



CHAPTER 4

Billing

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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 <i>must</i> 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 <i>must</i> 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 <i>must</i> 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 <i>Cisco BTS 10200 Softswitch Provisioning Manual</i> 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 <i>not</i> include hyphens.) NUMERIC: 3–15 decimal characters. (Do <i>not</i> 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_INFOELEMENT_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)
REPOSE_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 <i>not</i> include hyphens.) NUMERIC: 3–15 decimal characters. (Do <i>not</i> include hyphens.) (Release 4.5.1)
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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 <i>Cisco BTS 10200 Softswitch Provisioning Guide</i> 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).