Before Split-NPA	Maximum Record Count	Licensed Record Count	Route CA	Route FSPTC	Route FSAIN
CENTREX-GRP	1000	1000	1000	Y	Y	N
CHANGED-NUMBER	3750	5000	5000	Y	N	N
CIPHERSUITE	2100	2100	2100	Y	N	N
CIPHERSUITE-PROFILE	2100	2100	2100	N	N	N
CIRCUIT-CODE	1000	1000	1000	Y	N	N
CLLI-CODE	1000	1000	1000	N	N	N
COS-RESTRICT	187500	187500	187500	N	Y	N
CPSG	2000	2000	2000	Y	Y	N
CUST-GRP	2500	2500	2500	N	N	Y
CUSTOM-DIAL-PLAN	20000	20000	20000	N	Y	N
CUSTOM-DIAL-PLAN-PROFILE	1000	1000	1000	N	N	N
DB-THRESHOLDS	1000	1000	1000	N	N	N
DB-USAGE	1000	1000	1000	N	N	N
DESTINATION	10000	10000	10000	Y	N	N
DIAL-PLAN	1000000	1000000	1000000	Y	N	N
DIAL-PLAN-PROFILE	1000	1000	1000	Y	N	N
DIGIT-MAP	2000	2000	2000	Y	N	N
DIGMAN	16000	16000	16000	Y	N	N
DIGMAN-PROFILE	3200	3200	3200	Y	N	N
DN2CUST-GRP	250000	250000	250000	N	N	Y
DN2GN	100	100	100	N	N	Y
DN2RN	100	100	100	N	N	Y
DN2SUBSCRIBER	375000	375000	375000	Y	N	N
DOMAIN2ROUTE	1000	1000	1000	Y	N	N
DPC	7680	7680	7680	Y	Y	Y
DS1	5000	5000	5000	Y	N	N
EMERGENCY-NUMBER-LIST	50	50	50	Y	N	N
ENUM-CALL-TYPE	100	100	100	Y	N	N
ENUM-PROFILE	100	100	100	Y	N	Y
ENUM-ROOT	10	10	10	Y	N	Y
ESS	1000	1000	1000	Y	N	N
EXCHANGE-CODE	64000	64000	64000	Y	N	N
EXT2SUBSCRIBER	50000	50000	50000	Y	Y	N
FEATURE	1000	1000	1000	N	Y	N

Table 2-26 Release 4.5.1 Cable8 Database Usage Defaults (continued)

Table Name or Noun	Number of Records Before Split-NPA	Maximum Record Count	Licensed Record Count	Route CA	Route FSPTC	Route FSAIN
FEATURE-CONFIG	1000	1000	1000	N	Y	Y
FEATURE-CONFIG-BASE	1000	1000	1000	N	N	N
FEATURE-CONFIG-BASE-POS-VAL	1000	1000	1000	N	N	N
FEATURE-SERVER	10	10	10	Y	Y	Y
FS-AUDIT-PROFILE	10	10	10	N	Y	Y
GTD-PARM-VALUES	100	100	100	N	N	N
H323-GW	4	4	4	Y	N	N
H323-GW2GK	100	100	100	Y	N	N
H323-TERM	250	250	250	Y	N	N
H323-TERM-PROFILE	200	200	200	Y	N	N
H323-TG-PROFILE	100	100	100	Y	N	N
HTTP-FEATURE-SERVER	1	1	1	N	Y	N
II-RESTRICT-LIST	2500	2500	2500	N	N	Y
II-WB-LIST	23438	23438	23438	N	Y	N
INTL-DIAL-PLAN	60000	60000	60000	Y	N	N
INTL-DIAL-PLAN-PROFILE	200	200	200	Y	N	N
INTL-WB-LIST	187500	187500	187500	N	Y	N
IPSEC-KERBEROS	1	1	1	Y	N	N
IPSEC-KERBEROS-KEYS	256	256	256	Y	N	N
IPSEC-POLICY	2100	2100	2100	Y	N	N
IPSEC-SA	256	256	256	Y	N	N
ISDN-BCHAN	36000	36000	36000	Y	N	N
ISDN-DCHAN	1500	1500	1500	Y	N	N
ISDN-INTF	1500	1500	1500	Y	N	N
ISDN-TG-PROFILE	250	250	250	Y	N	N
IVR-SCRIPT-PROFILE	100	100	100	N	Y	Y
LANGUAGE	1000	1000	1000	N	N	N
LATA	1000	1000	1000	Y	Y	N
LATA-MAP	150000	150000	150000	Y	Y	N
LNP-PROFILE	10	10	10	Y	Y	Y
LSA	30000	30000	30000	Y	N	N
LSA-PROFILE	1000	1000	1000	N	N	N
MAC2SUB	10000	10000	10000	N	Y	N
MGCP-RETCODE-ACTION	2000	2000	2000	Y	N	N

Table 2-26 Release 4.5.1 Cable8 Database Usage Defaults (continued)

Table Name or Noun	Number of Records Before Split-NPA	Maximum Record Count	Licensed Record Count	Route CA	Route FSPTC	Route FSAIN
MGW	210000	210000	210000	Y	N	N
MGW-PROFILE	100	100	100	Y	N	N
MLHG	30000	30000	30000	Y	Y	N
MLHG-PREF-LIST	3000	3000	3000	Y	N	N
MLHG-TERMINAL	150000	150000	150000	Y	N	N
NATIONAL-WB-LIST	187500	235000	235000	N	Y	N
NDC	800	800	800	Y	N	N
NOA	0	0	0	N	N	N
NOA-ROUTE	100	100	100	Y	N	N
NOA-ROUTE-PROFILE	100	100	100	Y	N	N
NOD	100	100	100	N	N	N
NOD-RESTRICT-LIST	1000	1000	1000	N	Y	N
NOD-WB-LIST	18750	18750	18750	N	Y	N
OCB-K-VALUE	2700	2700	2700	N	Y	N
OCB-PROFILE	100	100	100	N	Y	N
OFFICE-CODE	200000	200000	200000	Y	Y	N
OPC	30	30	30	Y	Y	Y
POLICY-NXX	400	400	400	Y	N	Y
POLICY-ODR	10000	10000	10000	Y	N	Y
POLICY-OLI	100	100	100	Y	N	Y
POLICY-PERCENT	400	400	400	Y	N	Y
POLICY-POP	25000	25000	25000	Y	N	Y
POLICY-PREFIX	10000	10000	10000	Y	N	Y
POLICY-REGION	1100	1100	1100	Y	N	Y
POLICY-TOD	400	400	400	Y	N	Y
POP	1000	1000	1000	Y	Y	Y
PORTED-OFFICE-CODE	640000	640000	640000	Y	N	N
QOS	2100	2100	2100	Y	N	N
RADIUS-PROFILE	20	20	20	Y	Y	N
REGION-CODE	800	800	800	Y	N	N
REGION-PROFILE	20000	25000	25000	Y	N	Y
RELEASE-CAUSE	10000	10000	10000	Y	N	N
ROUTE	2000	2000	2000	Y	N	N
ROUTE-GUIDE	1000	1000	1000	Y	N	Y

Table 2-26 Release 4.5.1 Cable8 Database Usage Defaults (continued)

Table Name or Noun	Number of Records Before Split-NPA	Maximum Record Count	Licensed Record Count	Route CA	Route FSPTC	Route FSAIN
ROUTING-KEY	15360	15360	15360	Y	Y	Y
RUDP-BACKHAUL-SESSION	6000	6000	6000	Y	N	N
SC1D	50000	50000	50000	N	Y	N
SC2D	50000	50000	50000	N	Y	N
SCCP-NW	255	255	255	N	Y	Y
SCCP-ROUTE	65535	65535	65535	N	Y	Y
SCRIPT	1000	1000	1000	Y	N	N
SCTP-ASSOC	240	240	240	Y	Y	Y
SCTP-ASSOC-PROFILE	120	120	120	Y	Y	Y
SERVICE	2000	2000	2000	N	Y	N
SERVICE-PROVIDER	10	10	10	Y	N	N
SERVICE-TRIGGER	20000	20000	20000	Y	N	N
SERVING-DOMAIN-NAME	1000	1000	1000	Y	N	N
SG	20	20	20	Y	Y	Y
SG-GRP	20	20	20	Y	Y	Y
SGP	40	40	40	Y	Y	Y
SIP-TIMER-PROFILE	10	10	10	Y	N	N
SIPT-ISUP-VER-ALIAS	200	200	200	Y	N	N
SLE	50000	50000	50000	N	Y	N
SLHR	480	480	480	N	Y	Y
SLHR-PROFILE	16	16	16	N	N	N
SOFTSW-TG-PROFILE	100	100	100	Y	N	N
SPECIAL-CALL-TYPE	100	100	100	Y	N	N
SPLIT-NPA	1100	1100	1100	Y	Y	N
SS7_Q761_TG_PROFILE	100	100	100	Y	N	N
SS7_Q767_TG_PROFILE	100	100	100	Y	N	N
SS7-ANSI-TG-PROFILE	100	100	100	Y	N	N
SS7-CIC	60000	60000	60000	Y	N	N
STATIC-CONTACT	1000	1000	1000	Y	N	N
SUBSCRIBER	250000	250000	250000	Y	Y	N
SUBSCRIBER-FEATURE-DATA	1500000	1500000	1500000	N	Y	N
SUBSCRIBER-PROFILE	10000	10000	10000	Y	Y	N
SUBSCRIBER-SERVICE-PROFILE	2500000	2500000	2500000	Y	Y	N
SUBSCRIBER-TOD-SCHEDULE	2500	2500	2500	N	Y	N

Table 2-26 Release 4.5.1 Cable8 Database Usage Defaults (continued)

Table Name or Noun	Number of Records Before Split-NPA	Maximum Record Count	Licensed Record Count	Route CA	Route FSPTC	Route FSAIN
SUBSYSTEM	480	480	480	N	Y	Y
SUBSYSTEM-GRP	16	16	16	N	Y	Y
SUBSYSTEM-PROFILE	16	16	16	N	Y	Y
TECH-PREFIX-GRP	10	10	10	Y	N	N
TECH-PREFIX-GRP-PROFILE	4	4	4	Y	N	N
TERMINATION	370000	370000	370000	Y	N	N
TIMEZONE	400	400	400	N	N	N
TRIGGER-DETECTION-POINT	50	50	50	N	N	N
TRIGGER-ID	100	100	100	N	N	N
TRIGGER-NOD-ESCAPE-LIST	100	100	100	Y	N	N
TRUNK	120000	120000	120000	Y	N	N
TRUNK-GRP	10000	10000	10000	Y	N	N
TRUNK-GRP-FEATURE-DATA	1000	1000	1000	N	Y	N
TRUNK-GRP-SERVICE-PROFILE	1100	1100	1100	Y	Y	N
USER-AUTH	10000	10000	10000	Y	N	N
USER-PART-VARIANT	200	200	200	Y	N	N
VAR-DEFAULT	1000	1000	1000	N	N	N
VSC	1000	1000	1000	N	Y	N
WIRETAP	5000	6250	6250	Y	N	N
ZZZ-CODE	1000	1000	1000	Y	N	N



APPENDIX E

Originating Line Information Range Definitions

Revised: July 24, 2009, OL-3743-42

Table E-1 lists the ANI II digit pair assignments as of February 2, 1999. These digit pairs are used as values for the OLI token in the Media Gateway Profile table. Any updates to these assignments can be found at http://www.nanpa.com.

Table E-1 Media Gateway Profile Table OLI Token Range Definitions

Digit Pair	Definition
00	Plain Old Telephone Service (POTS)—Non-coin service requiring no special treatment.
01	Multiparty line (more than 2)—ANI cannot be provided on 4 or 8 party lines. The presence of this 01 code causes an Operator Number Identification (ONI) function to be performed at the distant location. The ONI feature routes the call to a Centralized Automatic Message Accounting (CAMA) operator or to an Operator Services System (OSS) for determination of the calling number.
02	ANI Failure—The originating switching system indicates by the 02 code, to the receiving office, that the calling station has not been identified. If the receiving switching system routes the call to a CAMA or OSS, the calling number can be verbally obtained and manually recorded. If manual operator identification is not available, the receiving switching system (for example, an interLATA carrier without operator capabilities) can reject the call.
03-05	~~Unassigned.~~
06	Station Level Rating—The 06-digit pair is used when a customer subscribed to a specific class of service in order to be provided with real-time billing information. For example, hotel/motels, served by PBXs, receive detailed billing information, including the room number of the calling party. When the originating switching system does not receive the detailed billing information, for example, room number, this 06 code allows the call to be routed to an operator or OSS to obtain complete billing information. The rating and/or billing information is then provided to the service subscriber. This code is used only when the directory number (DN) is not accompanied by an automatic room/account identification.
07	Special Operator Handling Required—Calls generated from stations that require further operator or OSS screening are accompanied by the 07 code. The code routes the call to an operator or OSS for further screening and to determine if the station has a denied-originating class of service or special routing/billing procedures. If the call is unauthorized, the calling party will be routed to a standard intercept message.
08-09	Unassigned.
10	Not assignable—Conflict with 10X test code.

Table E-1 Media Gateway Profile Table OLI Token Range Definitions (continued)

Digit Pair	Definition
11	Unassigned.
12-19	Not assignable—Conflict with international outpulsing code.
20	Automatic Identified Outward Dialing (AIOD)—Without AIOD, the billing number for a PBX is the same as the PBX directory number (DN). With the AIOD feature, the originating line number within the PBX is provided for charging purposes. If the AIOD number is available when the ANI is transmitted, code 00 is sent. If not, the PBX DN is sent with ANI code 20. In either case, the AIOD number is included in the AMA record.
21-22	Unassigned.
23	Coin or Non-Coin—On calls using database access, for example, 800, ANI II 23 indicates that the coin/non-coin status of the originating line cannot be positively distinguished for ANI purposes by the service switching point (SSP). The ANI II pair 23 is substituted for the II pairs that would otherwise indicate that the non-coin status is known, such as 00, or when there is ANI failure. ANI II 23 can be substituted for a valid 2-digit ANI pair on 0-800 calls. In all other cases, do not substitute ANI II 23 for a valid 2-digit ANI II pair that is forwarded to an SSP from an Equal Access End Office (EAEO). Some of the situations for which an ANI II 23 can be sent are: • Calls from nonconforming end offices (CAMA or Local Automatic Message Accounting (LAMA) types) with combined coin/non-coin trunk groups. • 0-800 calls • Type 1 cellular calls • Calls from PBX trunks • Calls from Centrex tie lines
24	Code 24 identifies a toll-free service call that was translated to a POTS routable number using a toll-free database that originated for any nonpay station. If the received toll-free number is not converted to a POTS number, the database returns the received ANI code along with the received toll-free number. Thus, Code 24 indicates that this is a toll-free service call because that fact cannot be recognized simply by examining the called address.
25	Code 25 identifies a toll-free service call that was translated to a POTS routable number using a toll-free database that originated from any pay station, including inmate telephone service. Specifically, ANI II digits 27, 29, and 70 are replaced with Code 25 under this condition.
26	Unassigned.
27	Code 27 identifies a line connected to a pay station using network-provided coin control signaling. II 27 identifies this type of pay station line regardless of whether the pay station is provided by a LEC or a non-LEC. II 27 is transmitted from the originating end office on all calls made from these lines.
28	Unassigned.
29	Prison or Inmate Service—The ANI II digit pair 29 designates lines within a confinement or detention facility that are intended for inmate or detainee use and require outward call screening and restriction (for example, 0+ collect only service). A confinement or detention facility is defined as including, but not limited to, Federal, State or Local prisons, juvenile facilities, immigration and naturalization confinement or detention facilities, and so forth, which are under the administration of Federal, State, City, County, or other Governmental agencies. Prison or Inmate Service lines are identified by the customer requesting such call screening and restriction. In cases where private paystations are located in confinement or detention facilities, and the same call restrictions applicable to Prison or Inmate Service are required, the ANI II digit for Prison or Inmate Service applies if the line is identified for Prison or Inmate Service by the customer.

Table E-1 Media Gateway Profile Table OLI Token Range Definitions (continued)

Digit Pair	Definition
30-32	Intercept—Where the capability is provided to route intercept calls (either directly or after an announcement recycle) to an access tandem with an associated Telco Operator Services System, use the following ANI codes: • 30 Intercept (blank)—For calls to an unassigned directory number (DN) • 31 Intercept (trouble)—For calls to directory numbers (DNs) that have been manually placed in trouble-busy state by Telco personnel • 32 Intercept (regular)—For calls to recently changed or disconnected numbers
33	Unassigned.
34	Telco Operator Handled Call—After a Telco Operator Services System has handled a call for an Interexchange Carrier (IC), it can change the standard ANI digits to 34 before outpulsing the sequence to the IC, when the Telco performs all call handling functions, for example, billing. The code tells the IC that the Bell Operating Company (BOC) performed billing on the call and the IC has only to complete the call.
35-39	Unassigned.
40-49	Unrestricted Use—Locally determined by carrier.
50-51	Unassigned.
52	Outward Wide Area Telecommunications Service (OUTWATS)—This service allows customers to make calls to a certain zone or band on a direct dialed basis for a flat monthly charge or for a charge based on accumulated usage. OUTWATS lines can dial station-to-station calls directly to points within the selected band or zone. The LEC performs a screening function to determine the correct charging and routing for OUTWATS calls based on the customer class of service and the service area of the called party. When these calls are routed to the interexchange carrier using a combined WATS-POTS trunk group, it is necessary to identify the WATS calls with the ANI code 52.
53-59	Unassigned.
60	TRS—ANI II digit pair 60 indicates that the associated call is a Telecommunications Relay Services (TRS) call delivered to a transport carrier from a TRS provider and that the call originated from an unrestricted line (such as a line for which there are no billing restrictions). Accordingly, if no request for alternate billing is made, the call is billed to the calling line.
61	Cellular or Wireless PCS (Type 1)—The 61-digit pair is forwarded to the interexchange carrier by the local exchange carrier for traffic originating from a cellular/wireless PCS carrier over type 1 trunks. **Note** ANI information accompanying digit pair 61 identifies only the originating cellular or wireless PCS system, not the mobile directory placing the call.
62	Cellular or Wireless PCS (Type 2)—The 62-digit pair is forwarded to the interexchange carrier by the cellular or wireless PCS carrier when routing traffic over type 2 trunks through the local exchange carrier access tandem for delivery to the interexchange carrier. **Note** ANI information accompanying digit pair 62 identifies the mobile directory number placing the call but does not necessarily identify the true call point of origin.

Table E-1 Media Gateway Profile Table OLI Token Range Definitions (continued)

Digit Pair	Definition
63	Cellular or Wireless PCS (Roaming)—The 63-digit pair is forwarded to the interexchange carrier by the cellular or wireless PCS subscriber roaming in another cellular or wireless PCS network, over type 2 trunks through the local exchange carrier access tandem for delivery to the interexchange carrier. **Note** Use of 63 signifies that the called number is used only for network routing and is not disclosed to the cellular or wireless PCS subscriber. Also, ANI information accompanying digit pair 63 identifies the mobile directory number forwarding the call but does not necessarily identify the true forwarded call point of origin.
64-65	Unassigned.
66	TRS—ANI II digit pair 66 indicates that the associated call is a TRS call delivered to a transport carrier from a TRS provider, and that the call originates from a hotel or motel. The transport carrier can use this indication, along with other information (for example, whether the call was dialed 1+ or 0+) to determine the appropriate billing arrangement (such as, bill to room or alternate bill).
67	TRS—ANI II digit pair 67 indicates that the associated call is a TRS call delivered to a transport carrier from a TRS provider and that the call originated from a restricted line. Accordingly, sent paid calls are not allowed and additional screening, if available, is performed to determine the specific restrictions and type of alternate billing permitted.
68-69	Unassigned.
70	Code 70 identifies a line connected to a pay station (including both coin and coinless stations), which does not use network-provided coin control signaling. II 70 identifies this type pay station line regardless of whether the pay station is provided by a LEC or a non-LEC. II 70 is transmitted from the originating end office on all calls made from these lines.
71-79	Unassigned.
80-89	Reserved.
90-92	Unassigned.
93	Access for private virtual network types of service—The ANI code 93 indicates to the IC that the originating call is a private virtual network type of service call.
94	Unassigned.
95	Unassigned—Conflict with Test Codes 958 and 959.
96-99	Unassigned.



APPENDIX F

Timezones

Revised: July 24, 2009, OL-3743-42

This appendix describes the timezones and their locales that the Cisco BTS 10200 Softswitch supports as of Release 4.2.1.

Timezones

Table F-1 lists the various world timezones that the Cisco BTS 10200 Softswitch currently supports. Valid timezone values and their associated descriptions are also given.

Table F-1 Supported Timezones

ID	Description	Billing Field Value	GMT Offset Hours	GMT Offset Minutes	Daylight Start 2004	Daylight End 2004
LOCAL	Local System Time (BDMS)	0				
NWE	Northwestern Europe	1	+0	0	03-28-01-00	10-31-02-00
WA	Western Africa	2	+0	0		
WE	Western Europe	3	+1	0	03-28-02-00	10-31-03-00
WCA	West Central Africa	4	+1	0		
MAL	Malta	5	+1	0	03-28-02-00	10-31-03-00
NAM	Namibia	6	+1	0	09-05-02-00	04-04-02-00
CE	Central Europe	7	+2	0	03-28-03-00	10-31-04-00
ECA	East Central Africa	8	+2	0		
ECE	East Central Europe	9	+2	0	03-28-02-00	10-31-03-00
EGY	Egypt	10	+2	0	04-30-00-00	10-01-00-00
GAZ	Gaza	11	+2	0	04-16-00-00	10-15-00-00
ISR	Israel	12	+2	0	04-07-01-00	09-22-01-00
JOR	Jordan	13	+2	0	03-25-00-00	10-22-01-00
LEB	Lebanon	14	+2	0	03-28-00-00	10-31-00-00
SYR	Syria	15	+2	0	04-01-00-00	10-01-00-00

Table F-1 Supported Timezones (continued)

ID	Description	Billing Field Value	GMT Offset Hours	GMT Offset Minutes	Daylight Start 2004	Daylight End 2004
WB	West Bank	16	+2	0	04-07-01-00	09-22-01-00
EA	Eastern Africa	17	+3	0		
PG	Persian Gulf	18	+3	0		
GEO	Georgia	19	+3	0	03-28-00-00	10-31-00-00
IRQ	Iraq	20	+3	0	04-01-03-00	10-01-04-00
RUS2	Russia Zone 2	21	+3	0	03-28-02-00	10-31-03-00
IRA	Iran	22	+3	30	03-21-00-00	09-21-00-00
AZE	Azerbaijan	23	+4	0	03-28-01-00	10-31-01-00
WIO	Western Indian Ocean	24	+4	0		
ME	Middle East	25	+4	0		
WAS	Western Asia	26	+4	0	03-28-02-00	10-31-03-00
AFG	Afghanistan	27	+4	30		
KYR	Kyrgystan (also Kyrgyzstan)	28	+5	0	03-28-02-30	10-31-02-30
ECAS	Eastern Central Asia	29	+5	0		
IO	Indian Ocean	30	+5	0		
WCAS	West Central Asia	31	+5	0	03-28-02-00	10-31-03-00
IND	India	32	+5	30		
NEP	Nepal	33	+5	45		
CAS	Central Asia	34	+6	0	03-28-02-00	10-31-03-00
SAS	Southern Asia	35	+6	0		
BC	Burma – Cocos	36	+6	30		
RUS6	Russia Zone 6	37	+7	0	03-28-02-00	10-31-03-00
SEAS	South Eastern Asia	38	+7	0		
EAS	Eastern Asia	39	+8	0		
MON	Mongolia	40	+8	0	03-27-02-00	09-25-03-00
RUS7	Russia Zone 7	41	+8	0	03-28-02-00	10-31-03-00
WAU	Western Australia	42	+8	0		
FEAS	Far Eastern Asia	43	+9	0		
RUS8	Russia Zone 8	44	+9	0	03-28-02-00	10-31-03-00
NAU	Northern Australia	45	+9	30		
SAU	Southern Australia	46	+9	30	10-31-02-00	03-28-03-00
EAU	Eastern Australia	47	+10	0	10-31-02-00	03-28-03-00
QUE	Queensland Australia	48	+10	0		
RUS9	Russia Zone 9	49	+10	0	03-28-02-00	10-31-03-00
TAS	Tasmania	50	+10	0	10-03-02-00	03-28-03-00

Table F-1 Supported Timezones (continued)

ID	Description	Billing Field Value	GMT Offset Hours	GMT Offset Minutes	Daylight Start 2004	Daylight End 2004
WP	Western Pacific	51	+10	0		
LAU	Lord Howe Island – Australia	52	+10	30	10-31-02-00	03-28-02-00
RUS10	Russia Zone 10	53	+11	0	03-28-02-00	10-31-03-00
WCP	Western Central Pacific	54	+11	0		
NOR	Norfolk Island	55	+11	30		
NZ	New Zealand	56	+12	0	10-03-02-00	03-21-03-00
RUS11	Russia Zone 11	57	+12	0	03-28-02-00	10-31-03-00
SPO	Southern Pacific Ocean	58	+12	0		
CI	Chatham Island	59	+12	45	10-03-02-45	03-21-03-45
SEPO	South Eastern Pacific Ocean	60	+13	0		
LI	Line Islands	61	+14	0		
SMO	Samoa	62	-11	0		
HAW	Hawaii	63	-10	0		
AI	Aleutian Islands	64	-10	0	04-04-02-00	10-31-02-00
GI	Gambier Islands	65	-9	0		
MI	Marquesas Islands	66	-9	30		
ALA	Alaska	67	9	0	04-04-02-00	10-31-02-00
SON	Sonora Mexico	68	-8	0		
PI	Pitcairn Islands	69	-8	0		
PAC	North American Pacific	70	-8	0	04-04-02-00	10-31-02-00
EBC	Eastern British Columbia	71	-8	0		
MNT	North American Mountain	72	-7	0	04-04-02-00	10-31-02-00
ARI	Arizona	73	-7	0		
SASK	Saskatechewan	74	-6	0		
GAL	Galapagos Islands	75	-6	0		
EI	Easter Island	76	-6	0	10-09-10-00	03-13-10-00
CA	Central America	77	-6	0		
CEN	North American Central	78	-6	0	04-04-02-00	10-31-02-00
WSAM	Western South America	79	-5	0		
WCAR	Western Caribbean	80	-5	0		
SOU	Southampton Canada	81	-5	0		
IDA	Indiana	82	-5	0		
EST	North American Eastern	83	-5	0	04-04-02-00	10-31-02-00
CUB	Cuba	84	-5	0	03-28-00-00	10-31-01-00
BAH	Bahamas	85	-5	0	04-04-02-00	10-31-02-00

Table F-1 Supported Timezones (continued)

ID	Description	Billing Field Value	GMT Offset Hours	GMT Offset Minutes	Daylight Start 2004	Daylight End 2004
ACR	Acre Brazil	86	-5	0		
SAM	Central South America	87	-4	0		
PAR	Paraguay	88	-4	0	09-05-00-00	04-04-00-00
FI	Falkland Islands	89	-4	0	09-05-02-00	04-18-02-00
CHI	Chile	90	-4	0	10-10-00-00	03-14-00-00
CG	Central Greenland	91	-4	0		
CAR	Caribbean	92	-4	0		
ATL	North American Atlantic	93	-4	0	04-04-02-00	10-31-02-00
NWF	Newfoundland Canada	94	-3	30	04-04-12-01	10-31-12-01
ELAB	Eastern Labrador Canada	95	-3	30	04-04-02-00	10-31-02-00
SPM	St.Pierre and Miquelon	96	-3	0	04-04-02-00	10-31-02-00
SBRZ	Southern Brazil	97	-3	0	10-17-00-00	02-15-00-00
ESAM	Eastern South America	98	-3	0		
EG	Eastern Greenland	99	-3	0		
EBRZ	Eastern Brazil	100	-2	0		
FEG	Far Eastern Greenland	101	-1	0		
CV	Cape Verde	102	-1	0		
AZO	Azores	103	-1	0	03-28-00-00	10-31-01-00
ICE	Iceland	104	+0	0		

Timezone Localities (Release 4.2.1)

Table F-2 describes the localities covered by the various world timezones that the Cisco BTS 10200 Softswitch supports as of Release 4.2.1.

Table F-2 Timezone Localities

ID	Description	Locality Served
LOCAL	Local System Time	
NWE	Northwestern Europe	Faroe Islands, Guernsey, Ireland, Isle of Man, Portugal, Canary Islands, United Kingdom
WA	Western Africa	Burkina Faso, Cote d'Ivore, Gambia, Ghana, Guinea, Guinea-Bissau, Liberia, Mali, Mauritania, Morocco, Sao Tome and Principe, Senegal, Sierra Leone, St.Helena, Togo, Western Sahara

Table F-2 Timezone Localities (continued)

ID	Description	Locality Served
WE	Western Europe	Albania, Andorra, Austria, Belgium, Bosnia and Herzegovina, Croatia, Czech Republic, Denmark, France, Germany, Gibraltar, Hungary, Italy, Lichtenstein, Luxembourg, Macedonia, Monaco, Netherlands, Norway, Poland, San Marino, Serbia, Montenegro, Kosovo, Slovakia, Slovenia, Spain, Sweden, Switzerland, Vatican City
WCA	West Central Africa	Algeria, Angola, Benin, Cameroon, Central African Republic, Chad, Congo, Democratic Republic of Congo (west), Equatorial Guinea, Gabon, Niger, Nigeria, Tunisia
MAL	Malta	Malta
NAM	Namibia	Namibia
CE	Central Europe	Bulgaria, Cyprus, Estonia, Finland, Latvia, Lithuania, Moldova, Romania, Turkey, Ukraine
ECA	East Central Africa	Botswana, Burundi, Democratic Republic of Congo (east), Lesotho, Libya, Malawi, Mozambique, Rwanda, South Africa, Swaziland, Zambia, Zimbabwe
ECE	East Central Europe	Belarus, Greece, Russia (Zone1)
EGY	Egypt	Egypt
GAZ	Gaza	Gaza Strip
ISR	Israel	Israel
JOR	Jordan	Jordan
LEB	Lebanon	Lebanon
SYR	Syria	Syria
WB	West Bank	West Bank
EA	Eastern Africa	Comoros, Djibouti, Eritrea, Ethiopia, Kenya, Madagascar, Mayotte, Somalia, Sudan, Tanzania, Uganda
PG	Persian Gulf	Bahrain, Kuwait, Qatar, Saudi Arabia, Yemen
GEO	Georgia	Georgia
IRQ	Iraq	Iraq
RUS2	Russia Zone 2	Russia (Zone2)
IRA	Iran	Iran
AZE	Azerbaijan	Azerbaijan
WIO	Western Indian Ocean	Mauritius, Reunion, Seychelles
ME	Middle East	Oman, United Arab Emirates
WAS	Western Asia	Armenia, Kazakhstan (West), Russia (Zone3)
AFG	Afghanistan	Afghanistan
KYR	Kyrgystan	Kyrgystan
ECAS	Eastern Central Asia	Pakistan, Tajikistan, Turkmenistan, Uzbekistan
IO	Indian Ocean	Kerguelen, Maldives

Table F-2 Timezone Localities (continued)

ID	Description	Locality Served
WCAS	West Central Asia	Kazakhstan (Central), Russia (Zone4)
IND	India	India
NEP	Nepal	Nepal
CAS	Central Asia	Kazakhstan (East), Russia (Zone5)
SAS	Southern Asia	Bangladesh, Bhutan, Sri Lanka
BC	Burma – Cocos	Burma, Cocos (Keeling) Islands
RUS6	Russia Zone 6	Russia (Zone6)
SEAS	South Eastern Asia	Christmas Island, Cambodia, Indonesia (West), Laos, Thailand, Vietnam
EAS	Eastern Asia	Brunei Darussalem, China, Hong Kong, Indonesia (Central), Macau, Malaysia, Philippines, Singapore, Taiwan
MON	Mongolia	Mongolia
RUS7	Russia Zone 7	Russia (Zone7)
WAU	Western Australia	Australia (Western Australia)
FEAS	Far Eastern Asia	Indonesia (East), Japan, North Korea, South Korea, Palau, Timor-Leste
RUS8	Russia Zone 8	Russia (Zone8)
NAU	Northern Australia	Australia (Northern Territory)
SAU	Southern Australia	Australia (South Australia)
EAU	Eastern Australia	Australia (New South Wales, Victoria, Capital Territory)
QUE	Queensland Australia	Australia (Queensland)
RUS9	Russia Zone 9	Russia (Zone9)
TAS	Tasmania	Australia (Tasmania)
WP	Western Pacific	Guam, Micronesia (Chuuk Islands), Northern Mariana Islands, Papua New Guinea
LAU	Lord Howe Island – Australia	Australia (Lord Howe Island)
RUS10	Russia Zone 10	Russia (Zone10)
WCP	Western Central Pacific	Micronesia (Senyavin Islands), New Caledonia, Solomon Islands, Vanuatu
NOR	Norfolk Island	Norfolk Island
NZ	New Zealand	New Zealand
RUS11	Russia Zone 11	Russia (Zone11)
SPO	Southern Pacific Ocean	Fiji, Kiribati (Gilbert Islands), Marshall Islands, Nauru, Tuvalu, Wallis and Futuna
CI	Chatham Island	Chatham Island
SEPO	South Eastern Pacific Ocean	Kiribati (Phoenix Islands), Tonga
LI	Line Islands	Kiribati (Line Islands)
SMO	Samoa	American Samoa, Niue, Samoa

Table F-2 Timezone Localities (continued)

ID	Description	Locality Served
HAW	Hawaii	Cook Islands, French Polynesia (Society Archipelago, Tuamotu Archipelago, Tubuai Islands), US (Hawaii)
AI	Aleutian Islands	US (Aleutian Islands)
GI	Gambier Islands	French Polynesia (Gambier Islands)
MI	Marquesas Islands	French Polynesia (Marquesas Islands)
ALA	Alaska	US (Alaska)
SON	Sonora Mexico	Mexico (Sonora)
PI	Pitcairn Islands	Pitcairn Islands
PAC	North American Pacific	Canada (Yukon, British Columbia), Mexico (Baja California), US (Washington, Oregon, Idaho-Northern, California, Nevada)
EBC	Eastern British Columbia	Canada (Eastern British Columbia)
MNT	North American Mountain	Canada (Northwest Territory, Nunavut-Western, British Columbia-Southeast, Alberta, Saskatchewan-West), Mexico (Baja California Sur, Chihuahua, Sinaloa, Nayarit), US (Oregon-East, Idaho-Southern, Montana, Wyoming, North Dakota-Southwest, South Dakota-West, Nebraska-West, Kansas-West, Utah, Arizona-Navajo Reservation, Colorado, New Mexico, Texas-Far West)
ARI	Arizona	Arizona
SASK	Saskatchewan	Canada (Saskatchewan)
GAL	Galapagos Islands	Ecuador (Galapagos Islands)
EI	Easter Island	Easter Island
CA	Central America	Belize, Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua
CEN	North American Central	Canada (Nunavut-Central, Ontario-Western, Saskatchewan-East, Manitoba), Mexico (Coahuila, Nuevo Leon, Tamaulipas, Zacatecas, Jalisco, San Luis Potosi, Guanajuato, Aquascalientes, Queretara, Yucatan, Quintana Roo, Campeche, Tabasco, Chiapas, Oaxaca, Veracruz, Guerrero, Michoacan, Colima, Morelos, Tlaxacala, Durango, Edo de Mexico, Hidalgo, Puebla, Federal District), US (North Dakota, South Dakota-Eastern, Nebraska-Eastern, Kansas-Eastern, Minnesota, Iowa, Missouri, Wisconsin, Illinois, Michigan-Western Upper Peninsula, Oklahoma, Texas, Arkansas, Louisiana, Indiana-Southwestern, Indiana-Northwestern, Kentucky-Western, Tennessee-Western, Mississippi, Florida-Far Western)
WSAM	Western South America	Columbia, Ecuador, Peru
WCAR	Western Caribbean	Cayman Islands, Grand Cayman, Haiti, Jamaica, Panama
SOU	Southampton Canada	Canada (Nunavut-Southampton)
IDA	Indiana	US (Indiana)

Table F-2 Timezone Localities (continued)

ID	Description	Locality Served
EST	North American Eastern	Canada (Nunavut-Eastern, Quebec, Ontario-Eastern), Turks and Caicos Islands, US (Michigan, New York, Maine, New Hampshire, Vermont, Massachusetts, Connecticut, Rhode Island, Indiana-Southeastern, Kentucky-Eastern, Tennessee-Eastern, Ohio, Pennsylvania, Virginia, North Carolina, New Jersey, Delaware, Maryland, Washington DC, West Virginia, Alabama, South Carolina, Georgia, Florida)
CUB	Cuba	Cuba
BAH	Bahamas	Bahamas
ACR	Acre Brazil	Brazil (Acre)
SAM	Central South America	Argentina (Mendoza, San Juan), Bolivia, Brazil (Amazonas, Rondonia, Roraima, Mato Grosso, Para-West, Mato Grosso Do Sul), Guyana, Venezuela
PAR	Paraguay	Paraguay
FI	Falkland Islands	UK (Falkland Islands)
CHI	Chile	Chile
CG	Central Greenland	Denmark (Central Greenland)
CAR	Caribbean	Anguilla, Antigua and Barbuda, Aruba, Barbados, British Virgin Islands, Dominican Republic, Dominica, Grenada, Guadeloupe, Martinique, Montserrat, Netherlands Antilles, Puerto Rico, St.Kitts and Nevis, St. Lucia, St Vincent and The Grenadines, Trinidad and Tobago, US Virgin Islands
ATL	North American Atlantic	Bermuda, Canada (Labrador, New Brunswick, Nova Scotia, Prince Edward Island)
NWF	Newfoundland Canada	Canada (Newfoundland)
ELAB	Eastern Labrador Canada	Canada (Labrador-Far Eastern)
SPM	St Pierre and Miquelon	France (St Pierre and Miquelon)
SBRZ	Southern Brazil	Brazil (Minas Gerais, Goias, Distrito Federal, Parana, Espirito Santo, Rio De Janeiro, Sao Paulo, Rio Grande Do Sul, Santa Catarina)
ESAM	Eastern South America	French Guiana, Suriname, Uruguay, Brazil (Para-Eastern, Amapa, Maranhao, Tocantins, Piaui, Ceara, Rio Grande Do Norte, Paraiba, Alagoas, Sergipe, Bahia), Argentina (Buenos Aires, Catamarca, Chaco, Chubut, Cordoba, Corrientes, Entre Rios, Formosa, Jujuy, La Pampa, La Rioja, Misiones, Neuquen, Rio Negro, Salta, San Luis, Santa Cruz, Santa Fe, Santiago del Estero, Tierra del Fuego, Tucuman)
EG	Eastern Greenland	Denmark (Greenland-Eastern)
EBRZ	Eastern Brazil	Brazil (Pernambuco, Fernando de Noronha)
FEG	Far Eastern Greenland	Denmark (Greenland-Far Eastern)
CV	Cape Verde	Cape Verde

Table F-2 Timezone Localities (continued)

ID	Description	Locality Served
AZO	Azores	Portugal (Azores)
ICE	Iceland	Iceland



APPENDIX 3

ISUP Message Counters (Release 4.4.1)

Revised: July 24, 2009, OL-3743-42

Table 3-1 illustrates which message counters are applicable to a given ISUP variant.

Caution ISUPs for Chile and Australia are not supported.

Table 3-1 ISUP Message Counters

Message	ANSI	China	Mexico	Thailand	Hong Kong	Chile	Australia	Israel	ETSIv2	Hungary
ACM	X	X	X	X	X	X	X	X	X	X
ANM	X	X	X	X	X	X	X	X	X	X
ARR				X						
BLA	X	X	X	X	X	X	X	X	X	X
BLO	X	X	X	X	X	X	X	X	X	X
CCL		X	X				X	X	X	
CCR	X	X	X	X		X	X	X	X	X
CFN	X		X	X	X					X
CGB	X	X	X	X	X	X	X	X	X	X
CGBA	X	X	X	X	X	X	X	X	X	X
CGU	X	X	X	X	X	X	X	X	X	X
CGUA	X	X	X	X	X	X	X	X	X	X
CON		X	X	X	X	X	X	X	X	X
COT	X	X	X	X	X	X	X	X	X	X
CPG	X	X	X	X	X	X	X	X	X	X
CQM	X		X	X						
CQR	X		X	X						
CRA	X									
CRM	X									
CRG						X				

Table 3-1 ISUP Message Counters (continued)

Message	ANSI	China	Mexico	Thailand	Hong Kong	Chile	Australia	Israel	ETSIv2	Hungary
CVR	X									
CVT	X									
EXM	X									
FAA									X	X
FAC	X				X					X
FAR						X				
FOT	X									
FRJ						X				
FWT						X				
GRA	X	X	X	X	X	X	X	X	X	X
GRS	X	X	X	X	X	X	X	X	X	X
IAM	X	X	X	X	X	X	X	X	X	X
IDR						X				X
INF	X		X	X	X	X				X
INR			X	X	X	X				X
IRS						X				X
ITX										
LPA	X									
LPM						X				
NRM					X	X				
OLM										X
OPR							X	X	X	
PAM	X				X	X				
PRI						X				
REL	X	X	X	X	X	X	X	X	X	X
RES	X	X	X	X	X	X	X	X	X	X
RLC	X	X	X	X	X	X	X	X	X	X
RSC	X	X	X	X	X	X	X	X	X	X
SAM		X	X	X	X	X	X	X	X	X
SGM		X			X	X	X	X	X	X
SUS	X	X	X	X	X	X	X	X	X	X
TXA										
UBA	X	X		X	X	X	X	X	X	X
UBL	X	X	X	X		X	X	X	X	X
UCIC	X		X	X		X				
UPA										X

Table 3-1 ISUP Message Counters (continued)

Message	ANSI	China	Mexico	Thailand	Hong Kong	Chile	Australia	Israel	ETSIv2	Hungary
UPT										X
USR	X					X				X



APPENDIX H

Data Values for TOS, DSCP, and PHB Parameters

Revised: July 24, 2009, OL-3743-42

This appendix describes the parameters implemented in the Cisco BTS 10200 Softswitch for Type of Service (TOS), Differentiated Services Codepoint (DSCP), and Per-Hop Behavior (PHB) and provides a basic overview of industry standards for the TOS, DSCP, and PHB parameters.

Type of Service

TOS parameters are described in IETF document RFC 791, Internet Protocol.
Bits 0 - 7 are used as follows in the TOS Byte:

- Bits 0 - 2: IP Precedence
- Bit 3: Delay
- Bit 4: Throughput
- Bit 5: Reliability
- Bits 6-7: Reserved

Differentiated Services Codepoint

DSCP parameters are described in IETF document *RFC 2474, Definition of the Differentiated Services Field (DS Field) in the IPv4 and IPv6 Headers*. Bits 0 - 7 are used as follows in the Diffserv (Differentiated Services) Byte:

- Bits 0 - 5: DSCP Value
- Bits 6-7: Reserved

Per-Hop Behavior

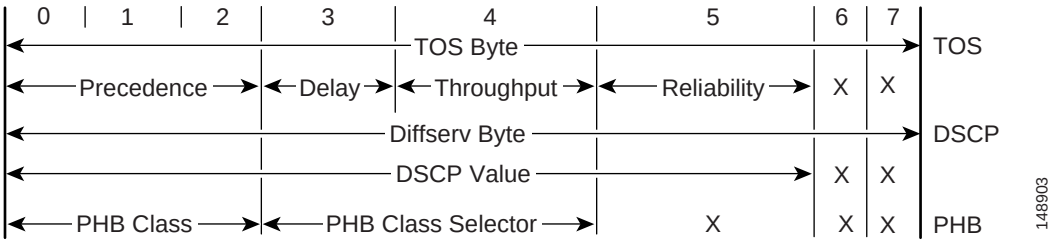
PHB is described in IETF document *RFC 2597, Assured Forwarding PHB Group*, and *RFC 3246, An Expedited Forwarding PHB (Per-Hop Behavior)*. Bits 0 - 7 are used as follows for PHB:

- Bits 0 - 2: PHB Class Value
- Bits 3 - 4: PHB Class Selector Value
- Bits 5-7: Reserved

Relationship of Type of Service, Differentiated Services Codepoint and Per-Hop Behavior Standards

Figure H-1 shows how the TOS, DSCP, and PHB standards are related.

Figure H-1 Relationship of TOS, DSCP, and PHB Standards



Provisioning Formats for TOS, DSCP, and PHB Parameters

On the Cisco BTS 10200 Softswitch, the parameters for TOS, DSCP, and PHB are provisioned differently depending on the token. There are four provisioning formats. These formats are not user-selected. Instead, the system requires the provisioning of each token using a particular format. The default values may be sufficient for your system. The default values for specific tokens are provided in the "Allowed and Default Values" section on page H-3.

Caution If you change any parameters in the ca-config table, these changes do not take effect until the Call Agent (CA) platform switches over or restarts.

TOS Precedence String Format

If the system requires parameters to be provisioned in the TOS precedence string format, provision the four tokens as follows:

- PRECEDENCE = NETCONTROL, INTERNETCONTROL, CRITICAL, FLASHOVERRIDE, FLASH, IMMEDIATE, PRIORITY, or ROUTINE
- LOWDELAY = Y or N
- THROUGHPUT = Y or N
- RELIABILITY = Y or N

Note Refer to RFC 791 for additional information on the PRECEDENCE values. The relationship between alpha values and numerical values is as follows: NETCONTROL=7, INTERNETCONTROL=6, CRITICAL=5, FLASHOVERRIDE=4, FLASH=3, IMMEDIATE=2, PRIORITY=1, ROUTINE=0.

TOS Precedence Integer Format

If the system requires parameters to be provisioned in the TOS precedence integer format, provision the four tokens as follows:

- PRECEDENCE = 0–7
- LOWDELAY = Y or N
- THROUGHPUT = Y or N
- RELIABILITY = Y or N

Note Refer to RFC 791 for additional information on the PRECEDENCE values. The relationship between alpha values and numerical values is as follows: NETCONTROL=7, INTERNETCONTROL=6, CRITICAL=5, FLASHOVERRIDE=4, FLASH=3, IMMEDIATE=2, PRIORITY=1, ROUTINE=0.

Diffserv Byte Format

If the system requires parameters to be provisioned in the Diffserv byte format, provision a single token as an integer between 0 and 255. The Diffserv byte is based on 8 bits, which is 2 more bits than the DSCP value (see Figure H-1). Therefore, a value 4 times the value of the desired DSCP value must be provisioned. For example, if you want a DSCP value of 24 for a particular token, provision that token with a value of 96.

PHB Format

If the system requires parameters to be provisioned in the PHB format, provision a single token as one of the following values: CS1, CS2, CS3, CS4, CS5, CS6, CS7, AF11, AF12, AF13, AF21, AF22, AF23, AF31, AF32, AF33, EF, NONE (Release 4.4.x only), DEFAULT (Release 4.5 only).

Allowed and Default Values

This section lists the provisionable TOS, DSCP, and PHB tokens applicable to each protocol, and the allowed and default values.

Caution For all of the tokens in this section, Cisco does not recommend using any value other than the specified default. Changing these values from their defaults can significantly impact network performance. Contact Cisco TAC for further information.

Caution If you change any parameters in the ca-config table, these changes do not take effect until the CA platform switches over or restarts.

Note Refer to RFC 791 for additional information on the PRECEDENCE values. Numerical equivalents are as follows: NETCONTROL=7, INTERNETCONTROL=6, CRITICAL=5, FLASHOVERRIDE=4, FLASH=3, IMMEDIATE=2, PRIORITY=1, ROUTINE=0.

MGCP Signaling

The following values from Appendix A, "Configurable Parameters and Values" (Call Agent Configuration table) are applicable to this type of signaling:

- MGCP-SIG-TOS-PRECEDENCE
- MGCP-SIG-TOS-LOWDELAY
- MGCP-SIG-TOS-THROUGHPUT
- MGCP-SIG-TOS-RELIABILITY

Table H-1 lists the allowed types and default value for each of these types.

Table H-1 MGCP-SIG-TOS Values (from CA-CONFIG Table)

Value	Allowed Values	Default Value
MGCP-SIG-TOS-PRECEDENCE	0–7	3
MGCP-SIG-TOS-LOWDELAY	Y/N	Y
MGCP-SIG-TOS-THROUGHPUT	Y/N	N
MGCP-SIG-TOS-RELIABILITY	Y/N	N

DQoS Signaling

This section lists the tokens used in provisioning DQoS signaling from the Media Gateway Profile and the Quality of Service tables. DQoS signaling uses the Common Open Policy Service (COPS) protocol.

The *Media Gateway Profile table* contains the following token:

- IPTOS-RTP-SUPP—Allowed values are Y/N; default is N.

The *Quality of Service table* contains the following tokens:

- IPTOS-RTP-PRECEDENCE
- IPTOS-RTP-LOWDELAY
- IPTOS-RTP-THROUGHPUT
- IPTOS-RTP-RELIABILITY

Table H-2 lists the allowed values and default value for each of these tokens.

Table H-2 IPTOS-RTP Values (from QoS Table)

Token	Allowed Values	Default Value
IPTOS-RTP-PRECEDENCE	NETCONTROL INTERNETCONTROL CRITICAL FLASHOVERRIDE FLASH IMMEDIATE PRIORITY ROUTINE	CRITICAL
IPTOS-RTP-LOWDELAY	Y/N	N
IPTOS-RTP-THROUGHPUT	Y/N	N
IPTOS-RTP-RELIABILITY	Y/N	N

COPS and RADIUS Signaling

This section lists the tokens used in provisioning COPS and RADIUS signaling from the Quality of Service and the Call Agent Configuration tables.

Tip The tokens in this section are provisioned using values between 0 and 255. For an explanation of how to calculate these values, see the "Diffserv Byte Format" section on page H-3.

The *Quality of Service table* contains the following token (applicable to voice traffic):

- DQOS-CMTS-DSCP-TOS—This value is used for the packets about to enter a provider backbone from the CMTS.
- DQOS-DSCP-TOS-BITMASK (Release 4.5 and later)—This token specifies particular bits within the IPv4 DSCP/TOS byte.
- DOCSIS-DSCP-TOS (Release 4.5 and later)—Identifies the DSCP/TOS value that must be matched for packets to be classified onto the IP flow.
- DOCSIS-DSCP-TOS-BITMASK (Release 4.5 and later)—This token determines what bits in the DSCP/TOS byte are to be used as filters in classifying packets.

Table H-3 lists the allowed values and default value for each of these tokens.

Table H-3 COPS Signaling Parameters (from QoS Table)

Token	Allowed Values	Default Value
DQOS-CMTS-DSCP-TOS	0–255	160
DQOS-DSCP-TOS-BITMASK (Release 4.5 and later)	0–255	224

Table H-3 COPS Signaling Parameters (from QoS Table) (continued)

Token	Allowed Values	Default Value
DOCSIS-DSCP-TOS (Release 4.5 and later)	0–255	160
DOCSIS-DSCP-TOS-BITMASK (Release 4.5 and later)	0–255	224

The following values for the type token from Appendix A, "Configurable Parameters and Values" (Call Agent Configuration table) are applicable to this type of signaling:

COPS-DSCP-TOS—This value is used for the signaling packets on COPS interfaces between the CMS and the CMTS.

RADIUS-DSCP-TOS—This value is used for the signaling packets on RADIUS interfaces between the CMS and the RKS, and the CMS and the DF server.

Table H-4 lists the allowed value and default value for each of these tokens.

Table H-4 COPS and RADIUS Signaling Parameters (from CA-CONFIG Table)

Value	Allowed Values	Default Value
COPS-DSCP-TOS	0–255	96
RADIUS-DSCP-TOS	0–255	96

Stream Control Transmission Protocol Signaling

This section lists the tokens used from the *Stream Control Transmission Protocol* (SCTP) Association table.

- DSCP (Release 4.4.x and earlier only)—The values for this token are described further in *RFC 2597, Assured Forwarding PHB Group*, and *RFC 3246, An Expedited Forwarding PHB (Per-Hop Behavior)*.
- IP-TOS-PRECEDENCE (Release 4.4.x and earlier only)

Table H-5 lists the allowed values and default value for each of these tokens.

Table H-5 SCTP Signaling Parameters (from the SCTP-Association Table)

Token	Allowed Values	Default Value
DSCP (Release 4.4.x and earlier only)	AF11, AF12, AF13, AF21, AF22, AF23, AF31, AF32 AF33, AF41, AF42, AF43, EF, NONE	NONE
IP-TOS-PRECEDENCE (Release 4.4.x and earlier only)	NETCONTROL, INTERNETCONTROL, CRITICAL, FLASHOVERRIDE, FLASH, IMMEDIATE, PRIORITY, ROUTINE	FLASH

The following value from Appendix A, "Configurable Parameters and Values" (Call Agent Configuration table) is applicable to this type of signaling.

- SCTP-DSCP (Release 4.5 and later only)—The values for this token are described further in *RFC 2597, Assured Forwarding PHB Group*, and *RFC 3246, An Expedited Forwarding PHB (Per-Hop Behavior)*.

Table H-6 lists the allowed values and default value for this token.

Table H-6 SCTP-DSCP Signaling Parameters (from CA-CONFIG Table)

Token	Allowed Values	Default Value
SCTP-DSCP (Release 4.5 and later only)	DEFAULT, CS1, CS2, CS3, CS4, CS5, CS6, CS7, AF11, AF12, AF13, AF21, AF22, AF23, AF31, AF32 AF33, AF41, AF42, AF43, EF	CS3

ISDN Signaling

This section lists the tokens used from the *Backhaul Set table*.

- SIG-TOS-LOWDELAY
- SIG-TOS-PRECEDENCE
- SIG-TOS-RELIABILITY
- SIG-TOS-SUPP—Allowed values are Y/N; default is N.
- SIG-TOS-THROUGHPUT

Table H-7 lists the allowed values and default value for the -PRECEDENCE, -LOWDELAY, -THROUGHPUT, and -RELIABILITY tokens.

Table H-7 SIG-TOS Values (from BACKHAUL-SET Table)

Token	Allowed Values	Default Value
SIG-TOS-LOWDELAY	Y/N	N
SIG-TOS-PRECEDENCE	NETCONTROL INTERNETCONTROL CRITICAL FLASHOVERRIDE FLASH IMMEDIATE PRIORITY ROUTINE	CRITICAL
SIG-TOS-RELIABILITY	Y/N	N
SIG-TOS-THROUGHPUT	Y/N	N

H.323 Signaling

This section lists the tokens used from the *H.323 Gateway table*.

- IPTOS-SIG-LOWDELAY
- IPTOS-SIG-PRECEDENCE
- IPTOS-SIG-RELIABILITY
- IPTOS-SIG-THROUGHPUT

Table H-8 lists the allowed values and default value for each of these tokens.

Table H-8 IPTOS-SIG Values (from H323-GATEWAY Table)

Token	Allowed Values	Default Value
IPTOS-SIG-LOWDELAY	Y/N	Y
IPTOS-SIG-PRECEDENCE	NETCONTROL INTERNETCONTROL CRITICAL FLASHOVERRIDE FLASH IMMEDIATE PRIORITY ROUTINE	FLASH
IPTOS-SIG-RELIABILITY	Y/N	N
IPTOS-SIG-THROUGHPUT	Y/N	N

Session Initiation Protocol Signaling

This section lists the tokens used from the *Softswitch Trunk Group Profile table* that affect Session Initiation Protocol (SIP) trunks.

- SIP-SIG-LOWDELAY
- SIP-SIG-PRECEDENCE
- SIP-SIG-RELIABILITY
- SIP-SIG-THROUGHPUT

Table H-9 lists the allowed values and default value for each of these tokens.

Table H-9 SIP-SIG Values (from SOFTSW-TG-PROFILE Table)

Token	Allowed Values	Default Value
SIP-SIG-LOWDELAY	Y/N	Y

Table H-9 SIP-SIG Values (from SOFTSW-TG-PROFILE Table) (continued)

Token	Allowed Values	Default Value
SIP-SIG-PRECEDENCE	NETCONTROL INTERNETCONTROL CRITICAL FLASHOVERRIDE FLASH IMMEDIATE PRIORITY ROUTINE	FLASH
SIP-SIG-RELIABILITY	Y/N	N
SIP-SIG-THROUGHPUT	Y/N	N

System-Level Signaling TOS for SIP Calls

The following values from Appendix A, "Configurable Parameters and Values" (Call Agent Configuration table) are applicable to this type of signaling. These values define the system-level TOS for SIP calls. The system-level TOS is used for all calls to SIP subscribers. For trunks, the sia-trunk-grp-level-sig-tos value indicates whether the system-level (ca-config) TOS to use for SIP calls is trunk-group specific.

- SIA-TRUNK-GRP-LEVEL-SIG-TOS—Allowed values are Y/N; default is N.
- SIA-SIG-TOS-LOWDELAY
- SIA-SIG-TOS-PRECEDENCE
- SIA-SIG-TOS-RELIABILITY
- SIA-SIG-TOS-THROUGHPUT

Table H-10 lists the allowed values and default value for the -PRECEDENCE, -LOWDELAY, -THROUGHPUT, and -RELIABILITY tokens.

Table H-10 SIA-SIG-TOS Values (from CA-CONFIG Table)

Token	Allowed Values	Default Value
SIA-SIG-TOS-LOWDELAY	Y/N	Y
SIA-SIG-TOS-PRECEDENCE	0–7	3
SIA-SIG-TOS-RELIABILITY	Y/N	N
SIA-SIG-TOS-THROUGHPUT	Y/N	N

Caution If you change any parameters in the ca-config table, these changes do not take effect until the CA platform switches over or restarts.

Internal Call Agent to Feature Server Signaling

The following values from Appendix A, "Configurable Parameters and Values" (Call Agent Configuration table) are applicable to this type of signaling. These values are used for internal Call Agent (CA) to Feature Server (FS) signaling.

- SIM-SIG-TOS-LOWDELAY
- SIM-SIG-TOS-PRECEDENCE
- SIM-SIG-TOS-RELIABILITY
- SIM-SIG-TOS-THROUGHPUT

Table H-11 lists the allowed values and default value for each of these tokens.

Table H-11 SIA-SIG-TOS Values (from CA-CONFIG Table)

Token	Allowed Values	Default Value
SIM-SIG-TOS-LOWDELAY	Y/N	Y
SIM-SIG-TOS-PRECEDENCE	0–7	3
SIM-SIG-TOS-RELIABILITY	Y/N	N
SIM-SIG-TOS-THROUGHPUT	Y/N	N

Internal Feature Server to Call Agent Signaling

The following values from Appendix A, "Configurable Parameters and Values" (Call Agent Configuration table) are applicable to this type of signaling (Release 4.5 and later). These values are used for internal signaling from the Feature Servers to the Call Agent.

AIN Feature Server

The following values are used for internal AIN Feature Server (FSAIN) to CA signaling:

- FSAIN-SIG-TOS-PRECEDENCE
- FSAIN-SIG-TOS-LOWDELAY
- FSAIN-SIG-TOS-THROUGHPUT
- FSAIN-SIG-TOS-RELIABILITY

POTS/Tandem/Centrex Feature Server

The following values are used for internal POTS/Tandem/Centrex Feature Server (FSPTC) to CA signaling:

- FSPTC-SIG-TOS-LOWDELAY
- FSPTC-SIG-TOS-PRECEDENCE
- FSPTC-SIG-TOS-RELIABILITY
- FSPTC-SIG-TOS-THROUGHPUT

Values

Table H-12 lists the allowed values and default value for each of these tokens.

Table H-12 FSAIN -SIG-TOS and FSPTC-SIG-TOS Values (from CA-CONFIG Table)

Token	Allowed Values	Default Value
FSAIN-SIG-TOS-PRECEDENCE FSPTC-SIG-TOS-PRECEDENCE	0–7	3
FSAIN-SIG-TOS-LOWDELAY FSPTC-SIG-TOS-LOWDELAY	Y/N	Y
FSAIN-SIG-TOS-THROUGHPUT FSPTC-SIG-TOS-THROUGHPUT	Y/N	N
FSAIN-SIG-TOS-RELIABILITY FSPTC-SIG-TOS-RELIABILITY	Y/N	N

Mapping of Provisionable TOS, DSCP, and PHB Values

Table H-13 shows how the provisionable values in the PHB format are mapped to the values in TOS and DSCP formats.

Caution Cisco recommends that you use the combinations of values shown in the table. The system will accept certain other combinations of values, depending on the format; however, the combinations shown in the table have been tested by Cisco for proper behavior.

Note Binary and Hex values are presented for information only, and are not used for provisioning.

Table H-13 Mapping of Provisionable Values in PHB Format to TOS and DSCP Formats [1]

Value in PHB Format	Value of TOS PRECEDENCE Bits			Other Provisionable TOS Bits			Binary	Diffserv Byte Format	Hex Value [2]
	Binary [3]	TOS String Format	TOS Integer Format	D [4]	T [4]	R [4]			
NONE (Release 4.4.x only) or **DEFAULT** (Release 4.5 only)	**000**	**ROUTINE**	**0**	**N**	**N**	**N**	**000 000 00**	**0**	**0x0**
CS1	**001**	**PRIORITY**	**1**	**N**	**N**	**N**	**001 000 00**	**32**	**0x20**
AF11				N	Y	N	001 010 00	40	0x28
AF12				Y	N	N	001 100 00	48	0x30
AF13				Y	Y	N	001 110 00	56	0x38
CS2	**010**	**IMMEDIATE**	**2**	**N**	**N**	**N**	**010 000 00**	**64**	**0x40**
AF21				N	Y	N	010 010 00	72	0x48
AF22				Y	N	N	010 100 00	80	0x50
AF23				Y	Y	N	010 110 00	88	0x58
CS3	**011**	**FLASH**	**3**	**N**	**N**	**N**	**011 000 00**	**96**	**0x60**
AF31				N	Y	N	011 010 00	104	0x68
AF32				Y	N	N	011 100 00	112	0x70
AF33				Y	Y	N	011 110 00	120	0x78
CS4	**100**	**FLASHOVERRIDE**	**4**	**N**	**N**	**N**	**100 000 00**	**128**	**0x80**
AF41				N	Y	N	100 010 00	136	0x88
AF42				Y	N	N	100 100 00	144	0x90
AF43				Y	Y	N	100 110 00	152	0x98
CS5	**101**	**CRITICAL**	**5**	**N**	**N**	**N**	**101 000 00**	**160**	**0xA0**
EF				Y	Y	N	101 110 00	184	0xB8
CS6	**110**	**INTERNETWORKCONTROL**	**6**	**N**	**N**	**N**	**110 000 00**	**192**	**0xC0**
CS7	**111**	**NETWORKCONTROL**	**7**	**N**	**N**	**N**	**111 000 00**	**224**	**0xE0**

1. Cisco recommends that you use the combinations of values shown in the table. The system will accept certain other combinations of values, depending on the format; however, the combinations shown in the table have been tested by Cisco for proper behavior.
2. Hexadecimal equivalent. This value is listed for convenience. It is not used in provisioning the Cisco BTS 10200 Softswitch.
3. Binary equivalent. This value is listed for convenience. It is not used in provisioning the Cisco BTS 10200 Softswitch.
4. D = Delay, T = Throughput, R = Reliability. To provision these tokens, enter N for 0 or Y for 1.



APPENDIX 4

ISUP Measurement Counters (Release 4.5/4.5.1)

Revised: July 24, 2009, OL-3743-42

This appendix illustrates which message counters are applicable to a given ISUP variant. The total message, abnormal release, unexpected and unrecognized message counter are applicable to all variants. These counters are used as display values in the Measurements chapter. ISUPs for Israel, Chile and Australia are not supported.

Table 4-1 ISUP Measurement Counters by Variant

Message	ANSI	China	Mexico	Thailand	Hong Kong	ETSIv2	Hungary	France (Release 4.5.1)	Poland (Release 4.5.1)	Columbia (Release 4.5.1)
ACM	X	X	X	X	X	X	X	X	X	X
ANM	X	X	X	X	X	X	X	X	X	X
ARR				X						
BLA	X	X	X	X	X	X	X	X	X	X
BLO	X	X	X	X	X	X	X	X	X	X
CCL		X	X			X				
CCR	X	X	X	X		X	X	X		
CFN	X		X	X	X		X	X		X
CGB	X	X	X	X	X	X	X	X	X	X
CGBA	X	X	X	X	X	X	X	X	X	X
CGU	X	X	X	X	X	X	X	X	X	X
CGUA	X	X	X	X	X	X	X	X	X	X
CON		X	X	X	X	X	X	X	X	X
COT	X	X	X	X	X	X	X	X	X	X
CPG	X	X	X	X	X	X	X	X	X	X
CQM	X		X	X						
CQR	X		X	X						
CRA	X									
CRM	X									

Table 4-1 ISUP Measurement Counters by Variant

Message	ANSI	China	Mexico	Thailand	Hong Kong	ETSIv2	Hungary	France (Release 4.5.1)	Poland (Release 4.5.1)	Columbia (Release 4.5.1)
CRG										X
CVR	X									
CVT	X									
EXM	X									
FAA						X	X	X	X	X
FAC	X				X		X	X	X	
FAR										X
FOT	X									
FRJ										X
FWT										
GRA	X	X	X	X	X	X	X			X
GRS	X	X	X	X	X	X	X			X
IAM	X	X	X	X	X	X	X			X
IDR							X			
INF	X		X	X	X		X			X
INR			X	X	X		X			X
IRS							X			
ITX								X	X	
LPA	X									
LPM										
NRM					X					
OLM							X	X	X	
OPR		X				X				
PAM	X				X					
PRI										
REL	X	X	X	X	X	X	X	X	X	X
RES	X	X	X	X	X	X	X	X	X	X
RLC	X	X	X	X	X	X	X	X	X	X
RSC	X	X	X	X	X	X	X	X	X	X
SAM		X	X	X	X	X	X	X	X	X
SGM		X			X	X	X	X	X	
SUS	X	X	X	X	X	X	X	X	X	X
UBA	X	X		X	X	X	X	X	X	X
UBL	X	X	X	X		X	X	X	X	X
UCIC	X		X	X						X

Table 4-1 ISUP Measurement Counters by Variant

Message	ANSI	China	Mexico	Thailand	Hong Kong	ETSIv2	Hungary	France (Release 4.5.1)	Poland (Release 4.5.1)	Columbia (Release 4.5.1)
UPA							X	X	X	
UPT							X	X	X	
USR	X						X	X	X	X



Glossary

Revised: July 24, 2009, OL-3743-42

The following glossary terms and acronyms may be used in this document.

A

AAA	authentication, authorization, and accounting
AAL	ATM adaptation layer
AAL1	ATM adaption layer 1
AAL2	ATM adaption layer 2
AAL3/4	ATM adaption layer 3 and 4
AAL5	ATM adaption layer 5
ABM	Asynchronous Balanced Mode
AC	automatic callback
AC_ACT	Automatic callback activation
AC_DEACT	Automatic callback deactivation
ACL	automatic congestion level
ACR	Anonymous call rejection
ACR_ACT	ACR activation code
ACR_DEACT	ACR deactivation code
ADI	activation, deactivation and interrogation
ADM	Administration, Diagnostics, and Maintenance
AIN	Advanced Intelligent Network
Airlines	airlines information and reservation
AMA	Automated Message Accounting
ANI	automatic number identification
ANNC	announcement

Annex E Connection Over UDP—Relates to sending signaling over UDP (User Data Protocol) for quicker call establishment. UDP does not replace TCP/IP. Annex E optimizes the gatekeeper-routed call model.

Annex F Inter-Domain Communications—A domain is several zones grouped together. Inter-domain communications focuses on address resolution between domains.

ANS announcement server

APP application

AR automatic recall

AR_ACT Automatic recall activation

AR_DEACT Automatic recall deactivation

ASPC analog stored program control switch

AT access tandem

ATM Asynchronous Transfer Mode

AUEP Audit Endpoint

B

B Channel bearer channel

BAF Bellcore AMA Format

BCID billing correlation identifier

BCM Basic Call Module

BDMS Bulk Data Management System of the Cisco BTS 10200 Softswitch.

BE best effort

BEC Backward Error Correction

Bit binary digit

Block-DA Block Directory Assistance.

Block-INTL Block International Operator Assistance

Block-TW Block Time and Weather

BLV Busy Line Verification

BOC Bell Operating Company

BRI Basic Rate Interface

BTS Broadband Telephony Services

C

CA	Call Agent. Component of the Cisco BTS 10200 Softswitch.
CA-Config	Call Agent configuration
CALEA	Communications Assistance for Law Enforcement Act
CALLp	call processing
CAP	competitive access provider
CAS	channel-associated signaling
CAS-TG	channel-associated signaling trunk group
CAT	customer access treatment
CBLK	Call block—reject caller
CBR	constant bit rate
CC	country code or courtesy call
CCC	call content channel
CCM	Cisco CallManager
CC-NN	country code—national number
CCR	continuity check request message
CCSS7	Common Channel Signaling System 7
CCT	circuit
CCW	Cancel call waiting
CDB	call detail block
CDC	call data channel
CDP	Customize dial plan
CDR	call detail record
Centrex	Central Office Exchange
CFB	call forwarding busy
CFBI	Call forwarding busy interrogation
CFBVA	Call forwarding busy activation
CFBVD	Call forwarding busy deactivation
CFC	Call forwarding combination

CFC_ACT	Call forwarding combination activation
CFC_DEACT	Call forwarding combination deactivation
CFC_DN_CHG_ACT	Call forwarding combination DN change with activation
CFCI	CFC interrogation with DN verification
CFCI_NO_DN_VRFY	CFC interrogation with no DN verification
CFN	confusion message
CFNA	call forwarding no answer
CFNA	Call forwarding no answer
CFNAI	CFNA variable interrogation
CFNAVA	CFNA variable activation
CFNAVD	CFNA variable deactivation
CFU	call forwarding unconditional
CFUA	CFU activation
CFUD	CFU deactivation
CFUI	CFU interrogation
CFVABBG	Call forwarding variable activation for business groups
CHD	Call hold
CIC	Circuit Identification Code
CIC	Carrier Identification Code. A unique 3- or 4-digit access identification code assigned by Telcordia (formerly Bellcore). It identifies the long-distance carrier of a caller.
CIDCW	call identity with call waiting
CIDCW	Caller ID with call waiting
CIDS	Calling identity delivery and suppression per call
CIDSD	Calling identity delivery and suppression, delivery part per call
CIDSS	Calling identity delivery and suppression, suppression part per call
CIP	carrier information parameter
Cisco BTS 10200	Cisco System's Broadband Telephony Services Softswitch 10200
CLEC	competitive local exchange carrier
CLH	circular line hunt

CLI	command-line interface
CLIP	calling line information presentation
CLIP	Calling line identity presentation
CLIR	calling line information restriction
CLIR	Calling line identity restriction
CLLI	Common Language Location Identifier. An 11-character descriptor field assigned to a class 4/5 switch.
CM	cable modem
CMS	call management system
CMTS	Cable Modem Termination System
CNAB	calling name delivery blocking
CNAB	Calling name delivery blocking
CNAM	Calling name
CND	Calling number delivery
CNDB	calling number delivery blocking
CNM	Connection Manager
CO	Central Office
CONFIG	configuration
COPS	Common Open Policy Service
COS	Class of service screening
COT	continuity test
COT	Customer-originated trace
CPL	Command Privilege Level
CPOL	Cisco Patent On-line
CPRK	Call park access code
CPRK_RET	Call park retrieval access code
CPSG-ID	call park subscriber group identification
CPU	central processing unit
CRA	circuit reservation acknowledgement
CRCX	MGCP create connection message type

CRG charge information (message)

CRM circuit reservation message

CRMCRA circuit reservation message/circuit reservation acknowledgment

CT call transfer

CVR circuit validation response

CVT circuit validation test

CW call waiting

CWD call waiting deluxe

D

D Channel data channel

DA directory assistance

DACWI distinctive alerting/call waiting on incoming on DID calls

DA-CWI distinctive alerting/call waiting on incoming

DA-Toll 1+411, 1+NPA-555-1212 calls.

DChan-Port D-Channel Port Number

DChan-Slot D-Channel Slot

DHCP Dynamic Host Control Protocol

DID direct inward dialing

DID/DNIS direct inward dialing/Dialed Number Identification Service

DLCX MGCP delete connection message type

DN directory number

DND do not disturb

DND_ACT do not disturb activation

DND_DEACT do not disturb deactivation

DNIS Pattern Dialed Number ID Service

DNS Domain Name Server

DOCSIS Data Over Cable System Interface Specification

DOW day of week

DOY date of year

DP detection point

DPC destination point code

DPN directed call pickup with barge-in

DPU directed call pickup

DQOS dynamic quality of service

DRCW distinctive ringing call waiting

DRCW_ACT DRCW activation code

DSCP DiffServ Code Point

DSPC Digital Stored Program Control Switch

DTMF dual tone multifrequency. Tones that are generated when a button on a touch-tone phone is pressed. When the tone is generated, it is compressed, transported to the other party, and decompressed.

DTMF-Groundstart dual tone multifrequency Ground Start

DTMF-IMStart dual tone multifrequency Immediate Start

DTMF-Loopstart dual tone multifrequency Loop Start

DTMF-Winkstart dual tone multifrequency Wink Start

DUP-Records duplicate records

E

E Channel echo channel

E&M recEive and transMit

EM event message

E.164 The ITU-T international public telecommunications numbering plan standard

EAEA Equal Access Exchange Area

EAEO Equal Access End Office

EAIN Bellcore FGD Exchange Access International Signaling

EANA Bellcore FGD Exchange Access North American Signaling

EC echo cancellation

ECD Echo Control Device (normally an echo suppressor or echo canceller)

E-ISUP extended-ISUP

EM Event Message or Messaging

EMA Event Message Adapter

EMG Emergency (911) Call

EMS Element Management System

EMTA Embedded Media Terminal Adapter

ENUM Electronic Number Mapping

EO end office

ESA Electronic Surveillance Adapter

EXM exit message

EXT extension

F

FAIL-CNT failure count

FCLI Functional Command Line Interface

FCP Feature Control Protocol

FDT final dial tone

FEID Financial Entity Identifier

FGD Feature Group D

FIM feature interaction manager

FName feature name

FQDN Fully Qualified Domain Name

FS Feature Server in the Cisco BTS 10200 Softswitch

FSAIN AIN Feature Server

SFPTC POTS, Tandem, Centrex Feature Server

FTP File Transfer Protocol

G

G guaranteed

GAP generic address parameter

GC gate controller

GK gatekeeper—A device that does E.164 to IP address resolution, bandwidth management and load balancing.

GN generic name

GN gateway number (Hong Kong)

GPRS general packet radio service

GRE generic routing encapsulation

GSC1D 1-digit group speed calling

GSC2D 2-digit group speed calling

GTD Generic Transport Descriptor—ASCII based encoding scheme used to pass signaling information end-to-end.

GTP GPRS tunneling protocol

GW gateway

H

H.225 The call signaling protocol of H.323. H.225 uses messages similar to messages defined in Q.931 ITU-T Recommendation.

H.245 The resource exchange protocol of H.323. H.245 is used to help the two peers determine the master-slave relationship, the exchange of capabilities, and the opening or closing of logical channels.

H.323 ITU-T recommendation adopted by the VoIP Forum as the call signaling protocol over a LAN

H3A The H.323 signaling adapter subsystem of the Cisco BTS 10200 Softswitch

HFC hybrid fiber coaxial

HMAC hash-based message authentication code

HMAC-MD5 hashed message authentication code with MD5 (RFC 2104)

HMN hardware monitor

HOTLINE hotline

HOTV hotline variable

HOTVA hotline variable activation

HOTVD hotline variable deactivation

HOTVI hotline variable interrogation

HPTime higher packetization time

I

IAD integrated access device

IC Interexchange Carrier

ICMP Internet Control Message Protocol

IDEA International Data Encryption Algorithm

IETF Internet Engineering Task Force

IKE Internet Key Exchange

ILEC Incumbent local exchange carrier

IMAP Internet Message Access Protocol

INAP Intelligent Network Application Part

INFO Information services calls

INS In-Service

ISFG incoming SFG for Centrex

INTERLATA Calls that cross LATA boundaries

INTL international

INTL-OPR international operator

INTRALATA Calls that occur within a single LATA

IP Internet Protocol

IPsec IP Security standard from IETF.

ISDN Integrated Services Digital Network

ISUP ISDN User Part

ITP IP transfer point

ITP intraLATA toll presubscription

ITU-T International Telecommunication Union - Telecommunication Sector

IVR Interactive Voice Response

IXC Interexchange Carrier

J

JIP jurisdiction information parameter

K

KDC Kerberos Domain Controller

L

LATA local access transport area

LB-TEST loopback test call (108 test line)

LCADS Local Calling Area Data Source

LCD limited call duration

LCR least cost routing

LDAP Lightweight Directory Access Protocol

LEC local exchange carrier

LERG Local Exchange Routing Guide

LIDB line information database

LNP local number portability

LNP local number portability

LOCAL local call

LOCK-OUT lockout

LPTime lower packetization time

LRN local routing number

LSA local service area

M

MAC media access control

MAX-Digits maximum number of digits

MCF multiple call forwarding

MD5 message digest 5

MDCX MGCP modify connection message type

MDL Message Definition Language

MDN multiple directory numbers

MDO message definition object

MF-IMStart multifrequency Immediate Start

MF-Winkstart multifrequency Wink Start

MIB Management Information Base

MG/MGW media gateway

MGA media gateway adapter

MGC MGCP Media Gateway Controller

MGCP Media Gateway Control Protocol, used by the Cisco BTS 10200 Softswitch for controlling the bearer path on the media gateway

MGW Media Gateway. The main functionality of MGW is to packetize voice PCM stream from IMT in to RTP stream and vice-versa. The Call Agent controls MGWs using MGCP commands.

MIN-Digits minimum number of digits

MLHG Multiline hunt group

MSN Microsoft Network

MTA Media Terminal Adapter

Mu-law PCM voice-coding and compounding standard

MWI-On Message Waiting Indicator On

N

NANP North American Numbering Plan

NANPA North American Numbering Plan Administration

NAS network access server

NCA no circuit available

NCS network-based call signaling

NEW-DN new subscriber directory number

NFAS nonfacility associated signaling

NLB network loopback

NMS network management system

NOA nature of address

NOD nature of dial

NON-EMG non emergency calls; 311 calls

Noun The name of a table in the BTS 10200 database

NPA Numbering Plan Area (area code)

NRUF Numbering Resource Utilization and Forecast

NSA no solicitation announcement

NSA_ACT NSA management

NTE named telephony event. An event such as DTMF digits that must be encoded and transported in an RTP packet. RFC 2833 specifies the format of the RTP NTE payload.

NTF no trouble found

NTP Network Time Protocol

NXX Office Code or Prefix with a first digit of 2-9

O

O- Originating- such as CMS and MGC

OAMP operations, administration, maintenance provisioning

OCB outgoing call barring

OCB_ACT outgoing call barring activation

OCB_ADI outgoing call barring—activation, deactivation and interrogation. See OCB and ADI.

OCB_DEACT outgoing call barring deactivation

OCB_INT outgoing call barring interrogation

OCBA Outgoing call barring activation

OCBD Outgoing call barring deactivation

OCBI Outgoing call barring interrogation

OCLLI CLLI of the originating trunk group

OCN Original Called Number Information Element

OLD-DN Old Subscriber Directory Number

OLI Originating Line Information

OOB out of band

OOS out of service

OPC originating or origination point code

OPER-Status Operational Status

OSFG Outgoing SFG feature for Centrex

OSI open switch interval or open system interconnection

OSS Operations Support System

OSSS operator services signaling system

P

P1 Priority Level 1

P2 Priority Level 2

P3 Priority Level 3

P4 Priority Level 4

PHB per-hop behavior

PBX private branch exchange

PCM pulse code modulation

PCS personal communications service

PDP Policy Decision Point

PEP Policy Enforcement Point

PIC preferred interLATA carrier or point in call

PIN private identification number

PIN-LEN pin length

PKT packet

PKT-CBL PacketCable

POP point of presence

POTS plain old telephone service

PRD Product Requirement Document

PREMIUM service access code 900, use carrier to route the call

PS privacy screening

PS_MANAGE privacy screening management

PS_O privacy screening assigned to the incoming trunk from the PS application server

PSTN public switched telephone network.

PTC Plain Old Telephone Service (POTS), Tandem, Centrex

PVC permanent virtual circuit

Q

Q.931 Call-signaling protocol for setup and termination of calls

Q.Sig Q signaling—a PBX signaling protocol

QAM Queuing and Audit Manager

QoS quality of service

QVT query verification tool

R

RAC Resource Availability Confirmation message

RACF remote activation of call forwarding

RACF_PIN RACF PIN change

RADIUS Remote Authentication Dial-In User Service

RAI Resource Availability Indication RAS message

RAS Registration, Admission, and Status Protocol. RAS is defined in the H.225 ITU-T Recommendation. RAS is used to communicate between gateways, endpoints and gatekeeper. RAS is also used to communicate between two gatekeepers.

RBOC Regional Bell Operating Company

RCF Remote call forwarding

RCF Registration Confirmation message

RDN Redirecting Number Information Element

REFER refer capability

RFC Request for comments document series

RGW residential gateway

RIP Request In Progress message

RKS Record Keeping Server; Record Keeping System

ROH receiver off hook

ROTL remote office test line

RR ring reminder

RRJ Registration Reject message

RRQ Registration Request message

RSIP Restart In Progress

RSUP Reliable SAP Update Protocol

RSVP Resource Reservation Protocol. An IETF protocol for providing integrated services and reserving resources in an IP-based internet.

RTP Real-time Transport Protocol—A protocol for transporting multimedia over IP; see RFC 1889, *RTP: A Transport Protocol for Real-Time Applications*.

RUDP Reliable User Data Protocol (UDP) Protocol.

S

S7A SS7 ISUP signaling adapter

SAP Session Announcement Protocol

SC1D 1-digit speed calling

SC1D_ACT 1-digit speed calling activation code

SC2D 2-digit speed calling

SC2D_ACT 2-digit speed calling activation code

SCA Selective call acceptance

SCA_ACT SCA activation code ACA_ACT provides access to an IVR server for activation, screening list setup and editing, and deactivation of SCA

SCCP Signal Connection Control Part

SCF Selective call forwarding

SCF_ACT Selective call forwarding activation

SCP Service Control Point

SCR Selective call rejection

SCR_ACT Selective call rejection activation SCR_ACT provides access to an IVR server for the activation, screening list setup and editing, and deactivation of SCR

SCTP Stream Control Transmission Protocol

SDP Session Description Protocol. A protocol for defining information needed to establish multimedia transport over IP. SDP transmits information such as session announcement, session invitation, transport addresses, and media types. For example, in a SIP call, SDP messages indicates if NTE is used, which events to send using NTE, and the NTE payload type value. See RFC 2327, *SDP: Session Description Protocol*.

SDT second dial tone

Send-ATP Send Access Transport Parameter

Send-CIP Send Carrier Information Parameter

Send-CN Send Charge Number

Send-CPN Send Calling Party Number

Send-CSP Send Carrier Selection Parameter

Send-GAP Send Generic Address Parameter

Send-GN Send Generic Name

Send-OCN Send Original Called Number

SFD Subscriber-Feature-Data. A record stored on a per-subscriber/per-feature basis in the Cisco BTS 10200 Softswitch.

SFG simulated facility group

SG4.0 Signaling Gateway 4.0 Release

SGCP Simple Gateway Control Protocol

SHA secure hash algorithm

SI service indicator

SIM Service Interaction Module

SIP Session Initiation Protocol. A protocol for transporting multimedia that is independent of the underlying packet control layer, such as the User Datagram Protocol (UDP), and is based on client/server architecture. See RFC 2543, *SIP: Session Initiation Protocol*.

SK Service Key

SMG Session Manager

SNMP Simple Network Management Protocol

SPCS stored program control switch

SPVC soft permanent virtual circuit

SQL Structured Query Language

SS7 Signaling System 7

SSF service switching function

SSH secure shell

SSN subsystem number

SSP service switching point

ST Signaling Transport

SVC switched virtual circuits

T

T-	Terminating- such as CMS and MGC
Table	A database entity containing customer-provisioned data
TAC	Technical Assistance Center
TCAP	Transaction Capabilities Application Part
TCCLI	CLLI of the terminating trunk group
TCL	Tool command language
TCP	Transmission Control Protocol
TCP/IP	Transmission Control Protocol/Internet Protocol
TDP	Trigger Detection Point
Technology Prefix	A number used in the gateway and gatekeeper RAS communication to indicate to the gatekeeper the type of service this gateway is capable of handling. Examples of the type of service are voice mail, fax server, and so forth.
TFC	Transfer Controlled
TG	trunk group
TGCP	Trunking Gateway Control Protocol
TGW	trunking gateway (SS7/PSTN)
TID	trigger ID
TMN	Telecommunication Management Network
TNS	Transit Network Selection
TO	timeout
TOD	time of day
TOS	type of service
Translated DN	translated directory number
TRS	Telecommunications Relay Services
TS	tandem switch
TSA	TCAP Signaling Adapter
TSAP	Transport Service Access Point
T-Stamp	time stamp
TType	trigger type

TUP	Telephone User Part
TUT	trunk under test
TVT	translation verification tool
TW	time and weather
TWC	three-way call
TWCD	three-way calling deluxe

U

UAC	user agent client
UAN	universal access number
UBR	unspecified bit rate
UCD	Uniform Call Distribution
UDP	User Datagram Protocol
UPA	user part available
UPU	user part unavailable
Update-ANI	Update Automatic Number Identification
UPL	user privilege level
URL	uniform resource locator

V

VACANT	vacant code
VBR	variable bit rate
VISM	Voice Interworking Service Module
VM	voice mail
VM_ACCESS	voice mail access
VM_ACT	voice mail activation feature
VM_DEACT	voice mail deactivation feature
VMA	voice mail always
VMA_ACT (	voice mail always activation feature
VMA_DEACT	voice mail always deactivation feature

VoIP Voice over IP. The ability to carry normal telephony-style voice over an IP-based internet with POTS-like functionality, reliability, and voice quality. VoIP is a blanket term which generally refers to Cisco's standards-based (for example, H.323) approach to IP voice traffic.

VoP Voice over packet



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