CHAPTER 12

SS7 Provisioning

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This chapter describes how to provision the Cisco BTS 10200 Softswitch to communicate with an SS7 PSTN network and contains the following sections:

Provisioning SS7

Table 12-1 provides an example of the steps required and lists example CLI commands with mandatory tokens. Click on each step for a complete description of the step.

For a more detailed description of all Cisco BTS 10200 Softswitch tables, tokens, and value ranges, see the *Cisco BTS 10200 Softswitch Command Line Interface Reference Guide*.

Table 12-1 SS7 Provisioning

	Description	CLI Command
Step 1	Add a Signaling Gateway, page 12-3	add sg id=sg1; add sg id=sg2;
Step 2	Add a Signaling Gateway Group, page 12-3	add sg-grp id=sg-grp1; sg1-id=sg1; sg2-id=sg2;
Step 3	Add a Signaling Gateway Process, page 12-4	add sgp id=sgp1; sg-id=sg1; add sgp id=sgp2; sg-id-sg2;
Step 4	Add an Origination Point Code, page 12-4	add opc id=opc1; point-code=1-1-1;
Step 5	Add a Destination Point Code, page 12-4	add dpc id=dpc1; point-code=1-1-2; add dpc id-stp1; point-code=1-1-3;
Step 6	Add an SCTP Association Profile, page 12-4	add sctp-assoc-profile id=sctp-prof1;

Step 7	Add an SCTP Association, page 12-4	add sctp-assoc id=sgp1-sctp; sgp-id=sgp1;
		sctp-assoc-profile-id=sctp-prof1; platform-id=CA146;
		remote-port=2905; remote-tsap-addr=10.0.1.30;
		remote-tsap-addr2=10.128.1.230;

Table 12-1 SS7 Provisioning (continued)

	Description	CLI Command
Step 8	Add a User Part Variant, page 12-5	add user-part-variant id=ANSISS7_GR317;
Step 9	Add a Routing Key, page 12-5	add routing-key id=rk1; opc-id=opc1; sg-grp-id=sg-grp1; si=ISUP; rc=1; platform-id=CA146;
Step 10	Add a Call Control Route, page 12-5	add call-ctrl-route id=dpc1-route; dpc-id=dpc1; routing-key-id=rk1; si=ISUP; user-part-variant-id=ANSISS7_GR317; **Note** The call-ctrl-route must be associated with a specific signaling gateway.
Step 11	Add a Media Gateway Profile, page 12-5	add mgw-profile id=3660; vendor=Cisco; description=Cisco 3660;
Step 12	Add a Media Gateway, page 12-6	add mgw id=c3660-1; call-agent-id=CA146; tsap-addr=c3660-1.lab.cisco.com; mgw-profile-id=3660; type=tgw;
Step 13	Add a Termination, page 12-6	add termination prefix=S1/DS1-0/; port-start=1; port-end=24; mgw-id=c3660-1; type=trunk;
Step 14	Add an SS7 ANSI Trunk Group Profile, page 12-7	add ss7-ansi-tg-profile id=ss7-prof1;
Step 15	Add an SS7 Trunk Group, page 12-7	add trunk-grp id=1; call-agent-id=CA146; tg-type=SS7; num_of_trunks=24; tg-profile=ss7-prof1; call-ctrl-route-id=dpc1-route;
Step 16	Add a Trunk, page 12-7	add trunk cic-start=1; cic-end=24; tgn-id=1; mgw-id=c3660-1; termination-prefix=S1/DS1-0/; termination-port-start=1; termination-port-end=24;
Step 17	Add a Route, page 12-8	add route id=ss7rt; tgn1-id=1;
Step 18	Add a Route Guide, page 12-8	add route-guide id=ss7rg; policy-type=ROUTE; policy-id=ss7rt;
Step 19	Add a Destination, page 12-8	add destination dest-id=ss7dest; call-type=toll; route-type=route; route-guide-id=ss7rg;
Step 20	Add a Dial Plan, page 12-8	add dial-plan id-dp1; digit-string=813565; noa-national; dest-id=ss7dest;
Step 21	Change Point of Presence, page 12-8	change pop id=1; opc-id=opc;
Step 22	Add an SCCP Network, page 12-9	add sccp-nw id=1; net-ind=NATIONAL; sub-svc=NATIONAL; hop-count=3;
Step 23	Add a Subsystem Profile, page 12-9 Beginning with Release 4.5: Add a Subsystem Group, page 12-9	add subsystem-profile id=SSN_LNP; platform-id=FSAIN205; add subsystem-grp id=SSN_LNP; platform-id=FSAIN205; tcap-version=ANS-92;

Table 12-1 SS7 Provisioning (continued)

	Description	CLI Command
Step 24	Add a Subsystem, page 12-10 **Note** Beginning with Release 4.5, the tcap-version token is moved to the subsystem-profile table.	add subsystem id=SSN_LNP; opc-id=opc; local-ssn=247; remote-ssn=247; sccp-nw-id=1; sccp-version=ANS92; tcap-version=ANS92; application-version=AIN01;
Step 25	Add a Routing Key, page 12-10	add routing-key id=rk_lnp; opc-id=opc1; ssn-id=SSN_LNP; sg-grp-id=sg-grp1; si=SCCP; rc=2; platform-id=FSAIN205;

Step 26	Add an SCCP Route, page 12-10
	Note Beginning with Release 4.5, the name of the ssn-id token is changed to subsystem-grp-ID.
		add sccp-route ssn-id=SSN_LNP; opc-id=opc1; dpc-id=stp1; rk-id=rk_lnp;
		
		add sccp-route subsystem-grp-id=SSN_LNP; opc-id=opc1; dpc-id=stp1; rk-id=rk_lnp;

Step 27	Add a Service Logic Host Route Profile, page 12-11	add slhr-profile id=slhr_lnp;

Step 28	Add a Service Logic Host Route, page 12-11
	Note Beginning with Release 4.5, the name of the ssn-id token is changed to subsystem-grp-ID.
		add slhr id=slhr_lnp; opc-id=opc; dpc-id=stp1; ssn-id=SSN_LNP; gtt-req=Y; tt=11; gtt-addr-type=CDPN;
		
		add slhr id=slhr_lnp; opc-id=opc; dpc-id=stp1; subsystem-grp-id=SSN_LNP; gtt-req=Y; tt=11; gtt-addr-type=CDPN;

Step 29	Add a Call Agent Configuration, page 12-11	add ca-config type=DEFAULT-LNP-SLHR-ID; datatype=string; value=slhr_lnp;
Step 30	Control the SCTP Association, page 12-11	control sctp-assoc id=sgp1-sctp; target-state=INS; mode=FORCED;
Step 31	Control the Subsystem, page 12-12	control subsystem id=SSN_LNP; target-state=UIS; mode=FORCED;
Step 32	Beginning with Release 4.5: Control the Subsystem Group, page 12-12	control subsystem-grp id=SSN_LNP; target-state=UIS; mode=FORCED;

Add a Signaling Gateway

The Signaling Gateway (sg) table identifies all the signaling gateways managed by the Call Agent.

Command	Purpose
`add sg id=sg1;` `add sg id=sg2;`	Adds a signaling gateway

Add a Signaling Gateway Group

A Signaling Gateway Group (sg-grp) table associates two signaling gateways.

Command	Purpose
`add sg-grp id=sg-grp1; sg1-id=sg1; sg2-id=sg2;`	Adds a signaling gateway group

Add a Signaling Gateway Process

The Signaling Gateway Process (sgp) table identifies all the signaling gateway processes associated with each signaling gateway.

Command	Purpose
`add sgp id=sgp1; sg-id=sg1;` `add sgp id=sgp2; sg-id-sg2;`	Adds a signaling gateway process

Add an Origination Point Code

The Origination Point Code (opc) table stores information for all of the system origination point codes.

Command	Purpose
`add opc id=opc1; point-code=1-1-1;`	Adds an OPC

Add a Destination Point Code

The Destination Point Code (dpc) table stores information for all the destination point codes in the system.

Command	Purpose
`add dpc id=dpc1; point-code=1-1-2;` `add dpc id-stp1; point-code=1-1-3;`	Adds a DPC

Add an SCTP Association Profile

The Stream Control Transmission Protocol (SCTP) Association Profile (sct-assoc-profile) table defines each SCTP association and stores the configuration parameters that can be referenced by any SCTP association.

Command	Purpose
`add sctp-assoc-profile id=sctp-prof1;`	Adds an SCTP association profile

Add an SCTP Association

The SCTP Association (sctp-assoc) table identifies the association between local and remote signaling gateway platforms (SGPs). Two index trees are needed. You must add one SCTP association for the Call Agent and one for the Feature Server.

Command	Purpose
`add sctp-assoc id=sgp1-sctp; sgp-id=sgp1; sctp-assoc-profile-id=sctp-prof1; platform-id=CA146; remote-port=2905; remote-tsap-addr=10.0.1.30; remote-tsap-addr2=10.128.1.230;`	Adds an SCTP association

Add a User Part Variant

The User Part Variant (user-part-variant) table contains all supported SS7 User Part variants and their associated protocol families. It is a two-part process. The User Part Variant Base (user-part-variant-base) table defines all the supported variants and the values of the optional parameters. When a variant is added, the values of the optional parameters are populated from the User Part Variant Base table.

Command	Purpose
`add user-part-variant id=ANSISS7_GR317;`	Adds a user part variant

Add a Routing Key

A routing key is the unique routing data that identifies an application server. The Routing Key (routing-key) table holds the information for all the MTP3-User Adaptation Layer (M3UA) and SCCP-User Adaptation Layer (SUA) routing keys.

Command	Purpose
`add routing-key id=rk1; opc-id=opc1; sg-grp-id=sg-grp1; si=ISUP; rc=1; platform-id=CA146;`	Adds a routing key

Add a Call Control Route

The Call Control Route (call-ctrl-route) table identifies call control routes defined between the OPCs, DPCs, and signaling gateway (SG) groups.

Command	Purpose
`add call-ctrl-route id=dpc1-route; dpc-id=dpc1; routing-key-id=rk1; si=ISUP; user-part-variant-id=ANSISS7_GR317;`	Adds a call control route

Add a Media Gateway Profile

A media gateway (MGW) profile provides a template for provisioning one or more media gateways by vendor. It identifies the specifications and settings necessary for communications between the Call Agent and each type of media gateway.

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

Command	Purpose
`add mgw-profile id=3660; vendor=Cisco; description=Cisco 3660;`	Adds a media gateway profile

Tip The mgcp-max1-retries and mgcp-max2-retries tokens in the mgw-profile table can be adjusted, if necessary, to improve response if there are network bandwidth or reliability issues, or if an MGW is slow in responding to commands from the CA. For a detailed explanation of how these and other parameters affect the audit-endpoint and keepalive processes, see the applicable appendix (Release 4.4.x Keepalive or Release 4.5.x Keepalive) in the *Cisco BTS 10200 Softswitch Troubleshooting Guide*.

Add a Media Gateway

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

The Media Gateway table has two associated commands: RGW and TGW. The RGW command provisions a gateway as only a residential gateway, with the type token automatically set to RGW. The TGW command provisions a gateway as a trunking gateway only, with the type token automatically set to TGW. Both of these commands provision the Media Gateway table, but a service provider can use these commands to provide user security to certain individuals based on their roles.

Command	Purpose
`add mgw id=c3660-1; call-agent-id=CA146; tsap-addr=c3660-1.lab.cisco.com; mgw-profile-id=3660; type=tgw;`	Adds a media gateway

Note The TGW command could also be used to provision the media gateway in this instance. See the *Cisco BTS 10200 Softswitch Command Line Interface Reference Guide* for detailed information about the RGW and TGW commands.

Add a Termination

The Termination (termination) table holds information about each termination/endpoint managed by the Call Agent. Termination structure uniformly addresses analog ports, DS0 ports, ISDN circuits, and allows termination groupings for ISDN PRI and multiline hunt groups (MLHGs) for a single subscriber. Termination events and signals are grouped into packages, which are groupings of events and signals supported by a particular type of endpoint. For instance, one package supports a certain group of events and signals for analog access lines, while another package supports another group of events and signals for video lines. One or more packages can exist for a given endpoint type. The package type is determined by the gateway used.

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

The user enters:

prefix: 1–32 ASCII characters

port-start: 0000–9999 (1–4 numeric characters) (default = 1)

port-end: 0000–9999 (1–4 numeric characters) (default = 24)

Command	Purpose
`add termination prefix=S1/DS1-0/; port-start=1; port-end=24; mgw-id=c3660-1; type=trunk;`	Adds a termination

Add an SS7 ANSI Trunk Group Profile

The Signaling System 7 ANSI Trunk Group Profile (ss7-ansi-tg-profile) table holds common information regarding an SS7 trunk group such as continuity test (COT). This table can be shared by multiple SS7 trunk groups. You can add either an ANSI, Q.760, or Q.767 trunk group profile, depending on the ISUP variant being used.

Command	Purpose
`add ss7-ansi-tg-profile id=ss7-prof1;`	Adds an SS7 ANSI trunk group profile

Add an SS7 Trunk Group

The Trunk Group (trunk-grp) table identifies a trunk group and maps it to the associated media gateway.

Command	Purpose
`add trunk-grp id=1; call-agent-id=CA146; tg-type=SS7; num_of_trunks=24; tg-profile=ss7-prof1; call-ctrl-route-id=dpc1-route;`	Adds an SS7 trunk group

Note Refer to the section for the Trunk Group table in Chapter 2 of the *Cisco BTS 10200 Softswitch Command Line Inferface Reference Guide* to determine if specific tokens are mandatory or optional for each trunk group type.

Add a Trunk

The Trunk (trunk) table identifies the trunk group and maps it to the associated media gateway. It also specifies the Carrier Identification Code (CIC) range and terminations.

Command	Purpose
`add trunk cic-start=1; cic-end=24; tgn-id=1; mgw-id=c3660-1; termination-prefix=S1/DS1-0/; termination-port-start=1; termination-port-end=24;`	Adds a trunk

Note When a service affecting test is in progress on trunks, the trunks are not blocked, and any incoming call attempts on that trunk will fail. If the far-end switch on a trunk does not use a trunk selection algorithm to choose the next trunk, all incoming call attempts will fail.

Add a Route

The Route (route) table contains a list of up to ten trunk groups to route a call. If all the trunk groups are busy or not available, call processing uses the alt-route-id (if specified) to route the call. The Element Management System (EMS) provisions the Call Agent ID field based on the Trunk Group table.

Command	Purpose
`add route id=ss7rt; tgn1-id=1;`	Adds a route

Add a Route Guide

The Route Guide (route-guide) table holds routing information based on policy-type.

Command	Purpose
`add route-guide id=ss7rg; policy-type=ROUTE; policy-id=ss7rt;`	Adds a route guide

Add a Destination

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

Command	Purpose
`add destination dest-id=ss7dest; call-type=toll; route-type=route; route-guide-id=ss7rg;`	Adds a destination

Add a Dial Plan

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

Command	Purpose
`add dial-plan id-dp1; digit-string=813565; noa-national; dest-id=ss7dest;`	Adds a dial plan

Change Point of Presence

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

Command	Purpose
`change pop id=1; opc-id=opc;`	Adds a POP

Add an SCCP Network

The SCCP Network (sccp-nw) table contains the attributes associated with an SS7 network. Each network is associated with one point code. There is one-to-one mapping, which is subject to supporting multiple point codes. Two idx trees are needed.

Command	Purpose
`add sccp-nw id=1; net-ind=NATIONAL; sub-svc=NATIONAL; hop-count=3;`	Adds an SCCP network

Add a Subsystem Profile

The Subsystem Profile (subsystem-profile) table defines the valid SSN-IDs at a global (Cisco BTS 10200 Softswitch) level for multiple origination point code (OPC) support. A subsystem profile ID must be created in this table before entries can be added to the Subsystem table.

Note Beginning with Release 4.5, this table becomes obsolete and is replaced by the Subsystem Group table.

Command	Purpose
`add subsystem-profile id=SSN_LNP; platform-id=FSAIN205;`	Adds a subsystem profile

Add a Subsystem Group

Beginning with Release 4.5, the subsystem-profile table becomes obsolete and is replaced with the Subsystem Group (subsystem-grp) table. This table defines all valid SSN-IDs at a global (Cisco BTS 10200 Softswitch) level for multiple origination point code (OPC) support. A subsystem group id must be created in this table before entries can be added to the Subsystem table.

Note Beginning with Release 4.5, the tcap-version token has been removed from the subsystem table and moved to this table.

Command	Purpose
`add subsystem-grp id=SSN_LNP; platform-id=FSAIN205;tcap-version=ANS-92;`	Adds a subsystem group

Add a Subsystem

The Subsystem (subsystem) table contains information for all the subsystems using SCCP. Because the Cisco BTS 10200 Softswitch supports up to 30 OPCs, the combined OPC-ID and SSN-ID is used as a primary key to determine subsystem information.

Note Beginning with Release 4.5, the tcap-version token is removed from this table and moved to the subsystem-grp table.

Command	Purpose

Prior to Release 4.5:
`add subsystem id=SSN_LNP; opc-id=opc;`
`local-ssn=247; remote-ssn=247;`
`sccp-nw-id=1; sccp-version=ANS92;`
`tcap-version=ANS92;`
`application-version=AIN01;`
 	
Beginning with Release 4.5:
`add subsystem id=SSN_LNP; opc-id=opc;`
`local-ssn=247; remote-ssn=247;`
`sccp-nw-id=1; sccp-version=ANS92;`
`application-version=AIN01;`
	Adds a subsystem

Add a Routing Key

The Routing Key (routing-key) table holds information for all of the M3UA / SUA routing keys.

Command	Purpose

`add routing-key id=rk_lnp; opc-id=opc1;`
`ssn-id=SSN_LNP; sg-grp-id=sg-grp1; si=SCCP;`
`rc=2; platform-id=FSAIN205;`
	Adds a routing key

Add an SCCP Route

The Signaling Connection Control Part Route (sccp-route) table contains the attributes associated with an SS7 network. The SCCP Route table takes care of the redundancy of routes to signaling gateways. A backup point code for ISUP can also be specified here.

Command	Purpose

Prior to Release 4.5:
`add sccp-route ssn-id=SSN_LNP; opc-id=opc1;`
`dpc-id=stp1; rk-id=rk_lnp;`
 	
Beginning with Release 4.5:
`add sccp-route subsystem-grp-id=SSN_LNP;`
`opc-id=opc1; dpc-id=stp1; rk-id=rk_lnp;`
	Adds an SCCP route

Add a Service Logic Host Route Profile

The Service Logic Host Route Profile (slhr-profile) table identifies an SLHR. An slhr-profile id must be created in this table before entries can be added to the SLHR table.

Command	Purpose
`add slhr-profile id=slhr_lnp;`	Adds a service logic host route profile

Add a Service Logic Host Route

The Service Logic Host Route (slhr) table contains the information necessary to route a Trigger Detection Point (TDP) request message to a service control point (SCP).

Command	Purpose

`add slhr id=slhr_lnp; opc-id=opc; dpc-id=stp1; ssn-id=SSN_LNP; gtt-req=Y; tt=11; gtt-addr-type=CDPN;`
 	
Beginning with Release 4.5:
 	
add slhr id=slhr_lnp; opc-id=opc; dpc-id=stp1; subsystem-grp-id=SSN_LNP; gtt-req=Y; tt=11; gtt-addr-type=CDPN;
	Adds a service logic host route

Add a Call Agent Configuration

The Call Agent Configuration (ca-config) table defines the defaults for each Call Agent. The defaults are prepopulated at installation. Only change and show commands are valid. See the *Cisco BTS 10200 Softswitch Command Line Interface Guide*, Appendix A, "Call Agent and Feature Server Configurable Parameters," for a complete list of configurable parameters.

Command	Purpose
`add ca-config type=DEFAULT-LNP-SLHR-ID; datatype=string; value=slhr_lnp;`	Adds a call agent configuration

Control the SCTP Association

The control command sets the administrative state (OOS, INS) of the SCTP association.

Command	Purpose
`control sctp-assoc id=sgp1-sctp; target-state=INS; mode=FORCED;`	Places the SCTP association in-service.

Enter the following command to verify that the SCTP association is in-service:

`status sctp-assoc id=sgp1-sctp;`

Control the Subsystem

The control command sets the administrative state of the subsystem.

Command	Purpose
`control subsystem id=SSN_LNP; target-state=UIS; mode=FORCED;`	Places the subsystem in-service.

Enter the following command to verify that the subsystem is in-service:

```
status subsystem id=SSN_LNP;
```

Control the Subsystem Group

The subsystem-grp table is new beginning with Release 4.5 and has a status associated with it. You can control a subsystem group in or out of service. Controlling the subsystem group out of service has the same affect as controlling all the subsystems in the subsystem group out of service. Controlling the subsystem grouop in service puts all subsystems in the group in service. The following CLI command controls all subsystem/OPC combinations out of service:

Command	Purpose
`control subsystem-grp id=SSN_LNP; target-state=UIS; mode=FORCED;`	Places the subsystem in-service.

ISUP Transparency on the BTS-PGW Interface

ISUP transparency provides the capability to transfer Generic Transparency Descriptor (GTD) messages and information elements from a Cisco BTS 10200 Softswitch across an IP network to a Cisco PSTN Gateway (PGW) 2200. The PGW maps the GTD messages to ISUP messages, repackages them, and sends them out to the PSTN/SS7 network.

The ISUP Transparency on the BTS-PGW Interface feature passes normalized parameters to expedite mapping at the PSTN interconnect side and any feature invocation necessary on either the PGW or the BTS. It adds support for GTD attachments to SIP-T trunk messages to allow the BTS to interwork with the Cisco PGW 2200 for interconnection to the PSTN.

Configuring the Cisco BTS 10200 Softswitch

The following procedure provides an example of the steps required to provision ISUP transparency on the Cisco BTS 10200 Softswitch and lists example CLI commands with mandatory tokens.

Step 1 Set the connection parameters to support SIP-GTD calls:

```
ADD SOFTSW-TG-PROFILE ID=SIPGTD_PROFILE; PROTOCOL_TYPE=SIP_T; SIPT_ISUP_VER=GTD;
GTD_PARMS=ALL;
```

Step 2 Add a dial plan:

```
ADD DIAL_PLAN ID=CDP1; DIGIT_STRING=703001; DEST_ID=local_sub; SPLIT_NPA=NONE;
DEL_DIGITS=0; MIN_DIGITS=10; MAX_DIGITS=10; NOA=NATIONAL;
```

Step 3 Add a SIP-GTD trunk group.

Note The SOFTSW-TSAP-ADDR must match the IP address and port provisioned on the Cisco PGW.

```
ADD TRUNK-GRP ID=1000; CALL-AGENT-ID=CA146; TG-TYPE=SOFTSW;
SOFTSW_TSAP_ADDR=10.0.5.125:5060; TG-PROFILE-ID=SIPGTD_PROFILE; STATUS=INS;
DIRECTION=BOTH; SEL_POLICY=ASC; GLARE=SLAVE; ALT_ROUTE_ON_CONG=N; SIGNAL_PORTED_NUMBER=N;
POP_ID=69; DIAL-PLAN-ID=cdp1; DEL_DIGITS=0; OPER_STATUS=NF; TRAFFIC_TYPE=LOCAL;
ANI_BASED_ROUTING=N; MGCP_PKA_TYPE=NA; ANI_SCREENING=N; SEND_RDN_AS_CPN=N;
```

Configuring the Cisco PGW 2200

The following example script adds a SIP-GTD trunk to the Cisco PGW 2200:

```
prov-sta::srcver="active",dstver="neurolink_sip",confirm

;
; Set DNS parameters for MGC
;
prov-add:DNSPARAM: CacheSize="500", DnsServer1="10.102.6.247",DnsServer2="171.16.2.133",
KeepAlive="30",Policy="HIERARCHY",QueryTimeout="1000",TTL="3600"


;
; SIPPATH and SIPLNK(s) used for all SIP traffic on PGW
;
prov-add:SIPPATH:NAME="sip-path",DESC="SIP path",MDO="IETF_SIP",ORIGLABEL="", TERMLABEL=""
prov-add:SIPLNK:NAME="sip-link1", DESC="SIP link 1", SVC="sip-path",IPADDR="IP_Addr1",
PORT=5060,PRI=1

;
; Define GTD Parameters
;
prov-add:gtdparam:name="t1",GTDPARAMSTRING="ALL"

;
; Incoming SIP Trunk Group
;
prov-add:trnkgrp:name="9000",svc="sip-path",type="SIP_IN"
prov-ed:trnkgrpprop:name="9000",CustGrpID="1111"

; Set MGCP domain
prov-add:trnkgrpprop:name="9000",MGCdomain="10.0.1.247"

; Turn on REL100 feature to enable acknowledgements to provisional respones
prov-add:trnkgrpprop:name="9000",SupportReliable100="TRUE"

; Set MIME Body Support to GTD (2)
prov-add:trnkgrpprop:name="9000",SipMimeBodySupport="2"

; Select compact GTD message format
prov-add:trnkgrpprop:name="9000",GtdCapTypeProp="t1"

;
; Outgoing SIP Trunk Group
;
prov-add:trnkgrp:name="506",svc="sip-path",type="IP_SIP"
prov-ed:trnkgrpprop:name="506",CustGrpID="1111"
```

```
; Set MGCP domain
prov-add:trnkgrpprop:name="506",MGCdomain="10.0.1.247"

; Turn on REL100 feature to enable acknowledgements to provisional respones
prov-add:trnkgrpprop:name="506",SupportReliable100="TRUE"

; Set MIME Body Support to GTD (2)
prov-add:trnkgrpprop:name="506",SipMimeBodySupport="2"

; Select the GTD Parameters to use
prov-add:trnkgrpprop:name="506",GtdCapTypeProp="t1"

; Select compact GTD message format
prov-add:trnkgrpprop:name="506",GtdMsgFmt="c"

;
; SIP Routing Trunk Group, Routing Trunk, and Routing List to BTS
;
; Set URL to IP address of BTS CA used for SIP
; Set SIPPROXYPORT to default SIP port number (5060)
prov-add:siprttrnkgrp: name="506",url="10.0.6.138",srvrr=0,sipproxyport=5060,
version="2.0", cutthrough=1, extsupport=1

prov-add:rttrnk:weightedTG="OFF",name="rt506", trnkgrpnum=506
prov-add:rtlist:name="rtlist506", rtname="rt506", distrib="OFF"

;
; Dial Plan
;
numan-add:resultset:custgrpid="1111",name="rslt506"
numan-add:resulttable:custgrpid="1111",name="506",resulttype="ROUTE", dw1="rtlist506",
setname="rslt506"
numan-add:bdigtree:CustGrpID="1111",callside="originating",digitstring="506",
setname="rslt506"

prov-cpy
prov-stp
```