C H A P T E R 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.

Cisco BTS 10200 Softswitch Command Line Interface Reference

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).

Cisco BTS 10200 Softswitch Command Line Interface Reference

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.<br><br>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.<br><br>INTEGER: 1–100000000 (Default = 100000000).<br><br>**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.<br><br>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.<br><br>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.

Cisco BTS 10200 Softswitch Command Line Interface Reference

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.

Cisco BTS 10200 Softswitch Command Line Interface Reference

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.

Cisco BTS 10200 Softswitch Command Line Interface Reference ■

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

Token	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.

Cisco BTS 10200 Softswitch Command Line Interface Reference

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).