Carrier VoIP

Communication Server 2000 Configuration Management

NN10324-511

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Contents

Communication Server 2000 Configuration Management

Configuration management activities provide Carrier Voice over IP solutions with information about the components that make up the system topology and establish the parameters within which the system functions. When you add something to a system, remove something from it, or modify one of its parts, configuration management adjusts the system so that it operates under the changed topology.

New in this release

The following section details what's new in *Communication Server 2000 Configuration Management* (NN10324-511, CHS version) for release (I)SN09U.

Features

See the following sections for information about feature changes:

Core-enhanced ESA for International MG 9000

This feature allows the downloading of the information necessary to support International Emergency Standalone (ESA) call processing across all native (non ABI) and ABI lines served by a single MG 9000. The feature introduces a new table ESADGCOD to support International dialing plans

on Virtual Media Gateways (VMG). For details of table ESADGCOD, see *Carrier Voice over IP Operational Configuration: Data Schema Reference* (NN10324-509).

ABI SMU support

This feature adds the Subscriber Module Urban (SMU) to the list of legacy PMs (such as LTC, LGC, PLGC, SMA2) supported by the Analog Bridging Interface (ABI) program. The feature allows the provisioning of the optional field EXTDS512 in table LTCINV for the SMU peripheral type. For details of table LTCINV, see *Carrier Voice over IP Operational Configuration: Data Schema Reference* (NN10324-509).

Provisioning of CS 2000 trunks on gateway and carrier basis

This feature allows the mapping of trunk TIDs on the CS 2000 XA-Core based on gateway and carrier. The feature is enabled by datafill in tables GATWYINV and GWEPCARR. For details of these tables, see *Carrier Voice over IP Operational Configuration: Data Schema Reference* (NN10324-509).

N12 PRI/ISUP UUI over SCAI

The PRI User-to-User Signaling (UUS) supplementary service enables a user to send/receive a limited amount of information to/from another user. UUS allows communication of ISDN users by transferring user-to-user information (UUI) within Switch Computer Application Interface (SCAI) call control messages. The UUS service is enabled by datafilling option UUS in table LTDATA.

PRI/ISUP user-to-user information over SCAI The PRI User-to-User Signaling (UUS) supplementary service enables a user to send/receive a limited amount of information to/from another user. UUS allows communication of ISDN users by transferring user-to-user information (UUI) within call control messages during the establishment of a call. Each message can transfer up to 128 octets of UUI. The UUS option is enabled by datafill in table LTDATA.

Switch Computer Application Interface (SCAI) is a messaging link that the CS 2000 provides to a host computer. The information carried across this X.25/TCP-IP link allows applications running on the CS 2000 to communicate with applications running on the host computer. The SCAI link supports UUI in SCAI19 and later versions.

This feature supports delivery of UUI in the following SCAI messages:

- DV_Call_Received_C
- DV_Call_Queued_U
- DV_Call_Offered_U

To support UUI, the size of outgoing ICM messages is increased from 256 bytes to 512 bytes. If the total size of the outgoing ICM message with UUI exceeds the maximum supported ICM size for X.25 linksets (241 bytes), the UUI is discarded and log SCAI304 is generated. For details of log SCAI304, see *Carrier Voice over IP Fault Management Logs Reference* (NN10275-909).

The UUS service is enabled by datafilling option UUS in table LTDATA. Existing tuples of table SCAISSRV that are present in loads prior to the introduction of this (I)SN09U feature are reformatted to reflect the UUI parameter. For details of tables LTDATA and SCAISSRV, see *Carrier Voice over IP Operational Configuration: Data Schema Reference* (NN10324-509).

CS 2000 DPNSS Message Waiting Indicator for UMS

This feature allows a Unified Messaging Server (UMS) connected to the CS 2000 via SIP or Simplified Message Desk Interface (SMDI), to serve DPNSS PBX-hosted clients by interworking SIP RFC 3842 and SMDI Message Waiting Indications to DPNSS Message Waiting Indicator (MWI). The feature uses tables DPNSSNSI and TRKOPTS. For details of these tables, see *Carrier Voice over IP Operational Configuration: Data Schema Reference* (NN10324-509).

Core support for variable sized LGRP

In previous releases, LGRPs were always a fixed 1024 elements regardless of the number of endpoints that a gateway supported and the actual number of reserved terminations. This feature adds generic support for LGRPs or 2048 elements. The feature uses tables LGRPINV and LNINV. For details of these tables, see *Carrier Voice over IP Operational Configuration: Data Schema Reference* (NN10324-509).

Message Waiting Service access using RFC 3842 compliant SIP network and SIP Voicemail System

This feature extends support for the traditional message waiting service to SIP network based lines and RFC 3842 compliant SIP Voicemail System. The service depends on the existing RADVISION stack in the Session Server for SIP lines, and in the gateway controller (GWC) for H.323 lines.

The feature uses tables IPAPPL and MSGRTE. For details of these tables, see *Carrier Voice over IP Operational Configuration: Data Schema Reference* (NN10324-509). The feature introduces three new OM groups in the CS 2000 XA-Core; see *Carrier Voice over IP Performance Management Operational Measurements Reference* (NN10264-709. Logs MNSS115, NMSS116, NMSS117, and NMSS118 are generated if errors occur while sending or receiving messages over SCTP. Logs SCPL100 and SCPL200 are generated when the status of the NCAS link changes. For details of these logs, see *Carrier Voice over IP Fault Management Logs Reference* (NN10275-909).

Network configuration management strategy overview

Communication Server 2000 (CS 2000) configuration management includes the following:

- details about CS 2000 configuration management activities
  - — configuring the following components of the CS 2000
    - – the XA-Core
    - – the subcomponents of the XA-Core, such as circuit packs
    - – the fiberized link peripheral processor (FLPP)
    - – the subcomponents of the FLPP, such as CCS7 link-interface units (LIU7)
  - — configuring trunks on the CS 2000
  - — configuring lines on the CS 2000
  - — configuring SS7 links between the FLPP and the PSTN
  - — provisioning office parameters that affect the CS 2000
  - — setting and removing network-management controls that apply to DPT trunks
  - — specifying routing, including routing options that are specific to Carrier Voice over IP
  - — provisioning conferencing resources in a packet-based network
  - — entering datafill to support MS2000/UAS announcements

Where to find related material

The following topics are closely related to the material in this chapter: configuring gateway controllers (GWC) and configuring signaling gateways. The gateway controllers and gateways must be configured before you configure lines and trunks.

For information on configuring the gateway controllers and the gateways, see *GWC Configuration Management* (NN10205-511).

Configuration details specific to the CS 2000

Here is a list of configuration details that are unique to the CS 2000. You can find detailed instructions for the configuration activities in the procedures in this chapter.

- You must properly provision the NETWORK_ACTIVE and HOST_MGCNAME office parameters.
- The element-manager software in the CS 2000 sees both trunks and lines as endpoints on the gateway controller. The software maintains mappings of endpoints to terminal IDs for both lines and trunks.
- There are multiple ways in which to provision lines on the CS 2000. See subsequent sections of this document for detailed information.
- To provision trunks on the CS 2000, you use a GUI to do part of the work. Then you must enter datafill in certain data schema tables.
- When provisioning the data schema table TRKMEM,
  - — you identify trunks by their terminal-ID values
  - — you enter GWC in the PMTYPE field, to identify the gateway controller

Configuration tools and utilities overview

The following user interfaces support initial software configuration and ongoing software maintenance and upgrading:

- CS 2000 Core Manager
- Integrated Element Management System
- Maintenance and administration position

CS 2000 Core Manager

The Communication Server 2000 Core Manager application provides an integrated view for the fault, configuration, and performance management.

Note: For information about the CS 2000 Core Manager, see *CS 2000 Core Manager Basics* (NN10018-111).

Integrated Element Management System

The Integrated Element Management System (IEMS) provides a means of accessing the MAP interface and the element manager interfaces to various network elements.

Note: For information on the IEMS, see *IEMS Basics* (NN10329-111).

Maintenance and administration position user interface

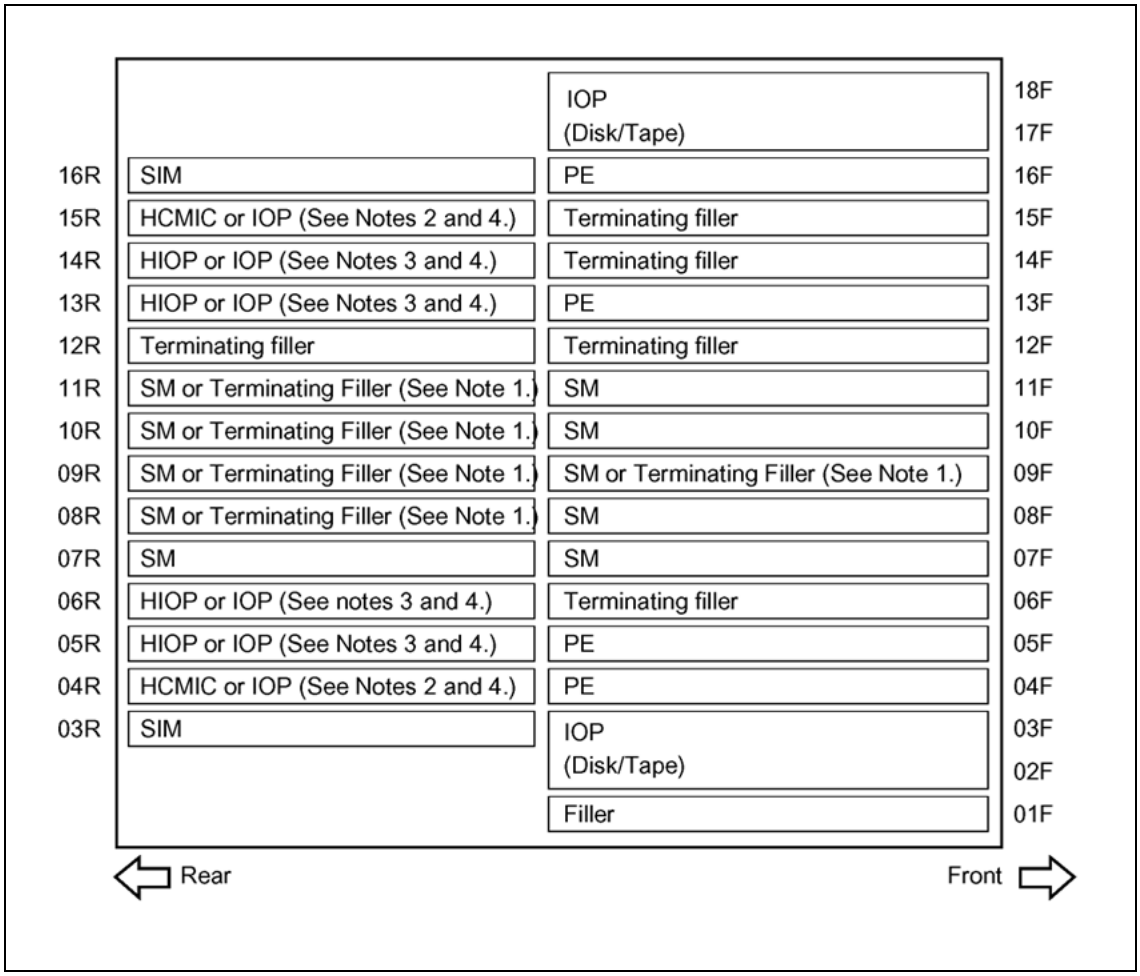
Use the maintenance and administration position (MAP) user interface to provision data schema tables that require datafill entries for the CS 2000 configuration.

Note: For information on the MAP user interface, see *XA-Core Reference Manual* (297-8991-810).

Provisioning a circuit pack or packlet in XA-Core

When you install a circuit pack or packlet in the XA-Core, it auto-provisions. Follow the shelf-layout diagram and install the circuit packs in the correct slots.

XA-Core shelf layout



Note 1: The figure shows an XA-Core that has the 3+1 PE configuration. With the 3+1 PE configuration there can be five, six, seven, eight, nine, or ten shared memory (SM) circuit packs.

Note 2: Slots 4R and 15R contain HCMIC circuit packs or input/output processor (IOP) circuit packs populated with CMIC and/or RTIF packlets as required (one CMIC packlet and/or one RTIF packlet per IOP). If the shelf contains HCMIC circuit packs, then CMIC packlets and RTIF packlets are not used.

Note 3: In newly shipped systems, slots 5R and 14R contain high-performance input/output processor (HIOP) circuit packs. It is possible to also have HIOP circuit packs in slots 6R and 13R, for a total of four HIOP circuit packs in the shelf, but only if all four are NTLX04CA models. If the HIOP circuit packs are NTLX04AA or NTLX04BA models, a maximum of two can be installed. Depending on the solution, the HIOP circuit packs support ethernet links only, or both ethernet links and ATM AMDI links. If HIOP circuit packs support the ethernet links, ethernet packlets are not used. If HIOP circuit packs support the ATM ANDI links, AMDI packlets are not used.

Note 4: Each HIOP circuit pack and each HCMIC circuit pack can support one ethernet link. HIOP circuit packs take precedence over HCMIC circuit packs for carrying ethernet links. If a shelf has two ethernet links, and contains two or more HIOP circuit packs, then HIOP circuit packs support the links. If a shelf has the maximum of four ethernet links and contains two HIOP circuit packs and two HCMIC circuit packs, then each circuit pack supports a link. If a shelf has four ethernet links and contains four HIOP circuit packs then the four HIOP circuit packs support the links. (Up to four HIOP circuit packs can be installed in a shelf, but only if they are NTLX04CA models.) It is not possible to use a combination of circuit packs (HIOP or HCMIC) and ethernet packlets to support ethernet links.

Certain types of circuit packs and packlets support interchangeable firmware loads. After installing such an item, you should verify that it contains the proper firmware load, and reload the firmware if necessary. This applies only to the following circuit packs and packlets:

- processor element (PE) circuit pack
- input/output processor (IOP) circuit pack
- high-performance input/output processor (HIOP) circuit pack
- high-performance CMIC (HCMIC) circuit pack
- CMIC packlet (NTLX05AA/AB OC-3 two-port interface packlet to carry a CMIC link)
- AMDI packlet (NTLX05BA OC-3 two-port packlet to act as the ATM Multi-mode Data Interface)
- ethernet packlet

Interval

Perform this procedure as required.

Prerequisites

None.

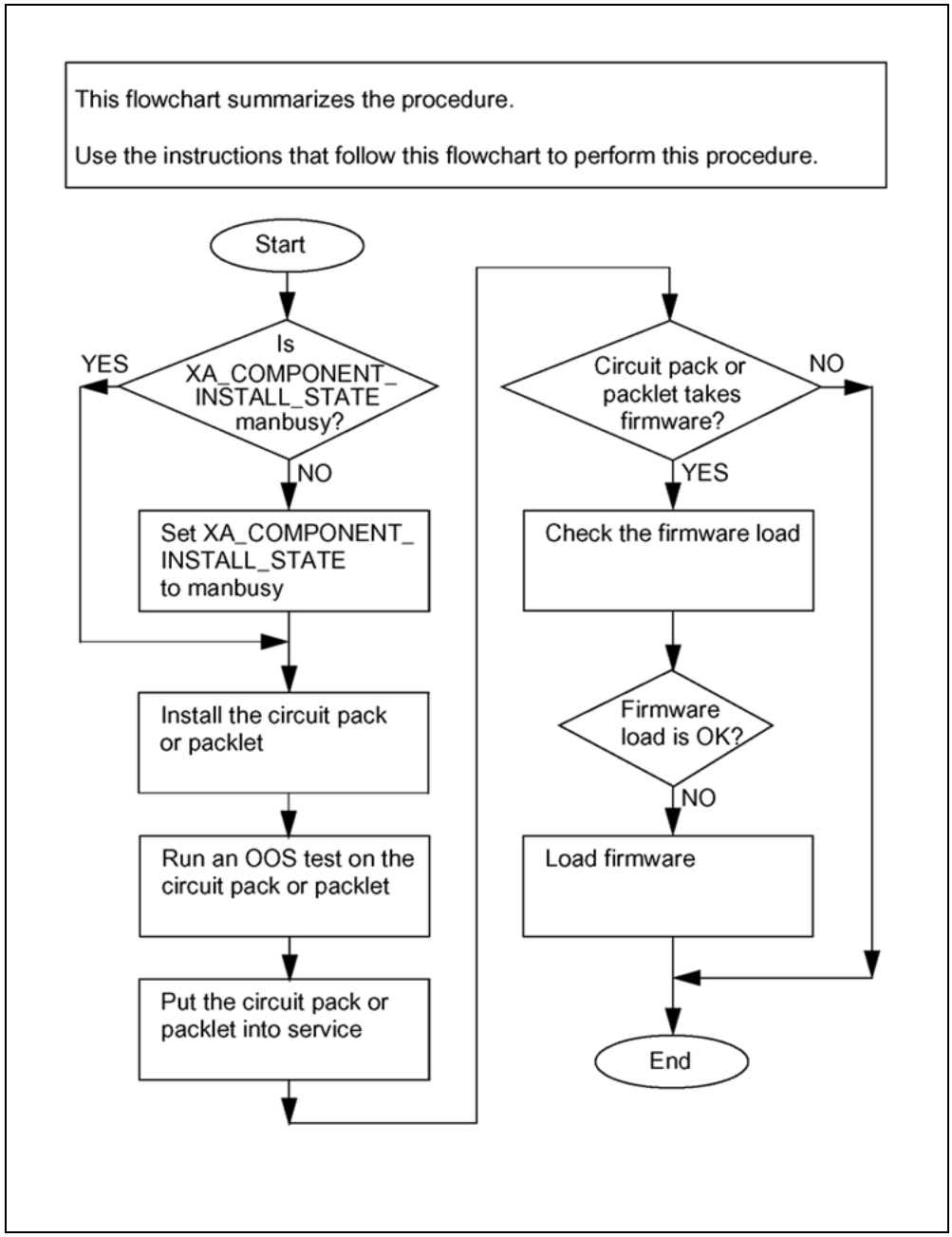
Common procedures

This procedure does not refer to any common procedures.

Action

The following flowchart summarizes this procedure.

Provisioning a circuit pack or packlet in XA-Core



Provisioning a circuit pack or packlet in XA-Core

Step	Action

1 Before installing the circuit pack or packlet, check that the XA_COMPONENT_INSTALL_STATE office parameter has the value MANBUSY, and edit the value if necessary. Proceed as follows.

a. Start the table editor. Type

```
>TABLE OFCENG
```

and press the Enter key.

Example of system response:

```
TABLE: OFCENG
```

b. Display the value of the XA_COMPONENT_INSTALL_STATE office parameter. Type

```
>POS XA_COMPONENT_INSTALL_STATE
```

and press the Enter key.

Example of system response:

```
XA_COMPONENT_INSTALL_STATE <parameter-value>
```

where

<parameter-value> Replace <parameter-value> with one of the following:
INSERVICE (which is the default value), or
MANBUSY

If you use the parameter value …	Do
INSERVICE	step 2c to step 2f
MANBUSY	step 2f

c. Change the value of the office parameter. Type

```
>CHA
```

and press the Enter key.

Example of system response:

```
PARMVAL: INSERVICE
```

d. Type the new parameter value. Type

```
>MANBUSY
```

and press the Enter key.

Example of system response:

```
TUPLE TO BE CHANGED:
XA_COMPONENT_INSTALL_STATE MANBUSY
ENTER Y TO CONFIRM, N TO REJECT OR E TO EDIT.
```

e. Confirm the change. Type

>Y

and press the Enter key.

Example of system response:

```
TUPLE CHANGED:
```

f. Exit from the table editor. Type

>QUIT

and press the Enter key.

2 Before installing the circuit pack or packlet, go to the appropriate map level. Type

>MAPCI;MTC;XAC;<map_level>

and press the Enter key

where

where … **<map_level>**

Replace <map_level> with one of the following as required:

- **SM** if you are going to install a shared memory (SM) circuit pack
- **PE** if you are going to install a processor element (PE) circuit pack
- **IO** if you are going to install an input/output processor (IOP), high-performance input/output processor (HIOP), or high-performance CMIC (HCMIC) circuit pack
- **CMIC** if you are going to install a CMIC packlet, that is, an NTLX05AA/AB OC-3 two-port interface packlet to carry a CMIC link
- **RTIF** if you are going to install a reset terminal interface packlet
- **Tape** if you are going to install a tape packlet
- **Disk** if you are going to install a disk packlet
- **AMDI** if you are going to install an AMDI packlet, that is, an NTLX05BA OC-3 two-port interface packlet to act as the ATMMulti-mode Data Interface
- **ETHR** if you are going to install an ethernet packlet

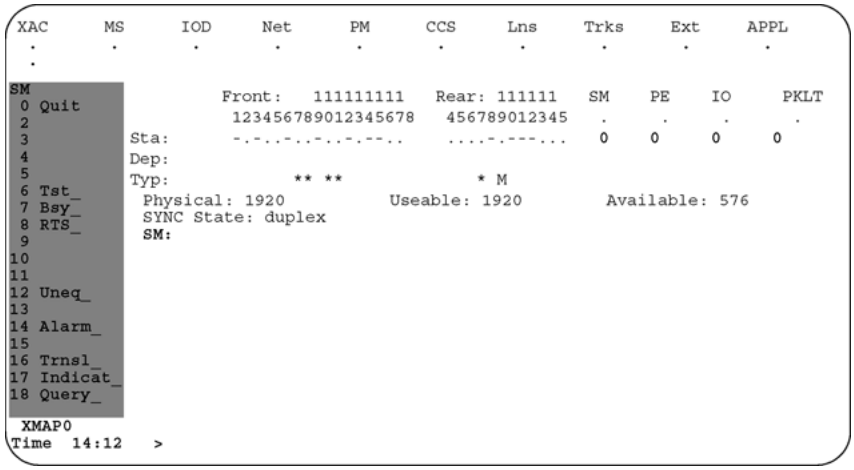
At the MAP level

3 Install the circuit pack or packlet. For detailed instructions, see the chapter "Introduction to card replacement" in *XA-Core Maintenance Manual* (297-8991-510).

4 Check the MAP screen to verify that the newly installed circuit pack or packlet is in the MANBUSY state.

As an example, the following figure shows the display in the SM MAP level when we have just installed a sixth shared memory (SM) circuit pack in slot 9R in the XA-Core. The newly installed SM is in the MANBUSY state, as indicated by the letter M in the Type (Typ) indicator field.

SM MAP level



5 Perform an out-of-service (OOS) test on the newly installed circuit pack or packlet. Type

>TST <nn> <s> <p>

and press the Enter key

where

where … **<nn>** is the slot number parameter value to indicate the number of the physical shelf slot - 0 to 18
and … **<s>** is the side parameter value to indicate the CP or packlet location in the physical shelf - front (f) or rear (r)
and … **<p>** is used only for packlets, and indicates the packlet location in an input/output processor (IOP) - upper (u) or lower (l)

Example of command use for a packlet:

>TST 4 r l

Example of command use for a circuit pack:

```
>TST 9 r
```

If the result of the test is	Do
test passed	step 6
test not passed	remove the circuit pack or packlet, install another circuit pack or packlet in its place, and resume this procedure at step 4

6 Put the newly installed circuit pack or packlet into service. Type

```
>RTS <nn> <s> <p>
```

and press the Enter key

where

where … **<nn>** is the slot number parameter value to indicate the number of the physical shelf slot - 0 to 18
and … **<s>** is the side parameter value to indicate the CP or packlet location in the physical shelf - front (f) or rear (r)
and … **<p>** is used only for packlets, and indicates the packlet location in an input/output processor (IOP) - upper (u) or lower (l)

Example of command use for a packlet:

```
>RTS 4 r l
```

Example of command use for a circuit pack:

```
>RTS 9 r
```

Examples of system response:

```
RTS 4 rear lower completed
RTS 9 rear completed
```

7

If you are currently …	Do
in one of the following MAP levels: PE, IO, CMIC, AMDI, or ETHR	step 8
not in one of the following MAP levels: PE, IO, CMIC, AMDI, or ETHR	step 13

8 Check that the circuit pack or packlet contains the proper firmware load. At the current MAP level type

```
>QUERY card <nn> <s> <p>
```

and press the Enter key

where

where … **<nn>** is the slot number parameter value to indicate the number of the physical shelf slot - 0 to 18
and … **<s>** is the side parameter value to indicate the CP or packlet location in the physical shelf - front (f) or rear (r)
and … **<p>** is used only for packlets, and indicates the packlet location in an input/output processor (IOP) - upper (u) or lower (l)

Example of command use:

```
>QUERY card 4 r
```

The system response occupies multiple lines and displays several items of information. One of the lines lists the actual FW firmware load, the baseline FW firmware load, and whether or not the actual load is acceptable. If the circuit pack has a separate DLL load, the following line of the system response lists the actual DLL firmware load, the baseline DLL firmware load, and whether or not the actual load is acceptable.

The following example shows the parts of the system response that refer to the FW and DLL firmware loads in an HIOP circuit pack.

Example of system response:

```
Command submitted.
.
.
.
Pos Type PEC+HW ........  FW Vers.  Baseline OK
--- ---- ------          -------- -------- --
5 R HIOP NTLX04CA .......XHIO03AB XHIO02AH Y
                         XHIO03AB XHIO02AJ Y
.
.
.
```

If the firmware version	Do
is the proper version	step 13
is not the proper version	step 9

9 Exit from the MAP level. Type

```
QUIT ALL
```

10 If you need to load firmware into a circuit pack or packlet, you find the proper firmware load on the XA-Core's disk drive. The firmware loads are listed in table XAFWLOAD. To display the table, you use the table editor. To start the table editor, type

```
>TABLE XAFWLOAD
```

and press the Enter key.

Example of system response:

```
TABLE: XAFWLOAD
```

11 Display the entries in table XAFWLOAD. Type

```
>LIST ALL
```

and press the Enter key.

Example of system response:

```
INDEX FRU PEC   VERSION   VOLUME      FILE    LOADTYPE STATUS  SOAK
-------------------------------------------------------------------
1  PE   NTLX02AA XAPE01AC F02LFWLOADS PEFW413  FW       old     48
2  PE   NTLX02AA XAPE01AF F02LFWLOADS PEFW421  FW       current 48
3  PE   NTLX02AA XAPE01BA F02LFWLOADS PEFW424  FW       new     48
4  IOP  NTLX03AA XAIO01AA F02LFWLOADS ISEFW41  FW       old     0
5  IOP  NTLX03AA XAIO01AC F02LFWLOADS ISEFW44  FW       current 0
6  CMIC NTLX05AA PK10CU10 F02LFWLOADS 0C3FW75  FW       current 72
7  HIOP NTLX04AA XHIO01YD F02LPMLOADS XHIO01YD FW       current 48
8  HIOP NTLX04AA XHIO01YC F02LPMLOADS XHIO01YC DLL      current 0

BOTTOM
```

As shown here, table XAFWLOAD lists the firmware versions that are stored in disk files.

The majority of items in the example are firmware versions that have the loadtype FW. For each component that accepts firmware downloads, the table can list new, current, and old firmware versions of loadtype FW. For a given combination of FRU and PEC (for example, for PE NTLX02AA), there can be one current version, one new version, and any number of old versions. You can choose to load the current version of loadtype FW or the new version of loadtype FW.

Do not concern yourself with firmware versions that have the loadtype DLL, such as item 8 in the preceding example. (DLL stands for downloadable loader.) This type of firmware downloads automatically. The LOADFW command does not apply to DLL firmware.

12 Exit from the table editor. Type

```
>QUIT
```

and press the Enter key.

13 Manually busy the card, then use the LOADFW command to load firmware into the circuit pack or packlet. Type

```
>LOADFW <nn> <s> FILE <file-identifier>
```

and press the Enter key

where

nn is the slot number of the slot in the physical shelf (values 0 to 18)
<s> is the side value to indicate the CP or packlet location in the physical shelf (values f - front, or r - rear)
<file-identifier> is New or Current

14 You have completed this procedure.

—End—

De-provisioning a circuit pack or packlet in XA-Core

When you remove a circuit pack or packlet from the XA-Core, it de-provisions automatically. After removing certain types of components, you must use the UNEQ command to remove the item from the shelf inventory.

This procedure applies to the situation in which you permanently remove circuit pack or packlet from the XA-Core. This procedure does not apply to the situation in which you remove an item and immediately install a replacement in its stead.

Note 1: De-provisioning of shared memory (SM) circuit packs is not supported.

Note 2: If you intend to remove both an input/output processor circuit pack and the packlet or packlets that it contains, then proceed as follows. Perform this procedure once for each packlet, and then perform the procedure for the input/output processor circuit pack.

Interval

Perform this procedure as required.

Prerequisites

None.

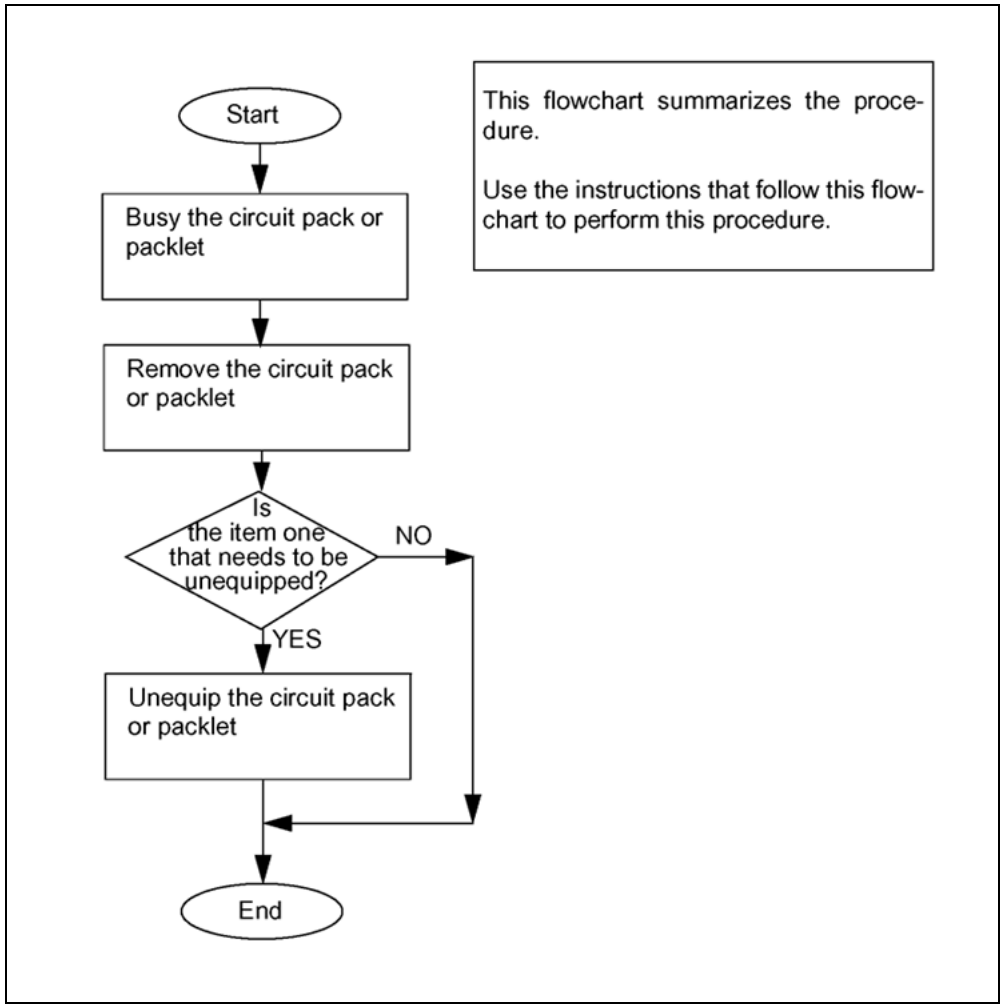
Common procedures

This procedure does not refer to any common procedures.

Action

The following flowchart summarizes this procedure.

De-provisioning a circuit pack or packlet in XA-Core



De-provisioning a circuit pack or packlet in XA-Core

Step	Action

At the MAP terminal

1 Before removing the circuit pack or packlet, go to the appropriate map level. Type

```
>MAPCI;MTC;XAC;<map_level>
```

and press the Enter key

where

where … **<map_level>**
Replace **<map_level>** with one of the following as required:

SM if you are going to install a shared memory (SM) circuit pack

PE if you are going to install a processor element (PE) circuit pack

IO if you are going to install an input/output processor (IOP), high-performance input/output processor (HIOP), or high-performance CMIC (HCMIC) circuit pack

CMIC if you are going to install a CMIC packlet, that is, an NTLX05AA/AB OC-3 two-port interface packlet to carry a CMIC link

RTIF if you are going to install a reset terminal interface packlet

Tape if you are going to install a tape packlet

Disk if you are going to install a disk packlet

AMDI if you are going to install an AMDI packlet, that is, an NTLX05BA OC-3 two-port interface packlet to act as the ATMMulti-mode Data Interface

ETHR if you are going to install an ethernet packlet

2 Busy the circuit pack or packlet that you intend to remove. Type

```
> BSY <nn> <s> <p>
```

and press the Enter key

where

where … **<nn>** is the slot number parameter value to indicate the number of the physical shelf slot - 0 to 18
and … **<s>** is the side parameter value to indicate the CP or packlet location in the physical shelf - front (f) or rear (r)
and … **<p>** is used only for packlets, and indicates the packlet location in an input/output processor (IOP) - upper (u) or lower (l)

Sample command

```
>BSY 4 r l
```

Example of system response:

```
BSY 4 rear lower completed
```

Note: If the system aborts the BSY command and displays an error message explaining that the command action would reduce redundancy, you can use the "force" option. Re-enter the command as shown in this step, with the force option: **BSY <nn> <s> force**

3 Remove the circuit pack or packlet. For detailed instructions, see the chapter "Introduction to card replacement" in *XA-Core Maintenance Manual* (297-8991-510).

4

If you are currently …	Do
in one of the following MAP levels: PE, SM, IO, RTIF, AMDI, or ETHR	step 5
not in one of the following MAP levels: PE, SM, IO, RTIF, AMDI, or ETHR	step 6

5 Use the UNEQ command to remove the circuit pack or packlet from the shelf inventory. At the current MAP level type

```
>UNEQ <nn> <s> <p>
```

and press the Enter key

where

where … **<nn>** is the slot number parameter value to indicate the number of the physical shelf slot - 0 to 18
and … **<s>** is the side parameter value to indicate the CP or packlet location in the physical shelf - front (f) or rear (r)
and … **<p>** is used only for packlets, and indicates the packlet location in an input/output processor (IOP) - upper (u) or lower (l)

Sample command

```
> UNEQ 4 r l
```

Example of system response:

```
Uneq 4 rear lower completed
```

6 You have completed this procedure.

—End—

Provisioning a Link-Interface Shelf in an FLPP

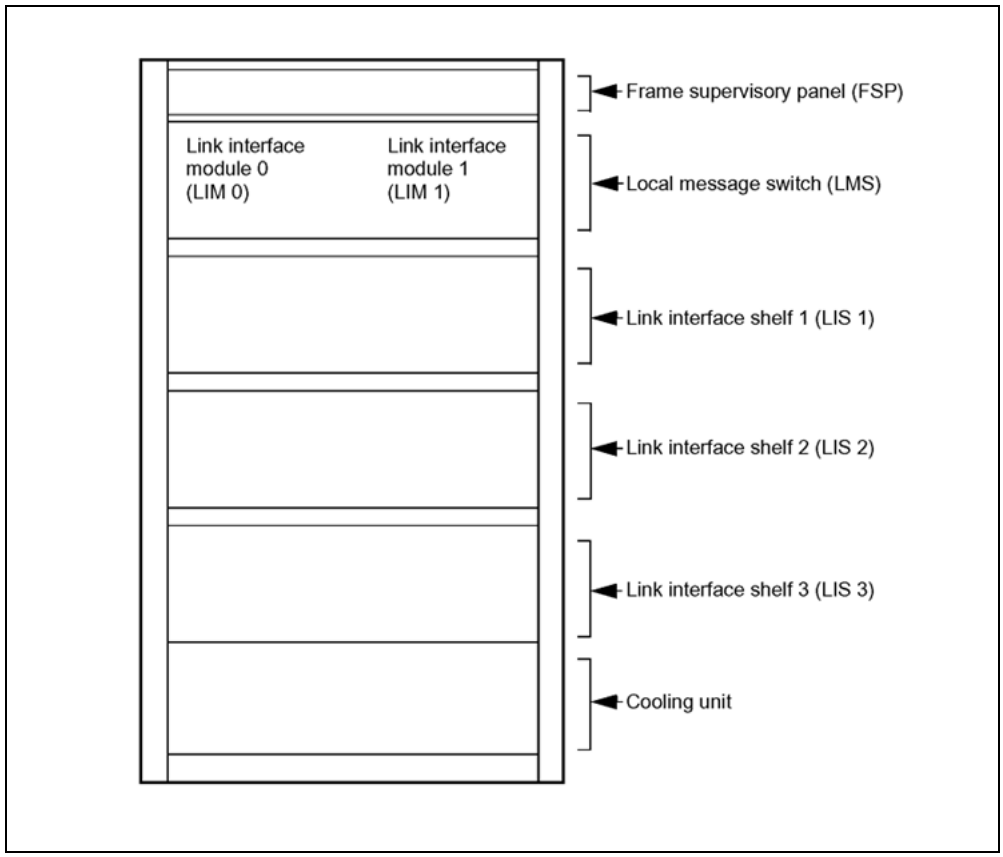
The CS 2000 uses the fiberized link peripheral processor (FLPP) to interface with the CCS7 signaling network. The FLPP is the signaling gateway (SG) component of the CS 2000.

In a concurrent configuration, the MSC Server 1000 uses a fiberized link peripheral processor (FLPP) to provide signaling gateway functionality (see *MSC Server 1000 Overview*, (NN20000-220) for more information about communication server functional requirements).

The FLPP contains up to threesix link interface shelves (LIS). Each LIS can contain up to 12 CCS7 link interface units (LIU7). These CCS7 link interface units provide V.35 interfaces to CCS7 signaling multiplexers.

The following figure shows the layout of the cabinet containing the FLPP.

Layout of the FLPP cabinet



This procedure tells how to provision an additional link interface shelf in the FLPP.

Interval

Perform this procedure as required.

Prerequisites

Before provisioning the link-interface shelf, perform the following procedure:

- "Provision a CCS7 link-interface unit" (page 32)

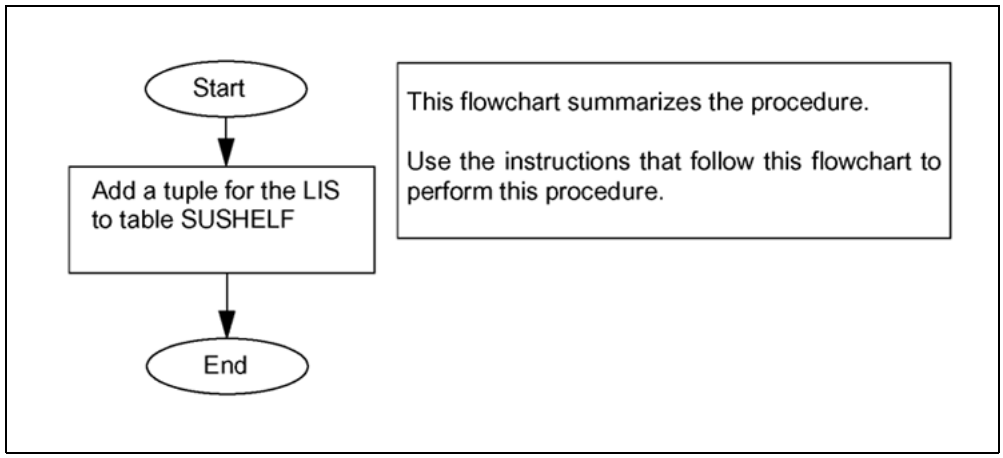
Common procedures

This procedure refers to the procedure "Using the Table Editor to Add a Tuple to a Table" (page 249).

Action

The following flowchart summarizes this procedure.

Provisioning a link-interface shelf (LIS) in FLPP



You provision a link interface shelf by adding a tuple to table SUSHELF in the XA-Core. For information about table SUSHELF, see the following reference documents:

- in the North American market, see:
  - — *North American DMS-100 Customer Data Schema Reference Manual* (297-8001-351 Vol. 9)
  - — *North American DMS-100 Family Translations Guide* (297-8001-350 Vol. 2)
- in the international market, see:
  - — *DMS-100 MMP Customer Data Schema Reference Manual* (297-9051-351 Vol. 10)
  - — *DMS-100 MMP Translations Guide* (297-9051-350 Vol. 2)

Provision a link-interface shelf

Step	Action
	Referring to the Common Procedures section:
1	Add a tuple to data schema table SUSHELF to provision a link interface shelf (see sub-procedure "Using the Table Editor to Add a Tuple to a Table" (page 249)) . Refer to *DMS-MTX IS-41 Networking for X.25/CCS7 (LPP-Based Systems) Guide* (411-2131-554) for more information about this tuple.
	—End—

For details about adding a tuple to a table, see procedure "Using the Table Editor to Add a Tuple to a Table" (page 249). Then if applicable, return to the higher level task flow or procedure that directed you to this procedure.

Go to "Provision a CCS7 link-interface unit" (page 32) to continue.

Go to "De-provisioning an FLPP Link-Interface Shelf" (page 28) for details about de-provisioning a link interface shelf.

De-provisioning an FLPP Link-Interface Shelf

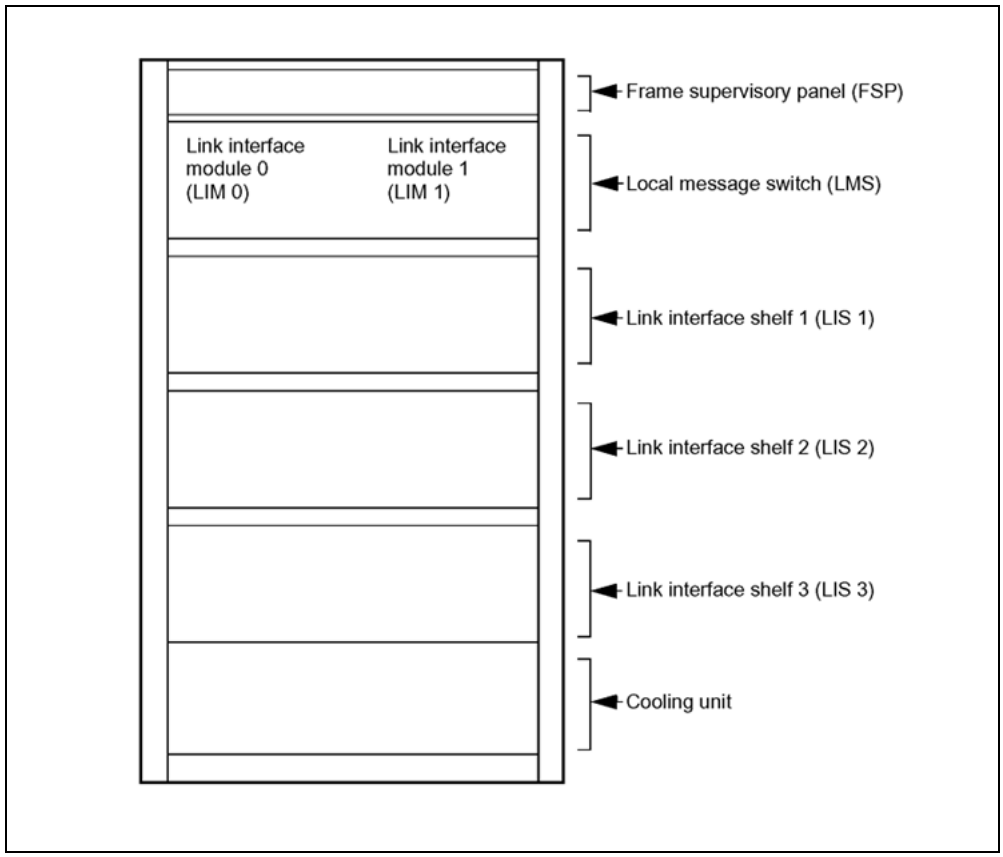
The CS 2000 uses the fiberized link peripheral processor (FLPP) to interface with the CCS7 signaling network. The FLPP is the signaling gateway (SG) component of the CS 2000.

In a concurrent configuration, the MSC Server 1000 uses a fiberized link peripheral processor (FLPP) to provide signaling gateway functionality (see *MSC Server 1000 Overview* (NN20000-220) for more information about communication server functional requirements).

The FLPP contains up to three link interface shelves (LIS). Each LIS can contain up to 12 CCS7 link interface units (LIU7). These CCS7 link interface units provide V.35 interfaces to CCS7 signaling multiplexers.

The following figure shows the layout of the cabinet containing the FLPP.

Layout of the FLPP cabinet



This procedure tells how to de-provision a link interface shelf that you are going to remove from the FLPP.

Procedure

You de-provision a link interface shelf by deleting its tuple from the data schema table SUSHELF in the XA-Core. For information about table SUSHELF, see the following reference documents:

- in the North American market, see:
  - — *North American DMS-100 Customer Data Schema Reference Manual* (297-8001-351 Vol. 9)
  - — *North American DMS-100 Family Translations Guide* (297-8001-350 Vol. 2)
- in the international market, see:
  - — *DMS-100 MMP Customer Data Schema Reference Manual* (297-9051-351 Vol. 10)
  - — *DMS-100 MMP Translations Guide* (297-9051-350 Vol. 2)

You de-provision a link interface shelf by deleting its tuple from the data schema table SUSHELF. Refer to the following documents for more information about table SUSHELF:

- *Networking for X.25/CCS7 DMS-MTX CDMA/TDMA* (411-2131-554)
- *DMS-MTX Basic Cellular Translations* (411-2131-220)
- *DMS-MTX Universal Cellular Translations* (411-2131-305)

For details about deleting a tuple from a table, go to the Common Procedures section and see sub-procedure "Using the table editor to delete a tuple from a table" (page 259).

Provisioning a CCS7 Link-Interface Unit

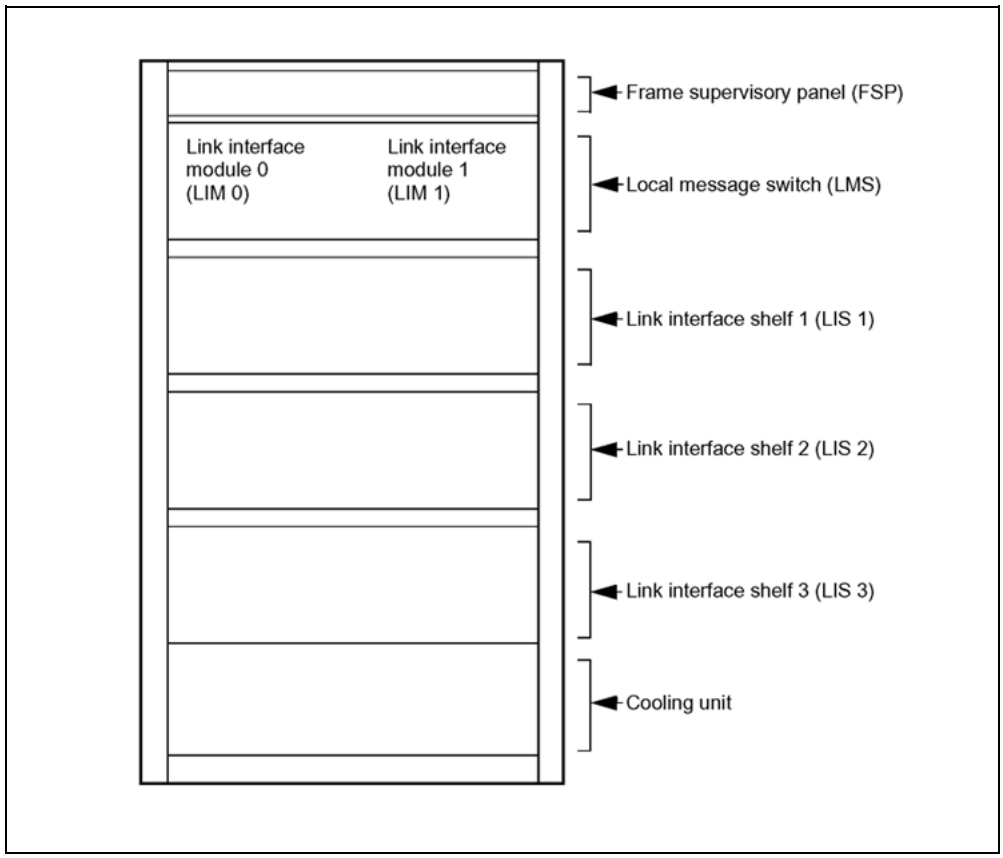
The CS 2000 uses the fiberized link peripheral processor (FLPP) to interface with the CCS7 signaling network. The FLPP is the signaling gateway (SG) component of the CS 2000.

In a concurrent configuration, the MSC Server 1000 uses a fiberized link peripheral processor (FLPP) to provide signaling gateway functionality (see *MSC Server 1000 Overview*(NN20000-220) for more information about communication server functional requirements).

The FLPP can contain up to threesix link interface shelves (LIS).

The following figure shows the layout of the cabinet containing the FLPP.

Layout of the FLPP cabinet



Each LIS can contain up to 12 CCS7 link interface units (LIU7). Each LIU7 is a peripheral module that provides a V.35 interface to a CCS7 signaling multiplexer. Each interface supports a 64 kbps SS7 link.

Each LIU7 is composed of the following components.

- An integrated processor and F-bus circuit pack (NTEX22).

This provides message processing for the associated signaling links, and taps into the two F-buses that carry information to and from the local message switch (the top shelf in the cabinet).

- A signaling terminal circuit pack (NT9X76).

  This terminates the signaling links.

- A V.35 interface paddleboard (NT9X77).

  This provides the physical interface between the signaling links and the LIU7.

This procedure tells how to provision an additional LIU7 in a link interface shelf.

Interval

Perform this procedure as required.

Prerequisites

None.

- The MSC Server 1000 must be in a concurrent configuration

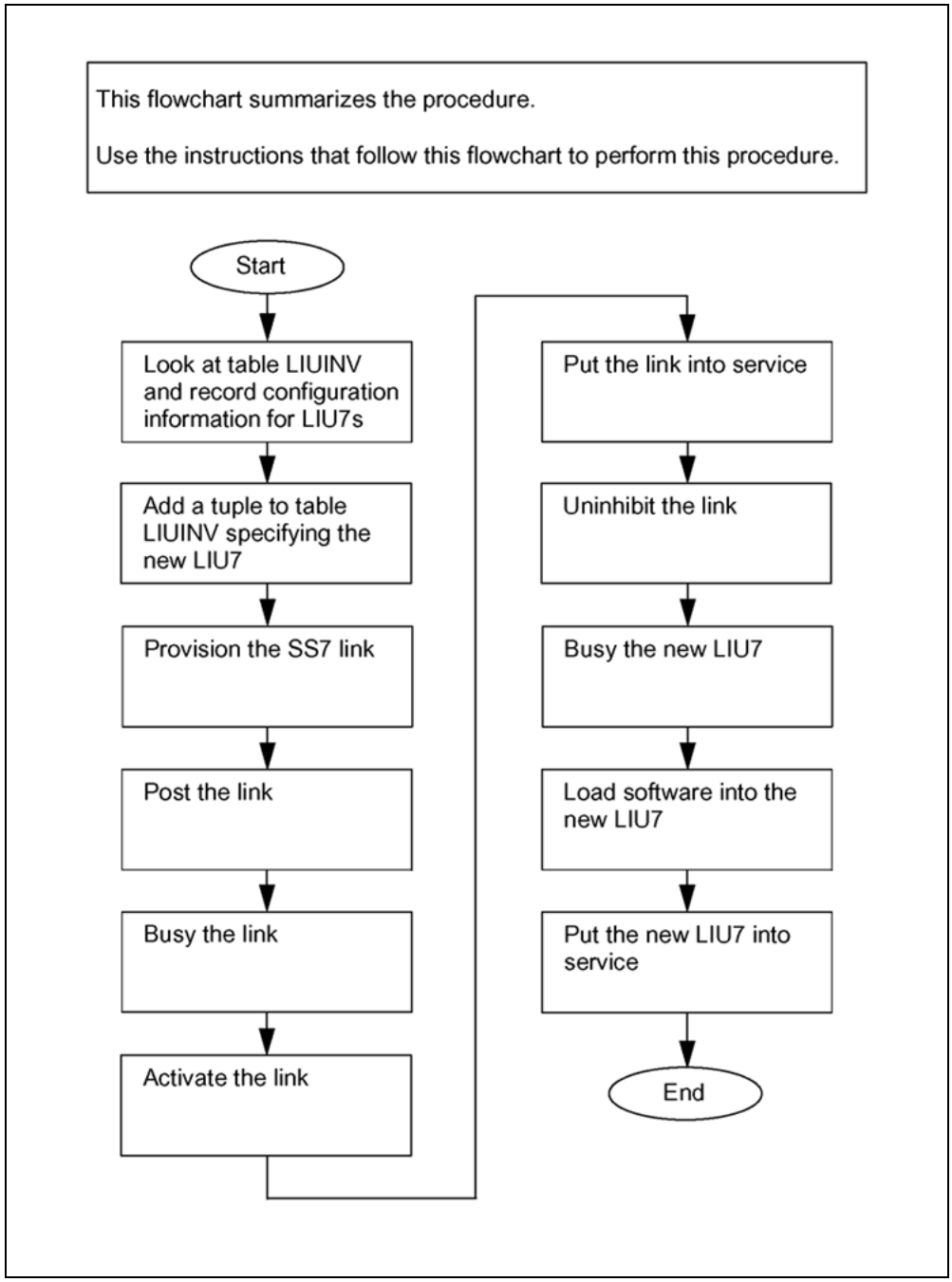
Common procedures

This procedure refers to the procedures "Provision SS7 links" (page 234) and the sub-procedure in the Common Procedures section "Using the Table Editor to Add a Tuple to a Table" (page 249).

Action

The following flowchart summarizes this procedure.

Provisioning a CCS7 link-interface unit



Provision a CCS7 link-interface unit

Step	Action

At the FLPP

1 Determine which slots in the link interface shelf to use to insert the two circuit packs and the paddleboard that compose the LIU7.

Each LIU7 occupies a pair of consecutively numbered slots (even followed by odd) in the range 8-9 to 30-31.

For more information about the FLPP, refer to the *Hardware Description Manual* (297-8991-805).

using the MAP interface

2 Use the table editor to display the tuples in table LIUINV, so you can find the field values used for the CCS7 link interface units (LIU7) that have already been configured.

This information will be useful when you add the tuple for the new LIU7, because you will want to use the same values for many of the fields, such as the fields that describe the clock source.

Proceed as follows:

a. Start the table editor at table LIUINV by typing:

```
>TABLE LIUINV
```

and press the Enter key.

Example of system response:

```
TABLE: LIUINV
```

b. Move to the top of the table by typing:

```
> TOP
```

and press the Enter key

c. Display all the tuples in table LIUINV by typing:

```
> LIST ALL
```

and press the Enter key

d. Record the product engineering code (PEC) for the integrated processor and F-bus circuit pack in the LIU7 that you intend to install.

e. Identify the tuple for the CCS7 link interface units (LIU7) currently installed in the FLPP with a PROCINFO value matching the PEC recorded in Sub-Step 2d

f. Record the field values for the tuple identified in Sub-Step 2e

g. Exit from the table editor by typing:

```
>QUIT
```

and press the Enter key.

3 Use the table editor to add a tuple describing the new LIU7 to table LIUINV.

For information about table LIUINV, see the following documents. If you are in the North American market, see *North American DMS-100 Customer Data Schema Reference Manual* (297-8991-351 Vol. 6) and *North American DMS-100 Family Translations Guide* (297-8001-350 Vol. 2). If you are in the international market, see *DMS-100 MMP Customer Data Schema Reference Manual* (297-9051-351 Vol. 7) and *DMS-100 MMP Translations Guide* (297-9051-350 Vol. 2).

Refer to *DMS-MTX Basic Cellular Translations* (411-2131-220) and *DMS-MTX Universal Cellular Translations* (411-2131-305) for more information about table LIUINV.

For instructions about adding a tuple to a table, see the procedure the sub-procedure in the Common Procedures section "Using the Table Editor to Add a Tuple to a Table" (page 249).

When entering datafill in the fields, use the values shown in the figure "Datafill for LIUINV" (page 35) as supplemented by the information recorded in Sub-step 2f.

Datafill for LIUINV

System prompt	User input
LIUTYPE:	LIU7
LIUNO:	An identifier number in the range 0 to 511
CTRL:	LIM
LIMNUM:	0 if the LIU7 is in slot 18 or lower; otherwise 1
SHELFNUM:	2 ***Note:*** 2 indicates a link interface shelf.
LIUSLOT:	Even-numbered slot occupied by the LIU7.
LOAD:	Enter a value identical to the field value that you wrote down in the preceding step.
PROCPEC:	PEC of the processor and F-bus circuit pack, for example, NTEX22AB
APPLPEC:	PEC of the signaling terminal circuit pack. for example, NT9X76AA
PBPEC:	PEC of the V.35 interface paddleboard, for example, NT9X77AA
OPTIONS:	$
CLKSRCE: . . . . CLKRATE: . . . . CLKCONFG: . . DS0TYP: . . . . . DS0TRK: . . . . . CLLI: . . . . . . PB_BIT_INV: . .	If prompted for values for these fields, enter values identical to the field values you wrote down in the preceding step.

4 Provision the SS7 link. For instructions, see procedure "Provision SS7 links" (page 234). Then continue with the next step in this procedure.

ATTENTION

When provisioning the link, make note of the linkset name, as specified in the "name" field of table C7LKSET. You will use the value in the next step.

5 After installing and connecting the components for the LIU7 (the two circuit packs and the paddleboard), access the PM MAP level and post the LIU7. Type

```
>MAPCI;MTC;PM;POST LIU7 <liuno>
```

and press the Enter key

where

where<liuno> Replace <liuno> with the value specified in the LIUNO subfield for the LIU7 tuple in table LIUINV.

6 Busy the LIU7. Type

```
>BSY
```

and press the Enter key.

7 Load into the LIU7 the software load specified in the "load" field in table LIUINV. Type

```
>LOADPM
```

and press the Enter key.

8 Put the LIU7 into service. Type

```
>RTS
```

and press the Enter key.

9 Activate and uninhibit the SS7 link. Proceed as follows.

a. Access the C7LKSET MAP level. Type

```
>MAPCI;MTC;CCS;CCS7;C7LKSET
```

and press the Enter key.

In response, the system displays the C7LKSET menu.

b. Select the linkset for maintenance actions. Type

```
> POST C <linkset-name> 0
```

and press the Enter key.

where

<linkset-name> Replace <linkset-name> with the linkset name specified in table C7LKSET

In response, the system displays the first group of links in the linkset.

c. If the link that you want to work on is not among the links displayed on the screen, step forward through the list until the desired link is displayed. Display the next group of links in the linkset by typing

```
>NEXT
```

and press the Enter key.

In response, the system displays the next group of links in the linkset.

d. Busy the link. Type

```
> BSY <link-number>
```

and press the Enter key.

where

where<link-number> is an integer in the range 0 to 15, indicating the number of the link in the linkset

e. Activate the link. Type

```
> ACT <link-number>
```

and press the Enter key

where

where<link-number> is an integer in the range 0 to 15, indicating the number of the link in the linkset

f. Put the link into service. Type

```
> RTS <link-number>
```

and press the Enter key

where

where<link-number> is an integer in the range 0 to 15, indicating the number of the link in the linkset

g. Uninhibit the link. Type

```
> UINH <link-number>
```

and press the Enter key

where

where<link-number> is an integer in the range 0 to 15, indicating the number of the link in the linkset

10 You have completed the procedure. If applicable, return to the higher level task flow or procedure that directed you to this procedure.

—End—

Go to "Provision SS7 links" (page 234) to continue.

Go to "De-provision a CCS7 link-interface unit (LIU7)" (page 40) for details about de-provisioning a link interface unit.

De-provisioning a CCS7 Link-Interface Unit

The CS 2000 uses the fiberized link peripheral processor (FLPP) to interface with the CCS7 signaling network. The FLPP is the signaling gateway (SG) component of the CS 2000.

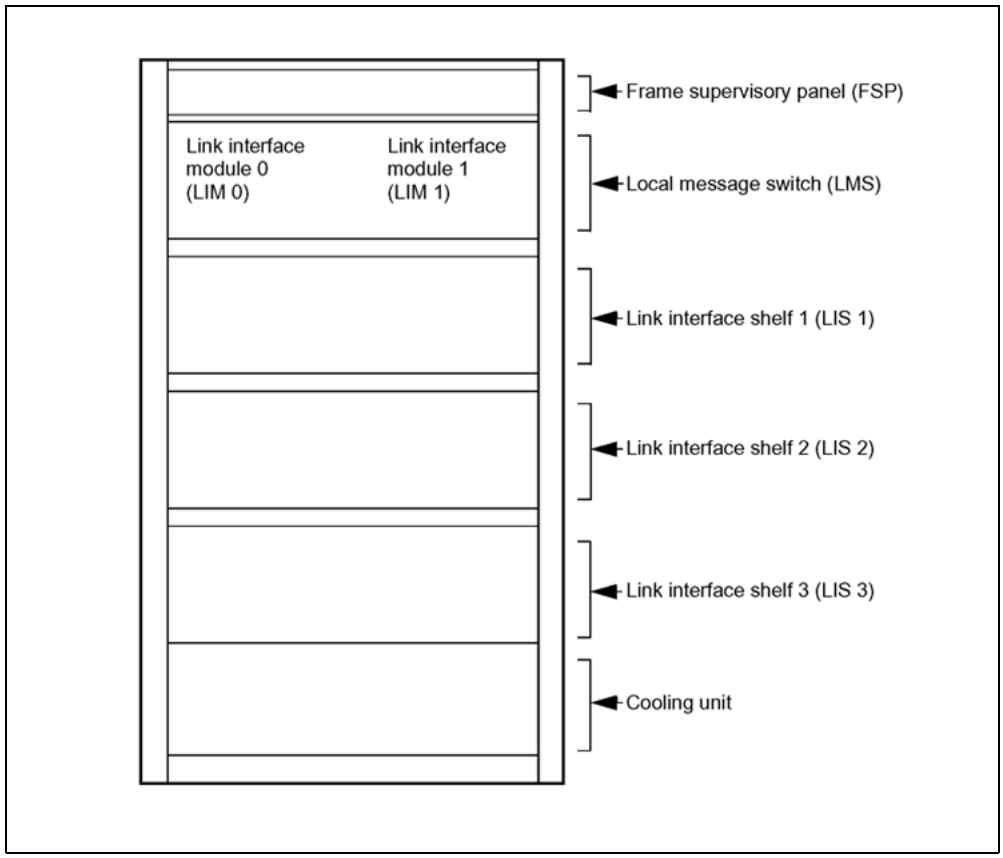
In a concurrent configuration, the MSC Server 1000 uses a fiberized link peripheral processor (FLPP) to provide signaling gateway functionality (see *MSC Server 1000 Overview* (NN20000-220) for more information about communication server functional requirements).

The FLPP can contain up to three link interface shelves (LIS).

The FLPP can contain up to six link interface shelves (LIS).

The following figure shows the layout of the cabinet containing the FLPP.

Layout of the FLPP cabinet



Each LIS can contain up to 12 CCS7 link interface units (LIU7). Each LIU7 is a peripheral module that provides a V.35 interface to a CCS7 signaling multiplexer. Each interface supports a 64 kbps SS7 link.

Each LIU7 is composed of the following components:

- An integrated processor and F-bus circuit pack (NTEX22). This provides message processing for the associated signaling links, and taps into the two F-buses that carry information to and from the local message switch (the top shelf in the cabinet).
- A signaling terminal circuit pack (NT9X76). This terminates the signaling links.
- A V.35 interface paddleboard (NT9X78). This provides the physical interface between the signaling links and the LIU7.

This procedure tells how to de-provision an LIU7 in a link interface shelf.

Interval

Perform this procedure as required.

Prerequisites

None.

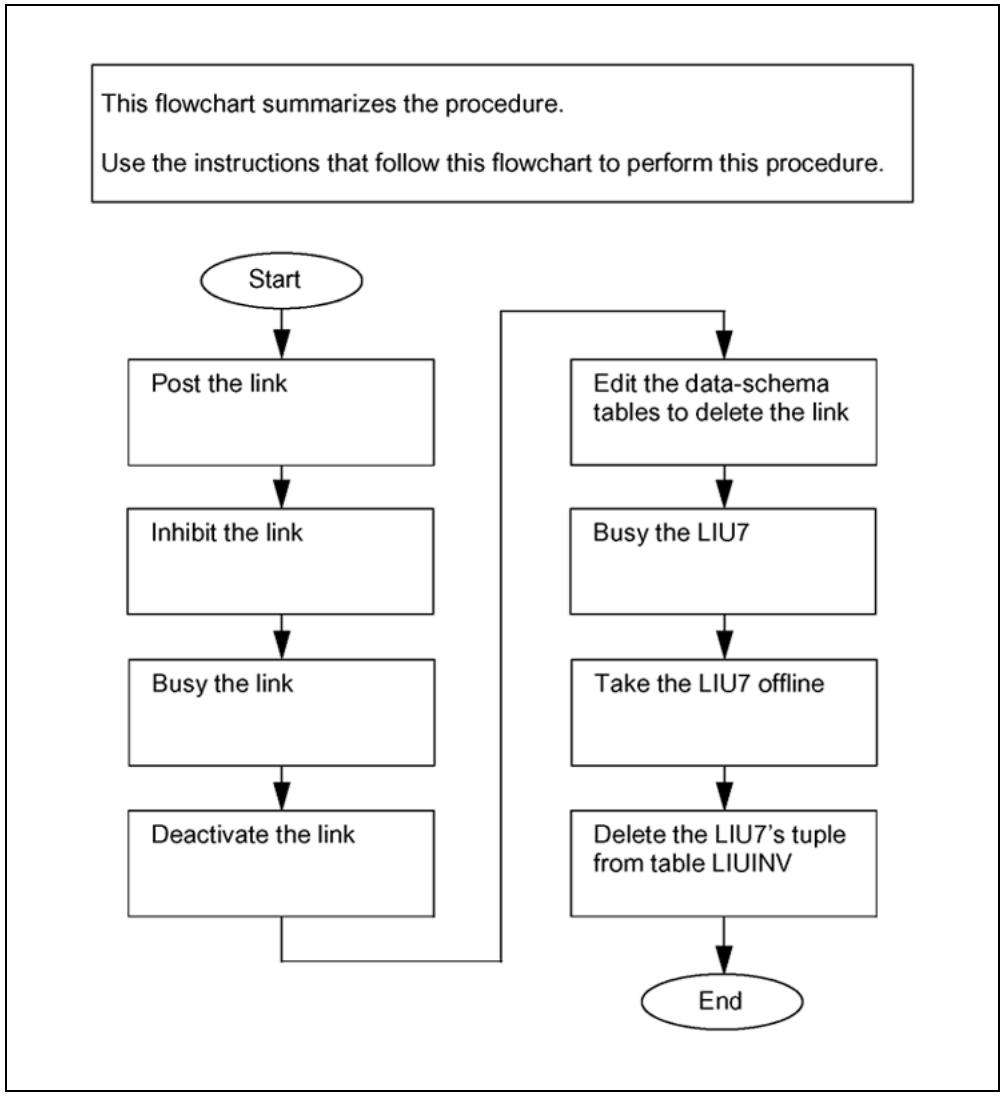
Common procedures

This procedure refers to the procedures "Deleting an SS7 Link" (page 240) and the sub-procedure in theCommon Procedures section "Using the Table Editor to Add a Tuple to a Table" (page 249).

Action

The following flowchart summarizes this procedure.

De-provisioning a CCS7 link-interface unit (LIU7)



De-provision a CCS7 link-interface unit (LIU7)

Step	Action

At the MAP terminal

1 Inhibit and deactivate the SS7 link. Proceed as follows.

a. Access the C7LKSET MAP level. Type

```
>MAPCI;MTC;CCS;CCS7;C7LKSET
```

and press the Enter key.

b. Select the linkset for maintenance actions. Type

```
>POST C <clli-name> 0
```

and press the Enter key

where

<clli-name> Replace <clli-name> with the clli name of the linkset specified in table C7LKSET

In response, the system displays the first four links in the linkset.

c. If the link that you want to work on is not among the links displayed on the screen, step forward through the list until the desired link is displayed. Display the next group of links in the linkset by typing

>NEXT

and press the Enter key.

In response, the system displays the next four links in the linkset, or all remaining links if there are fewer than four.

d. Inhibit the link. Type

>INH <link-number>

and press the Enter key.

where

<link-number> is an integer in the range 0 to 15, indicating the number of the link in the linkset

e. Busy the link. Type

>BSY <link-number>

and press the Enter key.

where

<link-number> is an integer in the range 0 to 15, indicating the number of the link in the linkset

f. Deactivate the link. Type

>DEAC <link-number>

and press the Enter key.

where

<link-number> is an integer in the range 0 to 15, indicating the number of the link in the linkset

2 Delete the link.

For instructions, see procedure "Deleting an SS7 Link" (page 240). Then continue with the next step in this procedure.

3 Access the PM MAP level and post the LIU7. Type

```
>MAPCI;MTC;PM;POST LIU7 <liuno>
```

and press the Enter key.

where

<liuno> Replace <liuno> with the value specified in the LIUNO subfield in the tuple for the LIU7 in table LIUINV.

In response, the system displays the LIU system status display.

4 Busy the LIU7. Type

```
>BSY
```

and press the Enter key.

5 Take the LIU7 offline. Type

```
>OFFL
```

and press the Enter key.

6 After removing the components of the LIU7 (the two circuit packs and the paddleboard), use the table editor to delete the LIUs tuple from table LIUINV. For instructions for deleting a tuple from a table, see sub-procedure "Using the table editor to delete a tuple from a table" (page 259) in the Common Procedures section.

—End—

Provisioning lines

This procedure explains how to provision lines by telnetting to OSSGate and entering SERVORD+ commands one by one.

Note 1: Do not use this procedure if you want to provision SIP lines or if you want to provision lines on CICM gateways. If you want to provision such lines, see the appropriately named modules. (If SIP lines or lines on CICM gateways are used in your solution, appropriately named modules will be available; otherwise, such modules will not be available.)

Note 2: SERVORD+ commands are the subset of SERVORD commands that can be entered by way of the OSSGate interface.

There are other ways to provision lines. The following list indicates where to find information about them.

- You can do batch provisioning of lines. For information, see procedure "Provisioning lines" (page 46).
- If you have an operations support system (OSS), it may support line provisioning. An OSS is third-party software and must be purchased separately. An OSS has its own user interface. If you have an OSS, see the documentation provided with the OSS for information on provisioning lines.

Interval

Perform this procedure as required.

Prerequisites

Prerequisites for line provisioning are as follows:

- The RDT_SUCC_AUTOCREATE_LNINV office parameter must be provisioned properly. For instructions, see procedure "Provisioning the RDT_SUCC_AUTOCREATE_LNINV office parameter".
- You must know either the host name or the IP address of the server on which OSSGate is running. If in doubt, as the local network administrator.
- You must know the number of the port used by OSSGate. If in doubt, ask the local network administrator.
- You must have the telnet application, and the telnet client must support the following options:
  - The client must support line mode. It must be able to send one line at a time to OSSGate, rather than one character at a time.

— The client must be able to implicitly add a carriage return to any data that comes from OSSGate.

- The gateway controllers and the media gateways must already be configured.

  For information on configuring the gateway controllers and the gateways, see *GWC Configuration Management* (NN10205-511).

- You must know the names of the media gateways that will be used, and you must know the endpoint names that the gateway controller element manager has allocated to those gateways.

  As of SN08, when a small lines media gateway is provisioned, the system uses the number of reserved terminations to determine the number of endpoints to provision, and provisions those endpoints based on the naming convention of the gateway profile starting with aaln/1. For example, when a small lines media gateway is provisioned using the TOUCHTONE_NN01_2 profile, a 2-line profile, and the reserved terminations is set to 1, one endpoint will be provisioned as aaln/1.

- You must know how to format the values that you will enter in the media gateway endpoint name field in the NEW command (the SERVORD+ command that establishes service in a line). You can find information on the formatting rules in the following list.

  The following section gives the formatting rules for the values that you enter in the media gateway endpoint name field in a SERVORD+ command.

Names for media gateway endpoints on cable MTA gateways

The format for media gateway endpoint names is as follows:

<media-gateway-name> <endpoint-name>

where

`<media-gateway-name>` is in the form of a fully qualified domain name including the hostname of the device and suitable for lookup using Domain Name Service (DNS). The name must contain a period (.).

Example
cust34671.rdu.attcable.net

Note: If a gateway is associated with a GWC for which a default gateway domain name has been provisioned, do not use the default gateway domain name as part of the <media-gateway-name> in any SERVORD+ command. SERVORD+ commands are the subset of SERVORD commands that can be entered by way of the OSSGate interface.

- **<endpoint-name>** has the following format: **aaln/<n>** where n is an integer in the range 1 to n, where n is the number of the voice port on the MTA.

  Note: In the format, there is a space between <media-gateway-name> and <endpoint-name>.

Names for media gateway endpoints on MG 9000 H.248 gateways

The format for media gateway endpoint names is as follows:

<media-gateway-name> <endpoint-name>

where

- <media-gateway-name> has the following format: **<site><frame>-<logical-frame>-<shelf>**

  where

  — **<site>** is the value previously datafilled in table SITE. The value is one to four alphanumeric characters.

  — **<frame>** is a three-digit integer in the range 000 to 511, indicating the frame number within the office.

  — **<logical-frame>** is an integer in the range 0 to 7, indicating the logical frame number within the physical MG.

  — **<shelf>** is an integer in the range 0 to 3 indicating the shelf number within the frame.

- <endpoint-name> has the following format: **tp/<card>/<circuit>**

  where

  — **<card>** is a two-digit integer in the range 02 to 09 or in the range 14 to 21, indicating the card number.

  — **<circuit>** is a two-digit integer in the range 00 to 31, indicating the circuit number.

  Note: In the format, there is a space between <media-gateway-name> and <endpoint-name>.

For example, the following name conforms to the naming format for media gateway endpoints on an MG 9000 H.248 gateway:

```
ABCD511-7-3 tp/21/31
```

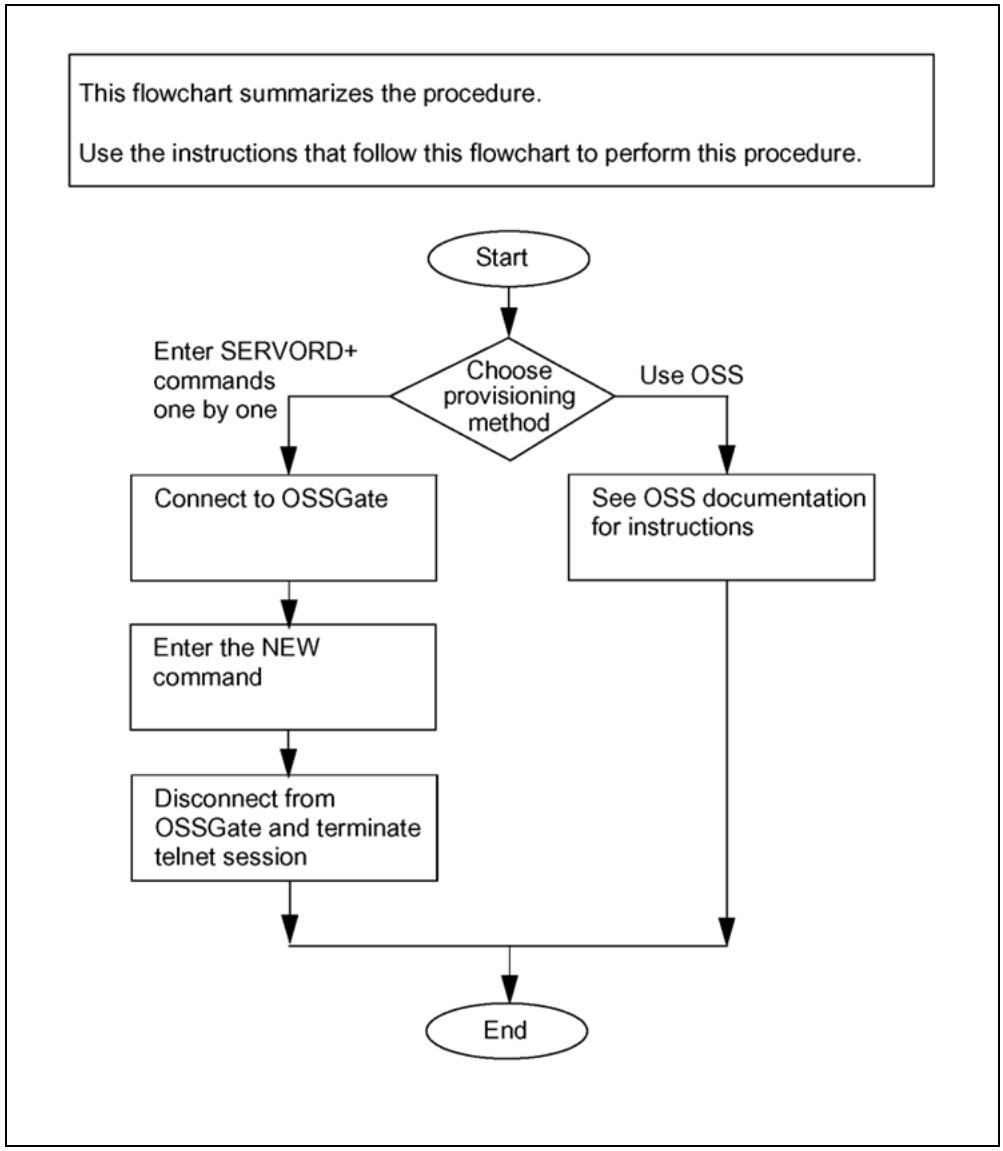
Common procedures

This procedure does not refer to any common procedures.

Action

The following flowchart summarizes this procedure.

Provisioning lines



CAUTION
When provisioning lines, use only the user interfaces referred to in this procedure. Do not use the MAP interface to modify any of the data schema tables directly. Modifying these tables directly via the MAP will result in service-impacting corruption that will require Nortel assistance to resolve.

Provisioning lines

Step	Action

At the PC connected to the CS LAN

1

If you intend to provision lines by	Do
telnetting to OSSGate and entering SERVORD+ commands one by one	step 2
using an operations support system (OSS)	step 9

2 Initiate a telnet session to OSSGate. Type the following command at the system prompt

`telnet <OSSGate-server-name> <port-number>`

and press the Enter key

where

- **`<OSSGate-server-name>`** is one of the following:
  - the host name of the server on which OSSGate is running
  - the IP address of the server on which OSSGate is running
- **`<port-number>`** is the server port used by OSSGate

  Note 1: The default port number is 10023.

  Note 2: If in doubt regarding the OSSGate-server-name or the port-number, ask the local network administrator.

For example, type

`telnet wcn0s5jk 10023`

and press the Enter key.

Example of system response:

```
Trying 47.142.94.80...
Connected to wcn0s5jk.
Escape character is '4;^]'.
Enter username and password
```

3 Enter your username and password. Type

`<username> <password>`

and press the Enter key.

For example, type

`user1  passwd`

and press the Enter key.

Example of system response:

```
user1 logged in on 2002/2/2 at 11:51:55.
*********************************************
```

```
**                                              **
**                OSS Gateway                   **
**                                              **
**        This is a PRIVATE Database.           **
**                                              **
**  All activity is subject to monitoring.      **
**                                              **
*Any UNAUTHORIZED access or use is PROHIBITED*
**        and may result in PROSECUTION.        **
**                                              **
**********************************************
>
```

4 You have connected to OSSGate, so the system is displaying a prompt, the ">" character, in the telnet window on your screen. Now you put the telnet session into CI mode. Proceed as follows.

a. Hold down the control key and type B.

Example of system response:

```
?
```

b. At the question-mark prompt, type

`mode ci`

and press the Enter key.

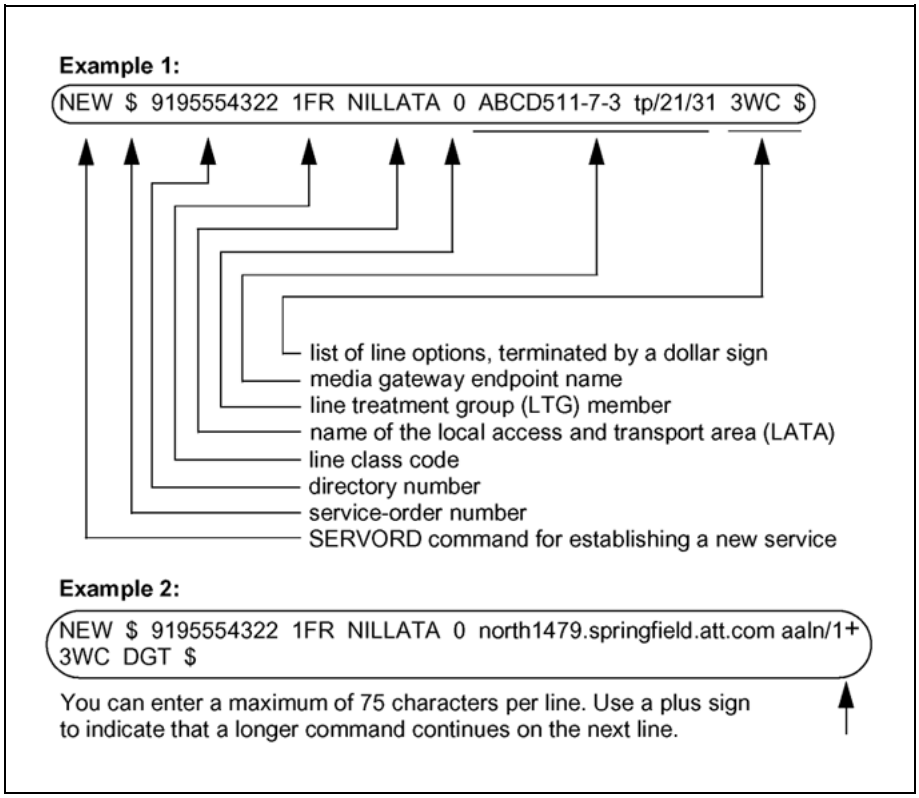
Example of system response:

```
Mode is CI.
>
```

5 Provision a line by entering the NEW command at the ">" prompt. NEW is the SERVORD+ command that provisions a line.

The following figure shows two examples of NEW commands.

Examples of the NEW command



Detailed information about the fields of the NEW command:

- **Media gateway endpoint names**. To designate the media gateway endpoint name in the NEW command, use the media-gateway name and the endpoint name, separated by a space.

  — In the first example, the media-gateway name is ABCD511-7-3 and the endpoint name is tp/21/31.

  — In the second example, the media-gateway name is north1479.springfield.att.com and the endpoint name is aaln/1.

  Note: The formatting rules for media gateway endpoint names are listed in the prerequisites to this procedure.

When the system processes the NEW command, it adds the endpoint to the appropriate gateway controller and selects a line equipment number (LEN) for the endpoint. SERVORD then updates table LNINV, and establishes service on the line equipment number.

Note 1: You can enter a maximum of 75 characters per line in a SERVORD+ command. If a command is longer than 75

characters, put a plus sign in the seventy-fifth character position (or in an earlier character position) and continue the command on the next line. See the example in the preceding figure. Using plus signs, you can continue a single SERVORD+ command on multiple lines.

Note 2: Via the OSSGate interface, you can use a subset of SERVORD commands. The subset is referred to as the SERVORD+ commands. For lists of SERVORD+ commands that you can use on Carrier Voice over IP lines and on legacy lines, see the information on command provisioning for lines in the *OSSGate User's Guide*, NE10004-512.

Note 3: For detailed information about SERVORD commands, see *SERVORD Reference Manual* (297-8001-808) in the North American market, or 297-9051-808 in the international market.

6 Disconnect from OSSGate. Proceed as follows.

a. Hold down the control key and type B.

Example of system response:

```
?
```

b. At the question-mark prompt, type

`logout`

and press the Enter key.

Example of system response:

```
user1 logged out.
>
```

7 Terminate the telnet session. Proceed as follows.

a. Hold down the control key and type B.

Example of system response:

```
?
```

b. At the question-mark prompt, type

`clearconv`

and press the Enter key.

Example of system response:

```
SESSION TERMINATED.
Connection closed by foreign host.
```

8 Go to step 12.

9 If you are going to use an operations support system (OSS) to provision lines, ask your system administrator for the following:

- instructions for accessing the OSS
- information about the OSS interface

10 Access the OSS following the instructions of your system administrator.

11 Provision the lines using the OSS interface.

12 You have completed this procedure.

—End—

Provisioning lines on CICM gateways

This procedure explains how to provision lines on CICM gateways by telnetting to OSSGate and entering SERVORD+ commands one by one. You enter the provisioning data by way of OSSGate, and the Management Tools software forwards the data to the CICM Manager.

Note: SERVORD+ commands are the subset of SERVORD commands that can be entered by way of the OSSGate interface.

CICM gateways are used with the Centrex IP Client Manager (CICM) program, which is available in the carrier-hosted services (CHS) solution.

Interval

Perform this procedure as required.

Prerequisites

Prerequisites for line provisioning are as follows:

- You must know either the host name or the IP address of the SESM server on which OSSGate is running. If in doubt, ask the local network administrator.
- You must know the number of the port used by OSSGate. If in doubt, ask the local network administrator.
- You must have the telnet application, and the telnet client must support the following options:
  - The client must support line mode. It must be able to send one line at a time to OSSGate, rather than one character at a time.
  - The client must be able to implicitly add a carriage return to any data that comes from OSSGate.
- The gateway controllers and the CICM gateways must already be configured.

  For information on configuring the gateway controllers and the CICM gateways, see *GWC Configuration Management*, NN10205-511.
- You must know the names of the CICM gateways that will be used, and you must know the endpoint names that have been allocated to those gateways.
- You must know how to format the LEN value that you will enter in the NEW command. (Given the LEN value, the system finds the termination that maps to the LEN.) You can find information on the formatting rules in the following list.

Rules for formatting the LEN in the NEW command

When using the NEW command to provision a line on a CICM gateway, you enter the LEN value. The system can identify the proper termination on the CICM gateway because it knows the mapping of LENs to terminations.

> ***Note:*** For information on the mapping of LENs to terminations, see "Mapping of logical groups, LENs, gateway names, and terminations" (page 59) in this module.

The format of the LEN value is as follows:

<site> <nnn> <group> <TT> <tt>

where

<site> is a string. It is part of the gateway name, as specified during gateway provisioning.

> ***Note 1:*** Nortel recommends that you define "CICM" as a site name and use that site name for all CICM-gateway provisioning. You do this by adding a tuple to the SITE data schema table. For detailed information about table SITE, see *North American DMS-100 Customer Data Schema Reference Manual*, 297-8001-351, or see *DMS-100 MMP Customer Data Schema Reference Manual*, 297-9051-351.
>
> ***Note 2:*** Nortel recommends that you not use "HOST" as the site name.

<nnn> is the gateway number, a three-digit integer in the range 000 to 511, the numeric part of the gateway name, as specified during gateway provisioning

<group> is the logical-group number, an integer in the range 0 to 2

<TT> is an integer composed of the first and second digits of a four-digit integer that identifies the termination within the logical group. Each logical group has 1023 available terminations, numbered 0000 to 1022. **<TT>** is in the range 00 to 10.

<tt> is an integer composed of the third and fourth digits of a four-digit integer that identifies the termination within the logical group. Each logical group has 1023 available terminations, numbered 0000 to 1022. **<tt>** is in the range 00 to 99 if the **<TT>** value is in the range 00 to 09. **<tt>** is in the range 00 to 22 if the **<TT>** value is 10.

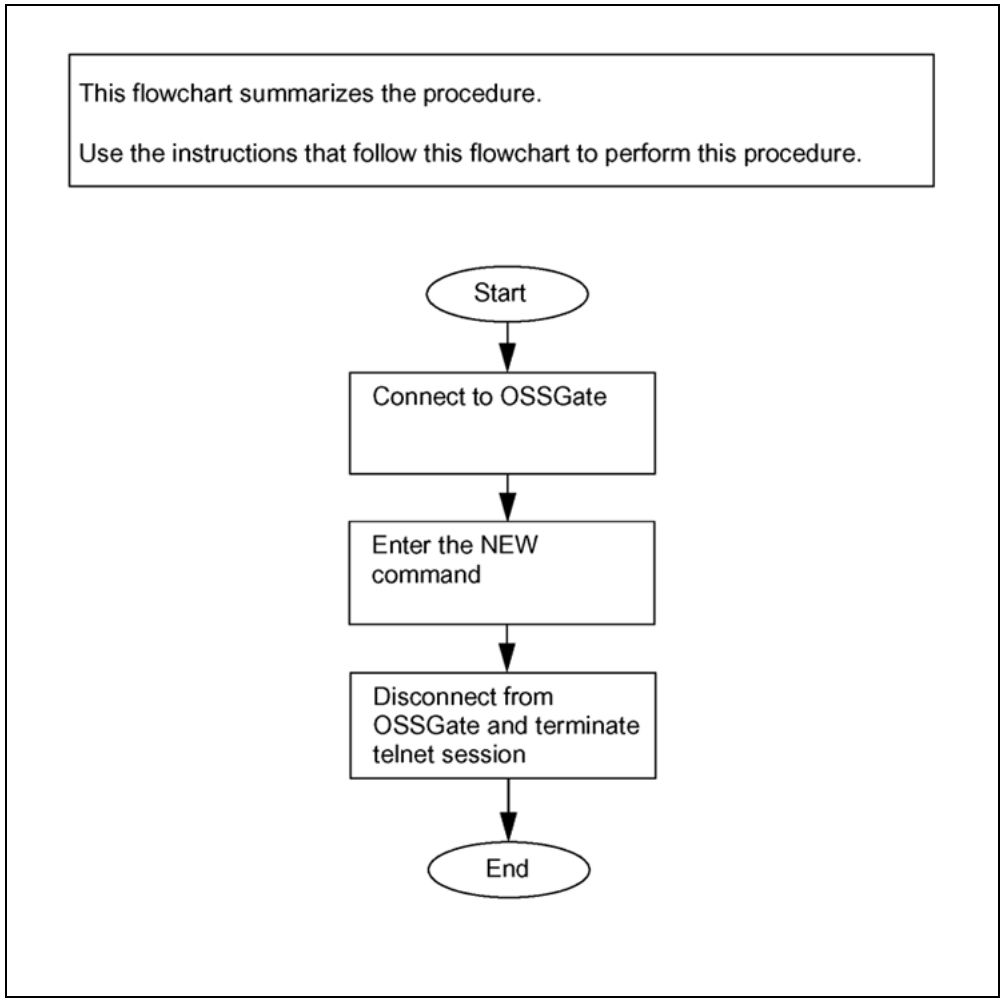
Common procedures

This procedure does not refer to any common procedures.

Action

The following flowchart summarizes this procedure.

Provisioning lines on CICM gateways



CAUTION
When provisioning lines, use only the user interfaces referred to in this procedure. Do not use the MAP interface to modify any of the data schema tables directly. Modifying these tables directly via the MAP will result in service-impacting corruption that will require Nortel assistance to resolve.

Provisioning lines on CICM gateways

Step	Action
	At the PC connected to the CS LAN
1	Initiate a telnet session to OSSGate. Type the following command at the system prompt

telnet <OSSGate-server-name> <port-number>

and press the Enter key

where

- <OSSGate-server-name> is one of the following:
  - the host name of the server on which OSSGate is running
  - the IP address of the server on which OSSGate is running
- <port-number> is the server port used by OSSGate

  Note 1: The default port number is 10023.

  Note 2: If in doubt regarding the OSSGate-server-name or the port-number, ask the local network administrator.

For example, type

telnet wcn0s5jk 10023

and press the Enter key.

Example of system response:

```
Trying 47.142.94.80.  .  .
Connected to wcn0s5jk.
Escape character is '^]'.
Enter username and password
```

2 Enter your username and password. Type

<username> <password>

and press the Enter key.

For example, type

user1 passwd

and press the Enter key.

Example of system response:

```
user1 logged in on 2002/2/2 at 11:51:55.
*********************************************
**                                         **
**               OSS Gateway               **
**                                         **
**       This is a PRIVATE Database.       **
**                                         **
**  All activity is subject to monitoring. **
**                                         **
*Any UNAUTHORIZED access or use is PROHIBITED*
**       and may result in PROSECUTION.    **
```

```
**                                                **
************************************************
>
```

3 You have connected to OSSGate, so the system is displaying a prompt, the ">" character, in the telnet window on your screen. Now you put the telnet session into CI mode. Proceed as follows.

a. Hold down the control key and type B.

Example of system response:

```
?
```

b. At the question-mark prompt, type

`mode ci`

and press the Enter key.

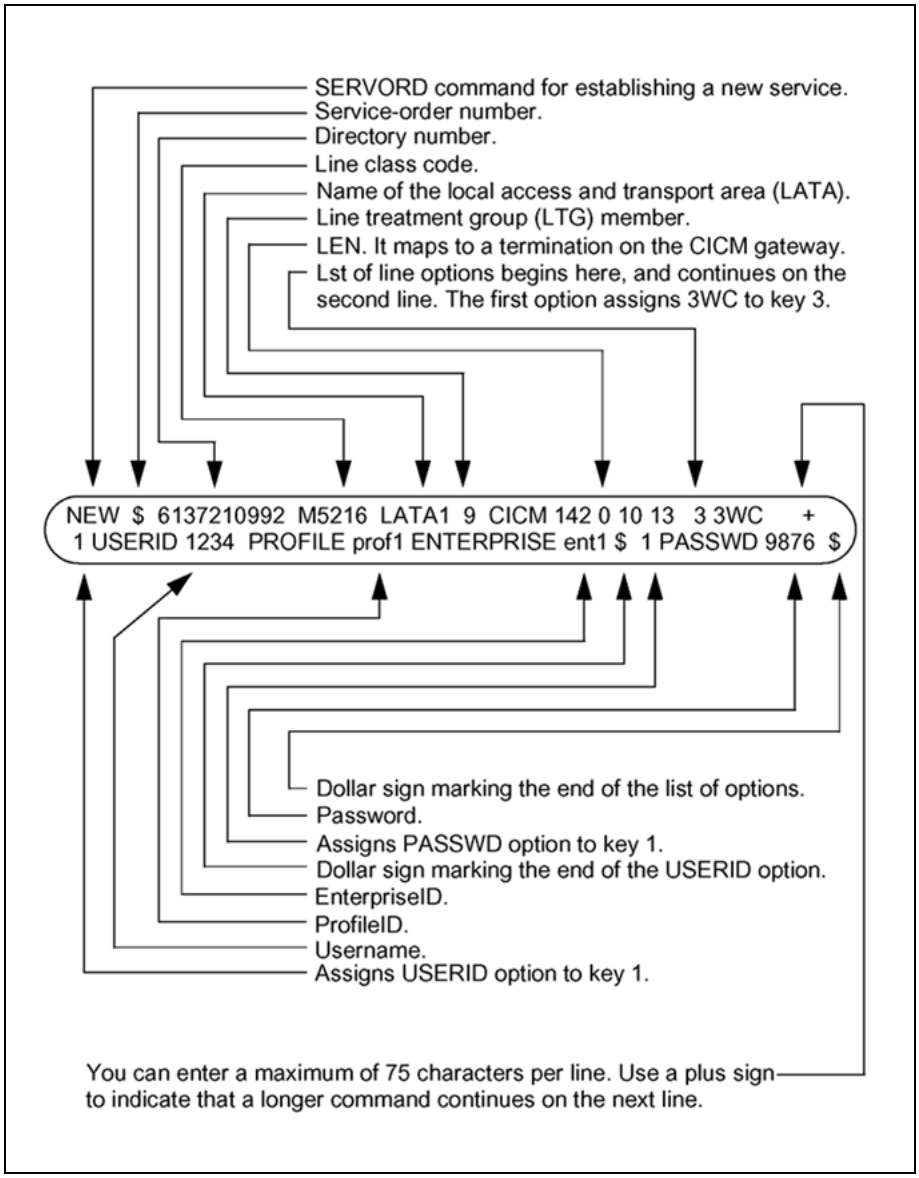
Example of system response:

```
Mode is CI.
>
```

4 Provision a line by entering the NEW command at the ">" prompt. NEW is the SERVORD+ command that provisions a line.

The following figure shows an example of the NEW command.

Example of the NEW command for lines on CICM gateways



Detailed information about the fields of the NEW command:

- **`Line class code`**. For lines on CICM gateway, the only supported line class code is M5216.
- **`LEN`**. To provision a line on a CICM gateway, specify the LEN. The LEN must have the following format
  <site> <nnn> <group> <TT> <tt>
  In the example, LEN is
  CICM 142 0 10 13.

  Note: The formatting rules for LENs are listed in the prerequisites to this procedure.

- **`List of line options`**. In the example, there are three line options. The 3WC option is assigned to key 3 on CICM. The CICM-specific USERID and PASSWD options are both assigned to key 1 on CICM.

  Note: For information on the USERID and PASSWD options of the NEW command, see "USERID and PASSWD options" (page 61) in this module.

  The following line features, if specified for lines on CICM gateways, are sent to the CICM Manager: USERID, PASSWD, 3WC, AAK, ACB, ACD, ACDNR, AEMK, ASL, AUD, BLF, CAG, CCBS, CCV, CFU, CIF, CLSUP, CNF, COT, CPU, CWD, CWT, CXR, DASK, DCPK, DN, DQS, DQT, EBO, EMK, EMW, FAA, FXR, GIAC, GIC, ICM, INSPECT, LOB, LVM, M522, MCH, MRFM, MSB, MSBI, MWIDC, MWQRY, MWT, NGTSRVCE, OBS, PRK, PRL, PRV, QBS, QCK, QTD, RAG, SCL, SCS, SDN, SLQ, SUBCOM, SUPR, and UCDLG. Any other features, including hunt group, PF, and FTRGRP, are ignored.

When the system processes the NEW command, it maps the specified LEN to the endpoint on the appropriate gateway controller. SERVORD establishes service on the line equipment number.

Note 1: You can enter a maximum of 75 characters per line in a SERVORD+ command. If a command is longer than 75 characters, put a plus sign in the seventy-fifth character position (or in an earlier character position) and continue the command on the next line. See the example in the preceding figure. Using plus signs, you can continue a single SERVORD+ command on multiple lines.

Note 2: Via the OSSGate interface, you can use a subset of SERVORD commands. The subset is referred to as the SERVORD+ commands. The following SERVORD+ commands trigger data distribution from the Management Tools software to the CICM Manager: ADO, CDN, CHF, CHL, DEO, NEW, NEWACD, and OUT. For more information on SERVORD+ commands, see the information on line provisioning with OSSGate in the *OSSGate User's Guide*, NE10004-512.

Note 3: For detailed information about SERVORD commands, see *SERVORD Reference Manual*, 297-8001-808 in the North American market, or 297-9051-808 in the international market.

5 Disconnect from OSSGate. Proceed as follows.

a. Hold down the control key and type B.

Example of system response:

```
?
```

b. At the question-mark prompt, type

logout

and press the Enter key.

Example of system response:

```
user1 logged out.
>
```

6 Terminate the telnet session. Proceed as follows.

a. Hold down the control key and type B.

Example of system response:

```
?
```

b. At the question-mark prompt, type

clearconv

and press the Enter key.

Example of system response:

```
SESSION TERMINATED.
Connection closed by foreign host.
```

7 You have completed this procedure.

—End—

Mapping of logical groups, LENs, gateway names, and terminations

The following rules govern the mapping of logical groups, LENs, gateway names, and terminations for a CICM processor pair.

- One CICM gateway is mapped to three logical groups on the XA-Core.
- There are three logical groups in a fully configured CICM gateway.
- Each logical group is provisioned with 1023 LENs in table LNINV. The LENs are mapped to 1023 endpoints on the CICM gateway.
- In each logical group, one terminal identifier is reserved for maintenance and messaging. That is why there are 1023 LENs per logical group, mapped to 1023 endpoints, rather than 1024 of each.

The following table shows the mapping of LENs to gateways, terminations, and terminal numbers.

LEN	GW	Termination	Terminal number
CICM 14200000	CICM-142	tp/0/0000	1
CICM 14200001	CICM-142	tp/0/0001	2
:	:	:	:
CICM 14201022	CICM-142	tp/0/1022	1023
CICM 14210000	CICM-142	tp/1/0000	1
CICM 14210001	CICM-142	tp/1/0001	2
:	:	:	:
CICM 14211022	CICM-142	tp/1/1022	1023
CICM 14220000	CICM-142	tp/2/0000	1
CICM 14220001	CICM-142	tp/2/0001	2
:	:	:	:
CICM 14221022	CICM-142	tp/2/1022	1023

Note 1: LEN format is <site> <nnn> <group> <TT> <tt>. The formatting rules for LENs are listed in the prerequisites to the procedure in this module.

Note 2: GW format is <GWname>-<nnn> where
<GWname> is a string. Note that <GWname> does not need to match the site name that is part of the LEN format.
<nnn> is an integer in the range 000 to 511
The values are specified at-gateway provisioning time.

Note 3: Termination/endpoint names have the format tp/<group>/<TTtt> where
<group> is the logical group, 0, 1, or 2
<TT> is the first and second digits of the terminal number
<tt> is the third and fourth digits of the terminal number

Note 4: In each logical group, terminal number 0 is reserved in the XA-Core for maintenance and messaging. The XA-Core uses the following formula to convert the non-MG-9000 LEN to a terminal number: terminal number = ((100 * TT) + tt + 1).

USERID and PASSWD options

USERID and PASSWD are CICM-specific options that you can add to SERVORD+ commands. The USERID option is required to allow a Centrex IP terminal user to log in and begin using the terminal. A terminal is not enabled unless both a USERID and a PASSWD have been provisioned against the terminal.

The USERID and PASSWD options are meaningful to the CICM Manager but are not meaningful to the XA-Core. The Management Tools software forwards these options to the CICM Manager; it does not forward these options to the XA-Core.

You can use the USERID and PASSWD options in SERVORD+ commands that add, change, or delete lines on CICM gateways.

Rules for using the USERID option

The following rules apply to the USERID option.

- The USERID option cannot be changed using the CHF command. Use the DEO and ADO commands instead.
- A SERVORD+ command can contain a maximum of one USERID option.
- The USERID option must be assigned to key 1 in CICM.
- The USERID option is composed of the USERNAME field followed by one or more subfields (or followed by no subfields), followed by a dollar sign that marks the end of the option.
  - The USERNAME field identifies the user. The syntax of the field is as follows: **USERID <username>** where
    - **<username>** is a numeric string, 4 to 15 digits in length, and unique within the CICM node
  - The PROFILE subfield, if specified, identifies the configuration profile to be applied to the user's terminal. The syntax of the PROFILE subfield is as follows: **PROFILE <profileID>** where
    - **<profileID>** is either a character string containing no spaces, or a dollar sign to indicate that there is no profile.
  - The ENTERPRISE subfield, if specified, identifies the user's enterprise, and makes it possible to distinguish between users belonging to different enterprises. The syntax of the ENTERPRISE subfield is as follows:
    ENTERPRISE <enterpriseID> where
    - **<enterpriseID>** is either a character string containing no spaces, or a dollar sign to indicate that there is no enterprise.

Note 1: If you specify both the PROFILE subfield and the ENTERPRISE subfield, the sequence of subfields does not matter.

Note 2: The ENTERPRISE data is currently not used by the CICM.

Rules for using the PASSWD option

The following rules apply to the PASSWD option.

- You can use the PASSWD option only if a USERID value has been provisioned.
- The PASSWD option must be assigned to key 1 in CICM.
- The syntax of the PASSWD option is as follows:
  PASSWD <password> where
  - **<password>** is a numeric string, 4 to 15 digits in length

Examples of USERID and PASSWD in the NEW command

The following examples show the use of the USERID and PASSWD options in the NEW command.

In this example, in the USERID option, no subfields are specified.

```
NEW $ 6137210992 M5216 LATA1 9 CICM 142 0 10 12 +
1 USERID 12345 $  1 PASSWD 98765  $
```

In this example, in the USERID option, only the PROFILE subfield is specified.

```
NEW $ 6137210992 M5216 LATA1 9 CICM 142 0 10 12 +
1 USERID 12345  PROFILE myprofile $  +
1 PASSWD 98765  $
```

In this example, in the USERID option, only the ENTERPRISE subfield is specified.

```
NEW $ 6137210992 M5216 LATA1 9 CICM 142 0 10 12 +
1 USERID 12345  ENTERPRISE myenterprise $  +
1 PASSWD 98765  $
```

In this example, in the USERID option, both the PROFILE and ENTERPRISE subfields are specified.

```
NEW $ 6137210992 M5216 LATA1 9 CICM 142 0 10 12 +
1 USERID 12345  PROFILE myprofile  +
ENTERPRISE myenterprise $  1 PASSWD 98765  $
```

In this example, in the USERID option, both the PROFILE and ENTERPRISE subfields are specified, but in each case a dollar sign is used to specify a nil value (no profile and no enterprise). Following the PROFILE keyword there are two dollar signs. The first indicates that there is no profile. The second indicates the end of the USERID option.

```
NEW $ 6137210992 M5216 LATA1 9 CICM 142 0 10 12 +
```

```
1 USERID 12345  ENTERPRISE $  PROFILE $ $ +
1 PASSWD 98765  $
```

Provisioning SIP lines

This procedure explains how to provision SIP lines on SIP-Lines gateways by telnetting to OSSGate and entering SERVORD+ commands one by one. You enter the provisioning data by way of OSSGate, and the Management Tools software forwards the data to the provisioning manager on the gateway.

Note: SERVORD+ commands are the subset of SERVORD commands that can be entered by way of the OSSGate interface.

As an alternative to entering the SERVORD+ commands one by one, you can do batch provisioning of SIP lines. To do batch provisioning, you input the NEW commands into a file, and use that file as input for the batch-provisioning process. The NEW commands in the input file must use the syntax shown in step 4 of the procedure in this module. For instructions for doing batch provisioning, see Provisioning lines: batch provisioning.

Interval

Perform this procedure as required.

Prerequisites

Prerequisites for line provisioning are as follows:

- You must know either the host name or the IP address of the SESM server on which OSSGate is running. If in doubt, ask the local network administrator.
- You must know the number of the port used by OSSGate. If in doubt, ask the local network administrator.
- You must have the telnet application, and the telnet client must support the following options:
  - The client must support line mode. It must be able to send one line at a time to OSSGate, rather than one character at a time.
  - The client must be able to implicitly add a carriage return to any data that comes from OSSGate.
- The gateway controllers and the SIP-Lines gateways must already be configured.

  For information on configuring the gateway controllers and the SIP-Lines gateways, see *GWC Configuration Management*, NN10205-511.
- The non-call-associated (NCAS) link must already be configured.

- You must know the format the LEN value that you will enter in the NEW command. (Given the LEN value, the system finds the termination that maps to the LEN.) You can find information on the format of the LEN value in the next section.

Format of the LEN value for SIP lines

When using the NEW command to provision a SIP line, you enter the LEN value.

Here is an example of the LEN value:

SITX 202 9 0996

The example LEN is for an endpoint in logical group 9 associated with the site named SITX. Each site can be associated with up to ten logical groups, numbered 0 to 9. The endpoint in the example is number 0996 in the logical group. Each logical group includes 1023 endpoints, numbered 0000 to 1022. The logical group in the example is supported by a GWC that is in frame 202.

The syntax of the LEN value for a SIP line is as follows:

```
<site> <fff> <group> <TT> <tt>
```

where

<site> <fff> and <group> identify the logical group, as listed in table LGRPINV. For example, if the logical group is identified in table LGRPINV by a tuple that begins

```
SITB 311 2
```

then those values are the <site>, <fff>, and <group> values used for the LENs that belong to the logical group.

<site> is a string identifying a site

Note 1: You select the <site> name that is part of the logical-group name when you associate the media gateway with the GWC. For instructions for associating the gateway, see *GWC Configuration Management*, NN10205-511. The <site> value used in a logical-group name does not correspond to a physical site. The purpose of the <site> value is to allow you to define communities of interest, where multiple logical groups form a community of interest.

Note 2: When you associate a gateway with the GWC, the system adds to table LGRPINV tuples representing the logical groups you specified, adds to table LNINV tuples representing the endpoints in those logical groups, and adds the endpoints to the GWC. For instructions

for associating the gateway, see *GWC Configuration Management*, NN10205-511.

<fff> is the frame number. It is padded to three digits if necessary, for example, 001.

<group> is the number of the logical group associated with the <site> value, an integer in the range 0 to 9. It is a single digit.

<TT> is an integer composed of the first and second digits of a four-digit integer that identifies the termination within the logical group. Each logical group has 1023 available terminations, numbered 0000 to 1022. <TT> is in the range 00 to 10.

<tt> is an integer composed of the third and fourth digits of a four-digit integer that identifies the termination within the logical group. Each logical group has 1023 available terminations, numbered 0000 to 1022. <tt> is in the range 00 to 99 if the <TT> value is in the range 00 to 09. <tt> is in the range 00 to 22 if the <TT> value is 10.

Common procedures

This procedure does not refer to any common procedures.

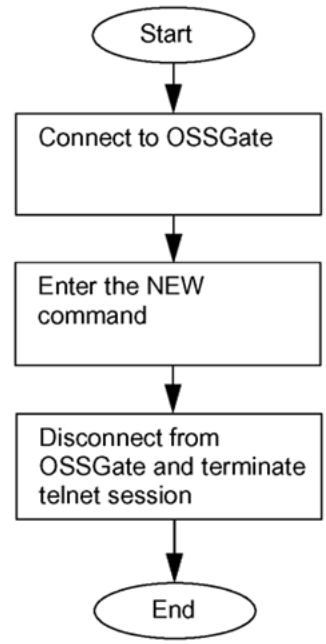
Action

The following flowchart summarizes this procedure.

Provisioning SIP lines

This flowchart summarizes the procedure.

Use the instructions that follow this flowchart to perform this procedure.



CAUTION
When provisioning lines, use only the user interfaces referred to in this procedure. Do not use the MAP interface to modify any of the data schema tables directly. Modifying these tables directly via the MAP will result in service-impacting corruption that will require Nortel assistance to resolve.

Provisioning SIP lines

Step	Action

At the PC connected to the CS LAN

1 Initiate a telnet session to OSSGate. Type the following command at the system prompt

```
telnet <OSSGate-server-name> <port-number>
```

and press the Enter key

where

- <OSSGate-server-name> is one of the following:
  - — the host name of the server on which OSSGate is running
  - — the IP address of the server on which OSSGate is running
- <port-number> is the server port used by OSSGate

Note 1: The default port number is 10023.

Note 2: If in doubt regarding the OSSGate-server-name or the port-number, ask the local network administrator.

For example, type

`telnet wcn0s5jk 10023`

and press the Enter key.

Example of system response:

```
Trying 47.142.94.80.  .  .
Connected to wcn0s5jk.
Escape character is '^]'.
Enter username and password
```

2 Enter your username and password. Type

`<username> <password>`

and press the Enter key.

For example, type

`user1  passwd`

and press the Enter key.

Example of system response:

```
user1 logged in on 2002/2/2 at 11:51:55.
*********************************************
**                                         **
**               OSS Gateway               **
**                                         **
**       This is a PRIVATE Database.       **
**                                         **
**  All activity is subject to monitoring. **
**                                         **
*Any UNAUTHORIZED access or use is PROHIBITED*
**       and may result in PROSECUTION.    **
**                                         **
*********************************************
```

```
>
```

3 You have connected to OSSGate, so the system is displaying a prompt, the ">" character, in the telnet window on your screen. Now you put the telnet session into CI mode. Proceed as follows.

a. Hold down the control key and type B.

Example of system response:

```
?
```

b. At the question-mark prompt, type

`mode ci`

and press the Enter key.

Example of system response:

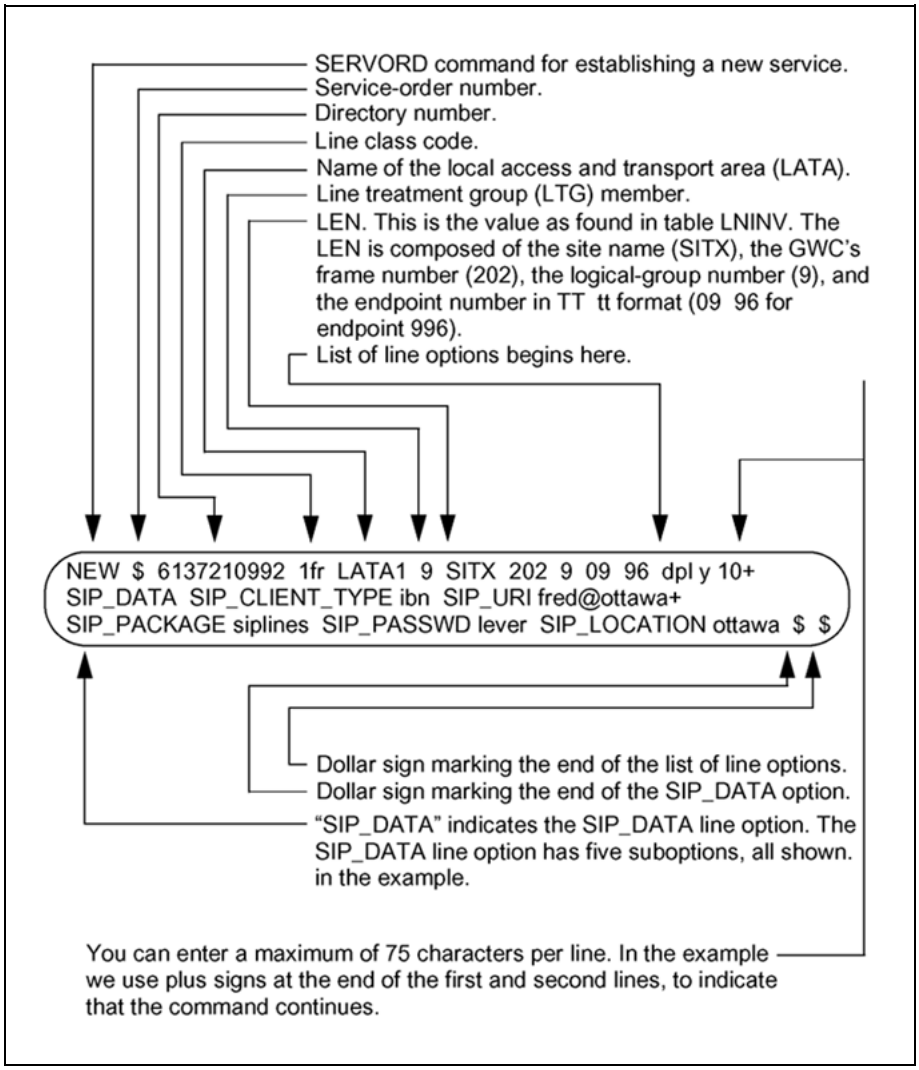
```
Mode is CI.
>
```

4 Provision a line by entering the NEW command at the ">" prompt. NEW is the SERVORD+ command that provisions a line.

The NEW command must include the DPL line option and the SIP_DATA line option, as shown in the following example.

For more information on the line options and the other values in the NEW command, see the material immediately following the example.

Example of the NEW command for SIP lines



Detailed information about the fields of the NEW command:

- **LEN.** To provision a line on a SIP-lines gateway, specify the LEN. The LEN must have the following format
  <site> <nnn> <group> <TT> <tt>
  In the example, LEN is
  CICM 142 0 10 13.

  Note: The formatting rules for LENs are listed in the prerequisites to this procedure.

- **DPL line option.** This line option specifies that a line is a SIP line. When provisioning a SIP line, you must specify the DPL (dynamic packet line) line option and its suboptions. The suboptions are

— The first suboption is a boolean value indicating whether the line is a SIP line. This must be set to Y.

— The second suboption is an integer value indicating the maximum number of call appearances. The range is 1 to 10. The default value is 10.

- **SIP_DATA line option.** This line option is optional. You can use it to specify SIP-specific options. "SIP_DATA" is a keyword that introduces the line option. The option includes five suboptions, all of which are shown in the example. If you include the keyword "SIP_DATA" in the list of line options, then you must include one or more of the suboptions. For detailed information on the syntax of the SIP_DATA line option, see "SIP_DATA line option" (page 72) in this module.

When the system processes the NEW command, it maps the specified LEN to the endpoint on the appropriate gateway controller. SERVORD establishes service on the line equipment number.

Note 1: You can enter a maximum of 75 characters per line in a SERVORD+ command. If a command is longer than 75 characters, put a plus sign in the seventy-fifth character position (or in an earlier character position) and continue the command on the next line. See the example in the preceding figure. Using plus signs, you can continue a single SERVORD+ command on multiple lines.

Note 2: Via the OSSGate interface, you can use a subset of SERVORD commands. The subset is referred to as the SERVORD+ commands. The following SERVORD+ commands can be applied to SIP lines: NEW, CHF, and OUT. Other SERVORD+ commands cannot be applied to SIP lines. For more information on SERVORD+ commands, see the information on line provisioning with OSSGate in *OSSGate User's Guide*, NE10004-512.

Note 3: For detailed information about SERVORD commands, see *SERVORD Reference Manual*, 297-8001-808 in the North American market, or 297-9051-808 in the international market.

5 Disconnect from OSSGate. Proceed as follows.

a. Hold down the control key and type B.

Example of system response:

```
?
```

b. At the question-mark prompt, type

logout

and press the Enter key.

Example of system response:

```
user1 logged out.
>
```

6 Terminate the telnet session. Proceed as follows.

a. Hold down the control key and type B.

Example of system response:

```
?
```

b. At the question-mark prompt, type

clearconv

and press the Enter key.

Example of system response:

```
SESSION TERMINATED.
Connection closed by foreign host.
```

7 You have completed this procedure.

—End—

SIP_DATA line option

The SIP_DATA line option has the following syntax:

SIP_DATA <suboptions> $

where <suboptions> is a list composed of one or more of the following suboptions:

- **SIP_CLIENT_TYPE <client-type>**

  where <client-type> is a character string that can include blank spaces
- **SIP_URI <user>**

  where <user> has the syntax user@domain
- **SIP_PACKAGE <package>**

  where <package> is a character string that can include blank spaces
- **SIP_PASSWD <passwd>**

  where <passwd> is a character string
- **SIP_LOCATION <location>**

  where <location> is a character string that can include blank spaces

Here is an example of the SIP_DATA line option, including specifications for all the suboptions, and including the "$" termination tag:

```
SIP_DATA  SIP_CLIENT_TYPE ibn SIP_URI fred@ottawa
SIP_PACKAGE siplines SIP_PASSWD lever
SIP_LOCATION ottawa  $
```

The following rules apply to the SIP_DATA line option. These rules are enforced by OSSGate and SERVORD+.

- If you add the SIP_DATA tag to the list of line options, then you must specify one or more of the SIP_DATA suboptions.
- The suboption tags (SIP_CLIENT_TYPE, SIP_URI, SIP_PACKAGE, SIP_PASSWD, and SIP_LOCATION) are reserved words. You cannot specify them as values for other suboptions.
- The "$" is the terminator for the SIP_DATA option, and as such, it is a reserved token. You cannot specify it as the value for a SIP_DATA suboption.
- The value specified for the SIP_URI suboption must be in the format user@domain. If you do not specify a domain, the command fails. If you specify a domain that is invalid, the Session Server rejects it.
- If the NEW command will result in the creation of a new user on the Session Server, then you must specify the SIP_LOCATION suboption.

The following rules apply to the SIP_DATA line option. These rules are not enforced by OSSGate, but you should follow them in order to avoid unexpected command failures.

- The SIP_DATA tag and the suboption tags must not be used as values for non-related items (for example, customer groups and gateway names).
- The SIP_DATA line option must be used only in the following SERVORD+ commands: NEW and CHF. Use of the SIP_DATA line option in other commands is not supported.
- When you specify values for the SIP_CLIENT_TYPE, SIP_PACKAGE, and SIP_LOCATION suboptions, it is advisable to specify only lowercase values. If you specify uppercase characters, OSSGate automatically converts them to lowercase. The reason is that OSSGate forwards the values to the Session Server Provisioning Manager, which accepts only lowercase values for these items.
- When you specify a value for the SIP_URI suboption, it is advisable to use lowercase characters. If you use uppercase characters (for example, **Fred@Ottawa**), OSSGate forwards that value to the Session Server Provisioning Manager. The Session Server Provisioning Manager then converts the value to lowercase, and stores the converted value (for example, **fred@ottawa**).

Provisioning lines: batch provisioning

This procedure contains instructions for doing batch provisioning of lines.

Here is a high-level view of the sequence of activities for doing batch provisioning of lines:

- Prepare the input file, which contains SERVORD commands to provision the lines, and save the file in the proper directory on the CS 2000 Management Tools server.
- Log in to the CS 2000 Management Tools server.
- Start the batch provisioning tool (BPT).
- Tell the batch provisioning tool to execute a batch file.
- When prompted, identify the input file.

The procedure contains detailed instructions.

Interval

Perform this procedure as required.

Prerequisites

Prerequisites for line provisioning are as follows:

- The RDT_SUCC_AUTOCREATE_LNINV office parameter must be provisioned properly. For instructions, see procedure "Provisioning the RDT_SUCC_AOTOCREATE_LNINV office parameter".
- You must know how to log in to the CS 2000 Management Tools server and you must meet the requirements for user authentication. You will be allowed to do batch provisioning of lines only if your login name is a member of the "lnsprov" group.

  For information on these topics, see *Globalized Solution-level Security and Administration* (NN10402-600).
- The gateway controllers and the media gateways must already be configured.

  For information on configuring the gateway controllers and the gateways, see *GWC Configuration Management* (NN10205-511).
- Because you will use the NEW command in the input file, you must know the syntax of the NEW command, the values to specify in the NEW command, and how to format those values. For information for the type of lines you want to provision, see the appropriate module from the following list.

— For SIP lines, see Provisioning SIP lines. (This module is available if your solution supports SIP lines; otherwise, it is not available.)

— For lines on CICM gateways, see Provisioning Lines on CICM gateways. (This module is available if your solution supports lines on CICM gateways; otherwise, it is not available.)

— For other types of lines, see Provisioning lines.

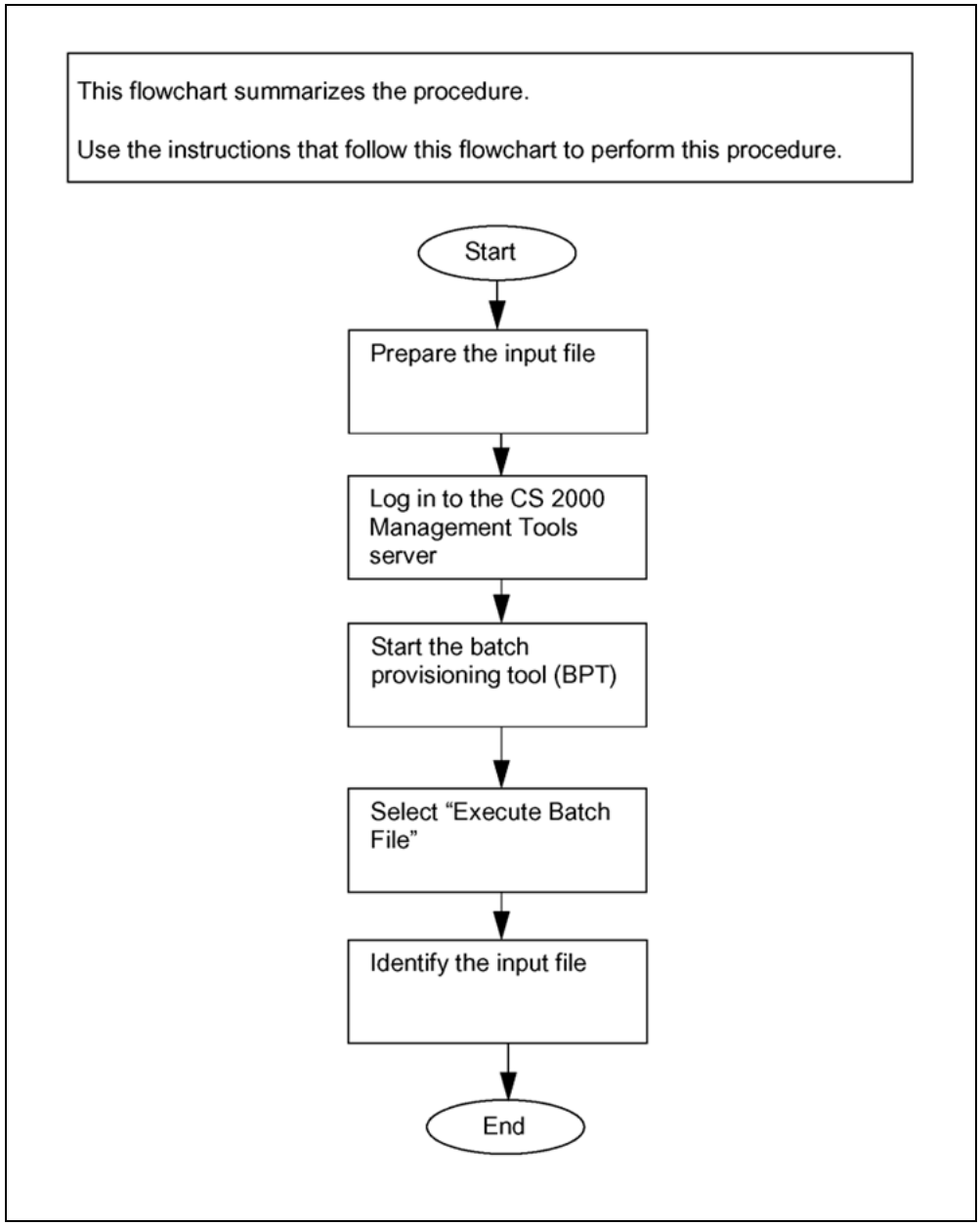
Common procedures

This procedure does not refer to any common procedures.

Action

The following flowchart summarizes this procedure.

Provisioning lines: batch provisioning



CAUTION
When provisioning lines, use only the user interfaces referred to in this procedure. Do not use the MAP interface to modify any of the data schema tables directly. Modifying these tables directly via the MAP will result in service-impacting corruption that will require Nortel assistance to resolve.

Provisioning lines: batch provisioning

Step	Action

At the PC connected to the CS LAN

1 Log in to the CS 2000 Management Tools server.

> ***Note:*** If you need information on how to do this, see the information in the "Prerequisites" (page 74) section of this module.

2 Use a text editor to create the input file. The input file is a flat file containing one or more SERVORD commands. Each line of the input file is a separate SERVORD command. The input file contains nothing besides the SERVORD commands.

3 Save the input file in a directory on the Management Tools server.

4 Start the batch provisioning tool. At the prompt in the xterm window, type

bpt

and press the Enter key.

Example of system response

```
================================
Batch Provisioning Tool (BPT V1.0)
================================
Username:
```

5 Type your login name and press the Enter key.

For example, type

johnd

and press the Enter key.

Example of system response:

Password:

6 Type in your password and press the Enter key.

Example of system response:

```
login in progress ...
You are currently logged in as:  johnd
=========
Main Menu
==========
   (1) Execute Batch File
   (2) Display Output
   (3) Display Logs
```

```
   (4) Delete Output or Log Files
   (h) Help
   (e) Exit
Selection:  [1/2/3/4/h/x:  ]
```

7 Indicate that you intend to execute a batch file. Type

1

and press the Enter key.

Example of system response:

```
login in progress ...
You are currently logged in as:  johnd
============================
Provisioning Input Entry Menu
==============================
   (1) Lines
   (2) ADSL
   (3) Go to shell prompt
   (4) Return to main menu
   (x) Exit BPT
Selection:  [1/2/3/4/h/x:  ]
```

8 Indicate that the batch file is for lines. Type

1

and press the Enter key.

Example of system response:

```
Which mode would you like to have the log file on?
Critical/Verbose/Major/Minor [c/v/ma/mi:  ]
```

9 Type in the mode you want for the log file and press the Enter key.

For example, type

mi

and press the Enter key.

Example of system response:

```
Please enter the input file name:
```

10 Select the next step as follows.

If the system	Do
prompts for the name of the input file	step 12
warns that the output directory is 95% full	step 11

11 Type either C (to continue) or E (to exit) and press the Enter key.

If you choose to continue, the output file will be created only if it is small enough to fit in the remaining space in the output directory.

If you choose to exit, you will then be able to delete some files from the output directory to free up some space. After deleting the files, resume this procedure at step 4.

12 Type the full pathname of the input file and press the Enter key.

For example, type

/opt/nortel/NTsesm/tools/bpt/scripts/bpt1

and press the Enter key.

Example of system response

```
Please wait while processing the batch commands
The total processing time:  <processing-time>
Provisioning is complete!  The output file is located
at:
<pathname><filename>
Please hit Enter to return to the Main Menu.
```

where

<processing-time> is in the format nn hours nn minutes nn seconds
<pathname> is /opt/nortel/NTsesm/tools/bpt/output/lines/
<filename> is composed of the name of the input file (bpt1 in the example) followed an underscore, followed by a timestamp (in the format yymmdd_hhmmss), followed by the extension ".out"

Note: If execution failures occur during the processing of the input file, the system logs error messages in the log file. The path to the log file is /opt/nortel/NTsesm/tools/bpt/logs/lines/ The name of the log file is composed of the name of the input file followed an underscore, followed by a timestamp (in the format yymmdd_hhmmss), followed by the extension ".log".

13 Return to the main menu. Type

1

and press the Enter key

Example of system response:

```
=========
Main Menu
==========
   (1) Execute Batch File
   (2) Display Output
   (3) Display Logs
   (4) Delete Output or Log Files
   (h) Help
```

```
   (e) Exit
Selection:  [1/2/3/4/h/x:  ]
```

14 To view the output file, proceed as follows.

a. Type

2

and press the Enter key.

Example of system response

```
==================
Display Output Menu
==================
   (1) Lines
   (2) ADSL
   (3) Go to shell prompt
   (r) Return to the main menu
   (x) Exit BPT
Selection:  [1/2/3/r/e:  ]
```

b. Select lines. Type

1

and press the Enter key.

Example of system response

```
The following files are listed in the output
directory:
bpt1_030625_133848.out
Please enter the file name (or press 'Enter' to go
to the previous menu):
```

c. Type the name of the file you want to view and press the Enter key.

For example, type

bpt1_030625_133848.out

and press the Enter key.

Example of system response

```
Attention!!
The file you are about to view may be large in size.
If so, press the space bar to view the next page, or
press 'q' to stop viewing the file.
Press enter key when ready!
```

d. Press the Enter key to start viewing the output file.

e. To finish viewing the output file, type

q

Example of system response

```
============================
Display lines output file menu
============================
   (1) View another lines output file
   (b) Back to the previous menu
   (r) Return to the main menu
   (x) Exit BPT
Selection:  [1/b/r/x:  ]
```

15 Exit from the batch provisioning tool. Type

x

and press the Enter key.

16 You have completed the procedure for batch provisioning of lines.

—End—

Editing a line

Here is a high-level view of the sequence of activities for editing a line on the CS 2000.

You edit the line using one of the following methods:

- You establish a telnet connection to OSSGate and enter a SERVORD+ command. You can use SERVORD+ commands to
  - add an option to a line
  - delete an option
  - change feature information for a pre-existing feature

  Note: SERVORD+ commands are the subset of SERVORD commands that can be entered by way of the OSSGate interface.

- You use an operations support system (OSS), which must be purchased separately. The OSS has its own user interface. The OSS acts as the intermediary between you and OSSGate.

  Note: An OSS must be purchased separately.

This procedure explains how to edit a line by telnetting to OSSGate and entering a SERVORD+ command. If you have an OSS, see the documentation provided with the OSS for information on editing a line.

Interval

Perform this procedure as required.

Prerequisite

Prerequisites for line provisioning are as follows:

- You must have the telnet application.
- You must know either the host name or the IP address of the server on which OSSGate is running. If in doubt, as the local network administrator.
- You must know the number of the port used by OSSGate. If in doubt, ask the local network administrator.

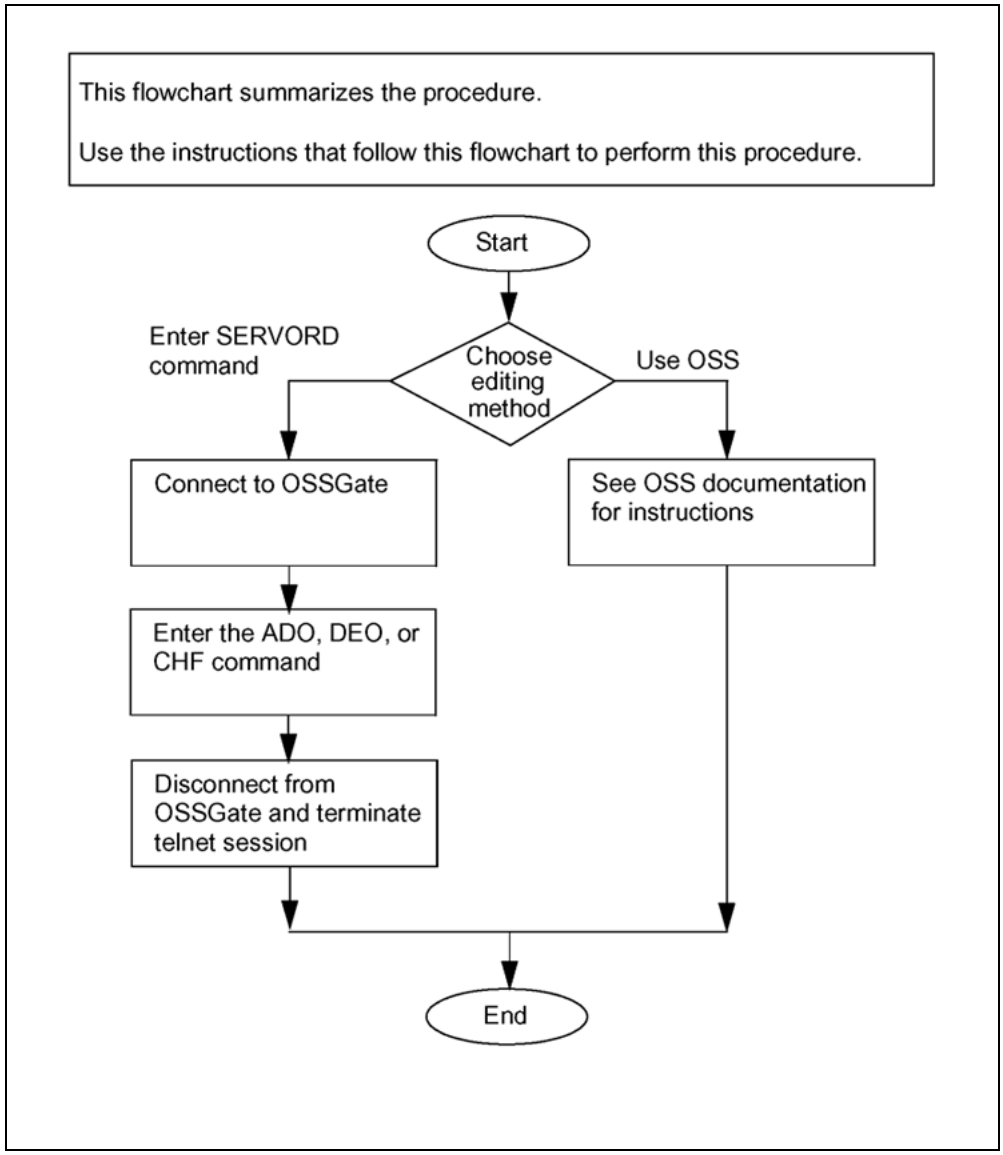
Common procedures

This procedure does not refer to any common procedures.

Action

The following flowchart summarizes this procedure.

Editing a line



CAUTION
When editing lines, use only the user interfaces referred to in this procedure. Do not use the MAP interface to modify any of the data schema tables directly. Modifying these tables directly via the MAP will result in service-impacting corruption that will require Nortel assistance to resolve.

Editing a line

Step	Action

At the PC connected to the CS LAN

1

If you intend to edit the line by	Do
telnetting to OSSGate and entering SERVORD commands one by one	step 2
an operations support system (OSS)	step 12

2 Initiate a telnet session to OSSGate. Type the following command at the system prompt

telnet <OSSGate-server-name><port-number>

and press the Enter key

where

- **<OSSGate-server-name>** is one of the following:
  - — the host name of the server on which OSSGate is running
  - — the IP address of the server on which OSSGate is running
- **<port-number>** is the server port used by OSSGate

Note 1: The default port number is 10023.

Note 2: If in doubt regarding the OSSGate-server-name or the port-number, ask the local network administrator.

For example, type

telnet wcn0s5jk 10023

and press the Enter key.

Example of system response:

```
Trying 47.142.94.80...
Connected to wcn0s5jk.
Escape character is '^]'.

Enter username and password
```

3 Enter your username and password. Type

<username> <password>

and press the Enter key.

For example, type

user1 passwd

and press the Enter key.

Example of system response:

```
user1 logged in on 2002/2/2 at 11:51:55.
```

```
*********************************************
**                                         **
**               OSS Gateway               **
**                                         **
**       This is a PRIVATE Database.       **
**                                         **
**  All activity is subject to monitoring. **
**                                         **
*Any UNAUTHORIZED access or use is PROHIBITED*
**       and may result in PROSECUTION.    **
**                                         **
*********************************************
>
```

4 You have connected to OSSGate, so the system is displaying a prompt, the ">" character, in the telnet window on your screen. Now you put the telnet session into CI mode. Proceed as follows.

a. Hold down the control key and type B.

Example of system response:

```
?
```

b. At the question-mark prompt, type

`mode ci`

and press the Enter key.

Example of system response:

```
Mode is CI.
>
```

5 Select the next step as follows:

If	Do
you intend to edit a SIP line	step 8
You intend to edit a line other than a SIP line	step 6

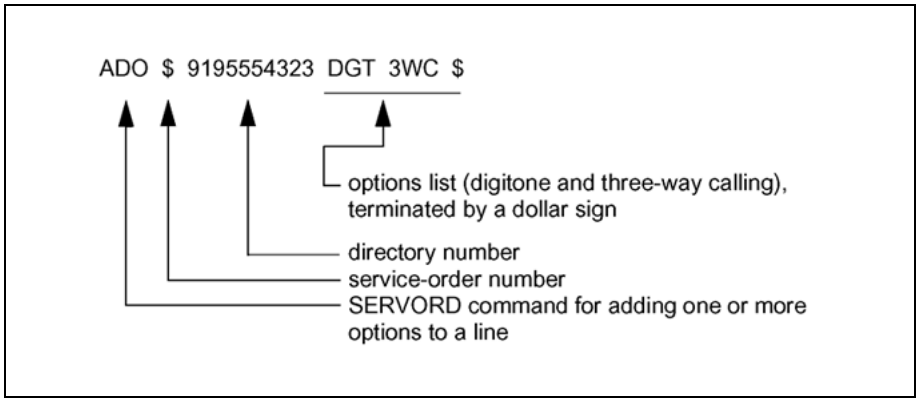
Note: The ADO and DEO SERVORD+ commands do not apply to SIP lines. The CHF command does apply. For more information about editing SIP lines, see "Editing a SIP line" (page 89) in this module.

6 If you want to add an option to a line, do so by entering the ADO command at the ">" prompt.

The following figures show examples of the ADO command entered via the LPROV user interface.

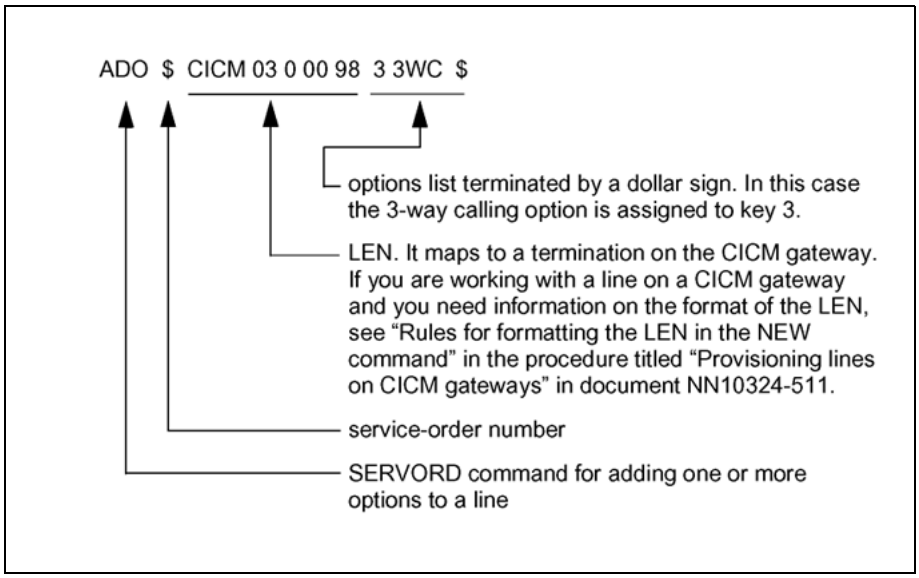
The following figure shows an example in which the line is identified by the directory number.

Example of the ADO command, using the directory number



The following figure shows an example in which the ADO command applies to a line on a CICM gateway. CICM gateways are used with the Centrex IP Client Manager (CICM) program, which is available in the carrier-hosted services (CHS) solution. A line on a CICM gateway is identified by its LEN.

Example of the ADO command for a line on a CICM gateway



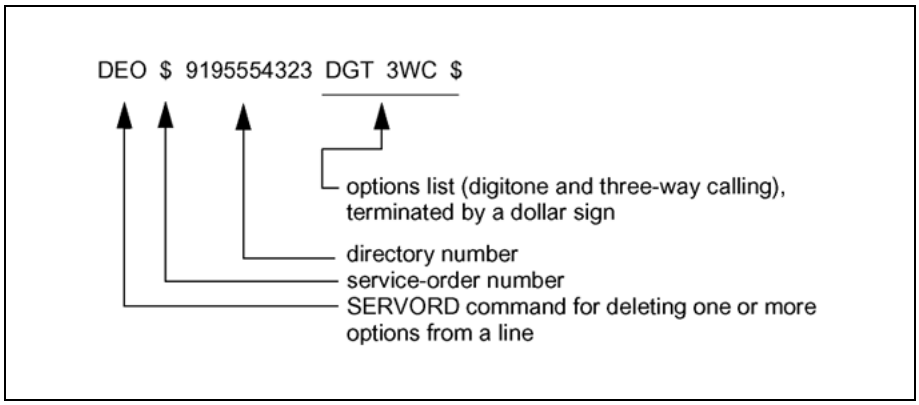
Note: For detailed information about SERVORD commands, see *SERVORD Reference Manual* (297-8001-808) in the North American market, or 297-9051-808 in the international market.

7 If you want to delete an option from a line, do so by entering the DEO command at the ">" prompt.

The following figures show examples of the DEO command entered via the LPROV user interface.

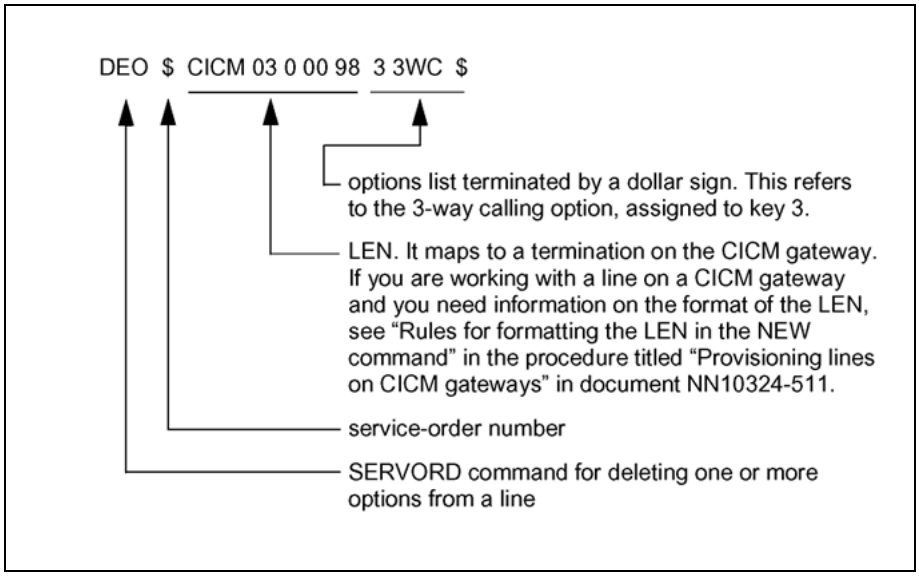
The following figure shows an example in which the line is identified by the directory number.

Example of the DEO command, using the directory number



The following figure shows an example in which the DEO command applies to a line on a CICM gateway. CICM gateways are used with the Centrex IP Client Manager (CICM) program, which is available in the carrier-hosted services (CHS) solution. A line on a CICM gateway is identified by its LEN.

Example of the DEO command for a line on a CICM gateway



Note: For detailed information about SERVORD commands, see *SERVORD Reference Manual* (297-8001-808) in the North American market, or 297-9051-808 in the international market.

8 If you want to change the feature information for a pre-existing feature, do so by entering the CHF command at the ">" prompt.

When the system processes the CHF command, it updates the information about the line in table LNINV.

Note 1: For detailed information about SERVORD commands, see *SERVORD Reference Manual* (297-8001-808) in the North American market, or 297-9051-808 in the international market.

Note 2: For information about using the CHF command to edit a SIP line, see "Editing a SIP line" (page 89) in this module.

9 Disconnect from OSSGate. Proceed as follows.

a. Hold down the control key and type B.

Example of system response:

```
?
```

b. At the question-mark prompt, type

`logout`

and press the Enter key.

Example of system response:

```
user1 logged out.
>
```

10 Terminate the telnet session. Proceed as follows.

a. Hold down the control key and type B.

Example of system response:

```
?
```

b. At the question-mark prompt, type

`clearconv`

and press the Enter key.

Example of system response:

```
SESSION TERMINATED.
Connection closed by foreign host.
```

11 Go to step 15.

12 If you are going to use an operations support system (OSS) to edit the line, ask your system administrator for the following:

- instructions for accessing the OSS
- information about the OSS interface

13 Access the OSS following the instructions of your system administrator.

14 Edit the line using the OSS interface.

15 You have completed the procedure.

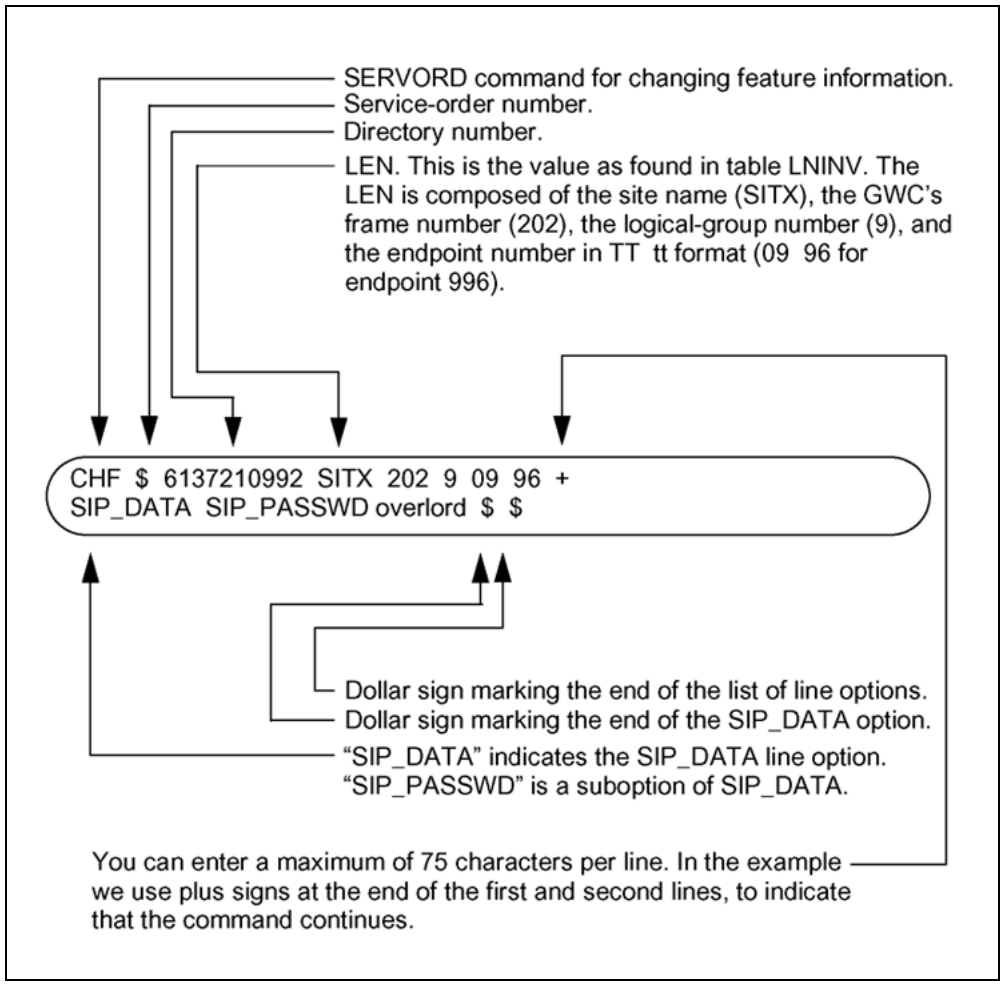
—End—

Editing a SIP line

The CHF SERVORD+ command applies to SIP lines, but the ADO and DEO commands do not apply.

In the CHF command, you must identify the SIP line by its LEN, as shown in the following example.

Example of the CHF command for SIP lines



Note: For information on the format of the LEN for a SIP line, see the module on provisioning SIP lines. (If SIP lines are used in your solution, that module will be available; otherwise, it will not be available.)

You can use the CHF command to change certain suboptions of the SIP_DATA line option. The SIP_DATA line option has the following suboptions:

- SIP_CLIENT_TYPE
- SIP_URI

Note: You cannot use the CHF command to change the SIP_URI suboption.

- SIP_PACKAGE
- SIP_PASSWD
- SIP_LOCATION

Note: For detailed information on the SIP_DATA suboptions, see the module on provisioning SIP lines. (If SIP lines are used in your solution, that module will be available; otherwise, it will not be available.)

If you want to change the SIP_URI suboption of the SIP_DATA line option, you must delete the line and re-add it.

The DPL line option is the line option that provisions a line as a SIP line. If you want to remove the DPL line option from a line, you must delete the line and re-add it.

Adding a feature to a line

You can add an option to a line by using the ADO ServOrd command. For instructions, see procedure "Editing a line" (page 83).

Deleting a line

Here is a high-level view of the sequence of activities for deleting a line on the CS 2000.

You delete the line using one of the following methods:

- You establish a telnet connection to OSSGate and enter a SERVORD+ command.

  Note 1: SERVORD+ commands are the subset of SERVORD commands that can be entered by way of the OSSGate interface.

  Note 2: For detailed information about SERVORD commands, see *SERVORD Reference Manual* (297-8001-808) in the North American market, or 297-9051-808 in the international market.

- You use an operations support system (OSS), which must be purchased separately. The OSS has its own user interface. The OSS acts as the intermediary between you and OSSGate

  Note: An OSS must be purchased separately.

This procedure explains how to delete a line by telnetting to OSSGate and entering SERVORD+ commands one by one. If you have an OSS, see the documentation provided with the OSS for information on provisioning lines.

Interval

Perform this procedure as required.

Prerequisites

Prerequisites for line deletion are as follows:

- You must have the telnet application.
- You must know either the host name or the IP address of the server on which OSSGate is running. If in doubt, as the local network administrator.
- You must know the number of the port used by OSSGate. If in doubt, ask the local network administrator.

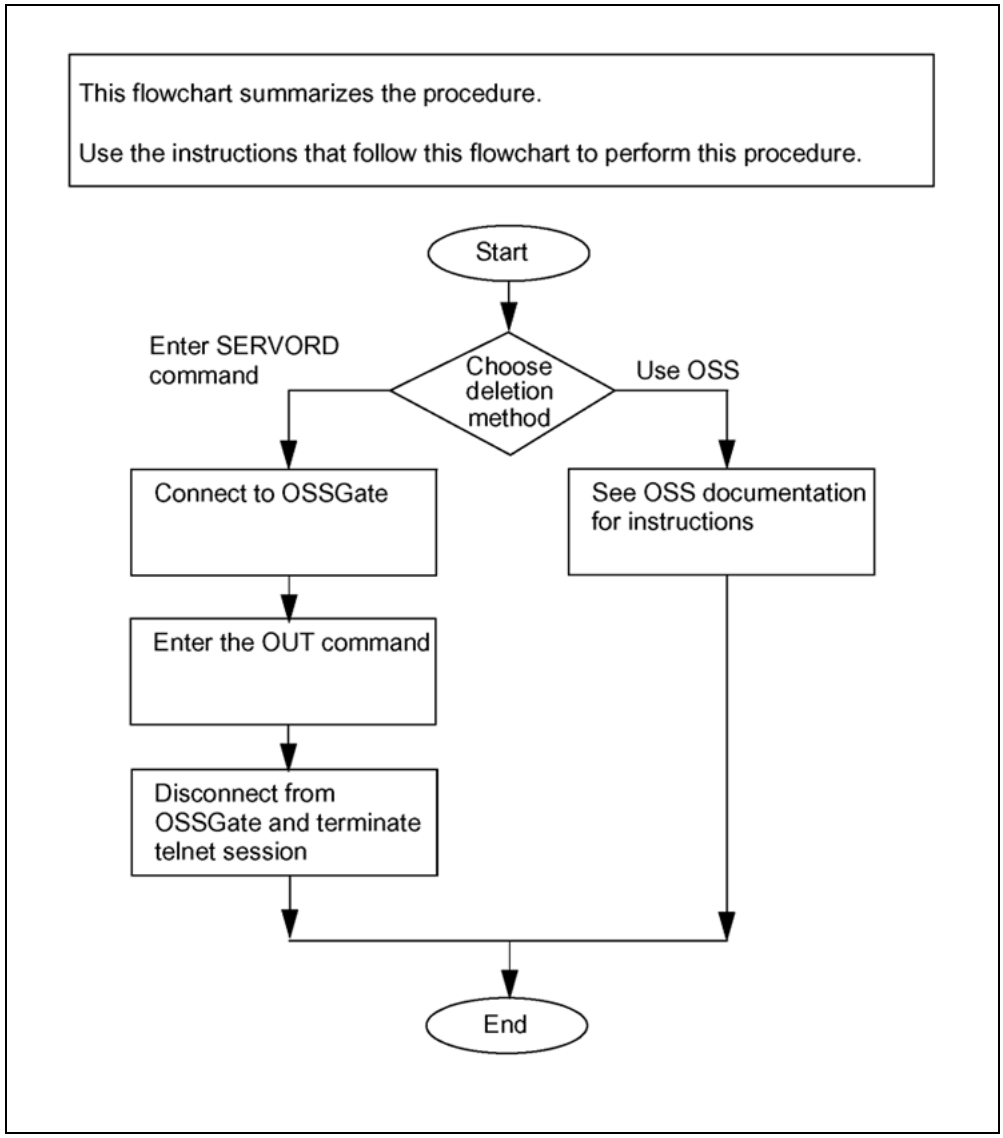
Common procedures

This procedure does not refer to any common procedures.

Action

The following flowchart summarizes this procedure.

Deleting a line



CAUTION
When deleting lines, use only the user interfaces referred to in this procedure. Do not use the MAP interface to modify any of the data schema tables directly. Modifying these tables directly via the MAP will result in service-impacting corruption that will require Nortel assistance to resolve.

Deleting a line

Step	Action

At the PC connected to the CS LAN

1

If you intend to delete the line by	Do
telnetting to OSSGate and entering a SERVORD command	step 2
using an operations support system (OSS)	step 14

2 Initiate a telnet session to OSSGate. Type the following command at the system prompt

`telnet <OSSGate-server-name> <port-number>`

and press the Enter key

where

- <OSSGate-server-name> is one of the following:
  - — the host name of the server on which OSSGate is running
  - — the IP address of the server on which OSSGate is running
- <port-number> is the server port used by OSSGate

Note 1: The default port number is 10023.

Note 2: If in doubt regarding the OSSGate-server-name or the port-number, ask the local network administrator.

For example, type

`telnet wcn0s5jk 10023`

and press the Enter key.

Example of system response:

```
Trying 47.142.94.80...
Connected to wcn0s5jk.
Escape character is '^]'.
```

Enter username and password

3 Enter your username and password. Type

`<username> <password>`

and press the Enter key.

For example, type

`user1  passwd`

and press the Enter key.

Example of system response:

```
user1 logged in on 2002/2/2 at 11:51:55.
*********************************************
**                                         **
**               OSS Gateway               **
**                                         **
**       This is a PRIVATE Database.       **
**                                         **
**  All activity is subject to monitoring. **
**                                         **
*Any UNAUTHORIZED access or use is PROHIBITED*
**       and may result in PROSECUTION.    **
**                                         **
*********************************************
>
```

4 You have connected to OSSGate, so the system is displaying a prompt, the ">" character, in the telnet window on your screen. Now you put the telnet session into CI mode.

Proceed as follows.

a. Hold down the control key and type B.

Example of system response:

```
?
```

b. At the question-mark prompt, type

`mode ci`

and press the Enter key.

Example of system response:

```
Mode is CI.
>
```

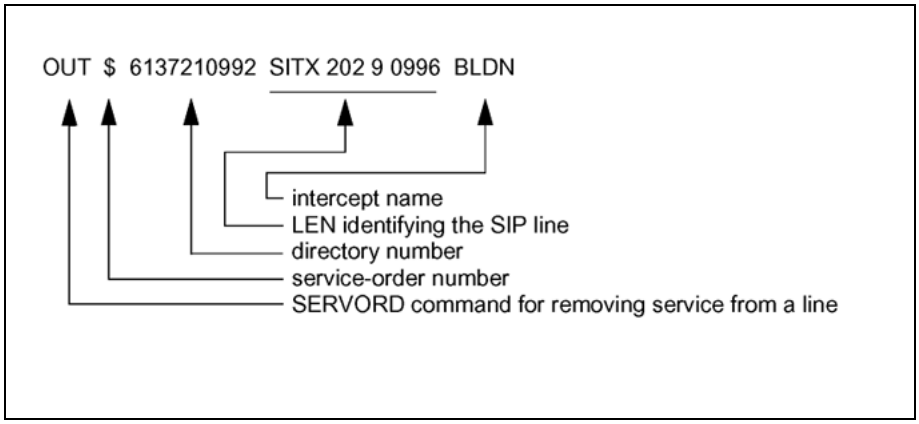
5 Select the next step as follows:

If you are deleting	Do
a SIP lin	step 6
a line on a CICM gateway	step 8
a line other than a SIP line or a line on a CICM gateway	step 10

6 Delete the SIP line by entering the OUT command at the ">" prompt.

The following figure shows an example of the OUT command to delete a SIP line.

Example of the OUT command to delete a SIP line



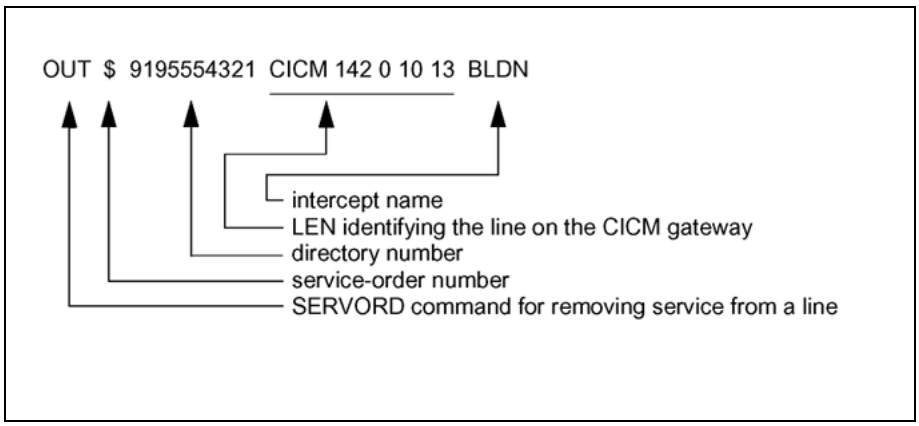
Note: For detailed information on the format of the LEN identifying a SIP line, see the module that tells how to provision SIP lines. That module will be available if your solution supports SIP lines.

7 Go to step 11.

8 Delete the line on the CICM gateway by entering the OUT command at the ">" prompt.

The following figure shows an example of the OUT command to delete a line on a CICM gateway.

Example of the OUT command to delete a line on a CICM gateway



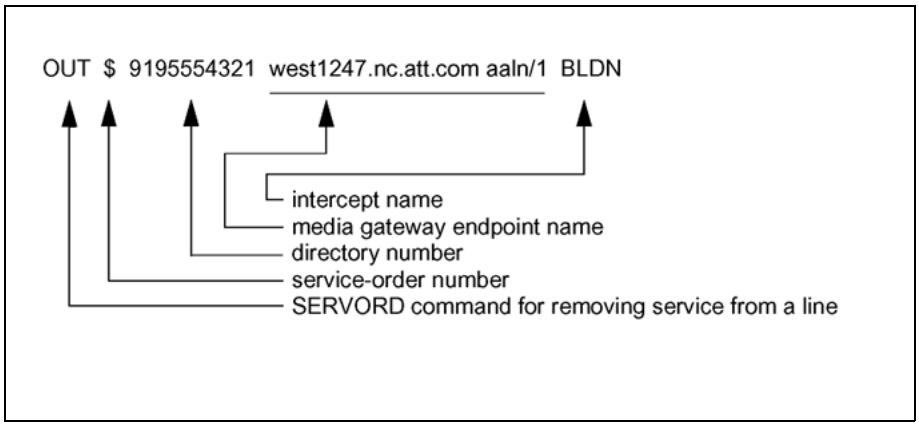
Note: For detailed information on the format of the LEN identifying a line on a CICM gateway, see the module that tells how to provision lines on CICM gateways. That module will be available if your solution supports lines on CICM gateways.

9 Go to step 11.

10 Delete the line by entering the OUT command at the ">" prompt.

The following figure shows an example of the OUT command.

Example of the OUT command



Note: For detailed information on the format of the media gateway endpoint name in the OUT command, see "Media gateway endpoint names" (page 98) in this module.

When the system processes the OUT command, it deletes the line from table LNINV, and cancels service on the line equipment number (LEN). It also deletes the endpoint from the gateway controller.

11 Disconnect from OSSGate. Proceed as follows.

a. Hold down the control key and type B.

Example of system response:

```
?
```

b. At the question-mark prompt, type

`logout`

and press the Enter key.

Example of system response:

```
user1 logged out.
>
```

12 Terminate the telnet session. Proceed as follows.

a. Hold down the control key and type B.

Example of system response:

```
?
```

b. At the question-mark prompt, type

`clearconv`

and press the Enter key.

Example of system response:

```
SESSION TERMINATED.
Connection closed by foreign host.
```

13 Go to step 17.

14 If you are going to use an operations support system (OSS) to delete a line, ask your system administrator for the following:

- instructions for accessing the OSS
- information about the OSS interface

15 Access the OSS following the instructions of your system administrator.

16 Delete the line using the OSS interface.

17 You have completed this procedure.

—End—

Media gateway endpoint names

This section contains information on the format of the media endpoint gateway name used in the OUT command that deletes certain lines.

This information is not relevant to SIP lines, and is not relevant to lines on CICM gateways. For those types of lines, you do not use the media endpoint gateway name in the OUT command; instead, you use the line equipment number (LEN) to identify the line.

Names for media gateway endpoints on cable MTA gateways

The format for media gateway endpoint names is as follows:

```
<media-gateway-name> <endpoint-name>
```

where

- <media-gateway-name> is in the form of a fully qualified domain name including the hostname of the device and suitable for lookup using Directory Name Service (DNS). The name must contain a period (.).

  Example
  cust34671.rdu.attcable.net

  Note: If a gateway is associated with a GWC for which a default gateway domain name has been provisioned, do not use the default gateway domain name as part of the <media-gateway-name> in any SERVORD+

command. SERVORD+ commands are the subset of SERVORD commands that can be entered by way of the OSSGate interface.

- <endpoint-name> has the following format: **aaln/<n>** where n is an integer in the range 1 to n, where n is the number of the voice port on the MTA.

  Note: In the format, there is a space between <media-gateway-name> and <endpoint-name>.

Names for media gateway endpoints on MG 9000 H.248 gateways

The format for media gateway endpoint names is as follows:

<media-gateway-name> <endpoint-name>

where

- <media-gateway-name> has the following format: <site><frame>-<logical-frame>-<shelf>

  where

  — <site> is the value previously datafilled in table SITE. The value is one to four alphanumeric characters.

  — <frame> is a three-digit integer in the range 000 to 511, indicating the frame number within the office.

  — <logical-frame> is an integer in the range 0 to 7, indicating the logical frame number within the physical MG.

  — <shelf> is an integer in the range 0 to 3 indicating the shelf number within the frame.

- <endpoint-name> has the following format: tp/<card>/<circuit>

  where

  — <card> is a two-digit integer in the range 02 to 09 or in the range 14 to 21, indicating the card number.

  — <circuit> is a two-digit integer in the range 00 to 31, indicating the circuit number.

  Note: In the format, there is a space between <media-gateway-name> and <endpoint-name>.

For example, the following name conforms to the naming format for media gateway endpoints on an MG 9000 H.248 gateway:

```
ABCD511-7-3 tp/21/31
```

Provisioning trunks

This procedure explains how to provision trunks other than the following types of trunks:

- dynamic packet trunks (DPT). The instructions for provisioning DPTs are in another module in this document.
- GWC-based per-trunk-signaling (PTS) trunks. If your solution supports GWC-based PTS trunks, the instructions for provisioning them are in another module in this document.

This procedure explains how to provision trunks in this release. Trunk provisioning may be different in subsequent releases.

To provision trunks, you do some work in the CS 2000 Management Tools GUI and then you enter datafill in the MAP interface.

- First you use the CS 2000 Management Tools GUI to access the CS 2000 GWC Manager, and you associate endpoints with terminal IDs (TID).
- Then you use the MAP interface to specify the trunks by entering datafill in the data schema tables.

Note 1: Follow the sequence as outlined here. Use the CS 2000 Management Tools GUI first, and the MAP second.

Note 2: .You can access the CS 2000 GWC Manager by way of the CS 2000 Management Tools GUI. An alternative means of interfacing to the CS 2000 GWC Manager is to use an operations support system (OSS) that does trunk provisioning. An OSS is not part of the CS 2000, and must be purchased separately.

Interval

Perform this procedure as required.

Prerequisites

The prerequisites for trunk provisioning are as follows:

- The gateway controllers and the gateways must already be provisioned.
- The gateway controllers must be in service.
- The carriers must already have been added to the gateway controllers.
- You must know the names of the endpoints.

How to complete the prerequisites

For information on configuring the gateway controllers and the gateways, see the GWC operational configuration document.

There are two ways to add carriers to gateway controllers. For information, see *GWC Configuration Management* (NN10205-511) and see *OSSGate User's Guide* (NE10004-512).

If you do not know the names of the endpoints, you can display them by following the instructions for viewing carrier configuration and provisioning data. For instructions, see *GWC Configuration Management* (NN10205-511).

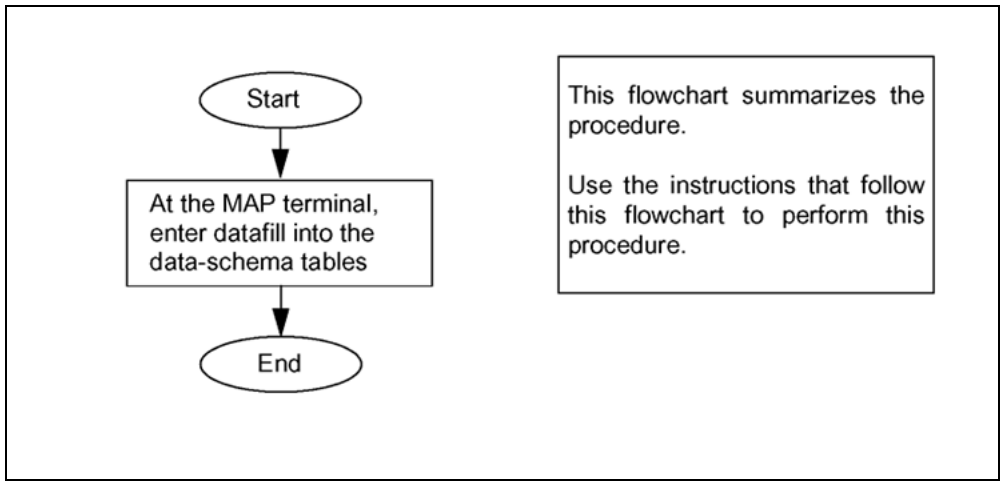
Common procedures

This procedure refers to the procedure "Using the table editor to add a tuple to a table, using prompt mode" (page 251)

Action

The following flowchart summarizes this procedure.

Provisioning trunks



CAUTION
Loss of service
When provisioning trunks, use the MAP interface to modify only those data schema table identified in this procedure. Modifying any other data schema tables via the MAP may result in service-impacting corruption that will require Nortel assistance to resolve.

Provisioning trunks

Step	Action

At the MAP terminal

1 If you have not already done so, use the table editor to edit table CLLI, to define the common language location identifier (CLLI) of the trunk-group.

For detailed information about table CLLI, see *North American DMS-100 Customer Data Schema Reference Manual* (297-8001-351 Vol. 3) or *DMS-100 MMP Customer Data Schema Manual* (297-9051-351 Vol. 3)

Refer to *CDMA/TDMA Customer Data Schema Reference Manual* (411-2131-451 Vol. 1) for more information about table CLLI.

For instructions on adding tuples, see procedure "Using the table editor to add a tuple to a table, using prompt mode" (page 251).

2 If you have not already done so, use the table editor to edit table TRKGRP, to define the trunk group.

For detailed information about table TRKGRP see *North American DMS-100 Customer Data Schema Reference Manual* (297-8001-351 Vol. 10) or *DMS-100 MMP Customer Data Schema Manual* (297-9051-351 Vols. 11 and 12)

Refer to *CDMA/TDMA Customer Data Schema Reference Manual* (411-2131-451 Vol. 3) for more information about table TRKGRP.

For instructions on adding tuples, see procedure "Using the table editor to add a tuple to a table, using prompt mode" (page 251).

3 If you have not already done so, use the table editor to edit table TRKSGRP (trunk subgroup), to define supplementary information for the subgroups

For detailed information about table TRKSGRP see *North American DMS-100 Customer Data Schema Reference Manual* (297-8001-351 Vol. 11) or *DMS-100 MMP Customer Data Schema Manual* (297-9051-351 Vol. 12)

Refer to *CDMA/TDMA Customer Data Schema Reference Manual* (411-2131-451 Vol. 3) for more information about table TRKSGRP.

For instructions on adding tuples, see procedure "Using the table editor to add a tuple to a table, using prompt mode" (page 251).

Note 1: The value of the ECSTAT field in table TRKSGRP must be either INTERNAL or EXTERNAL. The value must not be UNEQ. INTERNAL means that echo cancellation is to be performed by the media gateways where the trunks are provisioned. EXTERNAL means that echo cancellation is not performed by those media gateways, but is performed by independent external equipment. If you have specified INTERNAL or EXTERNAL, then the ISUP messaging will indicate that echo cancellation has been applied for voice calls. Specifically, the GWC updates the echo-control device indicators, which are fields in the ISUP messages.

Note 2: There is an alternative way to add a tuple to table TRKSGRP: you can use the XML interface to OSSGate. For details, see *OSSGate User's Guide* (NE10004-512)

4 If you have not already done so, use the table editor to edit table TRKOPTS, to specify options for the trunk group.

For detailed information about table TRKOPTS see *North American DMS-100 Customer Data Schema Reference Manual* (297-8001-351 Vol. 10) or *DMS-100 MMP Customer Data Schema Manual* (297-9051-351 Vols. 11 and12)

Refer to *CDMA/TDMA Customer Data Schema Reference Manual* (411-2131-451 Vol. 3) for more information about table TRKOPTS.

Note: If the system is in an a-law network (which is the norm outside North America), and if the system has GWC-based CCS7 TDM trunk groups, then in table TRKOPTS you must specify the following option for each such trunk group: VOICELAW G711_A_LAW. The option affects CCS7 signaling only. The companding law applied to the bearer channel is set on the gateway.

5 Use the table editor to add trunk-provisioning information to table TRKMEM. You will need to add one tuple for each trunk in the trunk group.

When you specify the values for each tuple to be added to table TRKMEM, specify the following values for the subfields of the MEMVAR field.

- For PMTYPE, specify GWC.
- For PM number, specify the node number. The node number is found in the Node Number field in the endpoints list on the Provisioning tab.
- For the terminal identifier, specify the terminal number. The terminal number is found in Terminal Number field in the endpoints list on the Provisioning tab.

Note: There is an alternative way to add a tuple to table TRKMEM: you can use the XML interface to OSSGate. For details, see *OSSGate User's Guide* (NE10004-512).

6 Use the table editor to enter datafill in table C7TRKMEM to assign a circuit identification code (CIC) to each trunk.

For detailed information about table C7TRKMEM see *North American DMS-100 Customer Data Schema Reference Manual* (297-8001-351 Vol. 2) or *DMS-100 MMP Customer Data Schema Manual* (297-9051-351 Vol. 2)

Refer to *CDMA/TDMA Customer Data Schema Reference Manual* (411-2131-451 Vol.2) for more information about table C7TRKMEM.

For instructions on adding tuples, see procedure "Using the table editor to add a tuple to a table, using prompt mode" (page 251).

7 Use the table editor to enter datafill in table HNPACONT (List of Home Numbering Plan Area Codes Subtables Table) to provide for the translations to route over the trunk.

For detailed information about table HNPACONT see *North American DMS-100 Customer Data Schema Reference Manual* (297-8001-351 Vol. 5) or *DMS-100 MMP Customer Data Schema Manual* (297-9051-351 Vol. 5).

Refer to *CDMA/TDMA Customer Data Schema Reference Manual* (411-2131-451 Vol. 2) for more information about table HNPACONT.

For instructions on adding tuples, see procedure "Using the table editor to add a tuple to a table, using prompt mode" (page 251).

—End—

Initial address message (IAM) priority for SS7 trunks

The following enhancement affects DMS-250 switches only.

Setting the NORM_CALL_SS7_IAM_MESSAGE_PRIORITY office parameter in table OFCENG controls the initial address message (IAM) priority assigned to outgoing messages on SS7 trunks if those trunks use the universal carrier protocol (UCP) signaling and if they are on spectrum peripheral modules (SPM).

For information on the values to which you can set NORM_CALL_SS7_IAM_MESSAGE_PRIORITY, see *North American DMS-100 Office Parameters Reference Manual* (297-8001-855 Vol. 1) or *DMS-100 MMP Office Parameters Reference Manual* (297-9051-855 Vol. 1).

Note 1: This enhancement does not apply to SS7 trunks using signaling protocols other than UCP. Also, it does not apply to trunks on extended peripheral modules (XPM).

Note 2: The default setting of NORM_CALL_SS7_MESSAGE_PRIORITY causes all affected messages have an IAM priority of 1.

Provisioning dynamic packet trunks

This procedure contains instructions for entering datafill into the data schema tables of the XA-Core to support dynamic packet trunks that use SIP-T (Session Initiated Protocol for Telephones) signaling. Use this procedure only if your office has a VRDN GWC.

Note: If you are provisioning SIP-T DPTs in an office with a Session Server that will be responsible for the routing of the SIP-T DPTs, see procedure "Provisioning SIP-T DPTs in an office with a Session Server". (That procedure is included in the documentation if your solution can include the use of the Session Server.)

To help explain the process, we will use an example in which we show how we would provision dynamic packet trunks linking three cities.

The datafill referred to in the instructions is for illustrative purposes only. The actual datafill is office-dependent. The tables are listed in the sequence in which you must enter the datafill.

Interval

Perform this procedure as required.

Prerequisites

Prerequisites for provisioning dynamic packet trunks are as follows:

- Before you begin this procedure, the gateway controllers (GWC) must be configured. There will be one VRDN GWC and, depending on the number of DPTs connecting to the site, one or more GWCs for the DPTs. (In subsequent pages we show an example of three sites, with one VRDN GWC and one GWC for DPTs.) When you configure the GWCs, the system automatically enters the required datafill in table SERVRINV.

  For information on configuring the gateway controllers, see *GWC Configuration Management* (NN10205-511).

- Before you begin this procedure, the HOST_MGCNAME office parameter must be set to the appropriate value. For instructions, see procedure "Provisioning the HOST_MGCNAME office parameter" (page 267).

- For each remote media gateway controller (MGC) that the CS 2000 will communicate with, you must know the software version running on the remote MGC and the software version running on the CS 2000 that controls the remote MGC. Specifically, you must know whether the software supports packet networks.

- You must know the telephony profile assigned to each DPT trunk group at each remote media gateway controller (MGC) that the CS 2000 will communicate with. (The telephony profiles are specified in table TRKOPTS at the CS 2000 that controls the remote MGC. If there are multiple DPT trunk groups at the remote MGC, multiple groups may have the same profile; alternatively, any group may have a profile distinct from the others.)

Additional information

Provisioning the DPT_MAX_PORTS office parameter is not part of the process for provisioning dynamic packet trunks. However, the office parameter must be set to an appropriate value to allow DPT calls. For information on this subject, see procedure "Provisioning the DPT_MAX_PORTS office parameter" (page 280).

You can apply the following network-management controls to dynamic packet trunk groups: DPT-priority control, MaxTid-limit control, DPT reservation level, CANT, CANF, SKIP, and FRR. For directions for applying and removing these controls, see the appropriately titled sections of this document.

Note: The packetized mobile telephone exchange does not support CANT, CANF, SKIP, and FRR.

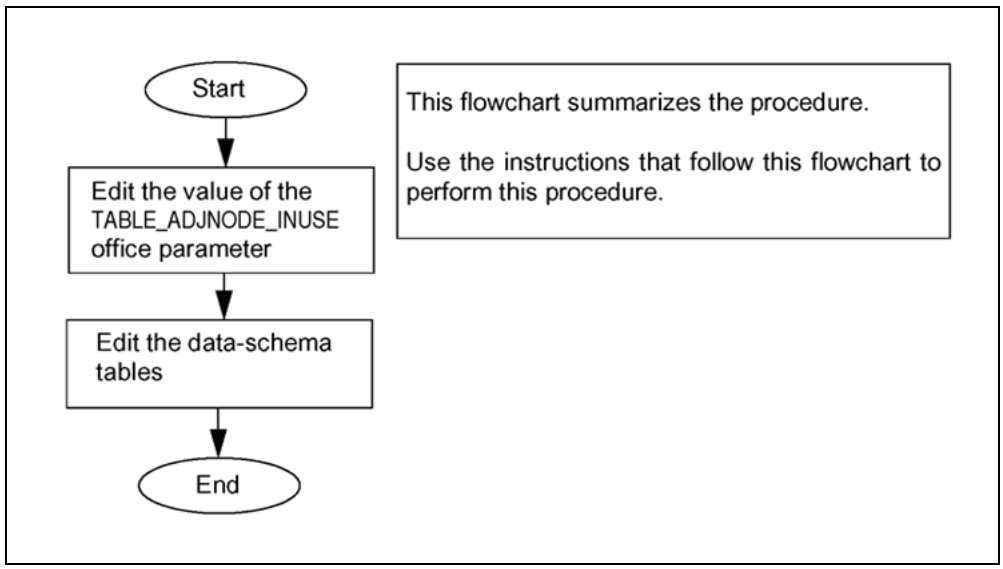
Common procedures

This procedure does not refer to any common procedures.

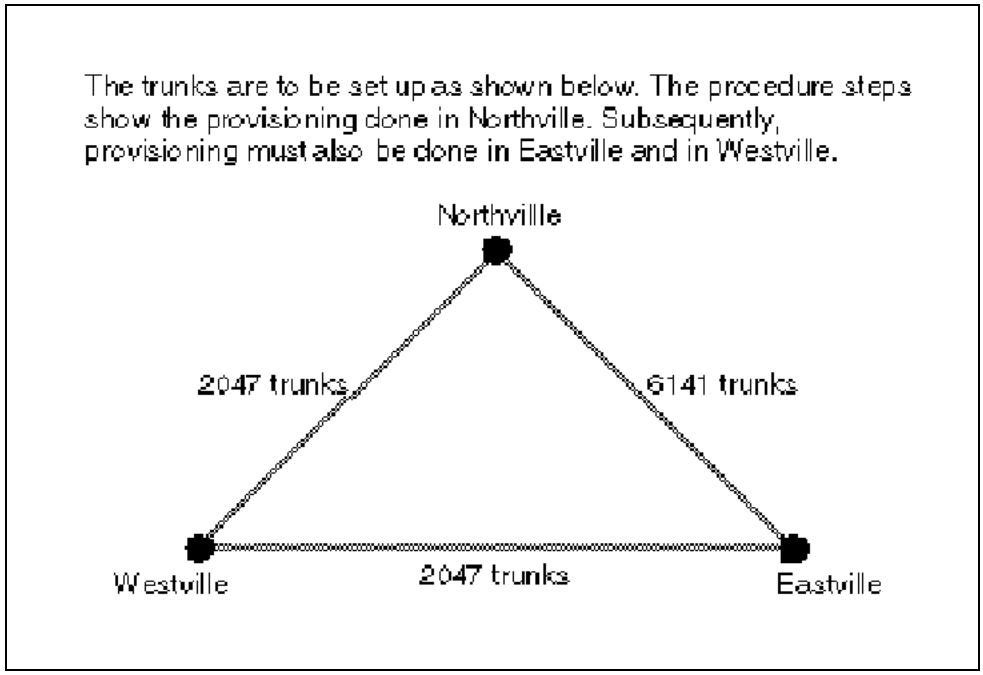
Action

The following flowchart summarizes this procedure.

Provisioning dynamic packet trunks



Example



Provisioning dynamic packet trunks

Step	Action

At the MAP terminal

1 Use the table editor to edit the value of office parameter TABLE_ADJNODE_INUSE in table OFCENG. You must set the value to Y to indicate that table ADJNODE is in use. We refer to table ADJNODE in step 10.

Note: For detailed information about table ADJNODE, see *North American DMS-100 Customer Data Schema Reference Manual* (297-8001-351 Vol. 1) or see *DMS-100 MMP Customer Data Schema Reference Manual* (297-9051-351 Vol. 1).

Proceed as follows.

a. Start the table editor. Type

```
>TABLE OFCENG
```

and press the Enter key.

Example of system response:

```
TABLE: OFCENG
```

b. Move to the tuple for TABLE_ADJNODE_INUSE parameter. Type

```
>POS TABLE_ADJNODE_INUSE
```

and press the Enter key.

Example of system response:

```
TABLE_ADJNODE_INUSE:
```

c. Indicate that you intend to change the value of the parameter. Type

>CHA

and press the Enter key.

Example of system response:

```
PARMVAL: N:
```

d. At the prompt, enter the new value. Type

>Y

and press the Enter key.

Example of system response:

```
TUPLE TO BE CHANGED:
TABLE_ADJNODE_INUSE Y
ENTER Y TO CONFIRM, N TO REJECT OR E TO EDIT.
```

e. Confirm the change. Type

>Y

and press the Enter key.

Example of system response:

```
TUPLE CHANGED.
```

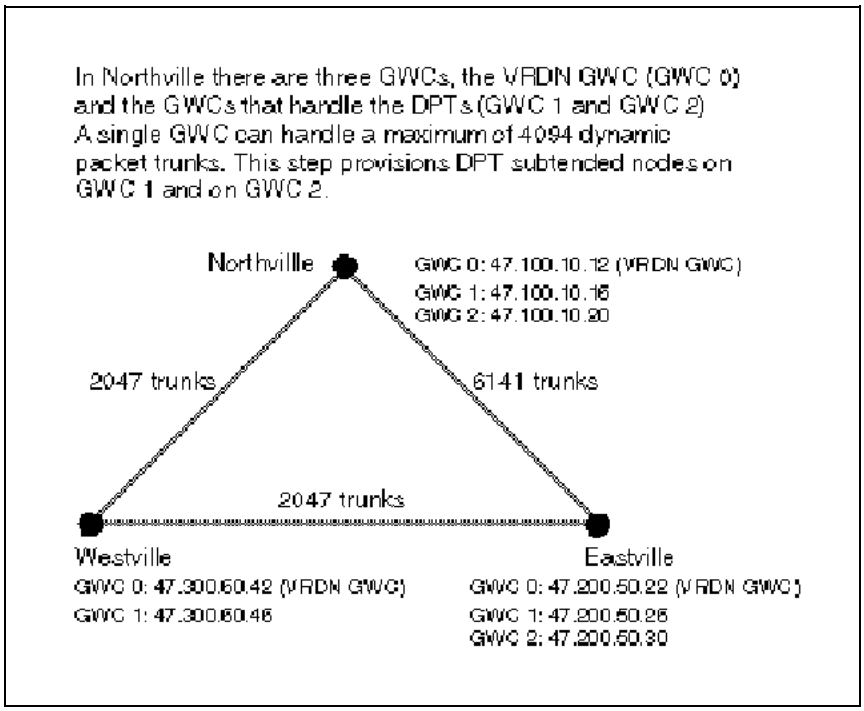
f. Exit from the table editor. Type

>QUIT

and press the Enter key.

2 Use the table editor to edit table SERVSINV, to provision one or two "DPT subtended nodes" for the gateway controller that handles the DPTs.

Example



A DPT subtended node is a virtual gateway. Associated with each subtended node are 2047 endpoints for dynamic packet trunks. If you provision the maximum of two DPT subtended nodes for a gateway controller, there will be 4094 usable DTP terminal identifiers (TID) for that GWC.

Proceed as follows.

a. Start the table editor. Type

>TABLE SERVSINV

and press the Enter key.

Example of system response:

```
TABLE: SERVSINV
```

b. Indicate that you intend to add a tuple. Type

>ADD

and press the Enter key.

Example of system response:

```
SRVSNAME:
```

c. Specify the value for the SRVSNAME field. This is the name of the DPT subtended node. Type

>DPT <pm-number>

and press the Enter key.

where

<pm-number> is an integer in the range 0 to 255

For example, type

```
DPT 0
```

and press the Enter key.

Example of system response:

```
SVRNAME:
```

d. Specify the value for the SRVRNAME (server subtending name) field. This is the name of the gateway controller that handles the DPTs. Type

```
>GWC <n>
```

and press the Enter key

where

<n> is an integer

Note: The GWC name was specified when the gateway controller was configured.

For example, type

```
GWC 1
```

and press the Enter key.

Example of system response:

```
NUMTERMS:
```

e. Specify the value for the NUMTERMS (number of terminals) field. Type

```
>2048
```

and press the Enter key.

Note: Of the 2048 terminals, 2047 are usable for dynamic packet trunks, and one is reserved for maintenance messaging. After completing the provisioning, if you go to the DPTTRM level of the MAP interface and use the POST command, only the DPT terminals are displayed. In this case that means 2047 terminals, not 2048.

Example of system response:

```
OPTIONS:
```

f. Specify the signaling type in the OPTIONS field. Type

```
>SIPT
```

and press the Enter key.

Example of system response:

```
OPTIONS:
```

g. Indicate that you have finished specifying options. Type

```
>$
```

and press the Enter key.

Example of system response:

```
TUPLE TO BE ADDED:
DPT 0 GWC 1 2048 (SIPT) $
ENTER Y TO CONFIRM, N TO REJECT OR E TO EDIT.
```

h. Confirm the addition. Type

```
>Y
```

and press the Enter key.

Example of system response:

```
TUPLE ADDED.
```

i. If you want to provision another DPT subtended node, repeat step 2b to step 2h; otherwise, proceed to step 2j.

Note 1: Depending on the number of dynamic packet trunks connecting to the site, there may be one or more GWCs handling DPTs. For each such GWC, you can provision up to two DPT subtended nodes.

Note 2: In the example introduced at the beginning of step 1, there are 6141 dynamic packet trunks between Northville and Eastville, and 2047 between Northville and Westville. Therefore, at Northville, four DPT subtended nodes are required (three for Northville-to-Eastville trunks and one for Northville-to-Westville trunks.

j. Exit from the table editor. Type

```
>QUIT
```

and press the Enter key.

3 Use the table editor to edit table MGCINV (media gateway controller inventory), to provision the remote (destination) media gateway controllers, that is, the remote VRDN GWCs.

Proceed as follows.

a. Start the table editor. Type

>TABLE MGCINV

and press the Enter key.

Example of system response:

```
TABLE: MGCINV
```

b. Indicate that you intend to add a tuple. Type

>ADD

and press the Enter key.

Example of system response:

```
MGCNAME:
```

c. Specify the value for the MGCNAME field. Type the name of the media gateway controller, and press the Enter key.

For example, type

>EASTVILLE

and press the Enter key.

Note: Special characters other than '-' and '.' in the parameter MGCNAME may cause conflicts with third-party vendor equipment that adheres strictly to the RFC 952 naming standard.

Example of system response:

```
ADDR:
```

d. Specify the value for the ADDR field. Type the IP address of the remote VRDN gateway controller, and press the Enter key.

For example, type

>47.200.50.22

and press the Enter key.

Example of system response:

```
VRDNLIST:
```

e. The VRDN values will be populated automatically later in this procedure, so at this point, type

>$

and press the Enter key.

A virtual router/distribution node (VRDN) is a dual-purpose device that handles outgoing routing and incoming distribution.

Example of system response:

```
PROTOCOL:
```

f. Specify the value for the PROTOCOL field. Type

>SCTP5

and press the Enter key.

Example of system response:

```
TUPLE TO BE ADDED:
EASTVILLE 47 200 50 22 $ SCTP5
ENTER Y TO CONFIRM, N TO REJECT OR E TO EDIT.
```

g. Confirm the addition. Type

>Y

and press the Enter key.

Example of system response:

```
TUPLE ADDED.
```

h. If you want to specify another remote media gateway controller, repeat step 3b to step 3g; otherwise, proceed to step 3i.

Note: In the example introduced at the beginning of step 1, there are dynamic packet trunks between Northville and Eastville, and between Northville and Westville. Therefore, at Northville, we must specify the Eastville and Westville VRDN GWCs.

i. Exit from the table editor. Type

>QUIT

and press the Enter key.

4 Use the table editor to add a tuple to table VRDNINV, to provision the virtual router/distribution nodes (VRDN). A VRDN is a dual-purpose device that handles outgoing routing and incoming distribution.

Note: If you want to change the name of a VRDN that has already been provisioned, do not try to edit field VRDNNAME in the VRDNs tuple in table VRDNINV. Instead, you must delete the VRDNs tuple and re-add it using the new VRDNNAME. The steps are as follows. Use the BSY command to busy the VRDN GWC. (The VRDN GWC is identified in the GWCNAME field in the VRDNs tuple.) Next, delete the VRDNs tuple from table VRDNINV. Next, add a new tuple for the VRDN to table VRDNINV (as described in step 4), using the new VRDNNAME. Next, use the RTS command to return the VRDN GWC to service.

For each VRDN, take the following substeps.

a. Start the table editor. Type

```
>TABLE VRDNINV
```

and press the Enter key.

Example of system response:

```
TABLE: VRDNINV
```

b. Indicate that you intend to add a tuple. Type

```
>ADD
```

and press the Enter key.

Example of system response:

```
VRDNNAME:
```

c. Specify the value for the VRDNNAME field, and press the Enter key. For example, type

```
>VRDN1
```

and press the Enter key.

Example of system response:

```
GWCNAME:
```

d. Specify the value for the GWCNAME field. Type the name of the local VRDN GWC as specified in the SERVRNAME field in table SERVRINV, and press the Enter key.

For example, type

```
>GWC 0
```

and press the Enter key.

Example of system response:

```
RMGCLIST:
```

e. At the RMGCLIST: (remote media gateway controller list) prompt you can specify the RMGCs that the VRDN will serve. You enter one RMGC at a time, and enter a dollar sign ($) to indicate the end of the list. For example, to specify the first RMGC, type

```
>EASTVILLE
```

and press the Enter key

Note: EASTVILLE was specified in step 3c.

Example of system response:

```
RMGCLIST:
```

f. At the RMGCLIST: prompt, specify the names of the other remote media gateway controllers, one at a time.

Note: In the example introduced at the beginning of step 1, there are dynamic packet trunks between Northville and Eastville, and between Northville and Westville. Therefore, at Northville, we must specify the Eastville and Westville as RMGCs.

g. At the RMGCLIST: prompt, enter a dollar sign ($) to indicate the end of the list. Type

>$

and press the Enter key.

Example of system response:

```
TUPLE TO BE ADDED:
VRDN1 GWC 0 EASTVILLE WESTVILLE $
ENTER Y TO CONFIRM, N TO REJECT OR E TO EDIT.
```

h. Confirm the addition. Type

>Y

and press the Enter key.

Example of system response:

```
TUPLE ADDED.
```

i. Exit from the table editor. Type

>QUIT

and press the Enter key.

The following datafill in tables SERVRINV, SERVSINV, MGCINV, and VRDNINV supports the example introduced in step 1 of this procedure..

Datafill at the Northville site

HOST_MGCNAME: NORTHVILLE

Table SERVRINV

SRVRNAME	SRVRADDR	
GWC 0	47.100.10.12	(VRDN1 GWC)
GWC 1	47.100.10.16	
GWC 2	47.100.10.20	

Table SERVSINV

SERVSNAME	SERVRNAME	NUMTERMS	
DPT 0	GWC 1	2048	(Northville-Eastville)
DPT 1	GWC 1	2048	(Northville-Eastville)
DPT 2	GWC 2	2048	(Northville-Eastville)
DPT 3	GWC 2	2048	(Northville-Westville)

Table MGCINV

MGCNAME	ADDR	VRDNLIST	PROTOCOL
EASTVILLE	47.200.50.22	VRDN1	SCTP5
WESTVILLE	47.300.60.42	VRDN1	SCTP5

TABLE VRDNINV

VRDNNAME	GWCNAME	RMGCLIST	
VRDN1	GWC 0	(EASTVILLE)	(WESTVILLE)

Datafill at the Eastville site

HOST_MGCNAME: EASTVILLE

Table SERVRINV

SRVRNAME	SRVRADDR	
GWC 10	47.200.50.22	(VRDN1 GWC)
GWC 11	47.200.50.26	
GWC 12	47.200.50.30	

Table SERVSINV

SERVSNAME	SERVRNAME	NUMTERMS	
DPT 0	GWC 10	2048	(Eastville-Northville)
DPT 1	GWC 11	2048	(Eastville-Northville)
DPT 2	GWC 12	2048	(Eastville-Northville)
DPT 3	GWC 13	2048	(Eastville-Westville)

Table MGCINV

			PROTOCOL
MGCNAME	ADDR	VRDNLIST	SCTP5
NORTHVILLE	47.100.10.12	VRDN1	SCTP5
WESTVILLE	47.300.60.42	VRDN1	

TABLE VRDNINV

VRDNNAME	GWCNAME	RMGCLIST	
VRDN1	GWC 3	(NORTHVILLE)	(WESTVILLE)

Datafill at the Westville site

HOST_MGCNAME: WESTVILLE

Table SERVRINV

SRVRNAME	SRVRADDR	
GWC 6	47.300.60.42	(VRDN1 GWC)
GWC 7	47.300.60.46	

Table SERVSINV

SERVSNAME	SERVRNAME	NUMTERMS	
DPT 0	GWC 20	2048	(Westville-Northville)
DPT 1	GWC 21	2048	(Westville-Eastville)

Table MGCINV

MGCNAME	ADDR	VRDNLIST	
NORTHVILLE	47100.10.12	VRDN1	
EASTVILLE	47.200.50.22	VRDN1	PROTOCOL
			SCTP5

TABLE VRDNINV

VRDNNAME	GWCNAME	RMGCLIST	SCTP5
VRDN1	GWC 6	(NORTHVILLE)	(EASTVILLE)

5 Use the table editor to edit table TELEPROF.

The CS 2000 uses the information in table TELEPROF to decide which Nortel version of SIP-T (session initiation protocol for telephony) signaling it should use for a call. The version to be used for any given call depends on the software running in the remote media gateway controller (MGC) that handles the call and in the CS

2000 that controls the remote MGC. Each tuple in table TELEPROF contains a key field composed of the name of a remote MGC and the name of a telephony profile related to that remote MGC. You must add a tuple for each remote MGC/telephony profile to which the CS 2000 will communicate using SIP-T signaling.

Proceed as follows.

a. Start the table editor. Type

>TABLE TELEPROF

and press the Enter key.

Example of system response:

```
TABLE: TELEPROF
```

b. Indicate that you intend to add a tuple. Type

>ADD

and press the Enter key.

Example of system response:

```
KEY:
```

c. Specify the value for the KEY field. Type

> <mgc-name> <telephony-profile-name>

and press the Enter key.

where

<mgc-name> is the name of the remote media gateway controller as defined instep 3c of this procedure

<telephony-profile-name> is a name that can be up to 16 characters long

For example, type

EASTVILLE P1

and press the Enter key.

Example of system response:

```
VERSION:
```

d. Select the next step as follows:

If	Do
you are provisioning trunks for the CHS solution, for the following product: "Multimedia Communication Server 5200 (MCS) to CS 2000 Interworking"	step 5e
you are not provisioning trunks for the CHS solution, for the following product: "Multimedia Communication Server 5200 (MCS) to CS 2000 Interworking"	step 5g

e. In the VERSION field, type

>IMS_V1

and press the Enter key.

Note: The IMS_V1 value is for use only with the "Multimedia Communication Server 5200 (MCS) to CS 2000 Interworking" product. The product supports interworking between user agents on a CS 2000 and an MCS 5200 network to create a converged network. The IMS_V1 value permits proper interoperability with the MCS.

Example of system response:

```
TUPLE TO BE ADDED:
PORTLAND IMT2W IMS_V1
ENTER Y TO CONFIRM, N TO REJECT OR E TO EDIT.
```

f. Go to step 5h.

g. In the VERSION field, specify the Nortel version of session initiation protocol for telephony that should be used. The possible values are CS2K_V1 and CS2K_V2. Use CS2K_V2 if both the remote MGC and its CS 2000 are running SN03 or higher software; otherwise, use CS2K_V1. For example, type

>CS2K_V2

and press the Enter key.

Example of system response:

```
TUPLE TO BE ADDED:
EASTVILLE P1 CS2K_V2
ENTER Y TO CONFIRM, N TO REJECT OR E TO EDIT.
```

h. Confirm the addition. Type

>Y

and press the Enter key.

Example of system response:

```
TUPLE ADDED.
```

i. If you need to specify the telephony profile for another remote media gateway controller, repeat step 5b to step 5h; otherwise, proceed to step 5j.

> ***Note:*** In the example introduced at the beginning of step 1, there are dynamic packet trunks between Northville and Eastville, and between Northville and Westville. There is a remote media gateway controller at each remote site. Therefore, at Northville, we must specify telephony profiles for the remote media gateway controllers at Eastville and Westville.

j. Exit from the table editor. Type

`>QUIT`

and press the Enter key.

6 Use the table editor to edit table CLLI, to define the common language location identifier (CLLI) of each dynamic packet trunk group.

For detailed information about table CLLI, see *North American DMS-100 Customer Data Schema Reference Manual* (297-8001-351 Vol. 3) or see *DMS-100 MMP Customer Data Schema Reference Manual*(297-9051-351 Vol. 3) .

For each trunk group, take the following substeps.

a. Start the table editor. Type

`>TABLE CLLI`

and press the Enter key.

Example of system response:

```
TABLE: CLLI
```

b. Indicate that you intend to add a tuple. Type

`>ADD <clli-name>`

and press the Enter key

where

`<clli-name>` is the common language location identifier (CLLI) of the trunk group

For example, type

`>ADD SIPT_EASTVILLE_2W`

and press the Enter key.

Example of system response:

```
ADNUM:
```

c. Specify the value for the ADNUM (administrative trunk group number) field. The value must be an integer in the range 51 to one less than the current size of table CLLI. (The current size of table CLLI appears in field SIZE of table DATASIZE.)

For example, type

```
>3122
```

and press the Enter key.

Example of system response:

```
TRKGRSIZE:
```

d. Specify the value for the TRKGRSIZE field. Type

```
>0
```

and press the Enter key.

Note: When defining a trunk-group CLLI for SIP-T trunks, you must specify 0 as the value of the TRKGRSIZE field.

Example of system response:

```
ADMININF:
```

e. Specify the value for the ADMININF (administrative information) field. The value in this field is intended to allow someone looking at the clli to have an idea what it will be used for. You can type in up to 32 characters. Use only alphabetic characters, digits, and underscores. For example, type

```
>TO_EASTVILLE
```

and press the Enter key.

Example of system response:

```
TUPLE TO BE ADDED:
SIPT_EASTVILLE_2W 3122 0 TO_EASTVILLE
ENTER Y TO CONFIRM, N TO REJECT OR E TO EDIT.
```

f. Confirm the addition. Type

```
>Y
```

and press the Enter key.

Example of system response:

```
TUPLE ADDED.
```

g. If you need to specify the clli name for another dynamic packet trunk group, repeat step 6b to step 6f; otherwise, proceed to step 6h.

Note: In the example introduced at the beginning of step 1, there one dynamic packet trunk group from Northville to Eastville (spanning two GWCs at the Northville site), and one from Northville to Westville. Therefore, at Northville, we must specify two dynamic packet trunk groups.

h. Exit from the table editor. Type

```
>QUIT
```

and press the Enter key.

7 Select the next step as follows:

If the trunk groups	Do
are on a DMS-250	step 8
are not on a DMS-250	step 9

8 Use the table editor to edit table CLLICDR (common language location identifier call data record), to associate the originating common language location identifier (CLLI) with the terminating trunk group number identified in the call data record.

a. Start the table editor. Type

```
>TABLE CLLICDR
```

and press the Enter key.

Example of system response:

```
TABLE: CLLICDR
```

b. Indicate that you intend to add a tuple. Type

```
>ADD
```

and press the Enter key.

Example of system response:

```
CLLINAME:
```

c. Specify the value for the CLLINAME field. Type.

```
> <clli-name>
```

and press the Enter key.

where

<clli-name> is the common language location identifier (CLLI) of the trunk group, as defined in step 6b of this procedure

For example, type

>SIPT_EASTVILLE_2W

and press the Enter key.

Example of system response:

```
EXTNUM:
```

d. Specify the value for the EXTNUM field. Type the external number to be associated with the CLLI, and press the Enter key. The external number is used for administrative purposes such as billing. The value must be an integer in the range 0 to 9999.

For example, type

>40

and press the Enter key.

Example of system response:

```
TUPLE TO BE ADDED:
SIPT_EASTVILLE_2W 40
ENTER Y TO CONFIRM, N TO REJECT OR E TO EDIT.
```

e. Confirm the addition. Type

>Y

and press the Enter key.

Example of system response:

```
TUPLE ADDED.
```

f. If you need to specify a common language location identifier call data record for another dynamic packet trunk group, repeat step 8b to step 8e; otherwise, proceed to step 8g.

Note: In the example introduced at the beginning of step 1, there is one dynamic packet trunk group from Northville to Eastville (spanning two GWCs at the Northville site), and one from Northville to Westville. Therefore, at Northville, we must specify two common language location identifier call data records.

g. Exit from the table editor. Type

>QUIT

and press the Enter key.

9 Use the table editor to edit table TRKGRP, to define each dynamic packet trunk group.

Note 1: For detailed information about table TRKGRP, see *North American DMS-100 Customer Data Schema Reference Manual* (297-8001-351 Vol. 10) or see *DMS-100 MMP Customer Data Schema Reference Manual* (297-9051-351 Vols. 11 and 12).

Note 2: Any trunks used for interworking between MCS 52000 and CS 2000 must be of type IBNT2.

a. Start the table editor. Type

```
>TABLE TRKGRP
```

and press the Enter key.

Example of system response:

```
TABLE: TRKGRP
```

b. Indicate that you intend to add a tuple. Type

>ADD <clli-name>

and press the Enter key.

where

<clli-name> is the common language location identifier (CLLI) of the trunk group, as defined in step 6b of this procedure

For example, type

```
>ADD SIPT_EASTVILLE_2W
```

and press the Enter key.

Example of system response:

```
GRPTYP:
```

c. The system prompts for values for the fields that compose the tuple. Use the following values.

Field	Value
GRPTYP	IMT
TRAFSNO	0
PADGRP	NPDGRP
NCCLS	NCIT
COS	0
DIR	2W
PRTNM	SIPTOG8
SELSEQ	MIDL
ODSCFLTR	16
ORIGFLTR	16
TDSFLTR	7
ANSFLTR	16
ISUPIDX	UCS2UCS
TRAFCLS	NIL
DIALTONE	C
ETN	N
ZEROMPOS	NONE
FASTIDGT	15
CPIXFER	ALWAYS
DIALPLAN	I3PA
OPART	201
TPART	0
NETWKSPC	INTRA
ONNETTRK	N
BCNAME	SPEECH
RECALLDT	NONE
SNDRPSIG	4
TSUSR	160
SNPA	203
TIMEBIAS	0
UCUST_OPTION	$

Example of system response:

```
TUPLE TO BE ADDED:
SIPT_EASTVILLE_2W  IMT  0  NPFGRP  NCIT  0
2W  SIPTOG8  MIDL  16  16  7  UCS2UCS  NIL
C N  NONE  15  ALWAYS  I3PA  201  0  INTRA
N  SPEECH  NONE  4  160  203  0  $
ENTER Y TO CONFIRM, N TO REJECT OR E TO EDIT
```

d. Confirm the addition. Type

>Y

and press the Enter key.

Example of system response:

```
TUPLE ADDED.
```

e. If you need to define another dynamic packet trunk group, repeat step 9b to step 9d; otherwise, proceed to step 9f.

Note: In the example introduced at the beginning of step 1, there is one dynamic packet trunk group from Northville to Eastville (spanning two GWCs at the Northville site), and one

from Northville to Westville. Therefore, at Northville, we must define two dynamic packet trunk groups.

f. Exit from the table editor. Type

>QUIT

and press the Enter key.

10 Use the table editor to edit table ADJNODE, to specify the type of software running on the adjacent dms node.

Note: For detailed information about table ADJNODE, see *North American DMS-100 Customer Data Schema Reference Manual* (297-8001-351 Vol. 1) or see *DMS-100 MMP Customer Data Schema Reference Manual* (297-9051-351 Vol. 1).

a. Start the table editor. Type

>TABLE ADJNODE

and press the Enter key.

Example of system response:

```
TABLE: ADJNODE
```

b. Indicate that you intend to add a tuple. Type

>ADD

and press the Enter key.

Example of system response:

```
ADJNODE_K:
```

c. Specify the value for the ADJNODE_K field. Type the name of the adjacent node, and press the Enter key. Use a name that clearly identifies the adjacent node. For example, type

>DMSNODE

and press the Enter key.

Example of system response:

```
SIGDATA:
```

d. Specify the value for the SIGDATA field. Type

>ISUP

and press the Enter key.

Note: The SIGDATA field in table ADJNODE specifies the signaling type as viewed by the switch. From the point of view of the switch, the signaling is ISUP. Elsewhere in this procedure we specify SIP-T signaling, but that applies to

signaling from one gateway controller to another, through the packet network.

Example of system response:

```
PRODUCT:
```

e. Specify the value for the PRODUCT field. Type

>DMS

and press the Enter key.

Example of system response:

```
OPTIONS:
```

f. Specify the value for the OPTIONS field. Type

>NOGRPBLK

and press the Enter key.

Example of system response:

```
OPTIONS:
```

g. Indicate that you do not intend to specify any more options. Type

>$

and press the Enter key.

Example of system response:

```
TUPLE TO BE ADDED:
DMSNODE ISUP DMS (NOGRPBLK) $
ENTER Y TO CONFIRM, N TO REJECT OR E TO EDIT.
```

h. Confirm the addition. Type

>Y

and press the Enter key.

Example of system response:

```
TUPLE ADDED.
```

i. Exit from the table editor. Type

>QUIT

and press the Enter key.

11 Use the table editor to edit table TRKSGRP (trunk subgroup), to define supplementary information for each subgroup assigned to one of the trunk groups listed in table TRKGRP.

Note 1: As of SN06.2, you cannot have a mixed trunk subgroup, that is a subgroup in which some members are on a legacy

peripheral module and some members are on a packet-based gateway (for example, an MG 1500). However, a single trunk group can have two subgroups, and you can put the legacy-peripheral-module-based members in one subgroup and the packet-based members in the other subgroup. The reason for the restriction is that all members of a subgroup share the same echo-cancellation arrangements, and those arrangements may be interpreted differently by legacy peripheral modules and by packet-based gateways.

Note 2: For detailed information about table TRKSGRP, see *North American DMS-100 Customer Data Schema Reference Manual* (297-8001-351 Vol. 11) or see *DMS-100 MMP Customer Data Schema Reference Manual* (297-9051-351 Vol. 12).

Proceed as follows.

a. Start the table editor. Type

```
>TABLE TRKSGRP
```

and press the Enter key.

Example of system response:

```
TABLE: TRKSGRP
```

b. Indicate that you intend to add a tuple. Type

>ADD <clli-name> <subgroup number>

and press the Enter key.

where

<clli-name> is the common language location identifier (CLLI) of the trunk group, as defined in step 6b of this procedure

<subgroup-number> is 0 or 1

For example, type

```
>ADD SIPT_EASTVILLE_2W  0
```

and press the Enter key.

Example of system response:

```
CARDCODE:
```

c. Specify the value for the CARDCODE field. Type

```
>DS1SIG
```

and press the Enter key.

Example of system response:

```
SGRPVAR:
```

d. Specify the value for the SGRPVAR field (variable subgroup data). Type

>C7UP

and press the Enter key.

Example of system response:

```
DIR: 2W
```

e. Indicate that you accept the supplied value of 2W (two-wire) for the DIR (traffic-flow direction) field by pressing the Enter key.

Example of system response:

```
ESUPR: N
```

f. Indicate that you accept the supplied value of N (no) for the ESUPR (echo-suppressor) field by pressing the Enter key.

Example of system response:

```
SAT:
```

g. Specify the value for the SAT (satellite) field. Type Y or N and press the Enter key.

This field specifies whether the trunk subgroup is arranged to switch by way of satellite.

Example of system response:

```
ECSTAT: UNEQ
```

h. Select the next step as follows.

If	Do
the network includes IW-SPMs that contain echo-cancellation resources	go to step 11i
the network does not contain IW-SPMs that contain echo-cancellation resources	go to step 11m

Note 1: If the network contains IW-SPMs that contain echo-cancellation resources, those resources will perform echo cancellation for calls carried by the trunk subgroup. The echo cancellation occurs before the calls enter the packet network.

Note 2: For information on how to provision the echo-cancellation resources, see *IW SPM-IP Configuration Management* (NN10100-511).

Note 3: For information on the echo-cancellation strategy used in the network, see *ATM/IP Configuration Management* (NN10409-500).

i. Specify "internal" echo cancellation, meaning that the IW-SPM will perform echo cancellation for calls carried by this trunk subgroup. Type

>INTERNAL

and press the Enter key.

Example of system response:

```
NSMATCH:
```

j. Type

>N

and press the Enter key.

Note: For a GWC-based trunk subgroup using BICC signaling, the system ignores the value entered in this field.

Example of system response:

```
AUTOON:
```

k. Type

>N

and press the Enter key.

Note: For a GWC-based trunk subgroup using BICC signaling, the system ignores the value entered in this field.

Example of system response:

```
ABCNTL: NONE
```

l. Go to step 11n

m. Indicate that you accept the supplied value of UNEQ (unequipped) for the ECSTAT (echo-cancellation status) field by pressing the Enter key.

Example of system response:

```
ABCNTL: NONE
```

n. Indicate that you accept the supplied value of NONE for the ABCNTL (A-bit signaling) field by pressing the Enter key.

Example of system response:

```
PROTOCOL:
```

o. Specify the value for the PROTOCOL (signaling-protocol type) field. Type

>UCP

and press the Enter key.

Example of system response:

```
CONTCHK:
```

p. Specify the value for the CONTCHK (continuity-check) field. Type

>THRH

and press the Enter key.

This specifies the type of continuity test performed when such a test is requested.

Example of system response:

```
COTREQ: 0
```

q. Indicate that you accept the supplied value of 0 for the COTREQ (continuity test required) field by pressing the Enter key.

Example of system response:

```
ADJNODE:
```

r. Specify the value for the ADJNODE (adjacent-node) field. Type the name of the adjacent node, as defined in step 10c of this procedure, and press the Enter key. For example, type

>DMSNODE

and press the Enter key.

Example of system response:

```
OPTION:
```

s. To indicate that you do not intend to specify any options. Type

>$

and press the Enter key.

Example of system response:

```
TMRNAME:
```

t. Specify the value for the TMRNAME (timer-name) field. Type

>NIL

and press the Enter key.

The value NIL indicates that the call-processing and trunk-maintenance datafillable timers are hard-coded.

Example of system response:

```
GLARETYP:
```

u. Specify the value for the GLARETYP (glare-type) field. Type

```
>CIC
```

and press the Enter key.

This value CIC indicates that glare is resolved using circuit identification codes.

Example of system response:

```
TUPLE TO BE ADDED:
SIPT_EASTVILLE_2W 0 DS1SIG C7UP 2W N N UNEQ
NONE UCP THRH 0 DMSNODE $ CIC
ENTER Y TO CONFIRM, N TO REJECT OR E TO EDIT.
```

v. Confirm the addition. Type

```
>Y
```

and press the Enter key.

Example of system response:

```
TUPLE ADDED.
```

w. If you need to specify another subgroup, repeat step 11b to step 11v; otherwise, proceed to step 11x.

Note: In the example introduced at the beginning of step 1, there is one dynamic packet trunk group from Northville to Eastville (spanning two GWCs at the Northville site), and one from Northville to Westville. At Northville, we must specify one subgroup for each of the trunk groups.

x. Exit from the table editor. Type

```
>QUIT
```

and press the Enter key.

12 Use the table editor to edit table TRKOPTS, to provision additional options for trunk groups.

Note: For detailed information about table TRKOPTS, see *North American DMS-100 Customer Data Schema Reference Manual* (297-8001-351 Vol. 11) or see *DMS-100 MMP Customer Data Schema Reference Manual* (297-9051-351 Vol. 12).

Proceed as follows.

a. Start the table editor. Type

```
>TABLE TRKOPTS
```

and press the Enter key.

Example of system response:

```
TABLE: TRKOPTS
```

b. Indicate that you intend to add a tuple. Type

>ADD <clli-name> <option>

and press the Enter key

where

<clli-name> is the common language location identifier (CLLI) of the trunk group, as defined in step 6b of this procedure
<option> is DPT

For example, type

>ADD SIPT_EASTVILLE_2W DPT

and press the Enter key.

Example of system response:

```
PROTOCOL:
```

c. Specify the value for the PROTOCOL field. Type

>SIPT

and press the Enter key.

Example of system response:

```
BEARNETS:
```

d. Specify the value of the BEARNETS field. This is the name of the bearer network associated with the DPT trunk group. Type

> <bearer-network-name>

and press the Enter key

where

<bearer-network-name> is the name of a bearer network, as specified in the BNETNAME field in table BEARNETS

For example, type

>NET_IP

and press the Enter key.

Example of system response:

```
NGSS_SELECTOR:
```

e. Specify the value for the NGSS_SELECTOR field. Type

>Y

or type

>N

and press the Enter key.

This value indicates whether the Session Server Trunks SIP architecture is being used.

The system response depends on the value you enter.

Example of system response if you enter Y:
```
INTER_DOMAIN:
```

Example of system response if you enter N:
```
DEST_MGCNAME:
```

f. Select the next step as follows:

If you entered	Do
Y	go to step 12j
N	go to step 12g

g. Specify the name of the destination MGC, as specified in the MGCNAME field in table MGCINV, and press the Enter key. For example, type

>EASTVILLE

and press the Enter key.

> ***Note:*** Special characters other than '-' and '.' in the parameter DEST_MGCNAME may cause conflicts with third-party vendor equipment that adheres strictly to the RFC 952 naming standard.

Example of system response:
```
TPROFILE:
```

h. Specify the value for the TPROFILE field. Type in the telephony-profile-name as specified in the KEY field in table TELEPROF in step 5c of this procedure, and press the Enter key. For example, type

>P1

and press the Enter key.

Example of system response:
```
ALT_HOST_MGCNAME:
```

i. Specify a value for the ALT_HOST_MGCNAME field. An alternative host MGC name is optional. If specified, it is a character string of up to 32 characters. If you do not need an alternative name, enter $ to indicate a null value. For example, type

>$

and press the Enter key.

Note 1: Special characters other than '-' and '.' in the parameter ALT_HOST_MGCNAME may cause conflicts with third-party vendor equipment that adheres strictly to the RFC 952 naming standard.

Note 2: If you enter $ to indicate a null value for this field, then the office-wide host MGC name, as specified by the HOST_MGC_NAME office parameter, is used for this trunk.

Note 3: The reason for specifying an alternative host MGC name is to make it possible to connect a SIP-T trunk group on the MGC to another SIP-T trunk group on the same MGC. This is the type of connection that exists for an internal SIP-T looparound trunk. (Internal SIP-T looparound trunks are used in the PT-IP and UA-IP solutions.)

Example of system response:

```
INTER_DOMAIN: N
```

j. If the trunks are to be intra-domain SIP-T trunks (defined below), just press the Enter key to accept the default value, N.

If the trunks are to be inter-domain SIP-T trunks (defined below), type

>Y

and press the Enter key.

Note 1: Intra-domain SIP-T trunks are between Nortel equipment in the same IP address range. Inter-domain SIP-T trunks are between equipment with differing IP address ranges. Examples of inter-domain trunks are: trunks between two different telephone service providers; trunks between Nortel equipment and non-Nortel equipment; trunks between two media gateway controllers (MGC) owned by the same telephone service provider but with differing IP address ranges.

Note 2: For looparound trunks, the value of the INTER_DOMAIN field must be N.

Example of system response:

```
TUPLE TO BE ADDED:
SIPT_EASTVILLE_2W DPT SIPT NET_IP N EASTVILLE
P1 $ N
ENTER Y TO CONFIRM, N TO REJECT OR E TO EDIT.
```

k. Confirm the addition. Type

>Y

and press the Enter key.

Example of system response:

```
TUPLE ADDED.
```

l. If you need to specify options for another trunk group, repeat step 12b to step 12k; otherwise, proceed to step 12m.

Note: In the example introduced at the beginning of step 1, there is one dynamic packet trunk group from Northville to Eastville (spanning two GWCs at the Northville site), and one from Northville to Westville. At Northville, we must specify options for each of the trunk groups.

m. Exit from the table editor. Type

>QUIT

and press the Enter key.

13 Use the table editor to edit table DPTRKMEM (dynamic packet trunk member), to provision SIP-T dynamic packet trunk group members.

Note: SIP-T datafill entries in table DPTRKMEM result in the automatic entry of datafill in table TRKMEM. Those automatic entries in table TRKMEM are not visible to the user.

Proceed as follows.

a. Start the table editor. Type

>TABLE DPTRKMEM

and press the Enter key.

Example of system response:

```
TABLE: DPTRKMEM
```

b. Indicate that you intend to add a tuple. Type

>ADD

and press the Enter key.

Example of system response:

```
DPTRKKEY:
```

c. Specify the value for the DPTRKKEY field. Type the clli-name of the trunk-group, as specified in step 6b of this procedure, and press the Enter key. For example, type

>SIPT_EASTVILLE_2W

and press the Enter key.

Example of system response:

```
SIGSEL:
```

d. Specify the value for the SIGSEL (signal selector) field. Type

>SIPT

and press the Enter key.

Example of system response:

```
MAXCALLS:
```

e. Specify the value for the MAXCALLS field, which specifies the maximum number of calls supported for the trunk group. Type

> <maxcalls>

and press the Enter key

where

<maxcalls> is an integer, maximum value is 262,144

For example, type

>2047

and press the Enter key.

Example of system response:

```
TUPLE TO BE ADDED:
SIPT_EASTVILLE_2W  SIPT  2047
ENTER Y TO CONFIRM, N TO REJECT OR E TO EDIT.
```

f. Confirm the addition. Type

>Y

and press the Enter key.

Example of system response:

```
TUPLE ADDED.
```

g. If you need to provision SIP-T dynamic packet trunk group members for another trunk group, repeat step 13b to step 13f; otherwise, proceed to step 13h.

Note: In the example introduced at the beginning of step 1, there is one dynamic packet trunk group from Northville to

Eastville (spanning two GWCs at the Northville site), and one from Northville to Westville. At Northville, we must specify options for each of the trunk groups.

h. Exit from the table editor. Type

```
>QUIT
```

and press the Enter key.

14 You have completed the procedure for provisioning dynamic packet trunks.

—End—

The following datafill in tables TELEPROF, CLLI, TRKGRP, TRKSGRP, TRKOPTS, and DPTRKMEM supports the example introduced in step 1.

Datafill at the Northville site

Table TELEPROF

KEY	VERSION
EASTVILLE P1	CS2K_V2
WESTVILLE P2	CS2K_V2

Table CLLI

CLLI	ADNUM	TRKGRSIZ	ADMININF
SIPT_EASTVILLE_2W	3122	0	TO_EASTVILLE
SIPT_WESTVILLE_2W	3123	0	TO_WESTVILLE

Table TRKGRP

GRPKEY	GRPTYP
SIPT_EASTVILLE_2W	IMT
SIPT_WESTVILLE_2W	IMT

Table TRKSGRP

SGRPKEY	CARDCODE	SGRPVAR	PROTOCOL
SIPT_EASTVILLE_2W 0	DS1SIG	C7UP	UCP
SIPT_WESTVILLE_2W 0	DS1SIG	C7UP	UCP

Table TRKOPTS

OPTKEY	OPTINFO
SIPT_EASTVILLE_2W DPT	SIPT NET_IP N EASTVILLE P1 $ N
SIPT_WESTVILLE_2W DPT	SIPT NET_IP N WESTVILLE P2 $ N

Table DPTRKMEM

DPTRKKEY	SIGSEL	MAXCALLS
SIPT_EASTVILLE_2W	SIPT	6141
SIPT_WESTVILLE_2W	SIPT	2047

Datafill at the Eastville site

Table TELEPROF

KEY	VERSION
NORTHVILLE P3	CS2K_V2
WESTVILLE P2	CS2K_V2

Table CLLI

CLLI	ADNUM	TRKGRSIZ	ADMININF
SIPT_NORTHVILLE_2W	4067	0	TO_NORTHVILLE
SIPT_WESTVILLE_2W	4068	0	TO_WESTVILLE

Table TRKGRP

GRPKEY	GRPTYP
SIPT_NORTHVILLE_2W	IMT
SIPT_WESTVILLE_2W	IMT

Table TRKSGRP

SGRPKEY	CARDCODE	SGRPVAR	PROTOCOL
SIPT_NORTHVILLE_2W 0	DS1SIG	C7UP	UCP
SIPT_WESTVILLE_2W 0	DS1SIG	C7UP	UCP

Table TRKOPTS

OPTKEY	OPTINFO
SIPT_NORTHVILLE_2W DPT	SIPT NET_IP N NORTHVILLE P1 $ N
SIPT_WESTVILLE_2W DPT	SIPT NET_IP N WESTVILLE P2 $ N

Table DPTRKMEM

DPTRKKEY	SIGSEL	MAXCALLS
SIPT_NORTHVILLE_2W	SIPT	6141
SIPT_WESTVILLE_2W	SIPT	2047

Datafill at the Westville site

Table TELEPROF

KEY	VERSION
EASTVILLE P1	CS2K_V2
NORTHVILLE P3	CS2K_V2

Table CLLI

CLLI	ADNUM	TRKGRSIZ	ADMININF
SIPT_EASTVILLE_2W	5193	0	TO_EASTVILLE
SIPT_NORTHVILLE_2W	5194	0	TO_NORTHVILLE

Table TRKGRP

GRPKEY	GRPTYP
SIPT_EASTVILLE_2W	IMT
SIPT_NORTHVILLE_2W	IMT

Table TRKSGRP

SGRPKEY	CARDCODE	SGRPVAR	PROTOCOL
SIPT_EASTVILLE_2W 0	DS1SIG	C7UP	UCP
SIPT_NORTHVILLE_2W 0	DS1SIG	C7UP	UCP

Table TRKOPTS

OPTKEY	OPTINFO
SIPT_EASTVILLE_2W DPT	SIPT NET_IP N EASTVILLE P1 $ N
SIPT_NORTHVILLE_2W DPT	SIPT NET_IP N NORTHVILLE P2 $ N

Table DPTRKMEM

DPTRKKEY	SIGSEL	MAXCALLS
SIPT_EASTVILLE_2W	SIPT	2047
SIPT_NORTHVILLE_2W	SIPT	2047

Provisioning data schema tables for SIP-T DPTs and the Session Server for Trunks

SIP-T DPTs are dynamic packet trunks that use Session Initiated Protocol for Telephones (SIP-T) signaling. These trunks support inter-MGC communication. To provision SIP-T DPTs you enter datafill into selected data-schema tables that configure the XA-Core. This procedure lists these tables in an ordered sequence and provides the details for entering the necessary datafill.

ATTENTION

Use this procedure only in networks that use a Session Server for trunks with SIP-T DPTs (the network does not use a VRDN / SIP-T GWC pair).

The datafill used in the procedural steps is for illustrative purposes only. The actual datafill is office-dependent.

Interval

Perform this procedure as required.

Prerequisites

- Gateway controllers (GWC) must be configured and in-service (carriers added and endpoints known).

  ATTENTION

  For information about configuring GWCs, see *Gateway Controller Configuration Management* (NN10112-511).

  When using the CS 2000 Management Tool (CMT) GWC Element Manager to configure GWCs, the provisioning information entered automatically updates table SERVRINV.

- The HOST_MGCNAME office parameter must be set to the appropriate value.

  ATTENTION

  For instructions, see procedure "Provisioning the HOST_MGCNAME office parameter" (page 266).

- You must know the remote SIP servers that the Session Server will communicate with, and for each remote SIP server, you must know how many trunk groups will carry traffic to and from the local office.
- The Session Server must be configured and in-service.

ATTENTION
For information, see *Session Server Configuration Management* (NN10338-511).

- The SIP gateway application that runs on the Session Server must be configured.

ATTENTION

- SOC options CS2B0008 and CS2B0009 must be enabled.

ATTENTION
For information, see *Session Server Configuration Management* (NN10338-511).

Additional information

Provisioning the DPT_MAX_PORTS office parameter is not part of the process for provisioning dynamic packet trunks. However, the office parameter must be set to an appropriate value to allow DPT calls. For information on this subject, see procedure "Provisioning the DPT_MAX_PORTS office parameter" (page 280).

You can apply the following network-management controls to dynamic packet trunk groups: DPT-priority control, MaxTid-limit control, DPT reservation level, CANT, CANF, SKIP, and FRR. For directions for applying and removing these controls, see the appropriately titled sections of this document.

Common procedures

This procedure does not refer to any common procedures.

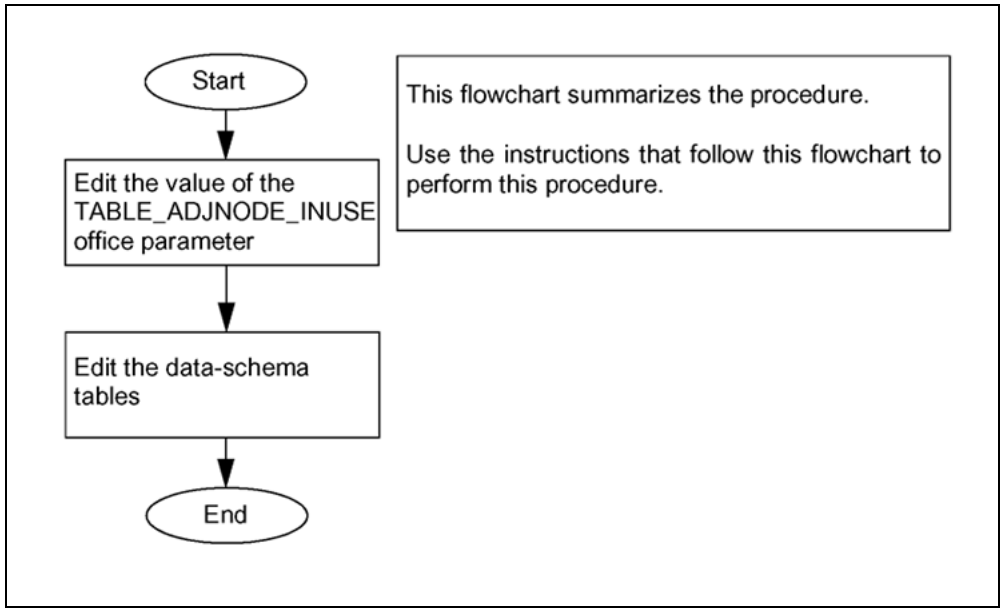
Action

This procedure contains instructions for provisioning SIP-T DPTs in an office that has a session server for trunks. You perform this procedure by entering datafill in the data-schema tables that configure the XA-Core to support inter-MGC communication.

ATTENTION
After completing this procedure, use the Session Server manager to perform the additional configuration activities.

The following flowchart summarizes this procedure.

Provisioning SIP-T DPTs in an office with a Session Server



Provisioning SIP-T DPTs in an office with a Session Server

Step	Action

At the MAP terminal

1 Use the table editor to edit the value of office parameter TABLE_ADJNODE_INUSE in table OFCENG.

You must set the value to **Y** to indicate that table ADJNODE is in use. This procedure refers to table ADJNODE in step 5.

ATTENTION

For detailed information about table ADJNODE, see *North American DMS-100 Customer Data Schema Reference Manual* Vol. 1 (297-8001-351), or see *DMS-100 MMP Customer Data Schema Reference Manual*, Vol. 1 (297-9051-351).

Proceed as follows.

a. Start the table editor. Type

```
>TABLE OFCENG
```

and press the Enter key.

Example of system response:

```
TABLE: OFCENG
```

b. Move to the tuple for TABLE_ADJNODE_INUSE parameter. Type

```
>POS TABLE_ADJNODE_INUSE
```

and press the Enter key.

Example of system response:

```
TABLE_ADJNODE_INUSE:
```

c. Indicate that you intend to change the value of the parameter. Type

```
>CHA
```

and press the Enter key.

Example of system response:

```
PARMVAL: N:
```

d. At the prompt, enter the new value. Type

```
>Y
```

and press the Enter key.

Example of system response:

```
TUPLE TO BE CHANGED:
TABLE_ADJNODE_INUSE Y
ENTER Y TO CONFIRM, N TO REJECT OR E TO EDIT.
```

e. Confirm the change. Type

```
>Y
```

and press the Enter key.

Example of system response:

```
TUPLE CHANGED.
```

f. Exit from the table editor. Type

```
>QUIT
```

and press the Enter key.

2 Use the table editor to edit table SERVSINV, to provision one or two "DPT subtended nodes" for the gateway controller.

A DPT subtended node is a virtual gateway. Associated with each subtended node are 2047 endpoints for dynamic packet trunks. If you provision the maximum of two DPT subtended nodes for a gateway controller, there will be 4094 usable DPT terminal identifiers (tids) for that GWC

Proceed as follows.

a. Start the table editor. Type

```
>TABLE SERVSINV
```

and press the Enter key.

Example of system response:

```
TABLE: SERVSINV
```

b. Indicate that you intend to add a tuple. Type

>ADD

and press the Enter key.

Example of system response:

```
SRVSNAME:
```

c. Specify the value for the SRVSNAME field. This is the name of the DPT subtended node. Type

>DPT <pm-number>

and press the Enter key

where

<pm-number> is an integer in the range 0 to 255

Example of system response:

```
SVRNAME:
```

d. Specify the value for the SRVRNAME (server subtending name) field. This is the name of the gateway controller. Type

>GWC <n>

and press the Enter key

where

<n> is an integer

ATTENTION

The GWC name was specified during the configuration of the gateway controller.

Example of system response:

```
NUMTERMS:
```

e. Specify the value for the NUMTERMS (number of terminals) field. Type

>2048

and press the Enter key.

ATTENTION

Of the 2048 terminals, 2047 are usable for dynamic packet trunks, and one is reserved for maintenance messaging. After completing the provisioning, if you go to the DPTTRM level of the MAP interface and use the POST command, only the DPT terminals are displayed. In this case that means 2047 terminals, not 2048.

Example of system response:

```
OPTIONS:
```

f. Specify the signaling type in the OPTIONS field. Type

>SIPT

and press the Enter key.

Example of system response:

```
OPTIONS:
```

g. Indicate that you have finished specifying options. Type

>$

and press the Enter key.

Example of system response:

```
TUPLE TO BE ADDED:
DPT 0 GWC 0 2048 (SIPT) $
ENTER Y TO CONFIRM, N TO REJECT OR E TO EDIT.
```

h. Confirm the addition. Type

>Y

and press the Enter key.

Example of system response:

```
TUPLE ADDED.
```

i. If you want to provision a second DPT subtended node for the gateway controller, repeat substeps b to h; otherwise, proceed to substep j.

j. Exit from the table editor. Type

>QUIT

and press the Enter key.

3 Use the table editor to edit table CLLI, to define the common language location identifiers (CLLIs) of the trunk-groups that will carry traffic between the local office and the offices with remote SIP servers.

ATTENTION

For detailed information about table CLLI, see *North American DMS-100 Customer Data Schema Reference Manual*, Vol. 3 (297-8001-351), or see *DMS-100 MMP Customer Data Schema Reference Manual*, Vol. 3 (297-9051-351).

Proceed as follows.

a. Start the table editor. Type

```
>TABLE CLLI
```

and press the Enter key.

Example of system response:

```
TABLE: CLLI
```

b. Indicate that you intend to add a tuple. Type

```
>ADD <clli-name>
```

and press the Enter key.

where

<clli-name> is the common language location identifier (CLLI) of the trunk group

For example, type

```
>ADD SIPT_1
```

and press the Enter key.

Example of system response:

```
ADNUM:
```

c. Specify the value for the ADNUM (administrative trunk group number) field. The value must be an integer in the range 51 to one less than the current size of table CLLI. (The current size of table CLLI appears in field SIZE of table DATASIZE.)

For example, type

```
>400
```

and press the Enter key.

Example of system response:

```
TRKGRSIZE:
```

d. Specify the value for the TRKGRSIZE field. Type

```
>0
```

and press the Enter key.

ATTENTION
When defining a trunk-group CLLI for SIP-T trunks, you must specify 0 as the value of the TRKGRSIZE field.

Example of system response:
```
ADMININF:
```

e. Specify the value for the ADMININF (administrative information) field.

The value in this field is intended to allow someone looking at the clli to have an idea what it will be used for. You can type in up to 32 characters. Use only alphabetic characters, digits, and underscores.

For example, type:

>SIP_T_TO_REMOTE_1

and press the Enter key.

Example of system response:
```
TUPLE TO BE ADDED:
SIPT_1 400 0 SIP_T_TO_REMOTE1
ENTER Y TO CONFIRM, N TO REJECT OR E TO EDIT.
```

f. Confirm the addition. Type

>Y

and press the Enter key.

Example of system response:
```
TUPLE ADDED.
```

g. Select the next step as follows:

If	Do
you need to define the CLLI for another trunk group	step 3b
you do not need to define any more CLLIs	step 3h

h. Exit from the table editor. Type

>QUIT

and press the Enter key.

4 Use the table editor to edit table TRKGRP, to define the trunk groups.

ATTENTION

Trunks that interwork with CS 2000, and/or MCS 5200, and/or MSC Server 1000 must be set to type IBNT2.

For detailed information about table TRKGRP, see *North American DMS-100 Customer Data Schema Reference Manual*, Vol. 10 (297-8001-351), or see *DMS-100 MMP Customer Data Schema Reference Manual*, Vol. 11 and Vol. 12, (297-9051-351).

Proceed as follows.

a. Start the table editor. Type

>TABLE TRKGRP

and press the Enter key.

Example of system response:

```
TABLE: TRKGRP
```

b. Indicate that you intend to add a tuple. Type

>ADD <clli-name>

and press the Enter key.

where

<clli-name> is the common language location identifier (CLLI) of the trunk group

For example, type

>ADD SIPT_1

and press the Enter key.

Example of system response:

```
GRPTYP:
```

c. The system prompts for values for the fields that compose the tuple. The following list shows example field values.

Field	Value
GRPTYP	IBNT2
TRAFSNO	0
PADGRP	ELO
NCCLS	NCRT
CUSTNAME	ABCDEFG
SUBGRPNO	0
SELSEQ	MIDL
NCOS	0
BILLDN	N
SUPV	ANSDISC
DISCTSEL	0
INTRAGRP	Y
DIGIT0	N
DIGIT1	N
DTI	N
TES	N
CDR	N
SMDR	Y
TRC	0
ALTNCOS	0
TRKDSR	N
LCSFN	0
ALTLCSFN	0
LSCINCPT	0
ALSCINCP	0
IGA	N
FDN	N
FDV	N
FLASH	N
DPX	N
PREEMPT	N
AIOD	N
REORIG	N
OFFNET	N
COFFTYP	NATL
OPTION	$

Example of system response:

```
TUPLE TO BE ADDED:
SIPT_1 IBN2 0 ELO NCRT ABCDEFG 0 MIDL 0 N
ANSDISC 0 Y N N N N N Y 0 0 N 0 0 0 0 N N N N
N N N N N NATL $
```

```
ENTER Y TO CONFIRM, N TO REJECT OR E TO EDIT.
```

d. Confirm the addition. Type

>Y

and press the Enter key.

Example of system response:

```
TUPLE ADDED.
```

e. Select the next step as follows:

If	Do
you need to define another trunk group	step 4b
you do not need to define any more trunk groups	step 4f

f. Exit from the table editor. Type

>QUIT

and press the Enter key.

5 Use the table editor to edit table ADJNODE, to specify the type of software running on each adjacent DMS node.

ATTENTION

For detailed information about table ADJNODE, see *North American DMS-100 Customer Data Schema Reference Manual*, Vol. 1 (297-8001-351), or see *DMS-100 MMP Customer Data Schema Reference Manual*, Vol. 1 (297-9051-351).

Proceed as follows.

a. Start the table editor. Type

>TABLE ADJNODE

and press the Enter key.

Example of system response:

```
TABLE: ADJNODE
```

b. Indicate that you intend to add a tuple. Type

>ADD

and press the Enter key.

Example of system response:

```
ADJNODE_K:
```

c. Specify the value for the ADJNODE_K field. Type the name of the adjacent node, and press the Enter key.

Use a name that clearly identifies the adjacent node. For example, type

>DMSNODE

and press the Enter key.

Example of system response:

```
SIGDATA:
```

d. Specify the value for the SIGDATA field. Type

>ISUP

and press the Enter key.

ATTENTION

The SIGDATA field in table ADJNODE specifies the signaling type as viewed by the switch. From the point of view of the switch, the signaling is ISUP. Elsewhere in this procedure we specify SIP-T signaling, but that applies to signaling from one gateway controller to another, through the packet network.

Example of system response:

```
PRODUCT:
```

e. Specify the value for the PRODUCT field. Type

>DMS

and press the Enter key.

Example of system response:

```
OPTIONS:
```

f. Specify the value for the OPTIONS field. Type

>NOGRPBLK

and press the Enter key.

Example of system response:

```
OPTIONS:
```

g. Indicate that you do not intend to specify any more options. Type

>$

and press the Enter key.

Example of system response:

```
TUPLE TO BE ADDED:
DMSNODE ISUP DMS (NOGRPBLK) $
```

```
ENTER Y TO CONFIRM, N TO REJECT OR E TO EDIT.
```

h. Confirm the addition. Type

>Y

and press the Enter key.

Example of system response:

```
TUPLE ADDED.
```

i. Select the next step as follows:

If	Do
you need to add a tuple for another adjacent node	step 5b
you do not need to add tuples for any more adjacent nodes	step 5j

j. Exit from the table editor. Type

>QUIT

and press the Enter key.

6 Use the table editor to edit table TRKSGRP (trunk subgroup), to define supplementary information for each subgroup assigned to one of the trunk groups listed in table TRKGRP.

ATTENTION

You cannot have a mixed trunk subgroup, that is a subgroup in which some members are on a legacy peripheral module and some members are on a packet-based gateway (for example, an MG 15000). However, a single trunk group can have two subgroups, and you can put the legacy-peripheral-module-based members in one subgroup and the packet-based members in the other subgroup. The reason for the restriction is that all members of a subgroup share the same echo-cancellation arrangements, and those arrangements may be interpreted differently by legacy peripheral modules and by packet-based gateways.

ATTENTION

For detailed information about table TRKSGRP, see *North American DMS-100 Customer Data Schema Reference Manual*, Vol. 11 (297-8001-351), or see *DMS-100 MMP Customer Data Schema Reference Manual*, Vol. 12 (297-9051-351).

Proceed as follows.

a. Start the table editor. Type

>TABLE TRKSGRP

and press the Enter key.

Example of system response:

```
TABLE: TRKSGRP
```

b. Indicate that you intend to add a tuple. Type

>ADD <clli-name> <subgroup number>

and press the Enter key.

where

<clli-name> is the common language location identifier (CLLI) of the trunk group, as defined in step 3b of this procedure

<subgroup-number> is 0 or 1

For example, type

>ADD SIPT_1 0

and press the Enter key.

Example of system response:

```
CARDCODE:
```

c. Specify the value for the CARDCODE field. Type

>DS1SIG

and press the Enter key.

Example of system response:

```
SGRPVAR:
```

d. Specify the value for the SGRPVAR field (variable subgroup data). Type

>C7UP

and press the Enter key.

Example of system response:

```
DIR: 2W
```

e. Indicate that you accept the supplied value of 2W (two-wire) for the DIR (traffic-flow direction) field by pressing the Enter key.

Example of system response:

```
ESUPR: N
```

f. Indicate that you accept the supplied value of N (no) for the ESUPR (echo-suppressor) field by pressing the Enter key.

Example of system response:

```
SAT:
```

g. Specify the value for the SAT (satellite) field. Type Y or N and press the Enter key.

This field specifies whether the trunk subgroup is arranged to switch by way of satellite.

Example of system response:

```
ECSTAT: UNEQ
```

h. Select the next step as follows.

If	Do
the network includes IW-SPMs that contain echo-cancellation resources	go to step 6i
the network does not contain IW-SPMs that contain echo-cancellation resources	go to step 6m

ATTENTION

If the network contains IW-SPMs that contain echo-cancellation resources, those resources will perform echo cancellation for calls carried by the trunk subgroup. The echo cancellation occurs before the calls enter the packet network.

For information on how to provision the echo-cancellation resources, see *IW SPM-IP Configuration Management* (NN10100-511).

For information on the echo-cancellation strategy used in the network, see *ATM/IP Configuration Management* (NN10409-500).

i. Specify "internal" echo cancellation, meaning that the IW-SPM will perform echo cancellation for calls carried by this trunk subgroup. Type

```
>INTERNAL
```

and press the Enter key.

Example of system response:

```
NSMATCH:
```

j. Type

```
>N
```

and press the Enter key.

ATTENTION
For a GWC-based trunk subgroup using BICC signaling, the system ignores the value entered in this field.

Example of system response:
```
AUTOON:
```

k. Type

>N

and press the Enter key.

ATTENTION
For a GWC-based trunk subgroup using BICC signaling, the system ignores the value entered in this field.

Example of system response:
```
ABCNTL: NONE
```

l. Go to step 6n.

m. Indicate that you accept the supplied value of UNEQ (unequipped) for the ECSTAT (echo-cancellation status) field by pressing the Enter key.

Example of system response:
```
ABCNTL: NONE
```

n. Indicate that you accept the supplied value of NONE for the ABCNTL (A-bit signaling) field by pressing the Enter key.

Example of system response:
```
PROTOCOL:
```

o. Specify the value for the PROTOCOL (signaling-protocol type) field. Type

>Q764

and press the Enter key.

Example of system response:
```
CONTCHK:
```

p. Specify the value for the CONTCHK (continuity-check) field. Type

>THRH

and press the Enter key.

This specifies the type of continuity test performed when such a test is requested.

Example of system response:

```
COTREQ: 0
```

q. Indicate that you accept the supplied value of 0 for the COTREQ (continuity test required) field by pressing the Enter key.

Example of system response:

```
ADJNODE:
```

r. Specify the value for the ADJNODE (adjacent-node) field. Type the name of the adjacent node, as defined in step 5c of this procedure, and press the Enter key. For example, type

>DMSNODE

and press the Enter key.

Example of system response:

```
OPTION:
```

s. To indicate that you do not intend to specify any options. Type

>$

and press the Enter key.

Example of system response:

```
TMRNAME:
```

t. Specify the value for the TMRNAME (timer-name) field. Type

>NIL

and press the Enter key.

The value NIL indicates that the call-processing and trunk-maintenance timers are hard-coded (do not require datafill).

Example of system response:

```
GLARETYP:
```

u. Specify the value for the GLARETYP (glare-type) field. Type

>CIC

and press the Enter key.

This value CIC indicates that glare is resolved using circuit identification codes.

Example of system response:

```
TUPLE TO BE ADDED:
SIPT_1 0 DS1SIG C7UP 2W N N UNEQ NONE Q764
THRH 0 DMSNODE $ NIL CIC
ENTER Y TO CONFIRM, N TO REJECT OR E TO EDIT.
```

v. Confirm the addition. Type

>Y

and press the Enter key.

Example of system response:

```
TUPLE ADDED.
```

w. Select the next step as follows:

If	Do
you need to add a tuple for another adjacent node	step 6b
you do not need to add tuples for any more adjacent nodes	step 6x

x. Exit from the table editor. Type

>QUIT

and press the Enter key.

7 Use the table editor to edit table TRKOPTS, to provision additional options for each trunk group.

ATTENTION

For detailed information about table TRKOPTS, see *North American DMS-100 Customer Data Schema Reference Manual*, Vol. 11 (297-8001-351), or see *DMS-100 MMP Customer Data Schema Reference Manual*, Vol. 12 (297-9051-351).

Proceed as follows.

a. Start the table editor. Type

>TABLE TRKOPTS

and press the Enter key.

Example of system response:

```
TABLE: TRKOPTS
```

b. Indicate that you intend to add a tuple. Type

>ADD <clli-name> <option>

and press the Enter key.

where

<clli-name> is the common language location identifier (CLLI) of the trunk group, as defined in step 3b of this procedure

<option> is DPT

For example, type

>ADD SIPT_1 DPT

and press the Enter key.

Example of system response:

```
OPTION:
```

c. Type

>DPT

and press the Enter key.

Example of system response:

```
PROTOCOL:
```

d. Specify the value for the PROTOCOL field. Type

>SIPT

and press the Enter key.

Example of system response:

```
BEARNETS:
```

e. Specify the value of the BEARNETS field. This is the name of the bearer network associated with the DPT trunk group. Type

> <bearer-network-name>

and press the Enter key.

where

<bearer-network-name> is the name of a bearer network, as specified in the BNETNAME field in table BEARNETS

For example, type

>NET_IP

and press the Enter key.

Example of system response:

```
NGSS_SELECTOR:
```

f. Specify the value for the NGSS_SELECTOR field. This field indicates whether the Session Server for trunks SIP architecture is being used in the office. Type

>Y

and press the Enter key.

Example of system response:

```
INTER_DOMAIN:
```

g. If the trunks are to be intra-domain SIP-T trunks (defined below), press the Enter key to accept the default value, N.

If the trunks are to be inter-domain SIP-T trunks (defined below), type

>Y

and press the Enter key.

ATTENTION

Intra-domain SIP-T trunks are between Nortel equipment in the same IP address range. Inter-domain SIP-T trunks are between equipment with differing IP address ranges. Examples of inter-domain trunks are: trunks between two different telephone service providers; trunks between Nortel equipment and non-Nortel equipment; trunks between two media gateway controllers (MGCs) owned by the same telephone service provider but with differing IP address ranges.

For looparound trunks and IMT trunks, the value of the INTER_DOMAIN field must be N.

Example of system response:

```
TUPLE TO BE ADDED:
SIPT_1 DPT SIPT NET_IP Y N
ENTER Y TO CONFIRM, N TO REJECT OR E TO EDIT.
```

h. Confirm the addition. Type

>Y

and press the Enter key.

Example of system response:

```
TUPLE ADDED.
```

i. Select the next step as follows:

If	Do
you need to provision options for another trunk group	step 7b
you do not need to provision options for any more trunk groups	step 7j

j. Exit from the table editor. Type

>QUIT

and press the Enter key.

8 Use the table editor to edit table DPTRKMEM (dynamic packet trunk member), to provision SIP-T dynamic packet trunk group members for each trunk group.

ATTENTION

SIP-T datafill entries in table DPTRKMEM result in the automatic entry of datafill in table TRKMEM. Those automatic entries in table TRKMEM are not visible to the user.

Proceed as follows.

a. Start the table editor. Type

>TABLE DPTRKMEM

and press the Enter key.

Example of system response:

```
TABLE: DPTRKMEM
```

b. Indicate that you intend to add a tuple. Type

>ADD

and press the Enter key.

Example of system response:

```
DPTRKKEY:
```

c. Specify the value for the DPTRKKEY field. Type the clli-name of the trunk-group, as specified in step 3b of this procedure, and press the Enter key. For example, type

>SIPT_1

and press the Enter key.

Example of system response:

```
SIGSEL:
```

d. Specify the value for the SIGSEL (signal selector) field. Type

>SIPT

and press the Enter key.

Example of system response:

```
MAXCALLS:
```

e. Specify the value for the MAXCALLS field, which specifies the maximum number of calls supported for the trunk group. Type

> <maxcalls>

and press the Enter key

where

<maxcalls> is an integer, maximum value is 262,144

For example, type

>2047

and press the Enter key.

Example of system response:

```
TUPLE TO BE ADDED:
SIPT_1  SIPT 2047
ENTER Y TO CONFIRM, N TO REJECT OR E TO EDIT.
```

f. Confirm the addition. Type

>Y

and press the Enter key.

Example of system response:

```
TUPLE ADDED.
```

g. Select the next step as follows:

If	Do
you need to provision members for another DPT trunk group	step 8b
you do not need to provision members for any more DPT trunk groups	step 8h

h. Exit from the table editor. Type

>QUIT

and press the Enter key.

9 Use the table editor to edit table SIPLINK (session internet protocol communication link), to provision SIP access links.

You must provision one SIP access link for each trunk group that will carry traffic between the local switch and a site with a remote SIP server.

Proceed as follows:

a. Start the table editor. Type

>TABLE SIPLINK

and press the Enter key.

Example of system response:

```
TABLE: SIPLINK
```

b. Indicate that you intend to add a tuple. Type

>ADD <linkname>

and press the Enter key

where

<linkname> is the name of the link, a string of up to 16 characters

For example, type

>SIPLINK1

Example of system response:

```
CONNTYPE:
```

c. Specify the value of the CONNTYPE (connection type) field.

If the remote SIP server is a CS 2000 or an MCS, type

>CS2CS

and press the Enter key.

Alternatively, if the remote SIP server is other than a CS 2000 or an MCS type

>CS2AS

and press the Enter key.

Example of system response:

```
AGNTDATA:
```

d. Specify the value of the AGNTDATA (agent data) field. This field indicates the type of agent that the Session Server must inter-operate with. Type

>ISUPTRK

and press the Enter key.

Example of system response:

```
SIPTTRK:
```

e. Specify the value for the SIPTTRK field. This field indicates the SIP-T trunk group that will carry traffic between the local office and the remote SIP server. Type the clli-name of the trunk-group, as specified in step 3b of this procedure, and press the Enter key. For example, type

>SIPT_1

and press the Enter key.

Example of system response:

```
TUPLE TO BE ADDED:
SIPLINK1 CS2CS ISUPTRK  SIPT_1
ENTER Y TO CONFIRM, N TO REJECT OR E TO EDIT.
```

f. Confirm the addition. Type

>Y

and press the Enter key.

Example of system response:

```
TUPLE ADDED.
```

g. Select the next step as follows:

If	Do
you need to provision the SIP access link for another trunk group	step 9b
you do not need to provision SIP access links for any more trunk groups	step 9h

h. Exit from the table editor. Type

>QUIT

and press the Enter key.

10 You have completed the procedure for provisioning dynamic packet trunks in an office that has a Session Server.

ATTENTION

You must perform additional activities to set up the dynamic packet trunks between the local switch and the remote SIP servers. For details, see "Related activities" (page 163)in this module.

—End—

Related activities

CAUTION

Possible service impact

Removing the table SIPLINK entry automatically removes the access link mappings from the Session Server Manager. Adding the same table SIPLINK entry back does not repopulate the Session Server Manager, which must be done manually. To avoid a service impact, use caution when deleting then re-adding the same table SIPLINK datafill.

If you want to set up the dynamic packet trunks between the local switch and the remote SIP servers, you must enter datafill into the data-schema tables in the XA-Core. If you have not already done so, use the Session Server Manager to:

- configure the SIP gateway application.
- identify the SIPT gateway controllers (that is, the gateway controllers with which the Session Server will communicate).
- identify the remote SIP servers.
- specify telephony profiles. There will be one telephony profile for each remote SIP server.
- specify access link mappings.

  Each access link mapping specifies the telephony profile and the remote SIP server that are associated with a SIP access link.

ATTENTION

For instructions for performing these activities, see *Session Server Configuration Management* (NN10338-511).

Provisioning the Trunk Group and Trunks for an H.323 Gateway

This procedure contains instructions for entering datafill into the data schema tables of the XA-Core to provision the one or more trunk groups and the trunks for an H.323 gateway.

For detailed information about the mapping of multiple trunk groups to an H.323 gateway, see "Relationship between H.323 carriers and trunk groups" (page 166).

The provisioning of the one or more trunk groups and the trunks is the final part of the process for provisioning an H.323 gateway. The major steps in the process are as follows:

- add and configure an H.323 GWC, that is, a GWC with the H.323 profile
- associate the H.323 gateway with the H.323 GWC
- add endpoint/TIDs

ATTENTION

To add the endpoint/TIDs, you add one or more H.323 carriers to the H.323 gateway during gateway association. One H.323 carrier can support up to 672 endpoint/TIDs. If more than 672 endpoint/TIDs are required, you must add one or more additional H.323 carrier to the H.323 gateway.

- enter datafill into the data schema tables to provision the one or more trunk groups that will be mapped to the gateway, and to provision the trunks

This procedure covers only the final bullet in the preceding list. For information on the topics covered by the other bullets, see *GWC Configuration Management* (NN10112-511).

Interval

Perform this procedure as required.

Prerequisites

Prerequisites for provisioning trunks for H.323 gateways are as follows:

- The gateway controller with the H.323 profile must already be configured.
- The H.323 gateway must already be associated with the GWC.
- You must know the endpoints and terminal numbers allocated for the H.323 gateway. To find endpoints and terminal numbers, look in the Management Tools interface. In the list of device types, click on

"GatewayController". Select the GWC that has the H.323 gateway associated with it. Click on the Provisioning tab. Within the Provisioning tab, click on the Carriers tab. Click on the "Retrieve All" button to retrieve all the endpoint groups (EPG) that are allocated on this GWC. In the endpoint groups list, find the gateway name in the "gateway" column, and click on the endpoint group to select it. (There may be more than one endpoint group allocated for the gateway.) Click on the "Display" button in the lower right corner of the Carriers tab. The "trunks associated with EPG" panel appears on the screen. The panel lists the names of the endpoints in the endpoint group, and the associated terminal numbers.

- You must know the number of H.323 carriers that have been mapped to the H.323 gateway, and the number of endpoint/TIDs in each H.323 carrier. For each H.323 carrier, you will provision a trunk group. In such trunk group, the number of members will be one fewer than the number of endpoint/TIDs in the H.323 carrier. For more information, see "Relationship between H.323 carriers and trunk groups" (page 166).
- If you are going to provision multiple trunk groups on a single H.323 gateway, you must decide on the features, services sets, and translations to be used for all the trunk groups. The configuration of the trunk groups must be identical, to ensure that call processing is the same in all the trunk groups.

Relationship between H.323 carriers and trunk groups

Here is an explanation of the relationship between H.323 carriers and trunk groups, as discussed in this module.

An H.323 carrier is composed of 4 to 672 endpoint/TIDs. (The size is not restricted to 24 or 32 endpoint/TIDs.) One endpoint/TID is used for the D channel. The others are used for B channels.

A trunk group is composed of member trunks. Each member uses a B channel. Nortel recommends that you have one trunk group per H.323 carrier. (Having one trunk group per H.323 carrier is recommended but is not mandatory.)

For example, if an H.323 carrier has 672 endpoint/TIDs, that H.323 carrier supports one trunk group, and the trunk group has 671 members.

Recommendation re the number of H.323 carriers on an H.323 gateway

Nortel makes the following recommendation about the number of H.323 carriers on an H.323 gateway. If you want to map a single H.323 gateway to the whole capacity of the H.323 GWC, you will need to use more than one H.323 carrier.

In this release, you can map a single H.323 gateway to the whole capacity of the H.323 GWC.

ATTENTION

Each gateway profile has a maximum-number-of-endpoints value. You can map a single H.323 gateway to the whole capacity of the H.323 GWC only if the gateway profile has a maximum-number- of-endpoints value that is equal to or greater than the capacity of the GWC. For information on gateway profiles, see *Gateway Controller Configuration Management* (NN10205-511).

The capacity of the H.323 GWC depends on whether the GWC uses MCPN750 cards or MCPN905 cards.

- If the GWC uses MCPN750 cards, the capacity is
  - in the North American Market, 1032 TIDs
  - in the international market, 1024 TIDs
- If the GWC uses MCPN905 cards, the capacity in both the North American market and the international market is 2112 TIDs.

A single H.323 carrier has a maximum size of 672 endpoint/TIDS (671 for B channels and 1 for a D channel). To map a single H.323 gateway to the whole capacity of the H.323 GWC, you create multiple H.323 carriers and you map the corresponding trunk groups to the single gateway.

The recommended number of trunk groups, and the recommended number of members in each trunk group depends on whether the GWC uses MCPN750 cards or MCPN905 cards.

- If the GWC uses MCPN750 cards, the recommendations are
  - in the North American Market, use two trunk groups, each with 515 members
  - in the international market, use two trunk groups, each with 511 members
- If the GWC uses MCPN905 cards, the recommendations in both the North American and international markets are to use four trunk groups, each with 528 members.

ATTENTION

If you provision multiple trunk groups on a single H.323 gateway, the configuration of those trunk groups must be identical. The features, service sets, and translations must be identical. This ensures that call processing is the same in all the trunk groups.

Limitations

When planning the mapping of trunk groups to an H.323 gateway, you must work within the following limitations:

- An H.323 GWC, if equipped with MCPN905 cards, can be provisioned with the following number of endpoints/TIDs: 2112 in both the North American market and the international market.
- An H.323 GWC, if equipped with MCPN750 cards, can be provisioned with the following number of endpoints/TIDs: 1032 in the North American market; 1024 in the international market.
- Each trunk group can have up to 671 members.
- You can provision up to 254 trunk groups mapped to the H.323 gateways that are associated with a single H.323 GWC. The limit is 254 because the H.323 GWC can support a maximum of 254 D channels, and each trunk group has one D channel.
- There are multiple types of H.323 gateway profiles. The gateway profile may impose further restrictions on your planning. For detailed information on the H.323 gateway profiles, see *GWC Configuration Management* (NN10112-511).

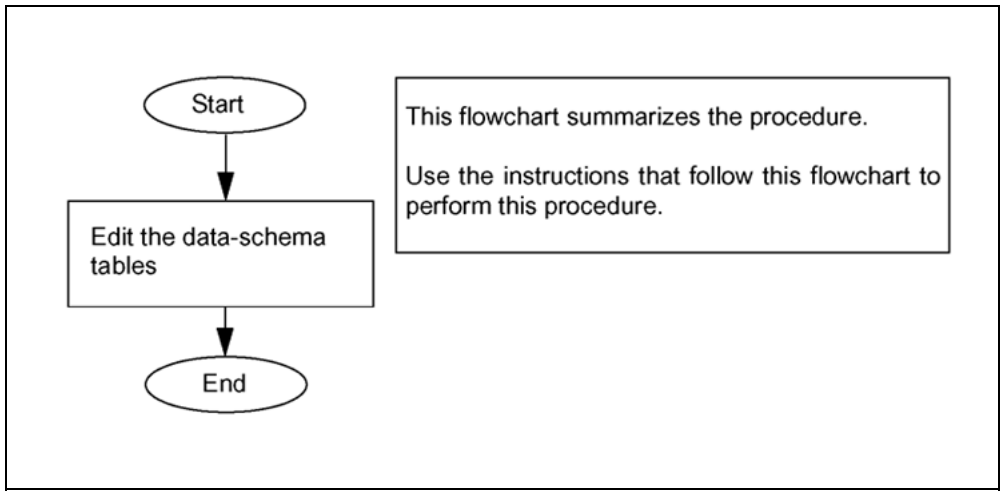
Common procedures

This procedure does not refer to any common procedures.

Action

The following flowchart summarizes this procedure.

Provisioning the trunk groups and trunks for an H.323 gateway



Provisioning the trunk groups and trunks for an H.323 gateway

Step	Action
	At the MAP terminal

1 Select the next step as follows:

If	Do
you are going to map only one trunk group to the H.323 gateway	step 4
you are going to map more than one trunk group to the H.323 gateway	step 2

2 You will provision the trunk groups one at a time. Therefore, you must decide on the sequence in which you will provision the trunk groups.

3 Based on the sequence that you decided in step 2, select the trunk group that you will provision in the following steps.

4 Use the table editor to edit table CLLI, to define the common language location identifier (CLLI) of the trunk-group for the H.323 gateway.

For detailed information about table CLLI, see *North American DMS-100 Customer Data Schema Reference Manual* (297-8001-351 Vol. 3) or *DMS-100 MMP Customer Data Schema Reference Manual* (297-9051-351 Vol. 3).

Take the following substeps.

a. Start the table editor. Type

```
>TABLE CLLI
```

and press the Enter key.

Example of system response:

```
TABLE: CLLI
```

b. Indicate that you intend to add a tuple. Type

```
>ADD <clli>
```

and press the Enter key

where

<clli> is the common language location identifier (CLLI) of the trunk group

For example, type

```
>ADD H323PRI01
```

and press the Enter key.

Example of system response:

```
ADNUM:
```

c. Specify the value for the ADNUM (administrative trunk group number) field. The value must be an integer in the range 51 to one less than the current size of table CLLI. (The current size of table CLLI appears in field SIZE of table DATASIZE.)

For example, type

```
>55
```

and press the Enter key.

Example of system response:

```
TRKGRSIZE:
```

d. Specify the value for the TRKGRSIZE field. For example, type

```
>32
```

and press the Enter key.

Example of system response:

```
ADMININF:
```

e. Specify the value for the ADMININF (administrative information) field. The value in this field is intended to allow someone looking at the clli to have an idea what it will be used for. You can type in up to 32 characters. Use only alphabetic characters, digits, and underscores. For example, type

```
>H323PRI01
```

and press the Enter key.

Example of system response:

```
TUPLE TO BE ADDED:
H323PRI01 55 32 H323PRI01
ENTER Y TO CONFIRM, N TO REJECT OR E TO EDIT.
```

f. Confirm the addition. Type

```
>Y
```

and press the Enter key.

Example of system response:

```
TUPLE ADDED.
```

g. Exit from the table editor. Type

```
>QUIT
```

and press the Enter key.

5 Use the table editor to edit table TRKGRP, to define the trunk group.

Note: If you provision multiple trunk groups on a single H.323 gateway, the configuration of those trunk groups must be

identical. The features, service sets, and translations must be identical. This ensures that call processing is the same in all the trunk groups.

For detailed information about table TRKGRP, see *North American DMS-100 Customer Data Schema Reference Manual* (297-8001-351 Vol. 10) or *DMS-100 MMP Customer Data Schema Reference Manual* (297-9051-351 Vols.11 and 12).

Take the following substeps.

a. Start the table editor. Type

```
>TABLE TRKGRP
```

and press the Enter key.

Example of system response:

```
TABLE: TRKGRP
```

b. Indicate that you intend to add a tuple. Type

```
>ADD <clli>
```

and press the Enter key.

where

<clli> is the common language location identifier (CLLI) of the trunk group, as defined in step 4b of this procedure

For example, type

```
>ADD H323PRI01
```

and press the Enter key.

Example of system response:

```
GRPTYP:
```

c. The system prompts for values for the following fields. Use the values that are shown.

Field	Value	Notes
GRPTYP	PRA	Note 1
TRAFSNO	0	
PADGRP	NPDGP	
NCCLS	NCRT	
SELSEQ	MIDL	
BILLDN	N	
LTID	$	Note 2

Note 1: The group type can be PRA or IBNT2. PRA is the recommended value.

Note 2: LTID is a read-only field. Enter the dollar sign, as shown. The system will supply the logical-terminal identifier, which is composed of the name of the logical terminal group (as will be specified in step 8b), and the number that identifies the logical terminal within the group (as will be specified in step 9b).

Example of system response (after you enter a dollar sign for the LTID field):

```
OPTION:
```

d. Indicate that you do not want to specify any options. Type

>$

and press the Enter key.

Example of system response:

```
TUPLE TO BE ADDED:
H323PRI01 PRA 0 NPDGP NCRT MIDL N $ $
ENTER Y TO CONFIRM, N TO REJECT OR E TO EDIT.
```

e. Confirm the addition. Type

>Y

and press the Enter key.

Example of system response:

```
TUPLE ADDED.
```

f. Exit from the table editor. Type

>QUIT

and press the Enter key.

6 Use the table editor to edit table TRKSGRP (trunk subgroup).

For detailed information about table TRKSGRP, see *North American DMS-100 Customer Data Schema Reference Manual* (297-8001-351 Vol. 11) or *DMS-100 MMP Customer Data Schema Reference Manual* (297-9051-351 Vol.12).

For each trunk subgroup, take the following substeps.

a. Start the table editor. Type

>TABLE TRKSGRP

and press the Enter key.

Example of system response:

```
TABLE: TRKSGRP
```

b. Indicate that you intend to add a tuple. Type

>ADD <clli> <subgroup number>

and press the Enter key.

where

<clli> is the common language location identifier (CLLI) of the trunk group, as defined in step 4b of this procedure

<subgroup-number> is 0 or 1

For example, type

>ADD H323PRI01 0

and press the Enter key.

Example of system response:

```
CARDCODE:
```

c. The system prompts for values for the following fields. The following list 0contains sample values for the fields. See the notes following the list for instructions about which values are mandatory.

Field	Value	Notes
CARDCODE	DS1SIG	Note 1
SIGDATA	ISDN	Notes 1 and 3
PSPDSEIZ	20	Note 2
PARTDIAL	20	Note 2
VERSION	87Q931	Note 4
CRLENGTH	2	Note 2
BCHNEG	N	Note 2
BCHGLARE	STAND	Note 2
IFCLASS	NETWORK	Note 1
CONFIG	PT_PT	Note 1
LOCATION	USER	Note 2
SAT	N	Note 2
ECSTAT	UNEQ	Note 2
TRKGRDTM	160	Note 2
L1FLAGS	N	Note 2
ISDNPARM	PAS_NAM	Note 2
PMTYPE	GWC	Note 1
GWCNO	7	Note 5
GWCNODENO	91	Note 6
GWCTRMNO	1	Notes 7 and 8
DCHRATE	64K	Note 2
HDLCTYPE	HDLC	Note 2

Note 1: Use the value shown.

Note 2: The value shown is an example only. For a list of possible values for this field, see *North American DMS-100 Customer Data Schema Reference Manual* (297-8001-351 Vol. 11) or *DMS-100 MMP Customer Data Schema Reference Manual* (297-9051-351 Vol. 12).

Note 3: H.323 uses ISDN PRI trunks, so the SIGDATA value must be ISDN.

Note 4: The VERSION field specifies the protocol version. In North America, specify 87Q931. In international markets, specify 96ISOQSIG.

Note 5: Specify the number that is part of the GWC name, as specified when the GWC was configured. For example, if the GWC name is GWC 7, specify 7.

Note 6: If you do not know the node number of the GWC, enter 1. The system will supply the proper value regardless of what you enter.

Note 7: This field specifies the single D channel of the H.323 PRI trunk group. (H.323 PRI interfaces do not support backup D channels.) Specify the first terminal number of the first endpoint group that was allocated for the H.323 gateway. For instructions for finding the terminal numbers, see the "Prerequisites" (page 165) section of this procedure. (In step 7 of this procedure you will map the other terminal numbers to trunk members.)

Note 8: The first terminal number of the first endpoint group that is generated for the H.323 gateway will not necessarily be the integer 1.

Example of system response (after you enter data for the HDLCTYPE field):

```
OPTION:
```

d. Indicate that you do not want to specify any options. Type

>$

and press the Enter key.

Example of system response:

```
TUPLE TO BE ADDED:
H323PRI01 0 DS1SIG ISDN 20 20 87Q931 2 N STAND
NETWORK PT_PT USER N UNEQ 160 N PAS_NAM GWC 7
91 1 64K HDLC $ $
ENTER Y TO CONFIRM, N TO REJECT OR E TO EDIT.
```

e. Confirm the addition. Type

>Y

and press the Enter key.

Example of system response:

```
TUPLE ADDED.
```

f. Exit from the table editor. Type

>QUIT

and press the Enter key.

7 Use the table editor to edit table TRKMEM (packet trunk member), to provision the trunk group members. For each trunk group, add multiple tuples to table TRKMEM. Add a tuple for each terminal number that was allocated for the H.323 gateway, except for the terminal number that you used in step 6c.

Note 1: For instructions for finding the terminal numbers, see the "Prerequisites" (page 165) section of this procedure.

Note 2: As of SN07, H.323 carriers are not allocated automatically during gateway association. As of SN07, the size of an H.323 carrier can be in the range 4 to 672 endpoints. (The size is not restricted to 24 or 32 endpoints.) You can map a single H.323 gateway to the whole capacity of the H.323 GWC if the gateway has a gateway profile whose maximum-number-of-endpoints value is equal to or greater than the capacity of the GWC. If the GWC uses MCPN750 cards, its capacity is 1032 TIDs in the North American market, and 1024 TIDs in the international market. If the GWC uses MCPN905 cards, its capacity is 2112 TIDs in both the North American and international markets. To map a single H.323 gateway to the whole capacity of the H.323 GWC, you create multiple H.323 carriers and map the corresponding trunk groups to the single H.323 gateway.

For detailed information about table TRKMEM, see *North American DMS-100 Customer Data Schema Reference Manual* (297-8001-351 Vol. 11) or *DMS-100 MMP Customer Data Schema Reference Manual* (297-9051-351 Vol. 12).

Take the following substeps for each terminal number that was allocated for the H.323 gateway, except for the terminal number that you used in step 6c.

a. Start the table editor. Type

```
>TABLE TRKMEM
```

and press the Enter key.

Example of system response:

```
TABLE: TRKMEM
```

b. Indicate that you intend to add a tuple. Type

```
>ADD
```

and press the Enter key.

Example of system response:

```
CLLI:
```

c. Specify clli-name of the trunk-group, as defined in step 4b of this procedure, and press the Enter key. For example, type

```
>H323PRI01
```

and press the Enter key.

Example of system response:

```
EXTRKNUM:
```

d. Specify the value for the EXTRKNUM (external trunk number) field. Type

> <external-trunk-number>

and press the Enter key

where

<external-trunk-number> is an integer in the range 0 to 9999

For example, type

>23

and press the Enter key.

Example of system response:

```
SGRP:
```

e. Specify the value for the SGRP (subgroup) field. This identifies the trunk subgroup to which the member belongs. Type

> <subgroup-number>

and press the Enter key

where

<subgroup-number> is the value specified in step 6b of this procedure

For example, type

>0

and press the Enter key.

Example of system response:

```
PMTYPE:
```

f. Specify the value for the PMTYPE field. Type

>GWC

and press the Enter key.

Example of system response:

```
GWCNO:
```

g. Specify the value for the GWCNO (GWC-number) field. Type

> <GWC-number>

and press the Enter key

where

<GWC-number> is the number that is part of the GWC name, as specified when the GWC was configured

For example, if the GWC name is GWC 7, type

```
>7
```

and press the Enter key.

Example of system response:

```
GWCNODENO:
```

h. Specify the value for the GWCNODENO (GWC-node-number) field. Type

> <GWC-node-number>

and press the Enter key

where

<GWC-node-number> is the GWC node number, or the value 1 if you do not know the node number

Note: The system will supply the proper value regardless of what you enter.

For example, type

```
>91
```

and press the Enter key.

Example of system response:

```
GWCTRMNO:
```

i. Specify the value for the GWCTRMNO (GWC-terminal-number) field. Type

> <GWC-terminal-number>

and press the Enter key

where

<GWC-terminal-number> is the terminal number

Note 1: For instructions for finding the terminal numbers, see the "Prerequisites" (page 165) section of this procedure.

Note 2: Do not add a tuple to table TRKMEM for the terminal number that you used in step 6c.

For example, type

```
>24
```

and press the Enter key.

Example of system response:

```
TUPLE TO BE ADDED:
H323PRI01 23 0 GWC 7 91 24
ENTER Y TO CONFIRM, N TO REJECT OR E TO EDIT.
```

Note:

j. Confirm the addition. Type

>Y

and press the Enter key.

Example of system response:

```
TUPLE ADDED.
```

k. Exit from the table editor. Type

>QUIT

and press the Enter key.

8 If you have not already done so, use the table editor to edit table LTGRP, to define a logical-terminal group for the H.323 gateways.

For detailed information about table LTGRP, see *North American DMS-100 Customer Data Schema Reference Manual*(297-8001-351 Vol. 7) or *DMS-100 MMP Customer Data Schema Reference Manual*(297-9051-351 Vol. 7).

Take the following substeps.

a. Start the table editor. Type

>TABLE LTGRP

and press the Enter key.

Example of system response:

```
TABLE: LTGRP
```

b. Indicate that you intend to add a tuple. Type

>ADD <ltgroup>

and press the Enter key

where

<ltgroup> is the name of the logical-terminal group, up to eight alphanumeric characters

For example, type

>ADD ISDN01

and press the Enter key.

Example of system response:

GROUPNO:

c. Specify the logical-terminal group number. The number should be an integer in the range 1 to 15.

For example, type

>1

and press the Enter key.

Note: Terminal group numbers can be integers in the range 0 to 31. Do not use 0 because it is assigned to the default group ISDN. Do not use integers in the range in the range 16 to 31 because they are incompatible with the SAP116 option, which you will specify in step 8d.

Example of system response:

```
OPTIONS:
```

d. Specify the SAP116 option, which allows both packet terminals to be datafilled for the group as well as circuit switching terminals. (SAP116 is the only available option.) Type

>SAP116

and press the Enter key.

Example of system response:

```
TUPLE TO BE ADDED:
ISDN01 1 (SAP116) $
ENTER Y TO CONFIRM, N TO REJECT OR E TO EDIT.
```

e. Confirm the addition. Type

>Y

and press the Enter key.

Example of system response:

```
TUPLE ADDED.
```

f. Exit from the table editor. Type

>QUIT

and press the Enter key.

9 If you have not already done so, use the table editor to edit table LTDEF, to define the logical terminals.

For detailed information about table LTDEF, see *North American DMS-100 Customer Data Schema Reference Manual* (297-8001-351 Vol. 7) or *DMS-100 MMP Customer Data Schema Reference Manual* (297-9051-351 Vol. 7).

For each logical terminal, take the following substeps.

a. Start the table editor. Type

```
>TABLE LTDEF
```

and press the Enter key.

Example of system response:

```
TABLE: LTDEF
```

b. Indicate that you intend to add a tuple. Type

```
>ADD <ltgroup> <ltnumber>
```

and press the Enter key

where

<ltgroup> is the name of the logical-terminal group, as specified in step 8b

<ltnumber> is the number that identifies the logical terminal within the group, an integer in the range 1 to 1022

Note: The <ltgroup> and <ltnumber> fields compose the logical-terminal identifier.

For example, type

```
>ADD ISDN01 902
```

and press the Enter key.

Example of system response:

```
LTAP:
```

c. The system prompts for values for the following fields. The following list contains sample values for the fields. See the notes following the list for instructions about which values are mandatory.

Field	Value	Notes
LTAP	B	Note 1
LTCLASS	PRA	Note 1
NUMBCHNL	47	Notes 1 and 3
VARIANT	NTNAPRI	Note 2
ISSUE	V1	Note 2
PROFNAME	NIL	Note 1
OPTION	NOPMD	Notes 1 and 4

Note 1: Use the value shown.

Note 2: The value shown is an example only. For a list of possible values for this field, see *Customer Data Schema Reference Manual*.

Note 3: The NUMBCHNL value does not affect configuration and is not used by the system.

Note 4: The NOPMD option is mandatory for PRI/H.323. NOPMD indicates that packet node data calls are not allowed for PRI.

Example of system response (after you enter NOPMD for the OPTION field):

OPTION:

d. You have already specified the NOPMD option. You can specify up to five more options, for a total of six. For a list of possible values for this field, see *Customer Data Schema Reference Manual*. If you specify an additional option, the system redisplays the OPTION: prompt. It continues to redisplay the prompt until you have specified six options or until you enter a dollar sign ($) to indicate that you do not want to specify any further options.

   For example, to indicate that you do not want to specify any further options, type

   >$

   and press the Enter key.

   Example of system response:

```
TUPLE TO BE ADDED:
ISDN01 1 B PRA 47 NTNAPRI V1 NIL (NOPMD) $
ENTER Y TO CONFIRM, N TO REJECT OR E TO EDIT.
```

e. Confirm the addition. Type

   >Y

and press the Enter key.

Example of system response:

```
TUPLE ADDED.
```

f. Exit from the table editor. Type

>QUIT

and press the Enter key.

10 Use the table editor to edit table LTMAP.

For detailed information about table LTMAP, see *North American DMS-100 Customer Data Schema Reference Manual* (297-8001-351 Vol. 7) or *DMS-100 MMP Customer Data Schema Reference Manual* (297-9051-351 Vol. 7).

For each logical terminal, take the following substeps.

a. Start the table editor. Type

>TABLE LTMAP

and press the Enter key.

Example of system response:

```
TABLE: LTMAP
```

b. Indicate that you intend to add a tuple. Type

>ADD <ltgroup> <ltnumber>

and press the Enter key

where

<ltgroup> is the name of the logical terminal group, as specified in step 8b
<ltnumber> is the number that identifies the logical terminal within the group, as specified in step 9b

Note: The <ltgroup> and <ltnumber> fields compose the logical-terminal identifier.

For example, type

>ADD ISDN01 902

and press the Enter key.

Example of system response:

```
MAPTYPE:
```

c. Specify the value for the MAPTYPE (logical terminal mapping type) field. Type

>CLLI

and press the Enter key.

Example of system response:

```
CLLI:
```

d. Specify the value for the CLLI field. Type

> <clli>

and press the Enter key

where

<clli> is the common language location identifier (CLLI) of the trunk group, as specified in step 4b

For example, type

>H323PRI01

Example of system response:

```
OPTION:
```

e. Specify the "TEI 0" option. Type

>TEI 0

and press the Enter key.

Note: The "TEI 0" setting is required for PRI and H.323/PRI.

Example of system response:

```
OPTION:
```

f. You have already specified the "TEI 0" option. You can specify one more option, for a total of two. For a list of possible values for this field, see *Customer Data Schema Reference Manual*. Alternatively, you can enter a dollar sign to indicate that you do not want to specify a second option.

For example, to indicate that you do not want to specify a second option, type

>$

and press the Enter key.

Example of system response:

```
TUPLE TO BE ADDED:
ISDN01 902 CLLI H323PRI01 (TEI 0) $
ENTER Y TO CONFIRM, N TO REJECT OR E TO EDIT.
```

g. Confirm the addition. Type

>Y

and press the Enter key.

Example of system response:

```
TUPLE ADDED.
```

h. Exit from the table editor. Type

>QUIT

and press the Enter key.

11 Use the table editor to edit table LTDATA, to specify service-related data associated with the logical terminals.

For detailed information about table LTDATA, see *North American DMS-100 Customer Data Schema Reference Manual* (297-8001-351 Vol. 7) or *DMS-100 MMP Customer Data Schema Reference Manual*(297-9051-351 Vol. 7).

For each logical terminal, take the following substeps.

a. Start the table editor. Type

>TABLE LTDATA

and press the Enter key.

Example of system response:

```
TABLE: LTDEF
```

b. Indicate that you intend to add a tuple. Type

>ADD <ltgroup> <ltnumber> <datatype>

and press the Enter key

where

<ltgroup> is the name of the logical terminal group, as specified in step 8b
<ltnumber> is the number that identifies the logical terminal within the group, as specified in step 9b
<datatype> is SERV, which indicates that the tuple has service-related data associated with a logical-terminal identifier

Note: The <ltgroup> and <ltnumber> fields compose the logical-terminal identifier.

For example, type

>ADD ISDN01 902 SERV

and press the Enter key.

Example of system response:

```
DATATYPE:
```

c. Specify the value for the DATATYPE field. This must be the same as the <datatype> value that is part of the key, which you specified in step 11b. Type

>SERV

and press the Enter key.

Example of system response:

```
AUDTRMT:
```

d. The system prompts for values for the following fields. The following list contains sample values for the fields. For lists of the possible values for these fields, see *Customer Data Schema Reference Manual*.

Field	Value	Notes
AUDTRMT	Y	
CGNREQD	Y	
CGNDELV	SCREENED	
CDNDELV	ALWAYS	
OPTION	NET_RINGBACK_ON	Note 1
OPTION	PRI_IP_PROT H323	Note 2

Note 1: The "NET_RINGBACK_ON" option provisions network-provided ringback tones on a PRI trunk.

Note 2: The "PRI_IP_PROT H323" option indicates that the PRI trunk supports the H.323 protocol.

Example of system response (after you enter the "PRI_IP_PROT H323" option):

OPTION:

e. You can specify additional options. For a list of possible values for this field, see *Customer Data Schema Reference Manual*. If you specify an option, the system redisplays the OPTION: prompt. It continues to redisplay the prompt until you enter a dollar sign ($) to indicate that you do not want to specify any further options.

For example, to indicate that you do not want to specify any further options, type

>$

and press the Enter key.

Example of system response:

```
TUPLE TO BE ADDED:
ISDN01 902 SERV SERV Y Y SCREENED ALWAYS
```

```
(NET_RINGBACK_ON) (PRI_IP_PROT H323) $
ENTER Y TO CONFIRM, N TO REJECT OR E TO EDIT.
```

f. Confirm the addition. Type

>Y

and press the Enter key.

Example of system response:

```
TUPLE ADDED.
```

g. Exit from the table editor. Type

>QUIT

and press the Enter key.

12 Use the table editor to edit table LTCALLS, to specify the call type associated with the logical terminal, and service-related data such as translations associated with the call type. Calls associated with the logical terminal and call type can complete only if there is a valid tuple in table LTCALLS for PRI or H.323 PRI.

For detailed information about table LTCALLS, see *North American DMS-100 Customer Data Schema Reference Manual*(297-8001-351 Vol. 7) or *DMS-100 MMP Customer Data Schema Reference Manual* (297-9051-351 Vol. 7).

Note: Explaining table LTCALLS is outside the scope of this module.

Here is an example of a suitable tuple in table LTCALLS:

```
ISDN01 902 PVT XLAIBN IPGRP1LA IPGRP1XP IPGRP1RA NORTEL
0 1 $
```

13 Select the next step as follows:

If	Do
you need to provision another trunk group for the H.323 gateway	step 3
you do not need to provision any more trunk groups for the H.323 gateway	step 14

14 You have completed the procedure for provisioning trunks for an H.323 gateway.

—End—

Provisioning a GWC-based per-trunk-signaling trunk group

This procedure contains instructions for entering datafill into the data schema tables of the XA-Core to support a GWC-based trunk group that uses per-trunk signaling (PTS).

The following table lists the trunk-group types can be used as GWC-based PTS trunk groups.

Trunk-group type	Direction
OP	IC, OG, 2W
ES	IC, OG, 2W
PX	IC, OG, 2W
IBNTO	OG
IBNT1	IC
IBNT2	2W
ATC	IC, OG, 2W
IT	IC, OG, 2W
SC	IC, 2W
CELL	IC, OG, 2W
DAL	IC, OG, 2W
EANT	IC, OG, 2W
ONAT	IC, OG, 2W

For GWC-based PTS trunk groups, the following pulse types are supported:

- MF - multifrequency
- DP - dial pulse (for PX, DAL, IBN2W, IBNTO, and IBNT1 only)
- DT - digitone (for PX, DAL, IBN2W, IBNTO, and IBNT1 only)
- NP - no pulse (for outgoing FXS signaling only)

For GWC-based PTS trunk groups, the following start-signal types are supported:

- WK - wink
- IM - immediate
- DD - delay dial
- GS - ground start fxS

- LS - loop start fxS

For GWC-based PTS trunk groups, the following card codes are supported:

- DS1SIG
- FXSLS
- FXSGS

Before performing this procedure, you must complete other provisioning tasks. For details, see section "Prerequisites" (page 189).

Interval

Perform this procedure as required.

Prerequisites

Prerequisites for provisioning PTS trunk groups at the XA-Core are as follows:

- The gateway controller must be configured. For detailed instructions on configuring gateway controllers, see *GWC Configuration Management*, NN10205-511.
- You must know the node name of the GWC. You specify the node name when you provision the GWC. You require the node name when you provision table TRKMEM in this procedure.
- The media gateways must be configured. When provisioning each media gateway you must do the following things:
  - — You must specify that the gateway must use the "MEGACO (4)" profile.
  - — You must specify the name of the gateway controller with which the gateway is to be associated. (Do not allow the system to automatically discover a gateway controller.)

  For detailed instructions, on configuring media gateways, see *GWC Configuration Management*, NN10205-511.
- The gateway controller must support terminal type ABTRK and/or terminal type AB250. These are the terminal types that apply to PTS trunks. For terminal type ABTRK, the exec data value is GWCEX. For terminal type AB250, you can choose the exec data value. The terminal

types and exec data values determine the types of GWC PTS trunks that are supported. See the following table for details.

First Terminal type / Exec data combination	Second Terminal type / Exec data combination	GWC-based PTS trunks supported
ABTRK / GWCEX	AB250 / GWC250	All GWC PTS trunk groups except for PX trunk groups using FXS signaling
ABTRK / GWCEX	AB250 / GWCFX	All GWC PTS trunk groups including PX with FXS signaling except for EANT, ONAT, and DAL trunk groups
ABTRK / GWCEX	AB250 / none	All GWC PTS trunk groups except for PX trunk groups using FXS signaling and EANT, ONAT, and DAL trunk groups

- The PTS media-gateway endpoints must be provisioned on the GWC. For detailed instructions, see "Instructions for provisioning the endpoints" (page 190) in this module.
- You must know the node number and the terminal numbers assigned to the media-gateway endpoints. These values are displayed when you provision the endpoints. You will use these values when you provision table TRKMEM in this procedure.

Instructions for provisioning the endpoints

For instructions to provision the endpoints, see procedure "Add carriers to a GWC" in *GWC Configuration Management*, NN10205-511, Follow the instructions in that procedure.

When you provision the endpoints, you will be on the "Provisioning" tab, on the "Carriers" subtab. On the Carriers subtab, the system will display the carriers list. Make a record of the following values, which will be displayed in the carriers list:

- Node Number
- Start Term
- Num Ports

You will use these values when you provision table TRKMEM in this procedure.

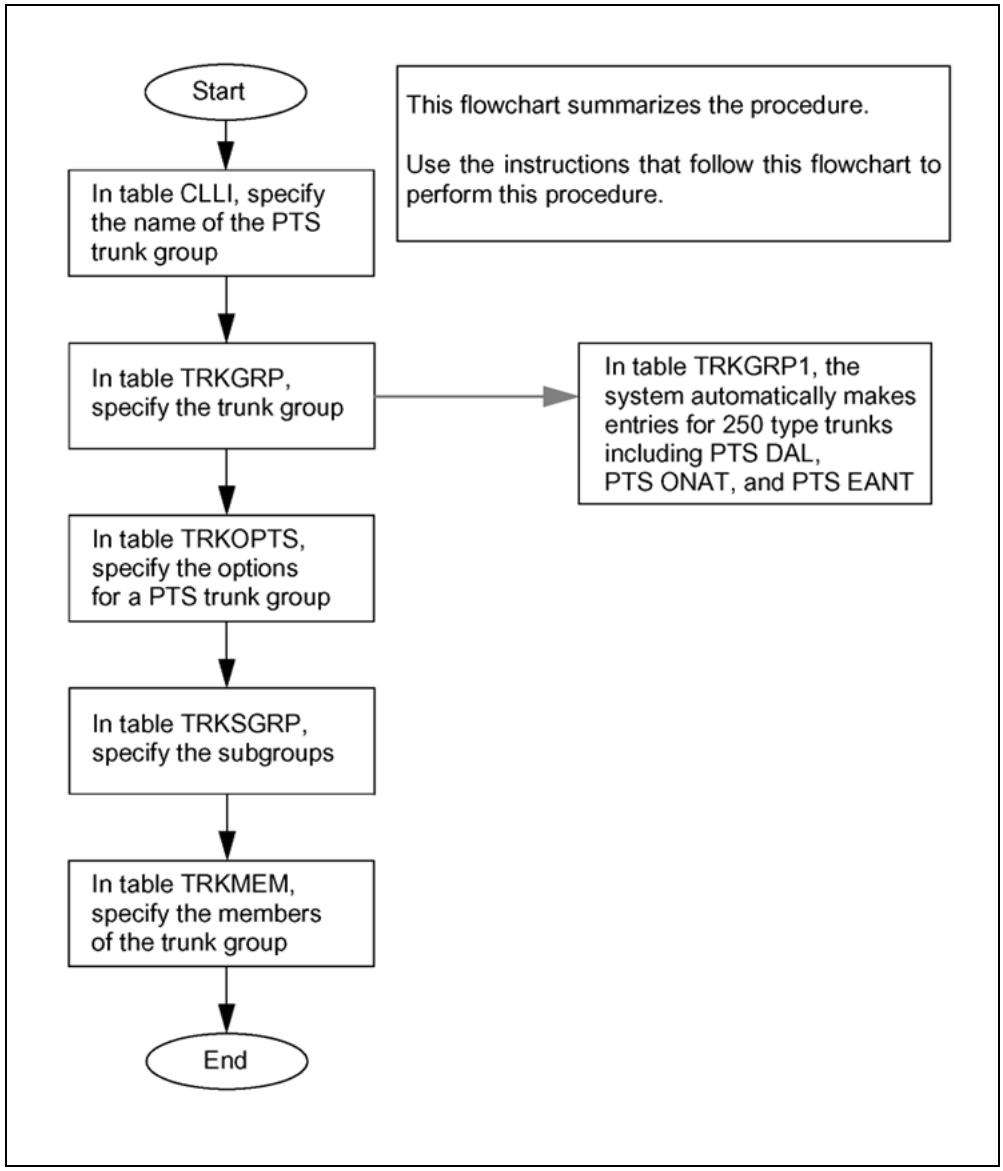
Common procedures

This procedure does not refer to any common procedures.

Action

The following flowchart summarizes this procedure.

Provisioning a GWC-based per-trunk-signaling (PTS) trunk group



Provisioning a GWC-based per-trunk signaling (PTS) trunk group

Step	Action

At the MAP terminal

1 Use the table editor to edit table CLLI, to define the common language location identifier (CLLI) of the trunk-group.

The provisioning of this table for a GWC-based PTS trunk group is unchanged from the legacy DMS100 switching system.

For detailed information about table CLLI, see *North American DMS-100 Customer Data Schema Reference Manual*, Vol. 3, 297-8001-351, or see *DMS-100 MMP Customer Data Schema Reference Manual*, Vol. 3, 297-9051-351.

2 Use the table editor to edit table TRKGRP, to define the trunk group.

Except as noted below, the provisioning of this table for a GWC-based PTS trunk group is unchanged from the legacy DMS100 switching system.

Note: For a GWC-based PTS trunk group, you can specify only one of the following values as the value of the GRPTYP (group type) field: OP, ES, PX, IBNTO, IBNTI, IBNT2, ATC, IT, SC, CELL, DAL, EANT, or ONAT.

For detailed information about table TRKGRP, see *North American DMS-100 Customer Data Schema Reference Manual*, Vol. 10, 297-8001-351, or see *DMS-100 MMP Customer Data Schema Reference Manual*, Vol. 11 and Vol. 12, 297-9051-351.

3 Use the table editor to edit table TRKOPTS, to provision additional options for the trunk group.

Except as noted below, the provisioning of this table for a GWC-based PTS trunk group is unchanged from the legacy DMS100 switching system.

Note 1: When you add the tuple using the **`ADD <clli-name> <option>`** command, you must specify GWCPTSTK as the option. GWCPTSTK indicates that the PTS trunk groups provide connectivity between a packet network and the PSTN.

Note 2: Because you specified the GWCPTSTK option, the system prompts for a PRELOADANI value. If the group type is OP or ES, the value can be set to Y or N. Set the value to Y if the trunk group supports a call model in which the core can send ANI digits to the peripheral before receiving an ANI request from the peripheral, such as those employed by TGCP trunk media gateways in the PacketCable market. For all other GWC-based PTS trunk groups, including PVG trunks using the H.248 protocol, set the value to N.

WARNING
Setting the PRELOADANI value incorrectly causes a 911 outage; any 911 calls that route over the ES and OP trunks will fail.

For detailed information about table TRKOPTS, see *North American DMS-100 Customer Data Schema Reference Manual*, Vol. 11, 297-8001-351, or see *DMS-100 MMP Customer Data Schema Reference Manual*, Vol. 12, 297-9051-351.

4 Use the table editor to edit table TRKSGRP, to define the subgroups in the trunk group.

Except as noted below, the provisioning of this table for a GWC-based PTS trunk group is unchanged from the legacy DMS100 switching system.

Note 1: For GWC-based PTS trunk groups, in the ESUPR field, the only permitted value is N.

Note 2: For GWC-based PTS trunk groups, in the ECSTAT field you can enter only INTERNAL or EXTERNAL.
INTERNAL means that echo cancellation is to be performed by the media gateways where the trunks are provisioned.
EXTERNAL means that echo cancellation is not performed by those media gateways.

Note 3: The values provisioned in fields IDGTIME and TRKGRDTM are not used by PTS trunks configured on a GWC.

For detailed information about table TRKSGRP, see *North American DMS-100 Customer Data Schema Reference Manual*, Vol. 11, 297-8001-351, or see *DMS-100 MMP Customer Data Schema Reference Manual*, Vol. 12, 297-9051-351.

5 Use the table editor to edit table TRKMEM, to define the members of the trunk group.

Except as noted below, the provisioning of this table for a GWC-based PTS trunk group is unchanged from the legacy DMS100 switching system.

Note 1: In the PMTYPE field, specify GWC.

Note 2: In the GWCNO field, the GWC number. This is the numeric part of the GWC name, which you recorded when you provisioned the GWC.

Note 3: In the GWCNODENO field, specify the node number. You recorded the node number when you provisioned the endpoints.

Note 4: In the GWCTRMNO field, specify a terminal number. You recorded the terminal numbers when you provisioned the endpoints.

Note 5: The members of a PTS trunk group cannot be on peripheral devices other than GWCs, and those GWCs must be properly provisioned. There are no other restrictions regarding the distribution of the trunk members. Trunk members can be distributed over more than one GWC, over more than one media gateway, and can consist of any number of channels on a T1. However, if a T1 is to have its channels divided across trunk groups, those trunk groups must have the same card code provisioned in table TRKSGRP (for example, DS1SIG, FXSLS, or FXSGS).

Note 6: The GWC can support trunk groups that have different signaling types. For example, ISUP and PTS trunks on the same GWC is a supported configuration.

For detailed information about table TRKMEM, see *North American DMS-100 Customer Data Schema Reference Manual*, Vol. 11, 297-8001-351, or see *DMS-100 MMP Customer Data Schema Reference Manual*, Vol. 12, 297-9051-351.

6 You have completed the procedure.

—End—

Editing table TRKMEM

The following information about trunk provisioning refers to this release. Trunk provisioning may be different in subsequent releases.

You can use three user interfaces to edit trunks: the CS 2000 Management Tools GUI, the MAP interface, and the XML interface to OSSGate. The following paragraphs describe the changes that are possible using each interface.

You can use the MAP interface, CS 2000 Management Tools GUI, or the XML interface to OSSGate to edit trunks. The following paragraphs describe the changes that are possible using each interface.

In the MAP interface, you can edit a trunk by editing its tuple in table TRKMEM. For information on the fields in table TRKMEM, see the following documents:

- in the North American market, see *North American DMS-100 Customer Data Schema Reference Manual* (297-8001-351 Vol. 11):
- in the international market, see *DMS-100 MMP Customer Data Schema Reference Manual* (297-9051-351 Vol. 11):

For instructions on editing tables, see procedure "Using the table editor to edit an existing tuple in a table" (page 255).

Use the MAP interface or CS 2000 Management Tools GUI to edit a trunk tuples in table TRKMEM. Refer to *CDMA/TDMA Customer Data Schema Reference Manual* (411-2131-451 Vol. 3) for more information about the fields in table TRKMEM.

In the CS 2000 Management Tools GUI, you can edit PRI trunks by changing their PRI interface identifiers (PRI I/F ID). You do this by deleting the trunks' carrier and re-adding the carrier with the new PRI I/F ID value. This procedure contains detailed instructions for using the CS 2000 Management Tools GUI to edit PRI trunks.

> ***Note:*** For information on PRI interface identifiers, see *National ISDN Primary Rate Interface (PRI) NI-2 Service Implementation Guide* (297-2401-203) or *DMS-100 MMP Customer Data Schema Reference Manual* (297-9051-351 Vol. 7).

You can use the XML interface to OSSGate to make the following edits:

- You can edit the PRI IF ID values of trunks, by deleting and re-adding the trunks' carrier.
- You can replace a tuple in table TRKMEM.

Note: For details on using the XML interface to OSSGate, see *OSSGate User's Guide* (NE10004-512).

You can also replace a tuple in table TRKMEM by using the XML interface to OSSGate.

Note: For details on using the XML interface to OSSGate, see *OSSGate User's Guide* (NE10004-512).

Interval

Perform this procedure as required.

Prerequisites

None.

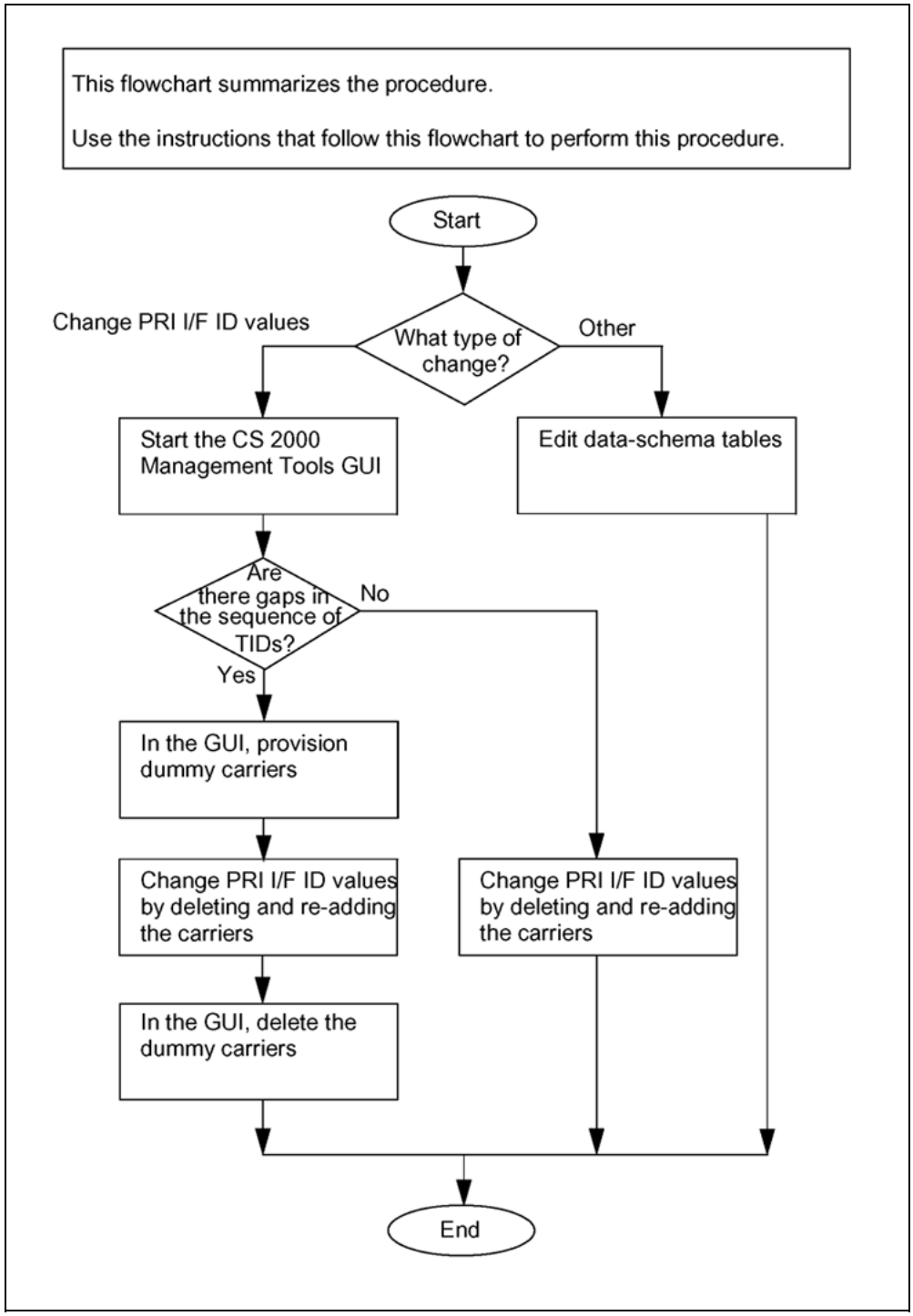
Common procedures

This procedure refers to the procedure "Using the table editor to edit an existing tuple in a table" (page 255).

Action

The following flowchart summarizes this procedure.

Editing a trunk



CAUTION
Loss of service
When editing trunks, use the MAP interface to modify only the TRKMEM data schema table. Modifying any other data schema tables via the MAP may result in service-impacting corruption.

This type of corruption requires Nortel assistance to resolve.

Editing a trunk

Step **Action**

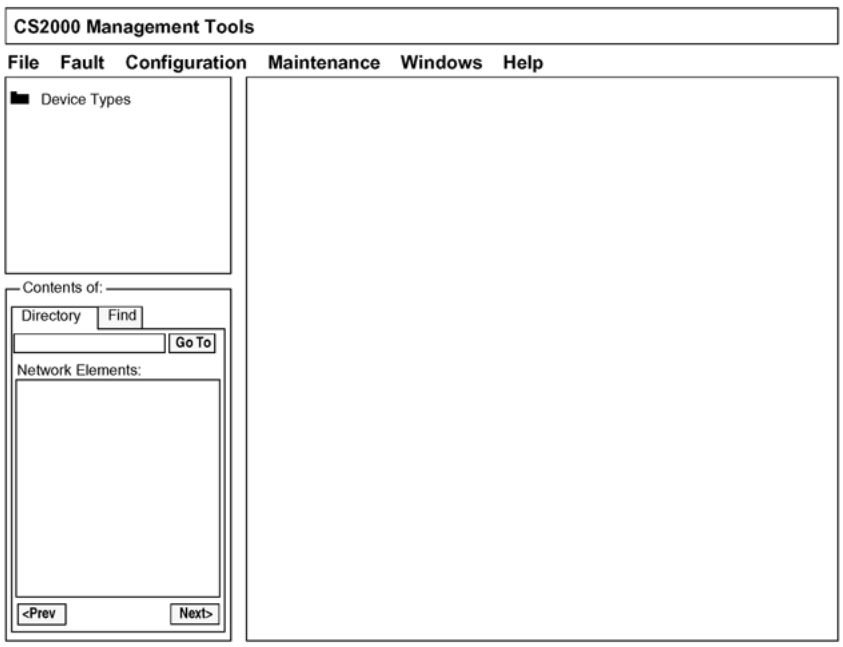
At the PC connected to the CS-LAN

1 Select the start point for this procedure as follows:

you want to edit	Do
the PRI interface-identifier (PRI I/F ID) values of PRI trunks	step 2
non-key fields of a trunk's tuple in table TRKMEM	step 14

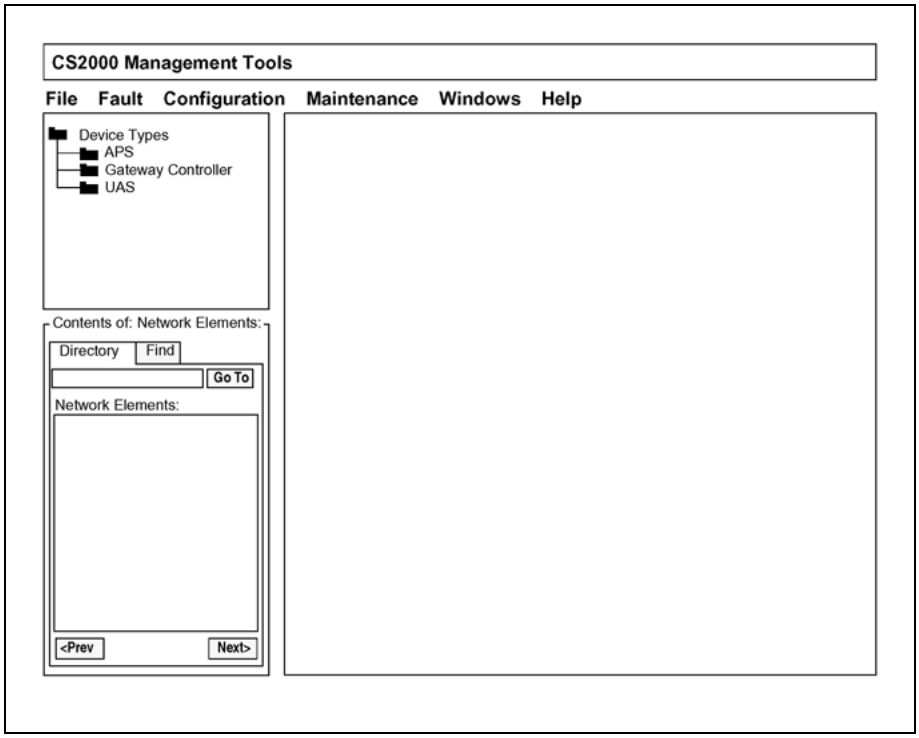
2 Log in to the CS 2000 Management Tools GUI. Consult your system administrator for instructions how to do this.

In a window on the PC terminal screen, the system displays the following screen, with the Device Types icon in the upper left.



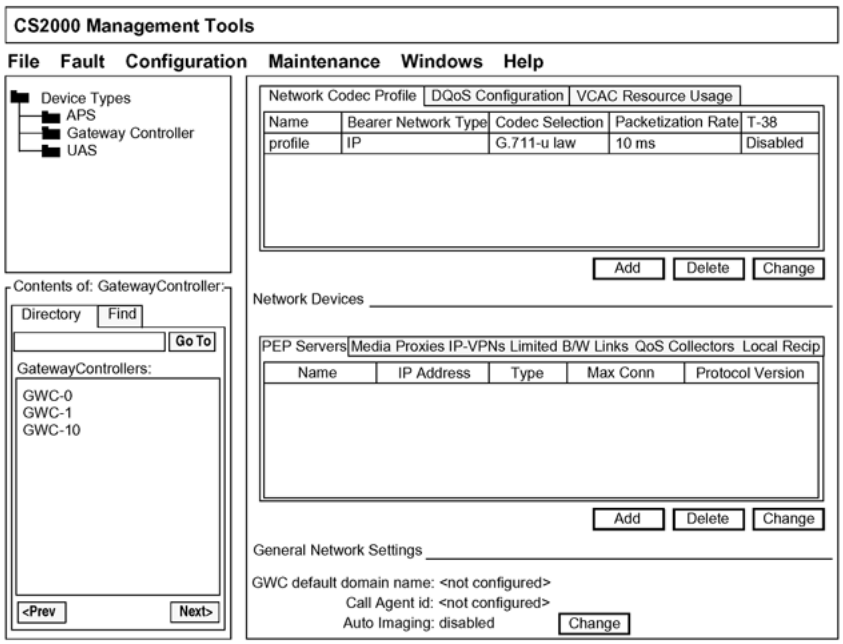
3 If the Device Types icon is a closed file folder, double click on the icon to open it.

Once the Device Types icon has been opened, the system displays the icons for various device types, as shown on the following example.



4 Click on the Gateway Controller icon.

In response, the system displays the following. In the lower left of the screen, it displays the list of gateway controllers that have been configured. In the right pane, it displays the network-view information that applies to the gateway controllers.



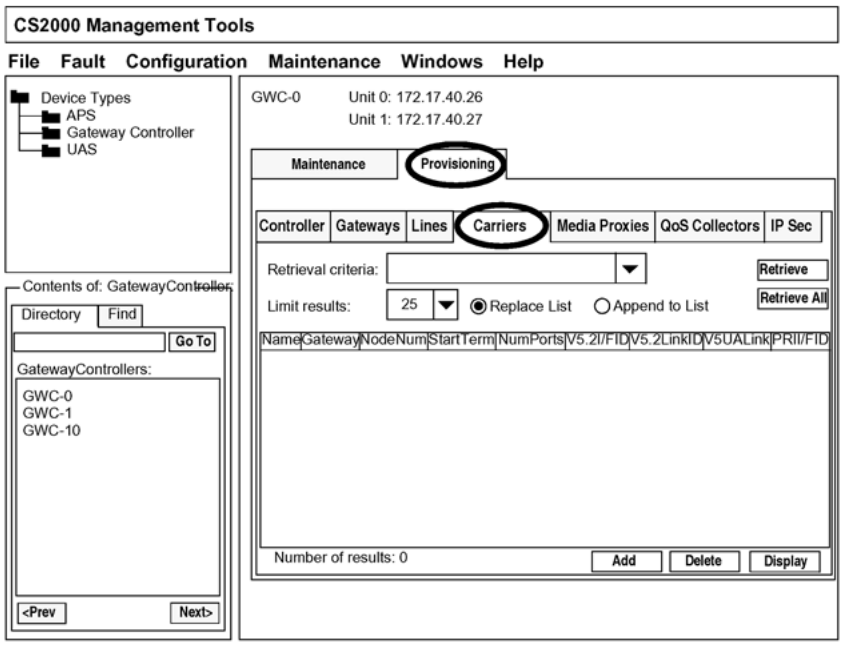
5 Identify the GWC node that controls the trunks. To identify the GWC node, click on the GWC name in the list of GWCs in the lower left of the screen. Alternatively, type the name of the GWC node in the text field to the left of the Go To button, and click on the button.

In response, in the right pane the system displays the node view. The node view displays information that applies to the gateway controller you identified.

6 In the right pane, click on the Provisioning tab.

In response, in the right pane the system displays configuration data associated with the identified gateway controller you identified.

7 In the right pane, click on the Carriers subtab.



8 You change the PRI interface-identifier (PRI I/F ID) value of the trunks in a carrier by deleting and re-adding the carrier. (You do not need to make any changes in the XA-Core tables.) To delete the carrier, proceed as follows.

a. Click on the Retrieve All button at the right of the screen.

   In response, the system displays a scrolling list of carriers in the lower portion of the screen.

b. In the scrolling list of carriers, find the carrier of the trunks whose PRI I/F ID value you want to change. (All the trunks in a carrier will have the same PRI I/F ID value.)

c. Look at the part of the carrier list preceding the carrier whose PRI I/F ID value you want to change. Look for gaps in the terminal numbers that are in use. Look for every gap that includes a consecutively numbered group of terminal numbers equal to or larger than the number of trunks in the carrier (24 for a DS3 carrier, 31 for an E1 carrier). Make a written list of such gaps.

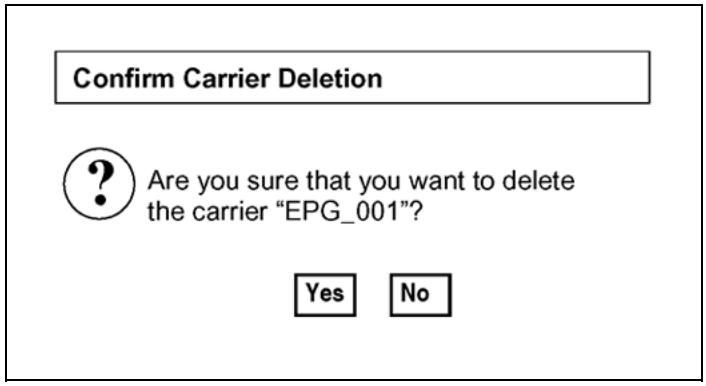
If you found	Do
one or more such gaps	step 13
no such gaps	continue to step 8d

d. In the scrolling list of carriers, find the carrier containing the trunks whose PRI I/F ID value you want to change, and click on the carrier to select it.

Note: Write down the name of the carrier. You will need it when you re-add the carrier in step 10a.

e. Click on the Delete button at the right of the screen.

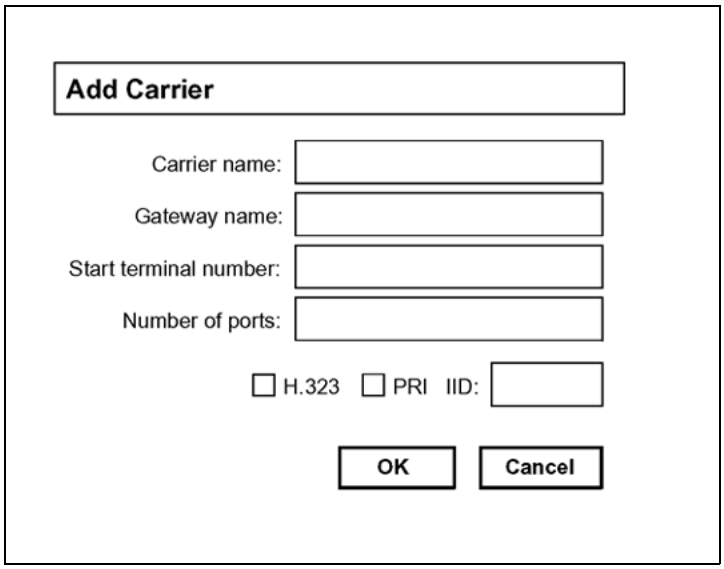
In response, the system displays the Confirm Carrier Endpoint Deletion panel, as shown in the following example.



f. Confirm the deletion by clicking on the Yes button on the Confirm Carrier Endpoint Deletion panel.

9 Click on the Add button at the right of the screen.

In response, the system displays the Add Carrier panel.



10 On the Add Carrier panel, proceed as follows.

a. In the Carrier-name field, type in the name of the carrier to be added.

b. In the Gateway-name field, type in the gateway name.

c. If a check mark is not displayed in the PRI box, click on the box to put a check mark there.

d. In the IID field, type in the new PRI I/F ID value.

e. Click in the OK button.

In response, the system updates the gateway controller element manager's information about the trunk, using the new PRI I/F ID value.

11 If you found gaps in step 8c, and therefore provisioned dummy carriers, delete the dummy carriers. Delete each dummy carrier by following the instructions for deleting carriers from a GWC. For those instructions, see *GWC Configuration Management* (NN10205-511).

12 Go to step 15.

13 You must temporarily provision "dummy" carriers to use up the terminal numbers in the gaps that you found in step 8c. Proceed as follows.

a. Exit from this procedure.

b. Provision dummy carriers. Provision as many dummy carriers as needed to use up all the gaps you found. Provision dummy carrier by following the instructions for adding carriers to a GWC. For those instructions, see *GWC Configuration Management* (NN10205-511).

c. Start this procedure again from the beginning.

Note: If you use the XML interface to OSSGate to edit PRI I/F ID values, then you do not need to provision dummy carriers The reason is that the addCarrier command message has an optional parameter, "firstTN", which specifies the starting terminal number. For details, see *OSSGate User's Guide* (NE10004-512).

14 If you want to edit the values in the non-key fields in the trunk's tuple in table TRKMEM, see procedure Using the table editor to edit an existing tuple in a table.

Note: There is an alternative way to edit table TRKMEM: you can replace a tuple by using the XML interface to OSSGate. For details, see *OSSGate User's Guide* (NE10004-512).

15 You have completed the procedure.

Use the MAP interface to edit trunks by modifying tuples in the TRKMEM data schema table.

Note: Only use the MAP interface to modify data schema table TRKMEM. Using the MAP interface to modify other trunk data schema tables can cause service interruption

CAUTION
Loss of service
With the exception of table TRKMEM, using the MAP interface to modify trunk data schema tables can result in service impacting corruption.

This type of corruption requires Nortel assistance to resolve.

—End—

Editing a trunk

Step	Action

At the PC connected to the CS-LAN

1 If you want to edit the values in the non-key fields in the trunk's tuple in table TRKMEM, see procedure Using the table editor to edit an existing tuple in a table.

Note: There is an alternative way to edit table TRKMEM: you can replace a tuple by using the XML interface to OSSGate. For details, see *OSSGate User's Guide* (NE10004-512).

—End—

Deleting trunks

This procedure explains how to de-provision trunks in this release. Trunk de-provisioning may be different in subsequent releases.

When you de-provision trunks, you de-provision them in groups. You de-provision all 24 trunks on a DS1 carrier, or all 31 trunks on an E1 carrier. You do not have the option of de-provisioning a single trunk.

Use this procedure to de-provision trunks. Notice that you de-provision trunks in groups. For example, you de-provision all 24 trunks on a DS1 carrier, or all 31 trunks on an E1 carrier. You cannot de-provision a single trunk in a group.

To de-provision trunks, you do some work in the MAP interface and some work.

- In the MAP interface you do the following things.
  - — You use the MAPCI to take the trunks offline.
  - — You use the table editor to delete the trunks' tuples from the data schema tables.
- You use the CS 2000 Management Tools GUI to access the CS 2000 GWC Manager. In that interface, you delete the carrier.

  Note 1: Follow the sequence as outlined here. Use the MAP first, and the CS 2000 Management Tools GUI second.

  Note 2: .You can access the CS 2000 GWC Manager by way of the CS 2000 Management Tools GUI. An alternative means of interfacing to the CS 2000 GWC Manager is to use an operations support system (OSS) that does trunk provisioning. An OSS is not part of the CS 2000, and must be purchased separately.

Interval

Perform this procedure as required.

Prerequisites

Prerequisites for deleting trunks are as follows:

- You must know the clli-name of the trunk group. The clli-name is specified in table CLLI.
- You must know the external trunk numbers that identify the trunks that are to be deleted. You must specify the range of trunks, using the lowest and highest external trunk numbers as the range boundaries. The external trunk numbers are specified in table TRKMEM.

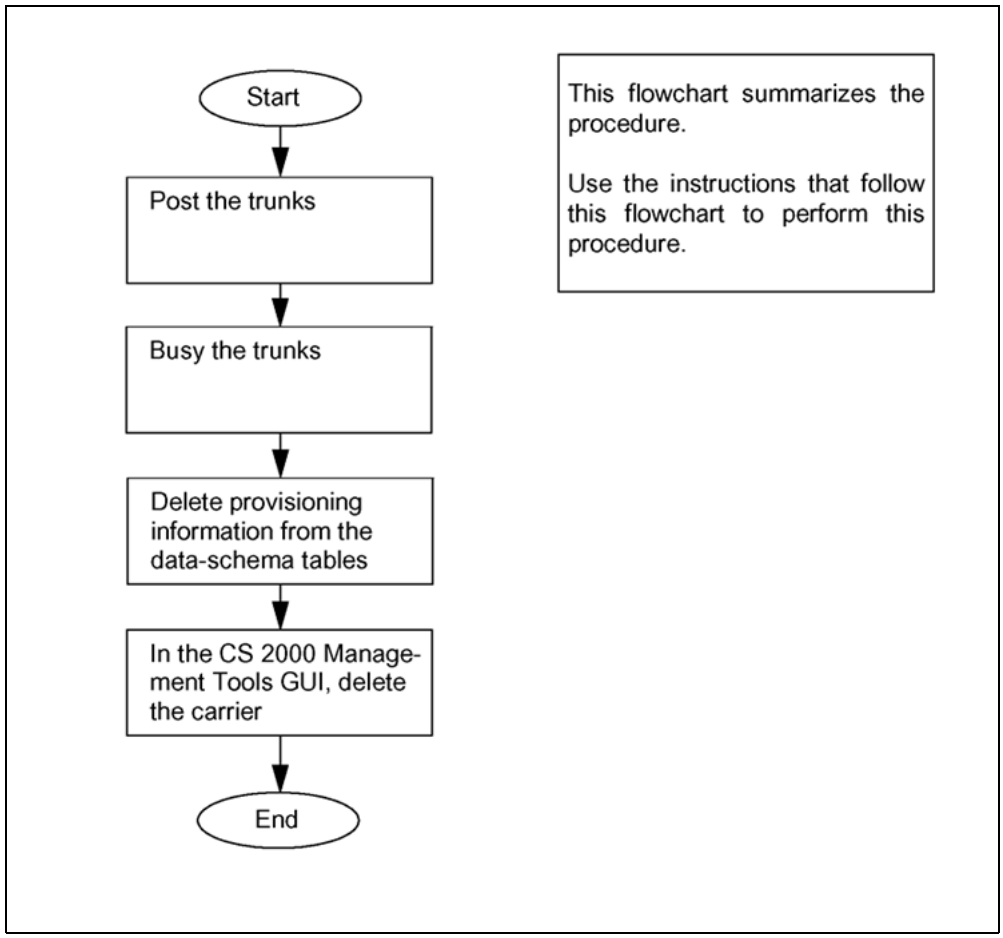
Common procedures

This procedure refers to the procedure "Using the table editor to delete a tuple from a table" (page 259).

Action

The following flowchart summarizes this procedure.

Deleting trunks



CAUTION
Loss of service
When deleting trunks, use the MAP interface to modify only those data schema table identified in this procedure. Modifying any other data schema tables via the MAP may result in service-impacting corruption that will require Nortel assistance to resolve.

CAUTION
Loss of service
Only use the MAP interface to modify those data schema tables identified in this procedure. Modifying any other data schema tables via the MAP can result in service impacting corruption.

This corruption requires Nortel assistance to resolve.

Deleting trunks

Step	Action

At the MAP terminal

1 Take the trunks offline. Proceed as follows.

a. Go to the TTP MAP level. At the input prompt on a MAP screen, type

```
>MAPCI;MTC;TRKS;TTP
```

and press the Enter key.

In response, the system displays the TTP menu.

Note: For detailed information on the TTP MAP level, see *DMS-100 Family Menu Commands Historical Reference Manual* (297-1001-821Vol. 10).

b. Post the trunks that you are going to delete. Type

```
>POST G <clli> <start-trunk> TO <end-trunk>
```

and press the Enter key.

where

where<clli> is the clli name of the trunk group, as specified in table CLLI
and <start-trunk> is the external trunk number of the first trunk to be deleted, as specified in field EXTRKNM in table TRKMEM
and <end-trunk> is the external trunk number of the last trunk to be deleted, as specified in field EXTRKNM in table TRKMEM

c. Busy the trunks that you have posted. Type

```
>BSY INB ALL
```

and press the Enter key.

2 Use the table editor to delete the tuples containing the trunks' provisioning information from the following data schema tables: TRKMEM, C7TRKMEM, and HNPACONT.

For instructions on deleting tuples, see procedure "Using the table editor to delete a tuple from a table" (page 259).

Note: There is an alternative way to delete a tuple from table TRKMEM: you can use the XML interface to OSSGate. For details, see *OSSGate User's Guide* (NE10004-512).

3 Use the table editor to delete the tuples containing the trunks' provisioning information from the following data schema tables: TRKMEM, C7TRKMEM, and HNPACONT.

For instructions on deleting tuples, see procedure <re-insert X-Ref to SNDM20~~, "Using the table editor to delete a tuple from a table>.

Note: There is an alternative way to delete a tuple from table TRKMEM: you can use the XML interface to OSSGate. For details, see *OSSGate User's Guide* (NE10004-512).

At the PC connected to the CS 2000

4 Delete the carrier. For instructions for deleting a carrier, see *GWC Configuration Management* (NN10205-511).

—End—

Provisioning a span of trunks

The following information about trunk provisioning refers to this release. Trunk provisioning may be different in subsequent releases.

You must use two user interfaces to provision trunks. Those interfaces are the CS 2000 Management Tools GUI and the MAP interface. You can provision groups of trunks in the CS 2000 Management Tools GUI. However, when you use the MAP interface to specify provisioning information about the trunks, you must provision the trunks one at a time.

In the CS 2000 Management Tools GUI, you provision endpoints in groups of 24 (for T1) or 31 (for E1).

In the MAP interface, you use the table editor to add the provisioning information to the data schema tables.

Provisioning internal SIP-T looparound trunks

This procedure contains instructions for provisioning internal SIP-T looparound trunks.

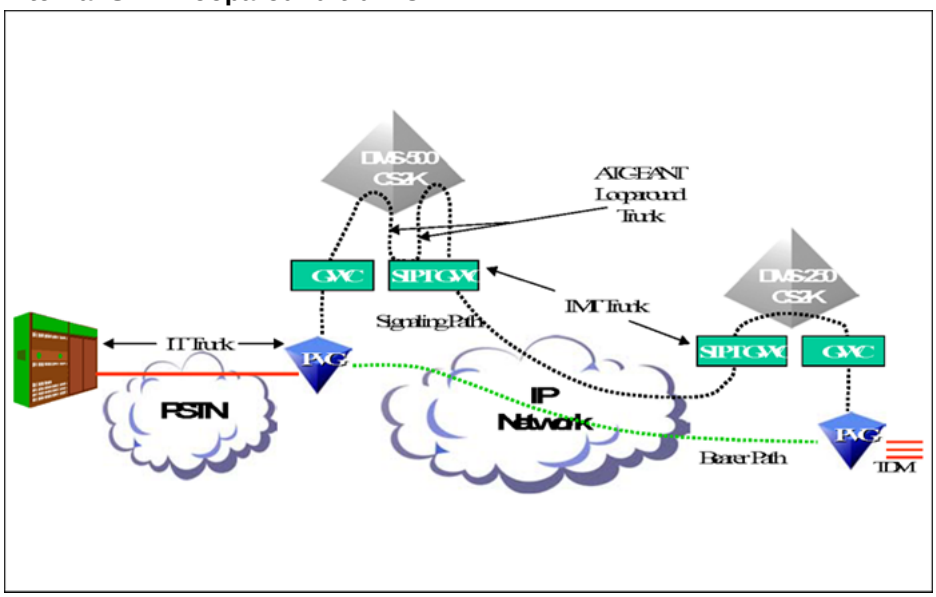
Internal SIP-T looparound trunks are used in a DMS-500 CS 2000. The looparound trunks support the following interexchange (IXC) services:

- MCCS
- Reorigination
- Auth Codes / PIN Codes / Account Codes
- Network Route Advance
- Equal Access Feature Group D dialing

For the affected calls, the signaling and bearer paths through the IP network are separate from each other. The signaling path starts out using an Access to Carrier Trunk (ATC). The ATC connects to an Equal Access Network Trunk (EANT), forming the looparound. An outgoing IMT or EANT trunk is the signaling path through the IP network to the destination.

The following illustration shows the internal looparound.

Internal SIP-T looparound trunks



Interval

Perform this procedure as required.

Prerequisites

Prerequisites for provisioning internal SIP-T looparound trunks are as follows:

- Before you begin this procedure, the gateway controllers must be configured. When you configure the gateway controllers, the system automatically enters the required datafill in table SERVRINV. For information on configuring the gateway controllers, refer to the menu item for GWC about configuration.
- Before you begin this procedure, the HOST_MGCNAME office parameter must be set to the appropriate value. For instructions, see "Provisioning the HOST_MGCNAME office parameter" (page 267).
- You must know the telephony profile that will be assigned to the looped trunk groups (that is, the ATC trunk group and the EANT trunk group).
- You must decide on the alternative host MGC names that you will use. You will need two such names.

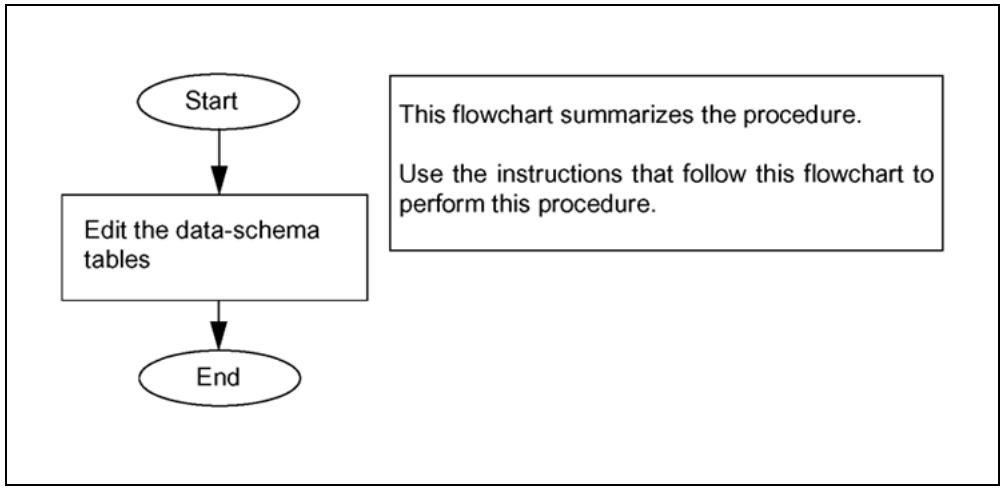
Common procedures

This procedure does not refer to any common procedures.

Action

The following flowchart summarizes this procedure.

Provisioning internal SIP-T looparound trunks



Provisioning internal SIP-T looparound trunks

Step	Action

At the MAP terminal

1 Use the table editor to edit table MGCINV (media gateway controller inventory), to provision the entries for each of the two alternative MGC names.

a. Start the table editor. Type

>TABLE MGCINV

and press the Enter key.

Example of system response:

```
TABLE: MGCINV
```

b. Indicate that you intend to add a tuple. Type

>ADD

and press the Enter key.

Example of system response:

```
MGCNAME:
```

c. Specify the alternative MGC name that will be associated with the ATC trunk group, and press the Enter key.

For example, type

>MGC100

and press the Enter key.

Example of system response:

```
ADDR:
```

d. Specify the value for the ADDR field. Type.

>127.0.0.1

and press the Enter key.

Note: The value 127.0.0.1 is a special value that indicates that the MGC name is an internal MGC name to be used for internal SIP-T looparound trunks in a DMS-500 CS 2000 configuration.

Example of system response:

```
VRDNLIST:
```

e. There will no VRDN values associated with the alternative MGC name. Type

>$

and press the Enter key.

Note: A virtual router/distribution node (VRDN) is a dual-purpose device that handles outgoing routing and incoming distribution.

Example of system response:

```
PROTOCOL:
```

f. Specify the value for the PROTOCOL field. Type

>SCTP5

and press the Enter key.

Example of system response:

```
TUPLE TO BE ADDED:
MGC100 127 0 0 1 $ SCTP5
ENTER Y TO CONFIRM, N TO REJECT OR E TO EDIT.
```

g. Confirm the addition. Type

>Y

and press the Enter key.

Example of system response:

```
TUPLE ADDED.
```

h. Indicate that you intend to add a tuple. Type

>ADD

and press the Enter key.

Example of system response:

```
MGCNAME:
```

i. Specify the alternative MGC name that will be associated with the EANT trunk group, and press the Enter key.

For example, type

>MGC250

and press the Enter key.

Example of system response:

```
ADDR:
```

j. Specify the value for the ADDR field. Type.

>127.0.0.1

and press the Enter key.

> ***Note:*** The value 127.0.0.1 is a special value that indicates that the MGC name is an internal MGC name to be used for internal SIP-T looparound trunks in a DMS-500 CS 2000 configuration.

Example of system response:

```
VRDNLIST:
```

k. There will no VRDN values associated with the alternative MGC name. Type

>$

and press the Enter key.

Note: A virtual router/distribution node (VRDN) is a dual-purpose device that handles outgoing routing and incoming distribution.

Example of system response:

```
PROTOCOL:
```

l. Specify the value for the PROTOCOL field. Type

>SCTP5

and press the Enter key.

Example of system response:

```
TUPLE TO BE ADDED:
MGC250 127 0 0 1 $ SCTP5
ENTER Y TO CONFIRM, N TO REJECT OR E TO EDIT.
```

m. Confirm the addition. Type

>Y

and press the Enter key.

Example of system response:

```
TUPLE ADDED.
```

n. Exit from the table editor. Type

>QUIT

and press the Enter key.

2 Use the table editor to edit table TELEPROF.

The CS 2000 uses the information in table TELEPROF to decide which Nortel version of SIP-T (session initiation protocol for telephony) signaling it should use for a call. Each tuple in table TELEPROF contains a key field composed of the name of a remote MGC and the name of a telephony profile related to that remote MGC. You must add two tuples: one for the alternative MGC name associated with the ATC trunk group; one for the alternative MGC name associated with the EANT trunk group. It is essential that you specify the same telephony profile name in both tuples.

Take the following substeps.

a. Start the table editor. Type

>TABLE TELEPROF

and press the Enter key.

Example of system response:

```
TABLE: TELEPROF
```

b. Indicate that you intend to add a tuple. Type

>ADD

and press the Enter key.

Example of system response:

```
KEY:
```

c. Specify the value for the KEY field. Type

><mgc-name> <telephony-profile-name>

and press the Enter key.

where

<mgc-name> is the alternative MGC name associated with the ATC trunk group, as specified in step 1 c.

<telephony-profile-name> is a name that can be up to 16 characters long

For example, type

MGC100 100_250_LOOP

and press the Enter key.

Example of system response:

```
VERSION:
```

d. In the VERSION field, specify the Nortel version of session initiation protocol for telephony that should be used. Type

>CS2K_V2

and press the Enter key.

Example of system response:

```
TUPLE TO BE ADDED:
MGC100 100_250_LOOP CS2K_V2
ENTER Y TO CONFIRM, N TO REJECT OR E TO EDIT.
```

e. Confirm the addition. Type

>Y

and press the Enter key.

Example of system response:

```
TUPLE ADDED.
```

f. Indicate that you intend to add a tuple. Type

>ADD

and press the Enter key.

Example of system response:

```
KEY:
```

g. Specify the value for the KEY field. Type

><mgc-name> <telephony-profile-name>

and press the Enter key.

where

<mgc-name> is the alternative MGC name associated with the EANT trunk group, as specified in step 1 i.

<telephony-profile-name> is a name that can be up to 16 characters long

For example, type

MGC250 100_250_LOOP

and press the Enter key.

Example of system response:

```
VERSION:
```

h. In the VERSION field, specify the Nortel version of session initiation protocol for telephony that should be used. Type

>CS2K_V2

and press the Enter key.

Example of system response:

```
TUPLE TO BE ADDED:
MGC250 100_250_LOOP CS2K_V2
ENTER Y TO CONFIRM, N TO REJECT OR E TO EDIT.
```

i. Confirm the addition. Type

>Y

and press the Enter key.

Example of system response:

```
TUPLE ADDED.
```

j. Exit from the table editor. Type

>QUIT

and press the Enter key.

3 Use the table editor to edit table CLLI, to define the common language location identifiers (CLLI) of the ATC trunk group and the EANT trunk group.

For detailed information about table CLLI, see *DMS-100 Customer Data Schema Reference Manual*, Vol. 3, 297-8001-351, or *DMS-100 MMP Customer Data Schema Reference Manual*, Vol. 2, 297-9051-351.

For each trunk group, take the following substeps.

a. Start the table editor. Type

```
>TABLE CLLI
```

and press the Enter key.

Example of system response:

```
TABLE: CLLI
```

b. Indicate that you intend to add a tuple. Type

```
>ADD <clli-name>
```

and press the Enter key

where

<clli-name> is the common language location identifier (CLLI) of the ATC trunk group

For example, type

```
>ADD ATC_2W_LOOP
```

and press the Enter key.

Example of system response:

```
ADNUM:
```

c. Specify the value for the ADNUM (administrative trunk group number) field. The value must be an integer in the range 51 to one less than the current size of table CLLI. (The current size of table CLLI appears in field SIZE of table DATASIZE.)

For example, type

```
>401
```

and press the Enter key.

Example of system response:

```
TRKGRSIZE:
```

d. Specify the value for the TRKGRSIZE field. Type

```
>0
```

and press the Enter key.

Note: When defining a trunk-group CLLI for SIP-T trunks, you must specify 0 as the value of the TRKGRSIZE field.

Example of system response:

```
ADMININF:
```

e. Specify the value for the ADMININF (administrative information) field. The value in this field is intended to allow someone looking at the clli to have an idea what it will be used for. You can type in up to 32 characters. Use only alphabetic characters, digits, and underscores. For example, type

>ATC_TRUNK_GRP_FOR_LOOPAROUND

and press the Enter key.

Example of system response:

```
TUPLE TO BE ADDED:
ATC_2W_LOOP 401 0
ATC_TRUNK_GRP_FOR_LOOPAROUND
ENTER Y TO CONFIRM, N TO REJECT OR E TO EDIT.
```

f. Confirm the addition. Type

>Y

and press the Enter key.

Example of system response:

```
TUPLE ADDED.
```

g. Indicate that you intend to add a tuple. Type

>ADD <clli-name>

and press the Enter key

where

<clli-name> is the common language location identifier (CLLI) of the EANT trunk group

For example, type

>ADD EANT_2W_LOOP

and press the Enter key.

Example of system response:

```
ADNUM:
```

h. Specify the value for the ADNUM (administrative trunk group number) field. The value must be an integer in the range 51 to

one less than the current size of table CLLI. (The current size of table CLLI appears in field SIZE of table DATASIZE.)

For example, type

>402

and press the Enter key.

Example of system response:

```
TRKGRSIZE:
```

i. Specify the value for the TRKGRSIZE field. Type

>0

and press the Enter key.

Note: When defining a trunk-group CLLI for SIP-T trunks, you must specify 0 as the value of the TRKGRSIZE field.

Example of system response:

```
ADMININF:
```

j. Specify the value for the ADMININF (administrative information) field. The value in this field is intended to allow someone looking at the clli to have an idea what it will be used for. You can type in up to 32 characters. Use only alphabetic characters, digits, and underscores. For example, type

>EANT_TRUNK_GRP_FOR_LOOPAROUND

and press the Enter key.

Example of system response:

```
TUPLE TO BE ADDED:
EANT_2W_LOOP 402 0
EANT_TRUNK_GRP_FOR_LOOPAROUND
ENTER Y TO CONFIRM, N TO REJECT OR E TO EDIT.
```

k. Confirm the addition. Type

>Y

and press the Enter key.

Example of system response:

```
TUPLE ADDED.
```

l. Exit from the table editor. Type

>QUIT

and press the Enter key.

4 Use the table editor to edit table TRKGRP, to define the ATC trunk group and the EANT trunk group.

Note: For detailed information about table TRKGRP, see *DMS-100 Customer Data Schema Reference Manual*, Vol. 10, 297-8001-351, or *DMS-100 MMP Customer Data Schema Reference Manual*, Vol. 11 and Vol. 12, 297-9051-351.

a. Start the table editor. Type

```
>TABLE TRKGRP
```

and press the Enter key.

Example of system response:

```
TABLE: TRKGRP
```

b. Indicate that you intend to add a tuple. Type

```
>ADD <clli-name>
```

and press the Enter key.

where

<clli-name> is the common language location identifier (CLLI) of the ATC trunk group, as defined in step 3 b of this procedure

For example, type

```
>ADD ATC_2W_LOOP
```

and press the Enter key.

Example of system response:

```
GRPTYP:
```

c. Specify the group type. Type

```
>ATC
```

and press the Enter key.

d. In response to the system prompts, specify the values for the rest of the fields that compose the tuple.

Here is an example of the set of values specified for an ATC trunk group. This is an example only.

Field	Value
GRPTYP	ATC
TRAFSNO	0
PADGRP	NPDGP
NCCLS	NCRT
DIR	2W
TRAFCLS	NIL
SELSEQ	ASEQ
PRTNM	ITS0
SCRNCL	NSCR
SNPA	919
STS	919
CARRNM	NILC
ANI	Y
SIGTYPE	EAPLAN
OPRHOLD	N
STNCLS	COMB
OSIND	N
OPTION	

Example of system response:

```
TUPLE TO BE ADDED:
ATC_2W_LOOP ATC  0  NPDGP  NCRT  2W  NIL
ASEQ  ITS0  NSCR  919  919  NILC  Y  EAPLANN
COMB  N  $
ENTER Y TO CONFIRM, N TO REJECT OR E TO EDIT.
```

e. Confirm the addition. Type

>Y

and press the Enter key.

Example of system response:

```
TUPLE ADDED.
```

f. Indicate that you intend to add a tuple. Type

>ADD <clli-name>

and press the Enter key.

where

<clli-name> is the common language location identifier (CLLI) of the EANT trunk group, as defined in step 3 g of this procedure

For example, type

>ADD EANT_2W_LOOP

and press the Enter key.

Example of system response:

```
GRPTYP:
```

g. Specify the group type. Type

>EANT

and press the Enter key.

h. In response to the system prompts, specify the values for the rest of the fields that compose the tuple.

Here is an example of the set of values specified for an EANT trunk group. This is an example only.

Field	Value
GRPTYP	EANT
TRAFSNO	0
PADGRP	NPDGP
NCCLS	NCOF
COS	0
DIR	2W
PRTNM	EAN_G1
SELSEQ	DSEQ
ODSCFLTR	16
ORIGFLTR	7
TDSFLTR	16
ANSFLTR	16
IDPRTRAN	EANT_G1
SNDRPSIG	15
SNDRPDIL	15
SNPA	601
ISUPIDX	UCS2EAEO
TRAFCLS	NIL
CONNGNPA	919
OPART	601
RECALLDT	NONE
TIMEBIAS	0
ZEROMPOS	NONE
ZONE	0
ADIN	0
BCNAME	VOICE_DATA
TSUSR	50
OPTION	

Example of system response:

```
TUPLE TO BE ADDED:
EANT_2W_LOOP EANT  0  NPDGP  NCOF  0  2W
EAN_G1  DSEQ  16  7  16  16  EANT_G1  15  15
601  UCS2EAEO  NIL  919  601  NONE  0  NONE
0  0  VOICE_DATA  50  $
ENTER Y TO CONFIRM, N TO REJECT OR E TO EDIT.
```

i. Confirm the addition. Type

>Y

and press the Enter key.

Example of system response:

```
TUPLE ADDED.
```

j. Exit from the table editor. Type

>QUIT

and press the Enter key.

5 Use the table editor to edit table TRKSGRP (trunk subgroup), to define supplementary information for each subgroup assigned to one of the trunk groups listed in table TRKGRP.

Note: For detailed information about table TRKSGRP, see *DMS-100 Customer Data Schema Reference Manual*, Vol. 10, 297-8001-351, or *DMS-100 MMP Customer Data Schema Reference Manual*, Vol. 12, 297-9051-351.

6 Use the table editor to edit table TRKOPTS, to provision additional options for the trunk groups.

Note: For detailed information about table TRKOPTS, see *DMS-100 Customer Data Schema Reference Manual*, Vol. 10, 297-8001-351, or *DMS-100 MMP Customer Data Schema Reference Manual*, Vol. 12, 297-9051-351.

a. Start the table editor. Type

>TABLE TRKOPTS

and press the Enter key.

Example of system response:

```
TABLE: TRKOPTS
```

b. Indicate that you intend to add a tuple. Type

>ADD <clli-name> <option>

and press the Enter key

where

<clli-name> is the common language location identifier (CLLI) of the ATC trunk group, as defined in step 3 b of this procedure
<option> is DPT

For example, type

>ADD ATC_2W_LOOP DPT

and press the Enter key.

Example of system response:

```
PROTOCOL:
```

c. Specify the value for the PROTOCOL field. Type

>SIPT

and press the Enter key.

Example of system response:

```
BEARNETS:
```

d. Specify the value of the BEARNETS field. This is the name of the bearer network associated with the DPT trunk group. Type

> <bearer-network-name>

and press the Enter key

where

<bearer-network-name> is the name of a bearer network, as specified in the BNETNAME field in table BEARNETS

For example, type

>NET_IP

and press the Enter key.

Example of system response:

```
NGSS_SELECTOR:
```

e. Specify the value for the NGSS_SELECTOR field. Type

>N

and press the Enter key.

Example of system response:

```
DEST_MGCNAME:
```

f. Specify the value for the DEST_MGCNAME field. This value must be the alternative host MGC name associated with the EANT trunk group, as specified in step 1 i. For example, type

>MGC250

and press the Enter key.

Example of system response:

```
TPROFILE:
```

g. Specify the value for the TPROFILE field. Type in the telephony-profile-name as specified in the KEY field in table TELEPROF in step 2 c of this procedure, and press the Enter key. For example, type

>100_250_LOOP

and press the Enter key.

Example of system response:

```
ALT_HOST_MGCNAME:
```

h. Specify the alternative host MGC name associated with the ATC trunk group, as specified in step 1 c. For example, type

>MGC100

and press the Enter key.

Example of system response:

```
INTER_DOMAIN: N
```

i. Press the Enter key to indicate that you accept the supplied value of N (no) for the INTER_DOMAIN field. This indicates that the SIP-T trunks will be intra-domain trunks, that is, trunks between equipment that is in the same IP address range.

Example of system response:

```
TUPLE TO BE ADDED:
ATC_2W_LOOP DPT SIPT NET_IP N MGC250
100_250_LOOP MGC100 N
ENTER Y TO CONFIRM, N TO REJECT OR E TO EDIT.
```

j. Confirm the addition. Type

>Y

and press the Enter key.

Example of system response:

```
TUPLE ADDED.
```

k. Indicate that you intend to add a tuple. Type

>ADD <clli-name> <option>

and press the Enter key

where

<clli-name> is the common language location identifier (CLLI) of the EANT trunk group, as defined in step 3 g of this procedure
<option> is DPT

For example, type

>ADD EANT_2W_LOOP DPT

and press the Enter key.

Example of system response:

```
PROTOCOL:
```

l. Specify the value for the PROTOCOL field. Type

>SIPT

and press the Enter key.

Example of system response:

```
BEARNETS:
```

m. Specify the value of the BEARNETS field. This is the name of the bearer network associated with the DPT trunk group. Type

> <bearer-network-name>

and press the Enter key

where

<bearer-network-name> is the name of a bearer network, as specified in the BNETNAME field in table BEARNETS

For example, type

>NET_IP

and press the Enter key.

Example of system response:

```
NGSS_SELECTOR:
```

n. Specify the value for the NGSS_SELECTOR field. Type

>N

and press the Enter key.

Example of system response:

```
DEST_MGCNAME:
```

o. Specify the value for the DEST_MGCNAME field. This value must be the alternative host MGC name associated with the ATC trunk group, as specified in step 1 c. For example, type

>MGC100

and press the Enter key.

Example of system response:

```
TPROFILE:
```

p. Specify the value for the TPROFILE field. Type in the telephony-profile-name as specified in the KEY field in table TELEPROF in step 2 c of this procedure, and press the Enter key. For example, type

>100_250_LOOP

and press the Enter key.

Example of system response:

```
ALT_HOST_MGCNAME:
```

q. Specify the alternative host MGC name associated with the EANT trunk group, as specified in step 1 i. For example, type

>MGC250

and press the Enter key.

Example of system response:

```
INTER_DOMAIN: N
```

r. Press the Enter key to indicate that you accept the supplied value of N (no) for the INTER_DOMAIN field. This indicates that the SIP-T trunks will be intra-domain trunks, that is, trunks between equipment that is in the same IP address range.

Example of system response:

```
TUPLE TO BE ADDED:
EANT_2W_LOOP DPT SIPT NET_IP N MGC100
100_250_LOOP MGC250 N
ENTER Y TO CONFIRM, N TO REJECT OR E TO EDIT.
```

s. Confirm the addition. Type

>Y

and press the Enter key.

Example of system response:

```
TUPLE ADDED.
```

t. Exit from the table editor. Type

>QUIT

and press the Enter key.

7 Use the table editor to edit table DPTRKMEM (dynamic packet trunk member), to provision SIP-T dynamic packet trunk group members.

Note: SIP-T datafill entries in table DPTRKMEM result in the automatic entry of datafill in table TRKMEM. Those automatic entries in table TRKMEM are not visible to the user.

a. Start the table editor. Type

>TABLE DPTRKMEM

and press the Enter key.

Example of system response:

```
TABLE: DPTRKMEM
```

b. Indicate that you intend to add a tuple. Type

>ADD

and press the Enter key.

Example of system response:

```
DPTRKKEY:
```

c. Specify the value for the DPTRKKEY field. Type the clli-name of the ATC trunk-group, as specified in step 3 b of this procedure, and press the Enter key. For example, type

>ATC_2W_LOOP

and press the Enter key.

Example of system response:

```
SIGSEL:
```

d. Specify the value for the SIGSEL (signal selector) field. Type

>SIPT

and press the Enter key.

Example of system response:

```
MAXCALLS:
```

e. Specify the value for the MAXCALLS (maximum number of calls) field. Type an integer value and press the Enter key. For example, type

>300

and press the Enter key.

The MAXCALLS field specifies the maximum number of calls supported for the trunk. The maximum value is 262,144.

Example of system response:

```
TUPLE TO BE ADDED:
ATC_2W_LOOP  SIPT  300
ENTER Y TO CONFIRM, N TO REJECT OR E TO EDIT.
```

f. Confirm the addition. Type

>Y

and press the Enter key.

Example of system response:

```
TUPLE ADDED.
```

g. Indicate that you intend to add a tuple. Type

>ADD

and press the Enter key.

Example of system response:

```
DPTRKKEY:
```

h. Specify the value for the DPTRKKEY field. Type the clli-name of the EANT trunk-group, as specified in step 3 g of this procedure, and press the Enter key. For example, type

>EANT_2W_LOOP

and press the Enter key.

Example of system response:

```
SIGSEL:
```

i. Specify the value for the SIGSEL (signal selector) field. Type

>SIPT

and press the Enter key.

Example of system response:

```
MAXCALLS:
```

j. Specify the value for the MAXCALLS (maximum number of calls) field. Type an integer value and press the Enter key. For example, type

>300

and press the Enter key.

The MAXCALLS field specifies the maximum number of calls supported for the trunk. The maximum value is 262,144.

Example of system response:

```
TUPLE TO BE ADDED:
EANT_2W_LOOP  SIPT  300
ENTER Y TO CONFIRM, N TO REJECT OR E TO EDIT.
```

k. Confirm the addition. Type

>Y

and press the Enter key.

Example of system response:

```
TUPLE ADDED.
```

l. Exit from the table editor. Type

>QUIT

and press the Enter key.

8 You have completed the procedure for provisioning internal SIP-T looparound trunks.

The internal SIP-T looparound trunks will be ready to use as soon as the ATC and EANT trunk groups have been returned to service. To return the trunk groups to service, use the RTS command in the DPTRKS MAP level. To access that MAP level, enter the following command in the MAP:

```
mapci;mtc;trks;dptrks
```

—End—

Provisioning SS7 Links

The SS7 links connect the signaling gateway with the Public Switched Telephone Network (PSTN). The CS 2000MSC Server 1000 uses a fiberized link peripheral processor (FLPP) as a signaling gateway to interface to the CCS7 signaling network. This network consists of SS7 links to the Public Switched Telephone Network (PSTN) that handle call origination and call termination.

The table editor supports entering datafill in certain the following XA-Core data schema tables to provision these SS7 links:

- C7LINK

  This table associates the physical and logical aspects of the links as members of a linkset. This table refers to information in table LIUINV.

- LIUINV

  This table contains provisioning information about the link interface units (LIU) in the FLPP. Table C7LINK refers to information in LIUINV.

- C7RTESET

  This table logically associates linksets that can be routes for each signaling point (SP) or service switching point (SSP) in the network.

- C7NETWRK

  This table identifies the signaling networks that the node uses.

- C7LKSET

  This table defines the characteristics of the linksets.

- C7TIMER

  This table sets up timers. Table C7LKSET uses information from C7TIMER.

- C7CNGSTN

  This table specifies limits for congestion values on the signaling links. Table C7LKSET uses information from C7CNGSTN.

For detailed information on these tables, see the following documents:

- in the North American market, see:
  - *North American DMS-100 Customer Data Schema Reference Manual* (297-8001-351 Vol. 2 for the C7 tables and Vol. 6 for table LIUINV)
  - *North American DMS-100 Family Translations Guide* (297-8001-350 Vol. 2)

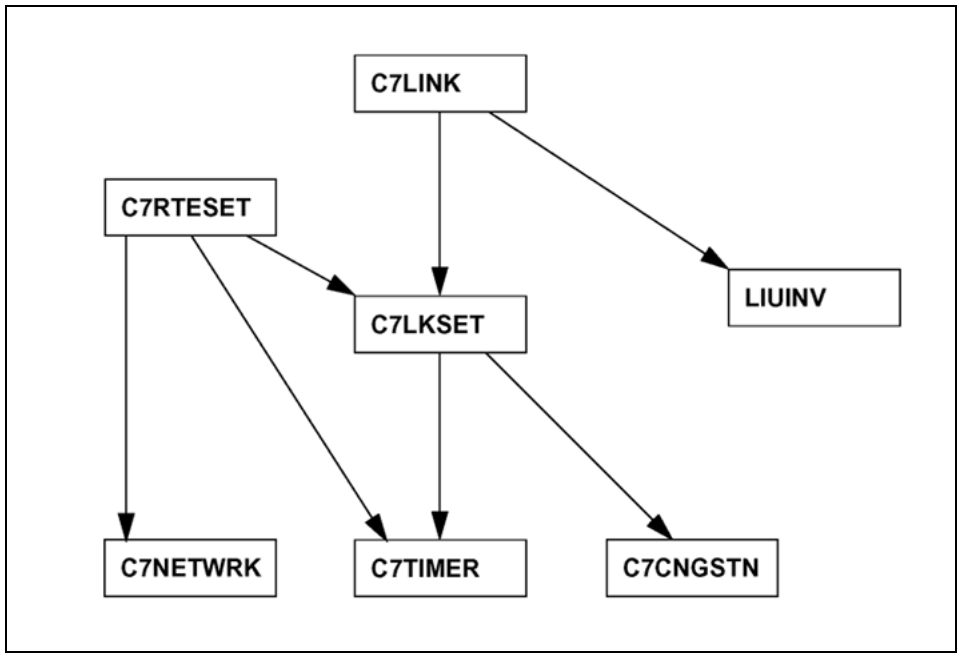
- in the international market, see:
  - *DMS-100 MMP Customer Data Schema Reference Manual* (297-9051-351,) (Vol. 2 for the C7 tables and Vol. 7 for table LIUINV)
  - *DMS-100 MMP Translations Guide*,(297-9051-350 Vol. 2)

Refer to the following documents for more information about these tables:

- *Networking for X.25/CCS7 DMS-MTX CDMA/TDMA* (411-2131-554)
- *DMS-MTX Basic Cellular Translations* (411-2131-220)
- *Networking for X.25/CCS7 DMS-MTX CDMA/TDMA* (411-2131-554)

The figure "Dependency diagram for tables related to SS7 links" (page 233) shows the dependencies among the tables. Each arrow indicates a dependency. In each case, the pointed-to table contains information that is used by the table at the origination of the arrow.

Dependency diagram for tables related to SS7 links



Interval

Perform this procedure as required.

Prerequisite

- Table LIUINV must contain tuples for the LIU7s that will handle the links (see procedure "Provision a CCS7 link-interface unit" (page 32)) .
- "Provision a CCS7 link-interface unit" (page 32)

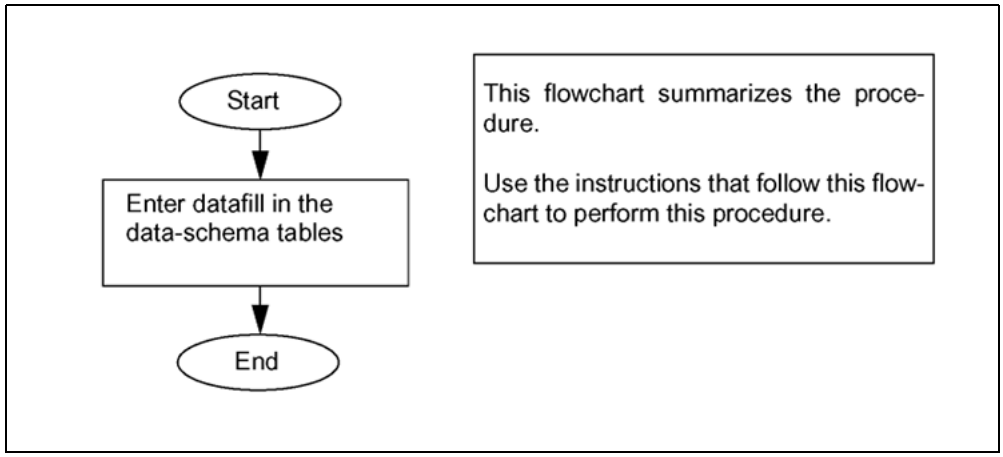
Common procedures

This procedure refers to the sub-procedures "Using the Table Editor to Add a Tuple to a Table" (page 249) and "Using the table editor to edit an existing tuple in a table" (page 255) located in the Common Procedures section.

Action

The following flowchart summarizes this procedure.

Provisioning SS7 links



Provision SS7 links

Step	Action

At your current location:

1 Work out what you will need to provision.

At the MAP terminal

2 Verify that the required information has been provisioned in table C7TIMER. If you need to add one or more tuples, see sub-procedure "Using the Table Editor to Add a Tuple to a Table" (page 249). If you need to edit tuples, see procedure "Using the table editor to edit an existing tuple in a table" (page 255).

3 Verify that the required information has been provisioned in table C7CHGSTN. If you need to add one or more tuples, see sub-procedure "Using the Table Editor to Add a Tuple to a Table" (page 249). If you need to edit tuples, see procedure "Using the table editor to edit an existing tuple in a table" (page 255).

4 Use the table editor to provision the needed values in table C7NETWRK. For instructions on adding tuples to tables, see sub-procedure "Using the Table Editor to Add a Tuple to a Table" (page 249).

ATTENTION
When entering datafill into table C7NETWRK, you can now define up to 16 point codes for a Service Switching Point (SSP).

5 Use the table editor to provision the needed values in table C7LKSET. For instructions on adding tuples to tables, see sub-procedure "Using the Table Editor to Add a Tuple to a Table" (page 249).

6 Use the table editor to provision the needed values in table C7RTESET. For instructions on adding tuples to tables, see sub-procedure "Using the Table Editor to Add a Tuple to a Table" (page 249).

7 Use the table editor to provision the needed values in table C7LINK. For instructions on adding tuples to tables, see sub-procedure "Using the Table Editor to Add a Tuple to a Table" (page 249).

—End—

Go to "Edit an SS7 link" (page 237) (or "Delete an SS7 link" (page 241)) for details about editing (or deleting) an SS7 link.

Refer to MSC Server 1000 configuration workflow for the next task.

Editing an SS7 Link

The SS7 links connect the signaling gateway with the Public Switched Telephone Network (PSTN). The CS 2000In a concurrent configuration, MSC Server 1000 uses a fiberized link peripheral processor (FLPP) as a signaling gateway to interface to the CCS7 signaling network. This network consists of the SS7 links to the Public Switched Telephone Network (PSTN) that handle call origination and call termination.

The table editor supports editing datafill in data schema table C7LINK. For detailed information on table C7LINK, see the following documents.

- In the North American market, see
  - *North American DMS-100 Customer Data Schema Reference Manual* (297-8001-351 Vol. 2)
  - *North American DMS-100 Family Translations Guide* (297-8001-350 Vol. 2)
- In the international market, see
  - *DMS-100 MMP Customer Data Schema Reference Manual* (297-9051-351 Vol. 2)
  - *DMS-100 MMP Translations Guide* (297-9051-350 Vol. 2)

The table editor supports editing datafill in data schema table C7LINK. Refer to the following documents for more information about table C7LINK:

- *Networking for X.25/CCS7 DMS-MTX CDMA/TDMA* (411-2131-554)
- *DMS-MTX Basic Cellular Translations* (411-2131-220)
- *DMS-MTX Universal Cellular Translations* (411-2131-305.)

Interval

Perform this procedure as required.

Prerequisites

None.

Common procedures

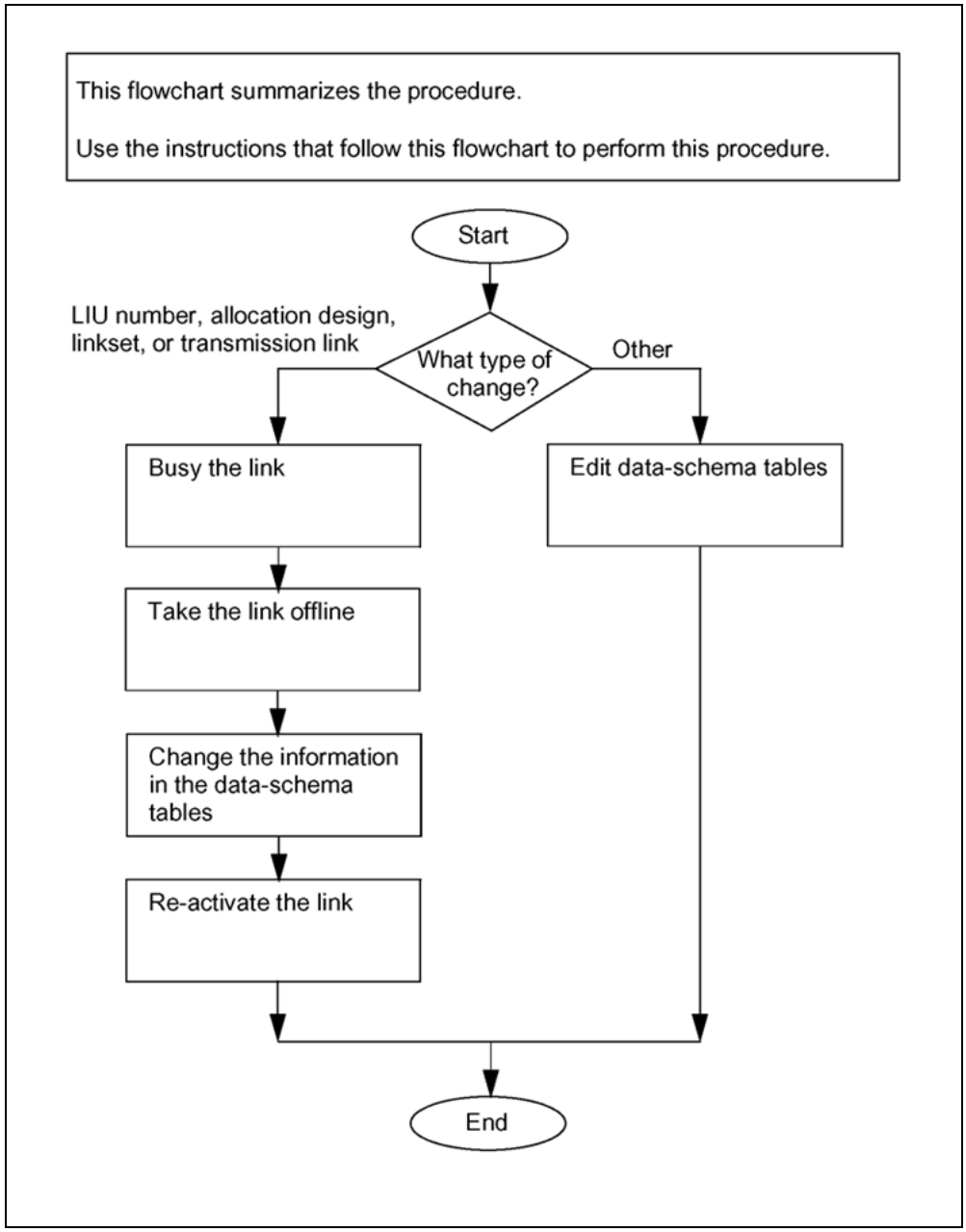
This procedure refers to the following procedures:

- "Using the Table Editor to Add a Tuple to a Table" (page 249)
- "Using the table editor to edit an existing tuple in a table" (page 255)
- "Using the table editor to delete a tuple from a table" (page 259)

Action

The following flowchart summarizes this procedure.

Editing an SS7 link



Edit an SS7 link

Step	Action

At your current location:

1 Work out what changes you need to make, so you will know which tables you must edit.

2 Access the C7LKSET MAP level. Type

```
>MAPCI;MTC;CCS;CCS7;C7LKSET
```

and press the Enter key.

At the MAP terminal

3 Select the linkset for editing. Type

```
POST C <linkset-name> 0
```

and press the Enter key.

where

<linkset-name> is the linkset name as specified in table C7LKSET.

4 If you want to change the link's linkset or its allocation design or its LIU number or its transmission link, take the link offline. Proceed as follows.

a. At the user interface prompt on any MAP screen type

```
>BSY <link-name>
```

and press the Enter key.

where

<link-name> is the name of the link as found in table C7LINK

b. At the user interface prompt on any MAP screen type

```
>OFFL <link-name>
```

and press the Enter key

where

<link-name> is the name of the link as found in table C7LINK.

5 If you want to change the linkset for the link, go to step 6.

6 Use the table editor to edit the provisioning information for the link in table C7LINK.

For instructions on editing tables, see procedure "Using the table editor to edit an existing tuple in a table" (page 255).

7 Go to step 7.

8 Change the link's linkset by deleting the link's current tuple from the table and adding a new tuple for the link, including the new linkset name.

You must do this because the linkset name is part of the key. For instructions on deleting a tuple, see procedure "Using the table editor to delete a tuple from a table" (page 259). For instructions on adding a tuple, see procedure "Using the Table Editor to Add a Tuple to a Table" (page 249).

9 If you took the link offline in step 2, return the link to service. At the user interface prompt on any MAP screen type

```
>ACT <link-name>
```

and press the Enter key

where

<link-name> is the name of the link as found in table C7LINK

10 Put the linkset back into service. Type

```
RTS <linkset-name>
```

and press the Enter key

where

<linkset-name> is the name of the linkset as found in table C7LKSET.

11 You have completed the procedure. If applicable, return to the higher level task flow or procedure that directed you to this procedure.

—End—

Deleting an SS7 Link

The SS7 links connect the signaling gateway with the Public Switched Telephone Network (PSTN). The CS 2000In the concurrent configuration, the MSC Server 1000 uses a fiberized link peripheral processor (FLPP) as a signaling gateway to interface to the CCS7 signaling network. This network consists of SS7 links to the Public Switched Telephone Network (PSTN) that handle call origination and call termination.

The provisioning information for SS7 links is found in tables in the XA-Core. To delete an SS7 link, you must delete that link's provisioning information from table C7LINK.

For detailed information on table C7LINK, see the following documents.

- In the North American market, see
  - *North American DMS-100 Customer Data Schema Reference Manual* (297-8001-351 Vol. 2)
  - *North American DMS-100 Family Translations Guide* (297-8001-350 Vol. 2)
- In the international market, see
  - *DMS-100 MMP Customer Data Schema Reference Manual* (297-9051-351 Vol. 2)
  - *DMS-100 MMP Translations Guide* (297-9051-350 Vol. 2)
- *Networking for X.25/CCS7 DMS-MTX CDMA/TDMA* (411-2131-554)
- *DMS-MTX Basic Cellular Translations* (411-2131-220)
- *DMS-MTX Universal Cellular Translations* (411-2131-305)

Interval

Perform this procedure as required.

Prerequisites

None.

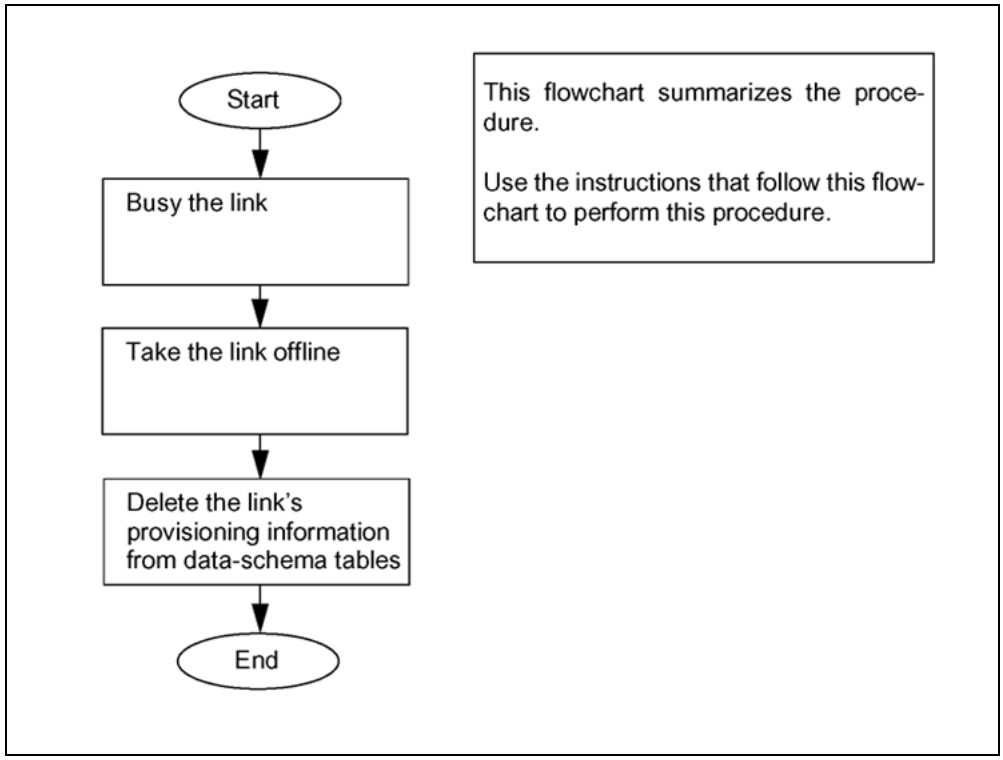
Common procedures

This procedure refers to the sub-procedure "Using the table editor to delete a tuple from a table" (page 259) located in theCommon Procedures section.

Action

The following flowchart summarizes this procedure.

Deleting an SS7 link



Delete an SS7 link

Step	Action

At your current location:

1 Check to be sure that you know which link you need to delete.

2 Access the C7LKSET MAP level. Type

```
>MAPCI;MTC;CCS;CCS7;C7LKSET
```

and press the Enter key.

At the MAP terminal

3 Select the linkset for deleting. Type

```
>POST C <linkset-name> 0
```

and press the Enter key.

where

<linkset-name> is the linkset name, as specified in table C7LKSET.

4 Busy the link and take it offline. Proceed as follows.

a. At the user interface prompt on any MAP screen type

```
>BSY <link-name>
```

and press the Enter key.

where

<link-name> is the name of the link as found in table C7LINK

b. At the user interface prompt on any MAP screen type

```
>OFFL <link-name>
```

and press the Enter key

where

<link-name> is the name of the link as found in table C7LINK

5 Use the table editor to delete the link's provisioning information from the tables.

For instructions on deleting, see sub-procedure "Using the table editor to delete a tuple from a table" (page 259).

6 You have completed the procedure. If applicable, return to the higher level task flow or procedure that directed you to this procedure.

—End—

Provisioning the Non-Call-Associated Signaling link

Use this procedure to provision the non-call-associated signaling (NCAS) link.

The NCAS link exists between the CS 2000 and the Session Server. It provides stream control transmission protocol (SCTP) based communication. The NCAS link is necessary for the provisioning of NCAS applications.

To provision the NCAS link, you must first add a tuple to table IPAPPL in the CS 2000 XA-Core.

Table IPAPPL lists IP-application instances, including:

- Network Message Waiting (NMS) - used for the SIP network or SIP VM server to communicate with the CS 2000 for RFC 3842 compliant MWI service using SIP.
- SIP Maintenance (SIPMTCE) - used for the QSIP command in the CS 2000 XA-Core to query SIP Lines specific data from the provisioning server component of the session server.
- Advanced Intelligence Network (AIN) - used for the Out-of-band-refer (OOBR) service to provide click to call service.

Interval

Perform this procedure as required.

Prerequisites

None.

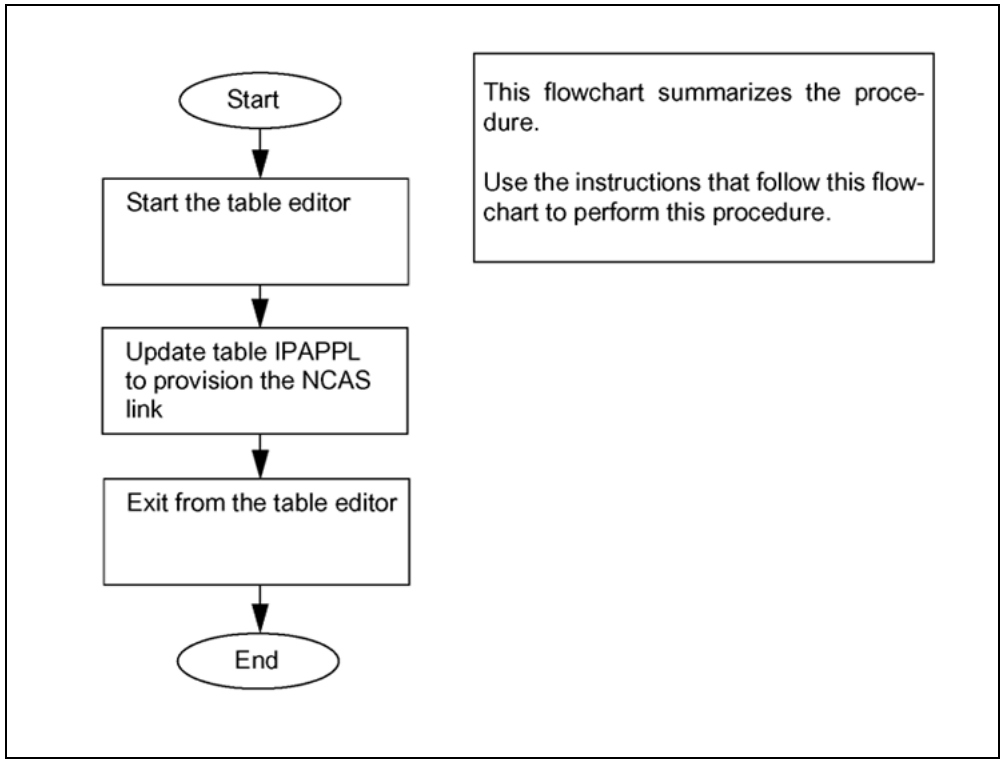
Common procedures

This procedure does not refer to any common procedures.

Action

The following flowchart summarizes this procedure.

Provisioning the NCAS link



Provision the NCAS link

Step	Action

At the MAP terminal

1 Start the table editor to update table IPAPPL by typing:

```
>TABLE IPAPPL
```

and press the Enter key.

Example of system response:

```
TABLE: IPAPPL
```

2 Indicate that you intend to add a tuple by typing:

```
>ADD <instkey>
```

and press the Enter key.

where

<instkey> is an integer in the range 1 to 64. This is the key value that identifies the application instance.

For example, type

```
>1
```

and press the Enter key.

Example of system response:

```
INSTNAME:
```

3 Specify the instance name, which is the human-readable name that identifies the application instance by typing:

> <instname>

and press the Enter key.

where

<instname> is a name (composed of up to eight characters) that identifies the application instance

For example, type

>SIP_VM1

and press the Enter key.

Example of system response:

```
TRANSPRT:
```

4 Specify that stream control transmission protocol (SCTP) is the transport protocol that is to be used by typing:

>SCTP

and press the Enter key.

Example of system response:

```
IPDEVICE:
```

5 Specify that the high-performance input/output circuit pack (in the XA-Core shelf) is the IP device that the application instance will use. For example, type

>HIOP

and press the Enter key.

For the NCAS link, the device must be HIOP. For the NMS, the device EIU is also valid. If the NCAS link is based on the CS 2000 Compact, the device must be datafilled as HIOP even though this device has no meaning in the CS 2000 Compact Core.

Example of system response:

```
IPADDRS:
```

6 Specify an IP address by typing:

> <IPV4_IP_address>

and press the Enter key.

where

<IPV4_IP_address> is an IPV4 IP address

ATTENTION
You can specify up to four remote IP addresses that the command instance will use.

For example, type

IPV4 198 202 221

and press the Enter key.

ATTENTION
The address shown here is an example only.

Example of system response:
IPADDRS:

7 Select the next step as follows.

If	Do
you want to specify another IP address	step 6
you do not want to specify another IP address	step 8

8 Indicate that you have finished specifying IP addresses by typing:

>$

and press the Enter key.

Example of system response:
IPPORT:

9 Specify the number of the local port where the CS 2000receives messages from the application instance. For example, type

>4982

and press the Enter key.

For the NCAS link, the port number must be in the range 4900 to 4982. For SIPMTCE, the port number must be 4982. For NMS and AIN, the port number must be in the range 4900 to 4981.

Example of system response:
IP_OPTION_LIST:

10 Specify the application instance (NMS, SIPMTCE or OOBR). For example, type

>APPLICATION SIPMTCE

and press the Enter key.

The table IPAPPL can be datafilled with multiple tuples. Each tuple must contain only one application instance. For the NCAS link, table IPAPPL can contain only one SIPMTCE application instance. For NMS and OOBR, the multiple tuples can have the same application instances. The only restriction is that each tuple should point to a different IP address and port number pair.

Example of system response:

```
IP_OPTION_LIST:
```

11 Specify the primary remote IP addresses in the IPADDRS field by typing:

>SETPRIME <n>

and press the Enter key.

where

<n> is 1, 2, 3, or 4, indicating whether the first-, second-, third-, or fourth-specified remote IP address is to be the primary address

For example, type

>SETPRIME 1

and press the Enter key.

ATTENTION

Specify the SETPRIME option even if you specified only one IP address in the IPADDRS field.

Example of system response:

```
IP_OPTION_LIST:
```

12 Indicate that you have finished specifying IP options by typing:

>$

and press the Enter key.

Example of system response:

```
TUPLE TO BE ADDED
1 NCASLINK SCTP HIOP (IPV4 198 202 221) $
4982 (APPLICATION SIPMTCE) (SETPRIME 1) $
ENTER Y YO CONFIRM, N TO REJECT OR E TO EDIT.
```

13 Confirm the addition by typing:

```
>Y
```

and press the Enter key.

Example of system response:

```
TUPLE ADDED:
```

14 Exit from the table editor by typing:

```
>QUIT
```

and press the Enter key.

15 You have completed the procedure.

—End—

Using the Table Editor to Add a Tuple to a Table

To provision certain entities in the XA-Core component of the CS 2000, you must use the table editor to add tuples to tables. This procedure tells how to add a tuple to a table.

> ***Note:*** For detailed information on table-editor commands, see *DMS-100 Family Basic Translations Tools Guide* (297-1001-360) or *DMS-MTX Basic Cellular Translations* (411-2131-220).

To provision certain entities in the XA-Core component of the CS 2000, you must use the table editor to add tuples to tables. This procedure tells how to add a tuple to a table.

> ***Note:*** For detailed information on table-editor commands, see *CDMA/TDMA Customer Data Schema Reference Manual* (411-2131-451).

This procedure assumes that you need to add a tuple to a table in order to provision an instance of an entity. The procedure assumes that you know the fields that compose the tuple. The documents specified in the preceding note provide more information about tuple fields and data schema tables.

> ***Note:*** For detailed information on the tables that contain the provisioning values, see:
>
> - in the North American market, see *North American DMS-100 Customer Data Schema Reference Manual* (297-8001-351)
> - in the international market, see *DMS-100 MMP Customer Data Schema Reference Manual* (297-9051-351)

This procedure assumes that you provision an instance of an entity by adding a tuple to a table. The procedure also assumes that you know what fields and field values provision this tuple.

> ***Note:*** "Understanding data schema table reference information" <rebuild CrossRef to WNC542_CONFIG_FUNDAMENTALS> and *CDMA/ TDMA Customer Data Schema Reference Manual* (411-2131-451) provide more information about tuple fields and data schema tables.

We offer two procedures for adding a tuple: one procedure using the table editor's prompt mode and another procedure using the table editor's no-prompt mode.

This information includes two procedures for adding a tuple: one procedure uses the table editor prompt mode; and, the other uses the no-prompt mode.

In prompt mode, the table editor prompts you to specify the field values one field at a time.

You can use no-prompt mode if you know the sequence of fields in the tuple. In no-prompt mode, you type in all the field values, separated by spaces, and press the Enter key.

Interval

Perform this procedure as required.

Prerequisites

None.

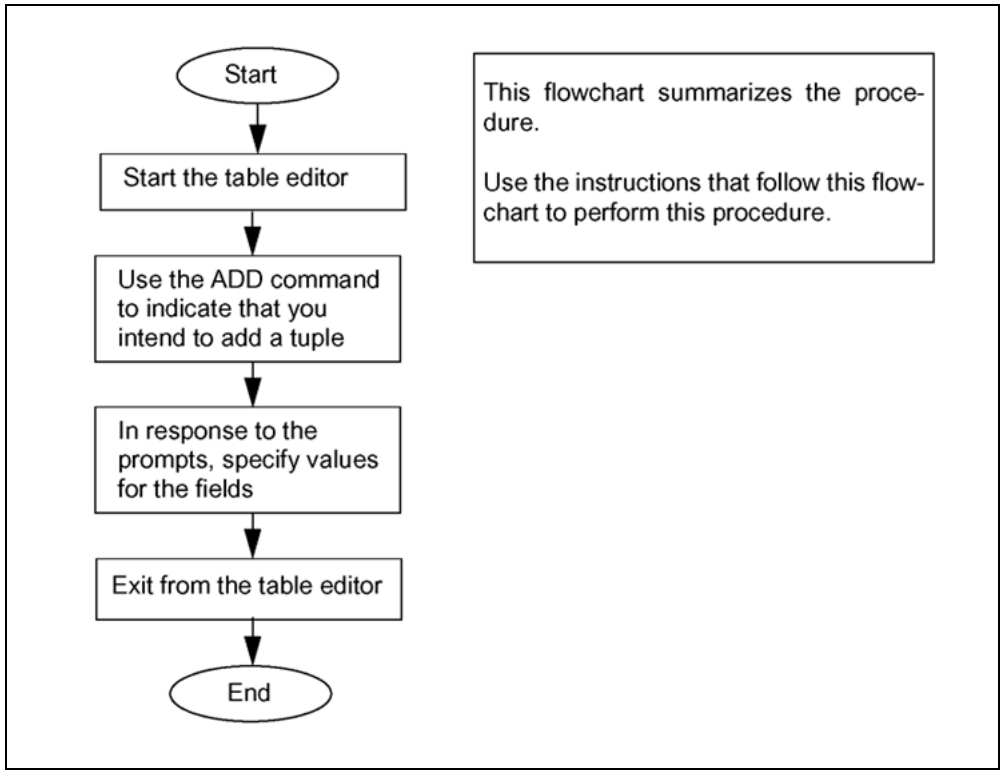
Common procedures

This procedure does not refer to any common procedures.

Action

The following flowchart summarizes this procedure.

Using the table editor to add a tuple to a table



Using the table editor to add a tuple to a table using prompt mode

Step	Action

At the MAP terminal

1 Start the table editor. At the user interface prompt on any MAP screen type.

>TABLE <table-name>

and press the Enter key.

where

<table-name> is the name of the table to which you want to add a tuple

Example of system response, assuming you use table-name VRDNINV:

```
TABLE: VRDNINV
```

Note: VRDNINV is the virtual router/distribution node table.

2 Indicate that you intend to add a tuple. Type

>ADD

and press the Enter key.

The system prompts you to specify the values for the fields that compose the tuple.

Example of system response:

```
VRDNNAME:
```

3 Type in the value of the VRDNNAME field (for example, VRDN1), and press the Enter key.

The system prompts you to specify the value of the next field.

Example of system response:

```
GWCNAME:
```

4 Type in the value of the GWCNAME field (for example, GWC 0), and press the Enter key.

The system prompts you to specify the value of the next field.

Example of system response:

```
RMGCLIST:
```

5 In response to the RMGCLIST (remote media gateway controller list) prompt, type in the name of the first remote media gateway controller (for example, PORTLAND), and press the Enter key.

The system prompts you to specify further values for the RMGCLIST.

Example of system response:

```
RMGCLIST:
```

6 Indicate that there are no more items to add to the RMGCLIST. Type $ and press the Enter key.

Example of system response:

```
TUPLE TO BE ADDED:
VRDN1  GWC 0  PORTLAND  $
ENTER Y TO CONFIRM, N TO REJECT OR E TO EDIT.
```

7 Confirm the addition. Type

>Y

and press the Enter key.

Example of system response:

```
TUPLE ADDED.
```

8 Exit from the table editor. Type

>QUIT

and press the Enter key.

9 You have completed the procedure.

—End—

How to use the table editor to add a tuple using no-prompt mode

Step	Action

At the MAP terminal

1 Start the table editor. At the user interface prompt on any MAP screen type

>TABLE <table-name>

and press the Enter key.

where

<table-name> is the name of the table to which you want to add a tuple

Example of system response (for table-name VRDNINV):

```
TABLE: VRDNINV
```

Note: VRDNINV is the virtual router/distribution node table.

2 Add a tuple. Type

>ADD <tuple-value>

and press the Enter key.

where

<tuple-value> is an expression composed of the values of all the fields composing the tuple. The fields must be in the proper sequence, and must be separated by spaces.

For example, table VRDNINV has three fields. The first field is VRDNNAME, and it takes character string as input. The second field is GWCNAME, and it also takes a string as input. The third field is RMGCLIST, and it takes a list of strings as input. The $ character indicates that there are no more entries for the list. If the VRDNNAME were VRDN1, and if the GWCNAME were GWC 0, and if the RMGCLIST had only one item, PORTLAND, you could add the tuple by entering

ADD VRDN1 GWC 0 PORTLAND $

Note: If the length of the tuple exceeds the width of the input line, type a plus sign (+) as the last character on the line, press the Enter key, and continue entering the tuple value on the next input line. Input lines linked by plus signs will be processed as a single input.

Example of system response:

```
TUPLE TO BE ADDED:
VRDN1  GWC 0  PORTLAND  $
ENTER Y TO CONFIRM, N TO REJECT OR E TO EDIT.
```

3 Confirm the addition. Type

>Y

and press the Enter key.

Example of system response:

```
TUPLE ADDED.
```

4 Exit from the table editor. Type

>QUIT

and press the Enter key.

5 You have completed the procedure.

—End—

Using the Table Editor to Edit an Existing Tuple in a Table

To edit the provisioning data for certain entities in the XA-Core component of the CS 2000, you must use the table editor to edit tuples in tables. This procedure tells how to edit a tuple in a table.

Note 1: For detailed information on table-editor commands, see *DMS-100 Family Basic Translations Tools Guide* (297-1001-360).

Note 2: For detailed information on the tables that contain the provisioning values, see:

- in the North American market, see *North American DMS-100 Customer Data Schema Reference Manual* (297-8001-351)
- in the international market, see *DMS-100 MMP Customer Data Schema Reference Manual* (297-9051-351)

To edit the provisioning data for certain entities in the XA-Core component of the CS 2000, you must use the table editor to edit tuples in tables. This procedure tells how to edit a tuple in a table.

Note 1: Refer to the *DMS-100 Family Basic Translations Tools Guide* (297-1001-360) for detailed information on table editor commands.

Note 2: Refer to the *Base/Telecom Customer Data Schema Reference Manual* (411-3001-451) and *CDMA/TDMA Customer Data Schema Reference Manual* (411-2131-451) for more information about data schema tables and their provisioning values.

This procedure assumes that you need to edit a tuple in a table in order to alter the provisioning data that specifies an entity, and thus edit the entity. The procedure assumes that you know the fields that compose the tuple (the information is found in the *Customer Data Schema Reference Manual*).

This procedure assumes that you edit a tuple to alter the provisioning data specifying an entity, and thus edit the entity. The procedure also assumes that you know what fields and field values provision this tuple.

Note: <rebuild CrossRef to WNC542_CONFIG_FUNDAMENTALS> "Understanding data schema table reference information"> and the documents referenced in the preceding notes provide more information about tuple fields and data schema tables.

Interval

Perform this procedure as required.

Prerequisites

None.

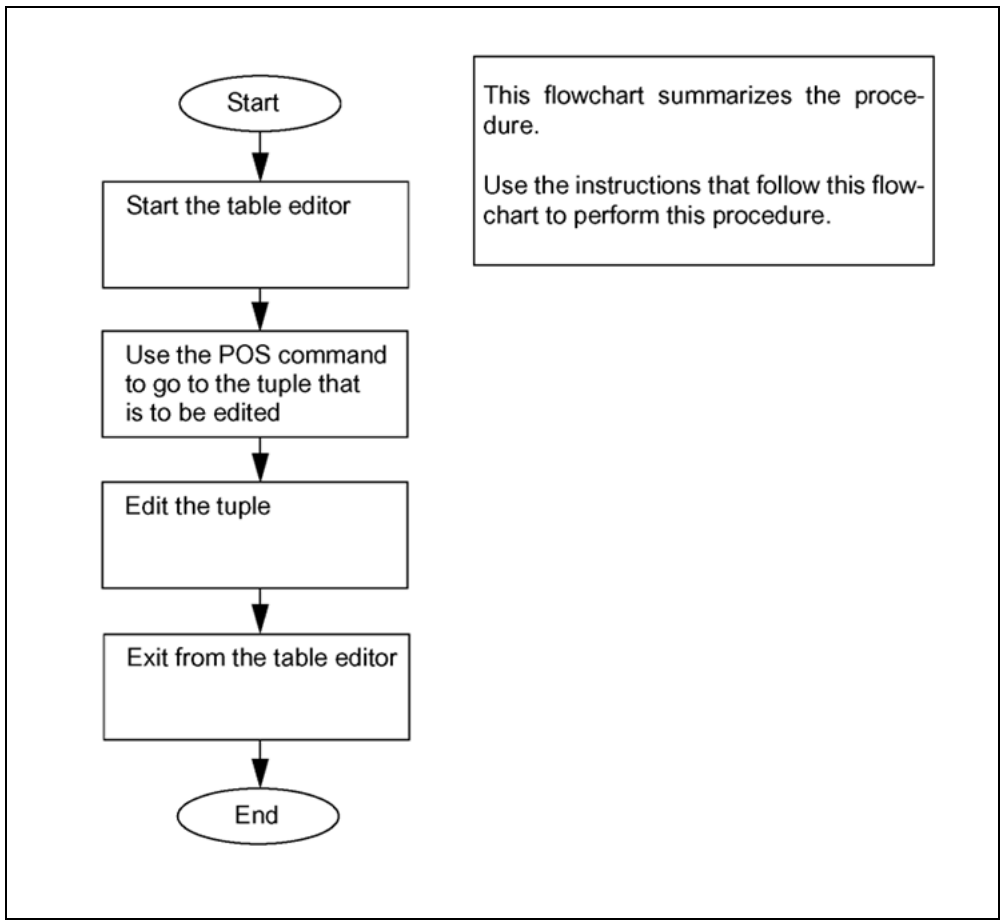
Common procedures

This procedure does not refer to any common procedures.

Action

The following flowchart summarizes this procedure.

Using the table editor to edit an existing tuple in a table



Using the table editor to edit an existing tuple in a table

Step	Action
	At the MAP terminal
1	Start the table editor. At the user interface prompt on any MAP screen type.

>TABLE <table-name>

and press the Enter key.

where

<table-name> is the name of the table in which you want to edit a tuple

Example of system response, assuming you use table-name CLLI:

```
TABLE: CLLI
```

2 Use the POS command to move to the tuple that you want to edit. Type

>POS <key-value>

and press the Enter key.

where

<key-value> is the key value identifying the tuple

For example, if you wanted to change the INCOMING_TRUNK tuple in table CLLI, you would enter

>POS INCOMING_TRUNK

Example of system response, continuing the example:

```
INCOMING_TRUNK  250  10  INCOMING_IT
```

where

250, 10, and INCOMING_IT are the values of the fields that compose a tuple in the CLLI table: ADNUM, TRKGRSIZ, and ADMININF.

3 Indicate that you intend to change the tuple. Type

>CHA

and press the Enter key.

In response, the system prompts you to supply a new value for each field in the tuple, one field at a time. For each field you can specify a new value, or you can just press the Enter key to retain the existing value.

For example, if you want to change the value of the TRKGRSIZ field from 10 to 20 leave the values of the other fields unchanged, you need to specify a value only for the TRKGRSIZ field. You would just press the ENTER key when prompted for field values for the ADDNUM and ADMININF fields. When prompted for a value for the TRKGRSIZ field, you would type the value 20 and then press the Enter key. The sequence of prompts and responses is as follows:

ADDNUM: 250

>

TRKGRSIZ: 10

>20

ADMININF: INCOMING_IT

>

Note: If you want to edit a single field and you do not want to step through all the other fields in the tuple, you can use the command **CHA <field-identifier>** where <field-identifier> is the field-name (for example TRKGRSIZ) or the field number (for example, 2). Fields are numbered consecutively from left to right, starting with 1.

After obtaining the edited field values, the system responds as follows.

Example of system response:

```
TUPLE TO BE CHANGED:
INCOMING_TRUNK     250     20     INCOMING_IT
ENTER Y TO CONFIRM, N TO REJECT OR E TO EDIT.
```

4 Confirm the change. Type

>Y

and press the Enter key.

Example of system response:

```
TUPLE CHANGED:
WRITTEN TO JOURNAL FILE AS JF NUMBER 567
```

5 Exit from the table editor. Type

>QUIT

and press the Enter key.

6 You have completed the procedure.

—End—

Using the Table Editor to Delete a Tuple from a Table

To delete certain provisioned entities in the XA-Core component of the CS 2000, you must use the table editor to delete tuples from tables. This procedure tells how to delete a tuple from a table.

Note 1: For detailed information on table-editor commands, see *DMS-100 Family Basic Translations Tools Guide* (297-1001-360).

Note 2: For detailed information on the tables that contain the provisioning values, see:

- in the North American market, see *North American DMS-100 Customer Data Schema Reference Manual* (297-8001-351)
- in the international market, see *DMS-100 MMP Customer Data Schema Reference Manual* (297-9051-351)

To delete certain provisioned entities in the XA-Core component of the CS 2000, you must use the table editor to delete tuples from tables. This procedure tells how to delete a tuple from a table.

Note 1: Refer to the *DMS-100 Family Basic Translations Tools Guide* (297-1001-360) for more information about table-editor commands.

Note 2: Refer to the *Base/Telecom Customer Data Schema Reference Manual* (411-3001-451) and *CDMA/TDMA Customer Data Schema Reference Manual* (411-2131-451) for more information about the tables that contain the provisioning values:

This procedure assumes that you need to delete a tuple from a table in order to delete the provisioned entity that the tuple specifies.

This procedure assumes that you delete the provisioned entity that the tuple specifies by deleting the related tuple.

Some tables are write-protected because deleting tuples can (or will) have a drastic effect on service. Exercise caution when deleting tuples.

Interval

Perform this procedure as required.

Prerequisites

None.

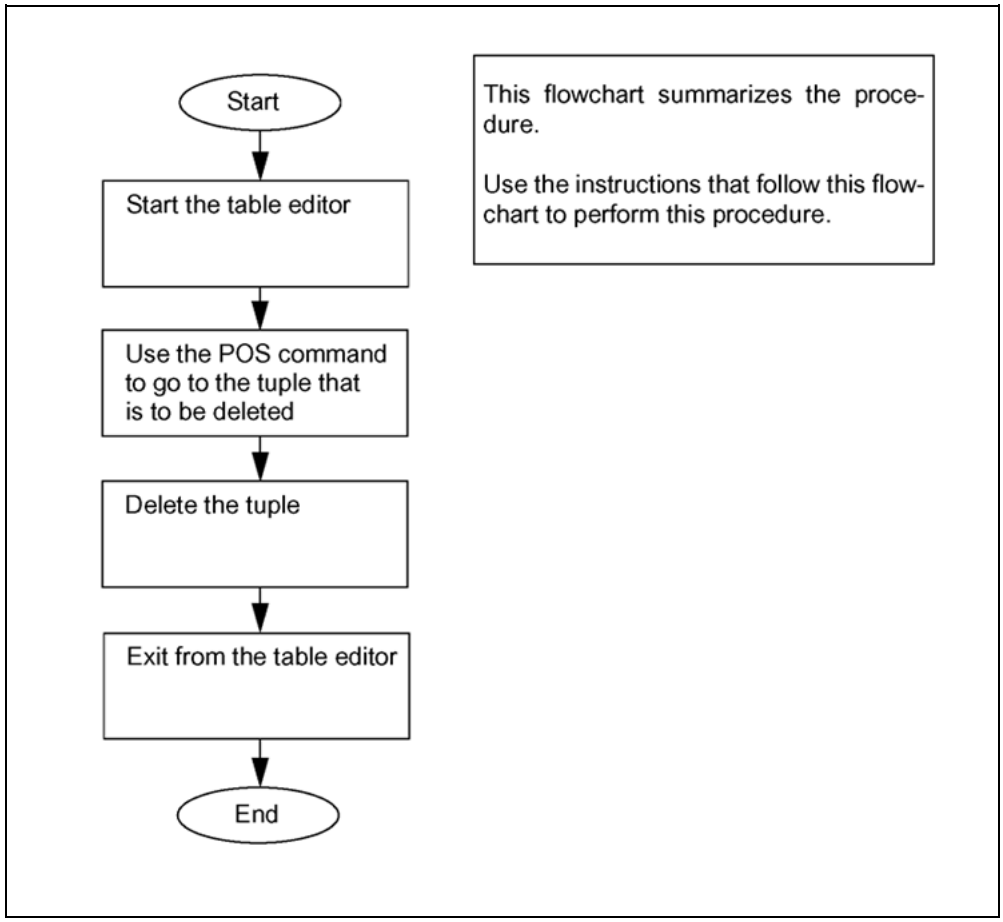
Common procedures

This procedure does not refer to any common procedures.

Action

The following flowchart summarizes this procedure.

Using the table editor to delete a tuple from a table



Using the table editor to delete a tuple from a table

Step	Action

At the MAP terminal

1 Start the table editor. At the user interface prompt on any MAP screen type.

```
>TABLE <table-name>
```

and press the Enter key

where

`<table-name>` is the name of the table from which you want to delete a tuple

Example of system response, assuming you use table-name CLLI:

```
TABLE: CLLI
```

2 Use the POS command to move to the tuple that you want to delete. Type

>POS >key-value>

and press the Enter key

where

<key-value> is the key value identifying the tuple

For example, if you wanted to delete the INCOMING_TRUNK tuple from table CLLI, you would enter

>POS INCOMING_TRUNK

Example of system response, continuing the example:

```
INCOMING_TRUNK  250  10  INCOMING_IT
```

where

250, 10, and INCOMING_IT are the values of the fields that compose a tuple in the CLLI table: ADNUM, TRKGRSIZ, and ADMININF.

3 Delete the tuple. Type

>DEL

and press the Enter key.

Example of system response:

```
TUPLE TO BE DELETED:
INCOMING_TRUNK     250     10     INCOMING_IT
ENTER Y TO CONFIRM, N TO REJECT OR E TO EDIT.
```

4 Confirm the deletion. Type

>Y

and press the Enter key.

Example of system response:

```
TUPLE DELETED:
WRITTEN TO JOURNAL FILE AS JF NUMBER 567
```

5 Exit from the table editor. Type

>QUIT

and press the Enter key.

6 You have completed the procedure.

—End—

Provisioning the NETWORK_ACTIVE office parameter

Use this procedure to provision or to de-provision the office parameter. For either activity you use the table editor to specify the value of the office parameter. You de-provision the parameter by specifying the default value.

The NETWORK_ACTIVE office parameter specifies the type of network that the system supports. To enable the system to support calls to and from external packet based bearer networks, you must set the value of the office parameter to EXTENET. The proper setting enables the system to support calls on the internal fabric (ENET), calls on external fabrics, and calls between different fabric types.

Note: In releases prior to SN07, a CS 2000 could support the ENET and a single external packet-based network. Starting in SN07, you can configure the CS 2000 to support multiple external packet-based networks, and multiple external fabrics (for example, AAL1 and IP).

The NETWORK_ACTIVE office parameter works in conjunction with the ENET_AVAILABLE office parameter. Therefore, the following procedure includes instructions for verifying the value of the ENET_AVAILABLE parameter, and for setting it properly.

Note: If you are unable to edit the value of the NETWORK_ACTIVE office parameter because table OFCOPT has been write-protected, contact Nortel for assistance.

If you change the value of the office parameter, the new value will take effect only when a cold restart occurs.

Interval

Perform this procedure as required.

Prerequisites

None.

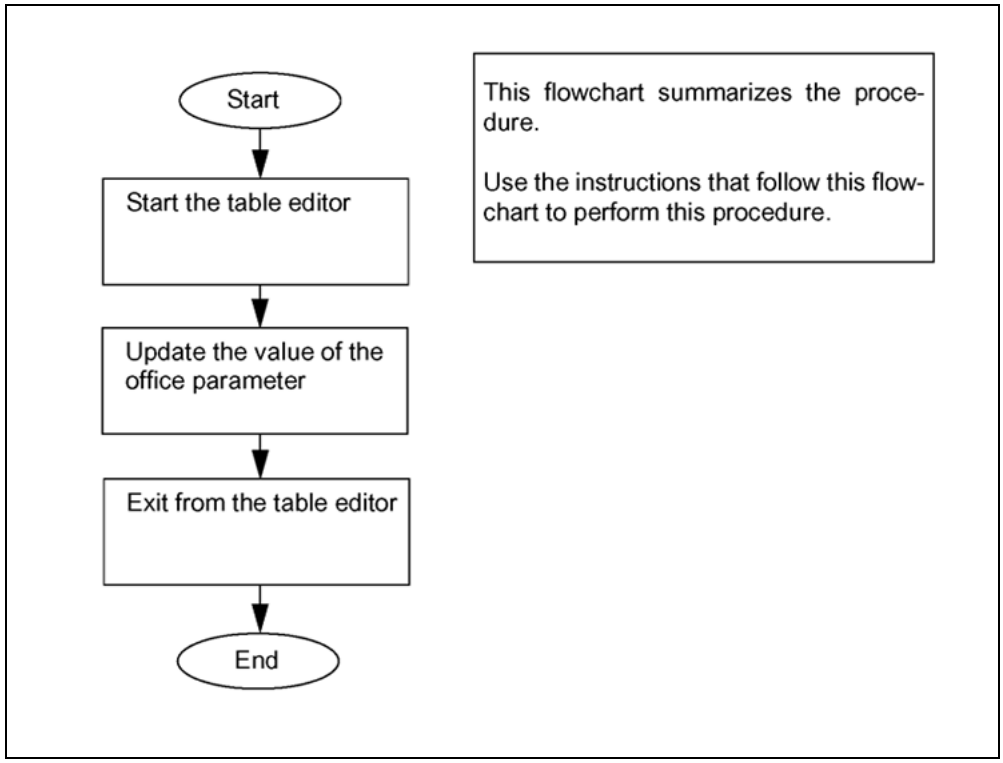
Common procedures

This procedure does not refer to any common procedures.

Action

The following flowchart summarizes this procedure.

Provisioning the NETWORK_ACTIVE office parameter



Provisioning the NETWORK_ACTIVE office parameter

Step	Action

At the MAP terminal

1 Start the table editor to edit the OFCOPT table. At the user interface prompt on any MAP screen type.

```
>TABLE OFCOPT
```

and press the Enter key.

Example of system response:

```
TABLE: OFCOPT
```

2 Use the POS command to display the tuple for the NETWORK_ACTIVE parameter. Type

```
>POS NETWORK_ACTIVE
```

and press the Enter key.

Example of system response:

```
NETWORK_ACTIVE <parameter-value>
```

where

<parameter-value> Replace <parameter-value> with one of the following:
JNET (which is the default value),
ENET, or
EXTENET.

3 Use the CHA command to indicate that you want to change the value of the tuple. Type

```
>CHA
```

and press the Enter key.

Example of system response:

```
PARMVAL: JNET
```

Note: JNET is the default value of the parameter. ENET is another possible value.

4 Type the new parameter value. Type

```
>EXTENET
```

and press the Enter key.

Example of system response:

```
TUPLE TO BE CHANGED:
NETWORK_ACTIVE EXTENET
ENTER Y TO CONFIRM, N TO REJECT OR E TO EDIT.
```

5 Confirm the change. Type

```
>Y
```

and press the Enter key.

Example of system response:

```
TUPLE CHANGED:
```

6 To permit the system to support the network, the ENET_AVAILABLE office parameter, also in table OFCOPT, must also be set properly. It must have the value Y. If you know that the ENET_AVAILABLE office parameter is set to Y, you can skip to step 11. If you want to check the value of ENET_AVAILABLE, continue with the next step.

7 Use the POS command to display the tuple for the ENET_AVAILABLE parameter. Type

```
>POS ENET_AVAILABLE
```

and press the Enter key.

Example of system response:

```
ENET_AVAILABLE <parameter-value>
```

where

<parameter-value> *is Y or N*

8 If the parameter value is Y, you can skip to step 11. If the parameter value is N, use the CHA command to indicate that you want to change the value of the tuple. Type

>CHA

and press the Enter key.

Example of system response:

```
PARMVAL: N
```

9 Type the new parameter value. Type

>Y

and press the Enter key.

Example of system response:

```
TUPLE TO BE CHANGED:
ENET_AVAILABLE YENTER Y
TO CONFIRM, N TO REJECT OR E TO EDIT.
```

10 Confirm the change. Type

>Y

and press the Enter key.

Example of system response:

```
TUPLE CHANGED:
```

11 Exit from the table editor. Type

>QUIT

and press the Enter key.

12 You have completed the procedure. If applicable, return to the higher level task flow or procedure that directed you to this procedure.

—End—

Provisioning the HOST_MGCNAME office parameter

Use this procedure to provision or to de-provision the office parameter. For either activity you use the table editor to specify the value of the office parameter. You de-provision the parameter by specifying the default value.

The HOST_MGCNAME office parameter specifies the name of the HOST media gateway controller for the communication server. It identifies the name of the source MGC within the Internet Protocol (IP) network.

> ***Note:*** If you are unable to edit the value of the HOST_MGCNAME office parameter because table OFCENG has been write-protected, contact Nortel for assistance.

If you change the value of the office parameter, the new value will take effect only after you cold SWACT the VRDN GWCs and DPT GWCs that are part of the CS 2000 complex. VRDN GWCs are GWCs that have either of the following service profiles: VRDN or VRDNINTL. DPT GWCs are GWCs that have either of the following service profiles: SIP-T or SIP-TINTL.

Interval

Perform this procedure as required.

Prerequisites

None.

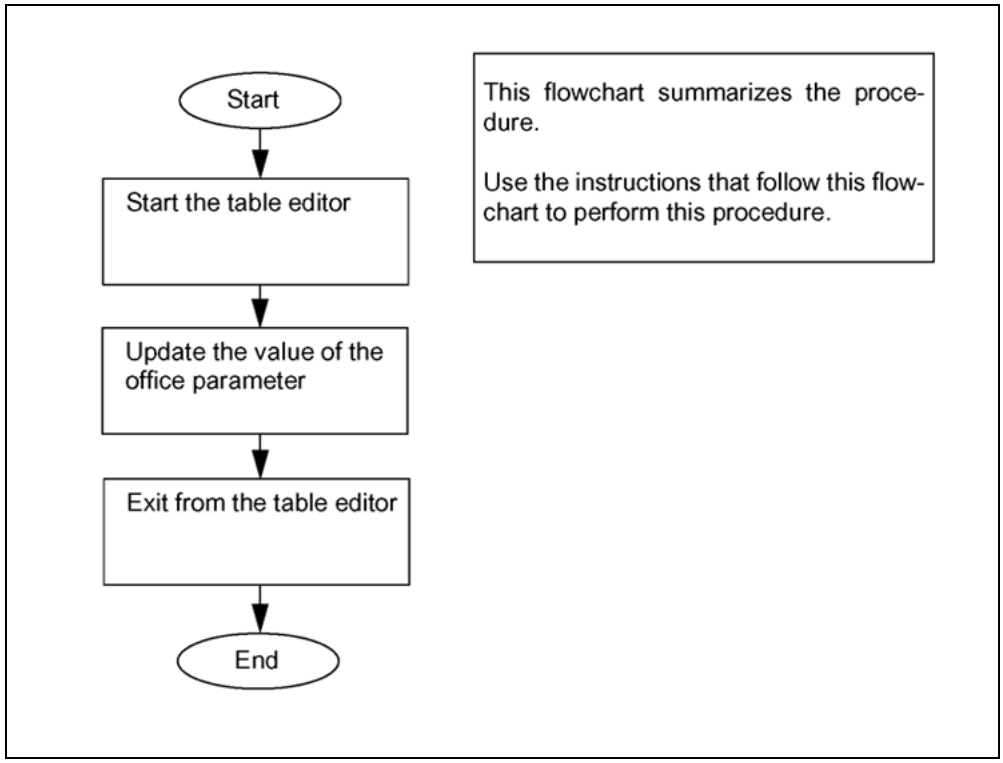
Common procedures

This procedure does not refer to any common procedures.

Action

The following flowchart summarizes this procedure.

Provision office parameter HOST_MGCNAME



Provisioning the HOST_MGCNAME office parameter

Step	Action

At the MAP terminal

1 Start the table editor to edit the OCFENG table. At the user interface prompt on any MAP screen type.

```
>TABLE OFCENG
```

and press the Enter key.

Example of system response:

```
TABLE: OFCENG
```

2 Use the POS command to go to the tuple for the HOST_MGCNAME parameter. Type

```
>POS HOST_MGCNAME
```

and press the Enter key.

Example of system response:

```
HOST_MGCNAME:
```

3 Use the CHA command to indicate that you want to change the value of the tuple. Type

```
>CHA
```

and press the Enter key.

Example of system response:

```
PARMVAL: Default$Nortel$Host$Name
```

> ***Note:*** Default$Nortel$Host$Name is the default value of the parameter.

4 Type the new parameter value. Remember that the name of the source host must be different from the destination host names.

For example, if you are provisioning the office parameter, and if the new value is Springfield, type

```
>Springfield
```

and press the Enter key.

Alternatively, if you are de-provisioning the office parameter, type the default value

```
>Default$Nortel$Host$Name
```

and press the Enter key.

> ***Note:*** Special characters other than '-' and '.' in the parameter HOST_MGCNAME may cause conflicts with third-party vendor equipment that adheres strictly to the RFC 952 naming standard.

Example of system response if you enter the value Springfield:

```
TUPLE TO BE CHANGED:
HOST_MGCNAME Springfield
ENTER Y TO CONFIRM, N TO REJECT OR E TO EDIT.
```

5 Confirm the change. Type

```
>Y
```

and press the Enter key.

Example of system response:

```
TUPLE CHANGED
COLD SWACT THE GWCS WITH SIP TASK
```

> ***Note:*** The phrase "GWCs with SIP task" refers to VRDN GWCs and DPT GWCs that are part of the CS 2000 complex. See the introductory section of this module for details.

Use the procedure Invoke a cold manual protection switch (cold SWACT) in *Gateway Controller Security and Administration* (NN10213-611) to cold SWACT the GWCs.

CAUTION
Loss of service
Cold SWACTing the GWCs may cause call loss.

6 Exit from the table editor. Type

```
>QUIT
```

and press the Enter key.

7 You have completed the procedure.

—End—

Provisioning the OFFICETYPE office parameter

For this activity you use the table editor to specify the value of the office parameter.

The OFFICETYPE office parameter specifies the type of end office.

Interval

Perform this procedure as required.

Prerequisites

None.

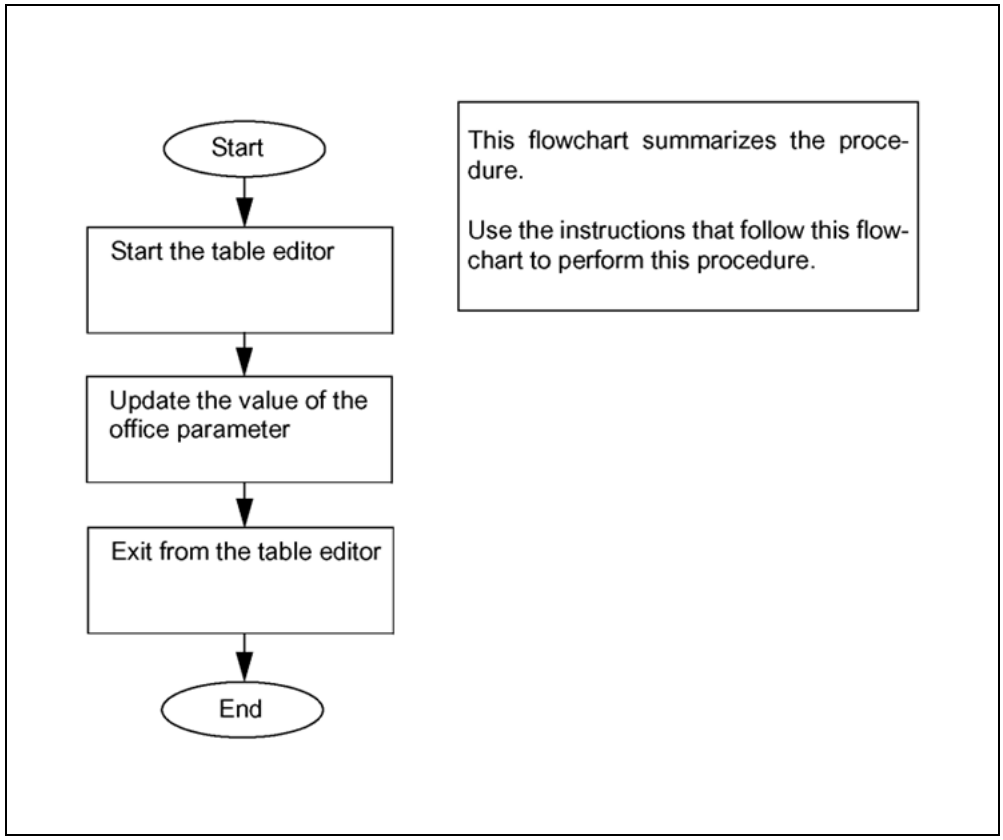
Common procedures

This procedure does not refer to any common procedures.

Action

The following flowchart summarizes this procedure.

Provisioning the OFFICETYPE office parameter



Provisioning the OFFICETYPE office parameter

Step	Action

At the MAP terminal

1 Start the table editor to edit the OFCSTD table. At the user interface prompt on any MAP screen type.

```
>TABLE OFCSTD
```

and press the Enter key.

Example of system response:

```
TABLE: OFCSTD
```

2 Use the POS command to go to the tuple for the OFFICETYPE parameter. Type

```
>POS OFFICETYPE
```

and press the Enter key.

Example of system response:

```
OFFICETYPE:
```

3 Use the CHA command to indicate that you want to change the value of the tuple. Type

```
>CHA
```

and press the Enter key.

Example of system response:

```
PARMVAL: NOOFICE
```

Note: NOOFICE is the default value of the parameter.

4 Type the new parameter value and press the Enter key.

- For an ILEC office, the value is OFF200.
- For an IXC office, the value is OFF250.

Example of system response if you enter the value OFF200:

```
TUPLE TO BE CHANGED:
OFFICETYPE OFF200
ENTER Y TO CONFIRM, N TO REJECT OR E TO EDIT.
```

5 Confirm the change. Type

```
>Y
```

and press the Enter key.

Example of system response:

```
TUPLE CHANGED:
```

6 Exit from the table editor. Type

```
>QUIT
```

and press the Enter key.

7 You have completed the procedure.

—End—

Provisioning the RDT_SUCC_AUTOCREATE_LNINV office parameter

Use this procedure to provision this office parameter.

The RDT_SUCC_AUTOCREATE_LNINV office parameter controls whether the CS 2000 performs automatic updates of the line-inventory table, LNINV, when SERVORD+ commands add, alter, or delete lines that are handled by logical-group nodes, with some exceptions. For information on the exceptions, see section "Exceptions" (page 274), below.

Logical-group nodes are gateways. Logical groups are listed in the logical-group table, LGRPINV. A single logical group can correlate to one gateway or to multiple gateways.

Note 1: You do not need to enter datafill into table LGRPINV. The system automatically enters datafill into table LGRPINV when you use the MG 9000 Manager to provision a virtual media gateway (VMG).

Note 2: Prior to SN06, the RDT_SO_AUTOCREATE_LNINV office parameter controlled whether the system automatically updated table LNINV for lines handled by LGRP nodes. As of SN06, that office parameter no longer applies to lines handled by LGRP nodes. It applies only to lines handled by legacy remote digital terminals (RDT).

Note 3: The RDT_SUCC_AUTOCREATE_LNINV office parameter applies only to the North American market. (For the international market, the counterpart office parameter is GWL_SO_AUTOCREATE_LNINV.)

The RDT_SUCC_AUTOCREATE_LNINV office parameter consists of two boolean values, as follows.

- ACTIVE. This value controls the system's ability to update (add, change, or delete) tuples in the line circuit inventory table, LNINV, during SERVORD transactions. The default value of ACTIVE field in the RDT_SUCC_AUTOCREATE_LNINV office parameter is Y. In a Carrier Voice over IP system that supports lines, the field must have the value Y.
- MNO_DEFAULT. This value determines the value of the MNO (manual-override-default) field in table LNINV when the system automatically adds or alters an LNINV tuple. The value of the MNO field in a tuple in LNINV determines if the system allows a balance network test to automatically update the balance network value (BNV) field of table LNINV. If the value of the MNO field in an LNINV tuple is Y, then the balance network test cannot automatically update the BNV field in the LNINV tuple. If the value of the MNO field in an LNINV tuple is N, then the balance network test can automatically update the value of the BNV field in the LNINV tuple. (For EBS, the MNO field in table LNINV

is always set to Y.) The default value of MNO_DEFAULT field in the RDT_SUCC_AUTOCREATE_LNINV office parameter is N. In a Carrier Voice over IP system that supports lines, it is permissible to set the field to Y or N. The setting of the MNO_DEFAULT field applies to all lines that are handled by logical-group nodes, including lines handled by shelves 0 to 3 in an MG 9000.

Note: For detailed information on table LNINV and its fields, see *North American DMS-100 Customer Data Schema Reference Manual, Vol. 7*, 297-8001-351, or *DMS-100 MMP Customer Data Schema Reference Manual, Vol. 7*, 297-9051-351.

Exceptions

Regardless of the setting of the ACTIVE field of the RDT_SUCC_AUTOCREATE_LNINV office parameter, the system does not automatically update entries in table LNINV for lines that are on MG 9000 gateways. These lines and their logical groups are preprovisioned when the MG 9000 is provisioned. These logical groups have the group-type of "s" (field GRPTYPE in the LGRPINV tuple). If a line is in a logical group of type "s", the system does not automatically update the entry for that line in table LNINV.

The lines in logical groups of type "s" are exempt only from the ACTIVE field of the office parameter. The MNO_DEFAULT field applies to all lines, including those in logical groups of type "s".

Interval

Perform this procedure before provisioning lines in a Carrier Voice over IP office.

Prerequisites

None.

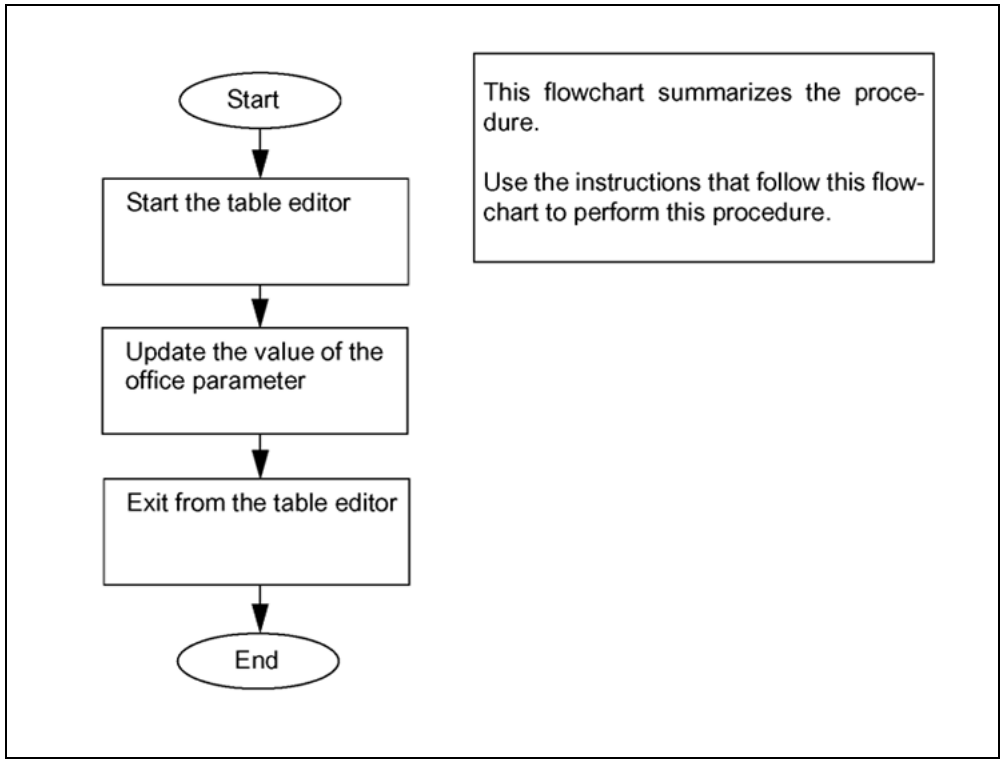
Common procedures

This procedure does not refer to any common procedures.

Action

The following flowchart summarizes this procedure.

Provisioning the RDT_SUCC_AUTOCREATE_LNINV office parameter



Provisioning the RDT_SUCC_AUTOCREATE_LNINV office parameter

Step	Action

At the MAP terminal

1 Start the table editor to edit the OCFENG table. At the user interface prompt on any MAP screen type.

```
>TABLE OFCENG
```

and press the Enter key.

Example of system response:

```
TABLE: OFCENG
```

2 Use the POS command to go to the tuple for the RDT_SUCC_AUTOCREATE_LNINV parameter. Type

```
>POS RDT_SUCC_AUTOCREATE_LNINV
```

and press the Enter key.

Example of system response:

```
RDT_SUCC_AUTOCREATE_LNINV Y N:
```

3 Use the CHA command to indicate that you want to change the value of the tuple. Type

```
>CHA
```

and press the Enter key.

In response, the system prompts you to supply a new value for the ACTIVE field and for the MNO_DEFAULT field.

Example of system response:

```
PARMVAL: N N
```

> ***Note:*** In the example, the first N is the value of the ACTIVE field and the second N is the value of the MNO_DEFAULT field.

4 Type the new values. Type

```
>Y  N
```

and press the Enter key.

Example of system response:

```
TUPLE TO BE CHANGED:
RDT_SUCC_AUTOCREATE_LNINV Y N
ENTER Y TO CONFIRM, N TO REJECT OR E TO EDIT.
```

5 Confirm the change. Type

```
>Y
```

and press the Enter key.

Example of system response:

```
TUPLE CHANGED:
```

6 Exit from the table editor. Type

```
>QUIT
```

and press the Enter key.

7 You have completed the procedure.

—End—

Provisioning in support of QoS reporting

This procedure contains instructions for provisioning in support of per-call Quality-of-Service (QoS) reporting in Carrier Voice over IP networks.

QoS reporting is available in IP-based solutions as of SN06.

This procedure enables the QoS-reporting software to append correlation identifiers (CID) to billing records. The CID in a billing record makes it possible to find the QoS statistics for the call. (Such processing would be done by a third-party operations support system (OSS) and is outside the scope of this procedure.)

> ***Note:*** This procedure covers only one part of the provisioning associated with QoS reporting. You must also provision the GWCs to support QoS reporting, and you must provision the QoS collector application, which runs on a computer connected to the CS LAN. For an overview of the process, see the solution-level configuration document.

Description of QoS reporting

Here is a brief description of QoS reporting. Gateways report per-call QoS data to the gateway controllers (GWC). Starting in SN08, GWCs also receive per-call QoS data from Border Control Points, which are used with Carrier Hosted Services. (A prerequisite is that the Border Control Points must have the MCP 4.0 load.) The GWCs send the data to the QoS collector application. The QoS collector application runs on a computer that is on the CS LAN. It can be the same computer on which the Management Tools are running, or another computer. The QoS collector application makes the QoS data available to a customer-provided operations support system (OSS), which can process the data.

Interval

Perform this procedure when setting up QoS reporting.

Prerequisites

None.

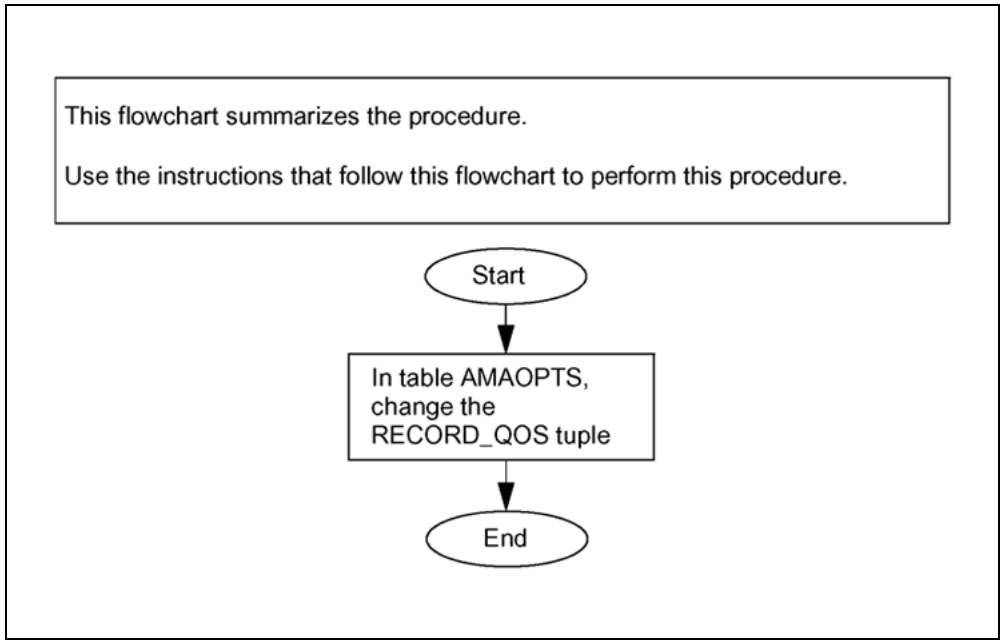
Common procedures

This procedure does not refer to common procedures.

Action

The following flowchart summarizes this procedure.

Provisioning in support of QoS reporting



Provisioning in support of QoS reporting

Step	Action

At the MAP terminal

1 Use the table editor to edit the RECORD_QOS tuple in table AMAOPTS.

Proceed as follows.

a. Start the table editor. Type

```
>TABLE AMAOPTS
```

and press the Enter key.

Example of system response:

```
TABLE: AMAOPTS
```

b. Move to the RECORD_QOS tuple. Type

```
>POS RECORD_QOS
```

and press the Enter key.

Example of system response:

```
RECORD_QOS   OFF
```

c. Indicate that you intend to change tuple. Type

```
>CHA
```

and press the Enter key.

Example of system response:

```
ENTER Y TO CONTINUE PROCESSING OR N TO QUIT
```

d. Type

>Y

and press the Enter key.

Example of system response:

```
AMASEL:  OFF
```

e. At the prompt, enter the new value. Type

>ON

and press the Enter key.

Example of system response:

```
TUPLE TO BE CHANGED:
RECORD_QOS  ON
ENTER Y TO CONFIRM, N TO REJECT OR E TO EDIT.
```

f. Confirm the change. Type

>Y

and press the Enter key.

Example of system response:

```
TUPLE CHANGED.
```

g. Exit from the table editor. Type

>QUIT

and press the Enter key.

2 You have completed the procedure.

—End—

Note: To disable QoS reporting, edit the tuple, changing the value to "OFF".

Provisioning the DPT_MAX_PORTS office parameter

For this activity you use the table editor to change the value of the office parameter.

The DPT_MAX_PORTS office parameter specifies the maximum number of DPT ports that are available for use by the CS 2000. By default, the value of DPT_MAX_PORTS is set to the value specified for the CS2B0005 software optionality control (SOC).

You can set DPT_MAX_PORTS to a value that is lower than the value of the CS2B0005 SOC. You cannot increase the value above the value of the CS2B0005 SOC. You cannot set the value to zero.

If the CS2B0005 SOC has not been set, then the DPT_MAX_PORTS office parameter defaults to 1, and that value cannot be changed. If this situation exists, DPT calls are not allowed.

Interval

Perform this procedure as required.

Prerequisites

None.

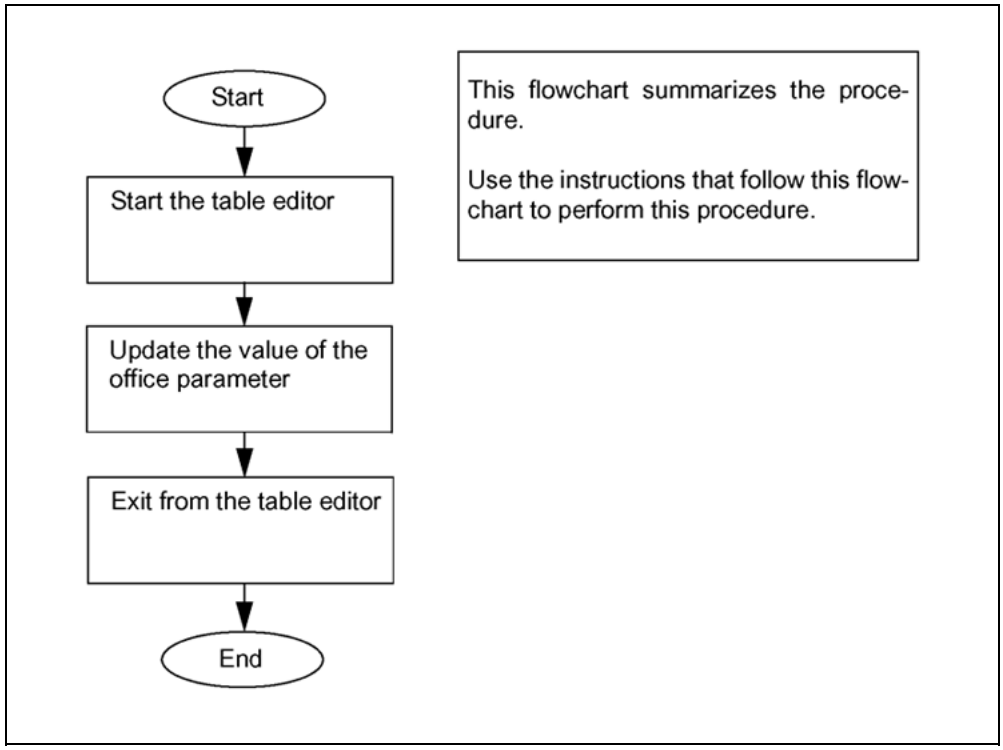
Common procedures

This procedure does not refer to any common procedures.

Action

The following flowchart summarizes this procedure.

Provisioning the DPT_MAX_PORTS office parameter



Provisioning the DPT_MAX_PORTS office parameter

Step	Action

At the MAP terminal

1 Start the table editor to edit the OFCVAR table. At the user interface prompt on any MAP screen type.

```
>TABLE OFCVAR
```

and press the Enter key.

Example of system response:

```
TABLE: OFCVAR
```

2 Use the POS command to go to the tuple for the DPT_MAX_PORTS parameter. Type

```
>POS DPT_MAX_PORTS
```

and press the Enter key.

Example of system response:

```
DPT_MAX_PORTS:
```

3 Use the CHA command to indicate that you want to change the value of the tuple. Type

>CHA

and press the Enter key.

Example of system response:

```
PARMVAL: 256000
```

4 Type the new parameter value and press the Enter key.

ATTENTION
Valid values are in the range 1 to the value of the CS2B0005 SOC.

Example of system response if you enter the value 128000:

```
TUPLE TO BE CHANGED:
DPT_MAX_PORTS 128000
ENTER Y TO CONFIRM, N TO REJECT OR E TO EDIT.
```

5 Confirm the change. Type

>Y

and press the Enter key.

Example of system response:

```
TUPLE CHANGED:
```

6 Exit from the table editor. Type

>QUIT

and press the Enter key.

7 You have completed the procedure.

—End—

Setting the DPT Reservation Level

This procedure contains instructions for setting the DPT reservation level, using the MAP user interface.

An alternative way of setting the DPT reservation level uses a network-management operations system (NM OS) that communicates with the CS 2000 by way of the EADAS interface. (The EADAS interface is defined in Telcordia Specification TR-746.) To support DPT reservation, Nortel has defined extensions to the EADAS interface. For information on the extensions, contact Nortel Global Customer Support regarding activity 59035929.

DPT reservation control enables you to reserve bandwidth for outgoing calls on DPT trunks, so that the network can accommodate demand during a mass-calling event. For example, during a natural disaster, you can reserve bandwidth for calls outgoing from the disaster area, while blocking an excess of calls incoming to the area.

You specify DPT reservation as an integer value that represents a percentage. For example, if you specify a reservation level of 60, then 60% of the usable DPT terminal identifiers are reserved for outgoing calls. Incoming calls can use terminal identifiers that amount to the unreserved percentage--40% of the terminal identifiers in the example. If incoming calls are using a percentage of the terminal identifiers equal to the unreserved percentage, then further incoming calls will be blocked.

Interval

Perform this procedure as required.

Prerequisite

A prerequisite for this procedure is that the software optionality control (SOC) CS2B0003 must be implemented.

ATTENTION

If the SOC is not implemented, you can specify DPT reservation control, but your specifications will take effect only when the SOC is implemented.

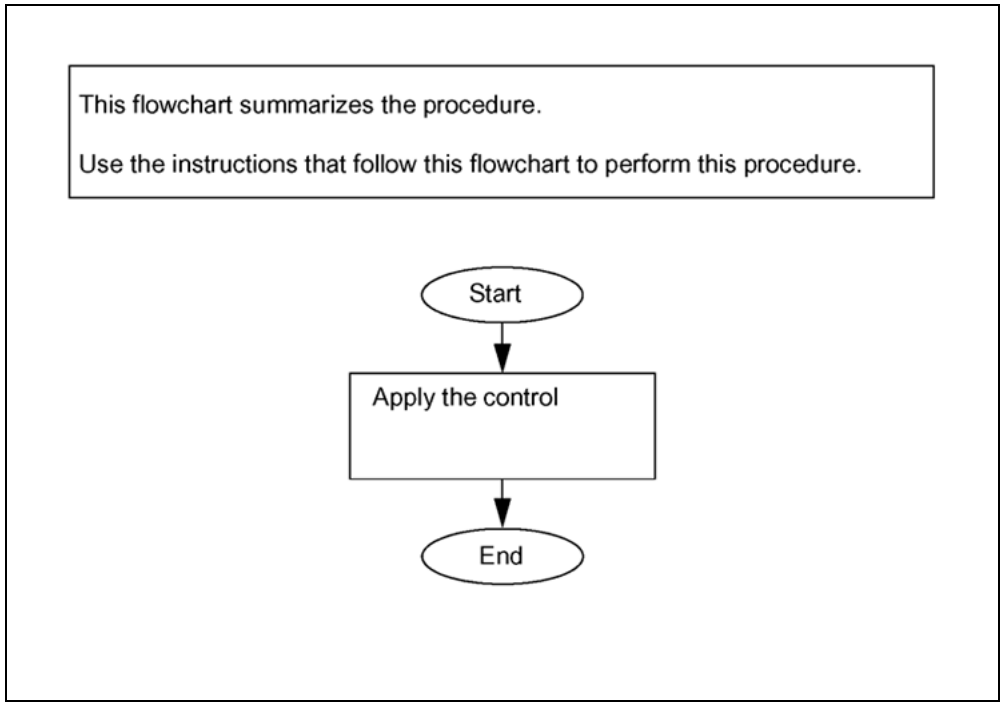
Common procedures

This procedure does not refer to any common procedures.

Action

The following flowchart summarizes this procedure.

Setting the DPT reservation level



Setting the DPT reservation level

Step	Action

At the MAP terminal

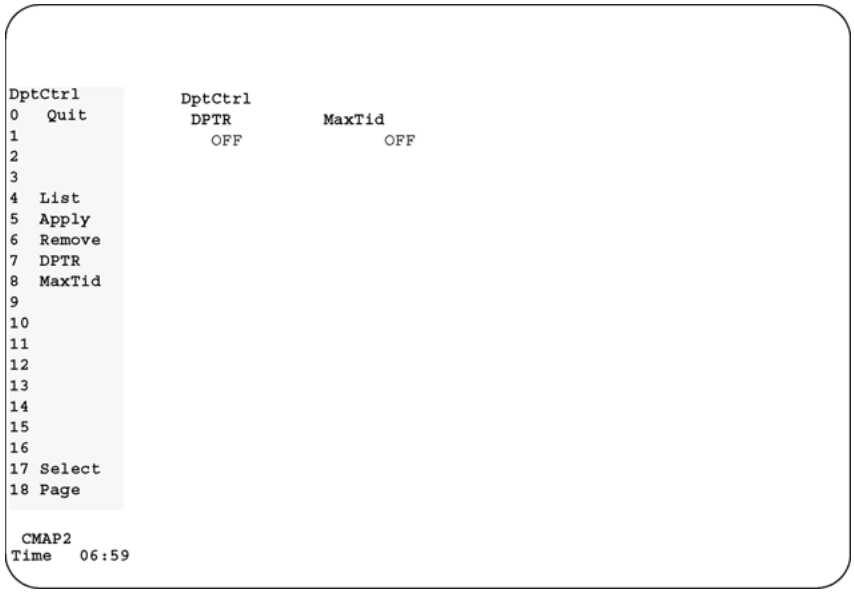
1 Go to the DPT control map level. Type

```
>MAPCI;NWM;DPTCTRL
```

and press the Enter key.

Example of system response:

DPTCTRL MAP level



2 Apply DPT reservation. Type

>APPLY DPTR <percentage>

and press the Enter key

where

<percentage> is an integer specifying the percentage of usable DPT terminal identifiers that will be reserved for outgoing calls, in the range 0 to 100

For example, to set the reservation rate at 80%, type

>APPLY DPTR 80

and press the Enter key.

In response, the system displays ON beneath DPTR on the DPTRCTRL screen.

3 Tell the system to echo the reservation level that you have specified. Type

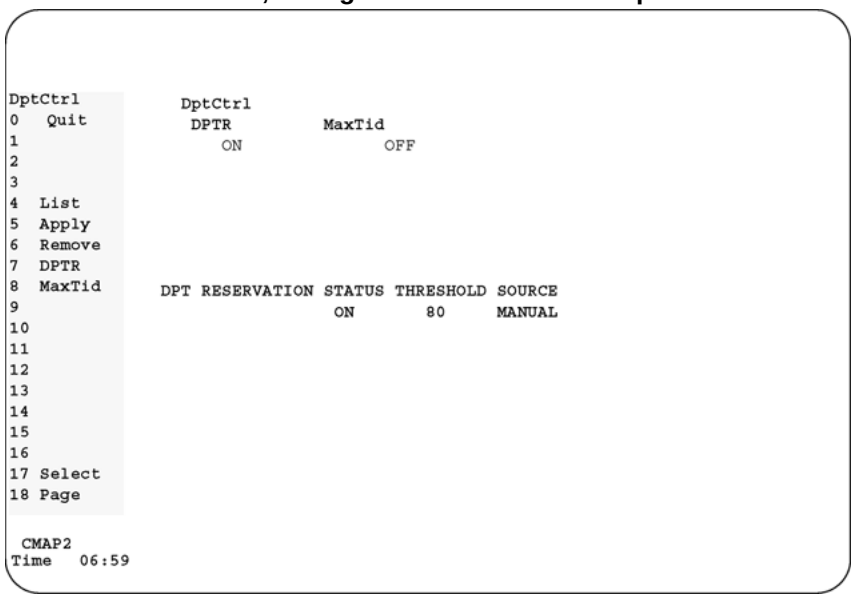
>LIST DPTR

and press the Enter key.

In response, the system lists the specified value.

Example of system response:

DPTCTRL MAP level, listing the DPT reservation specification



4 You have completed the procedure. If applicable, return to the higher level task flow or procedure that directed you to this procedure.

—End—

Removing the DPT Reservation Control

This procedure contains instructions for removing the DPT reservation control, using the MAP user interface.

An alternative way of removing the DPT reservation level uses a network-management operations system (NM OS) that communicates with the CS 2000 by way of the EADAS interface. (The EADAS interface is defined in Telcordia Specification TR-746.) To support DPT reservation, Nortel has defined extensions to the EADAS interface. For information on the extensions, contact Nortel Global Customer Support regarding activity 59035929.

This procedure disables DPT reservation control at the switch. DPT reservation control enables you to reserve bandwidth for outgoing calls on DPT trunks, so that the network can accommodate demand during a mass-calling event.

Interval

Perform this procedure as required.

Prerequisite

In packet wireline networks this procedure requires the implementation of software optionality control (SOC) CS2B0003.

ATTENTION

If the SOC is not implemented in packet wireline networks, you can specify DPT reservation control, but your specifications will take effect only when the SOC is implemented.

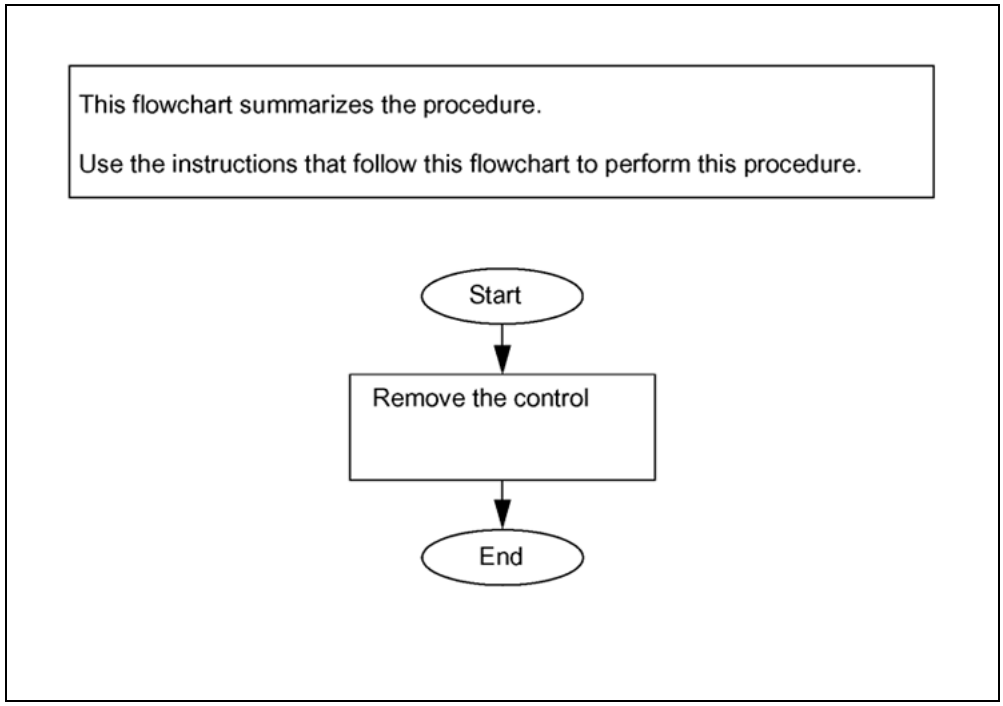
Common procedures

This procedure does not refer to any common procedures.

Action

The following flowchart summarizes this procedure.

Removing the DPT reservation control



Removing the DPT reservation control

Step	Action

At the MAP terminal

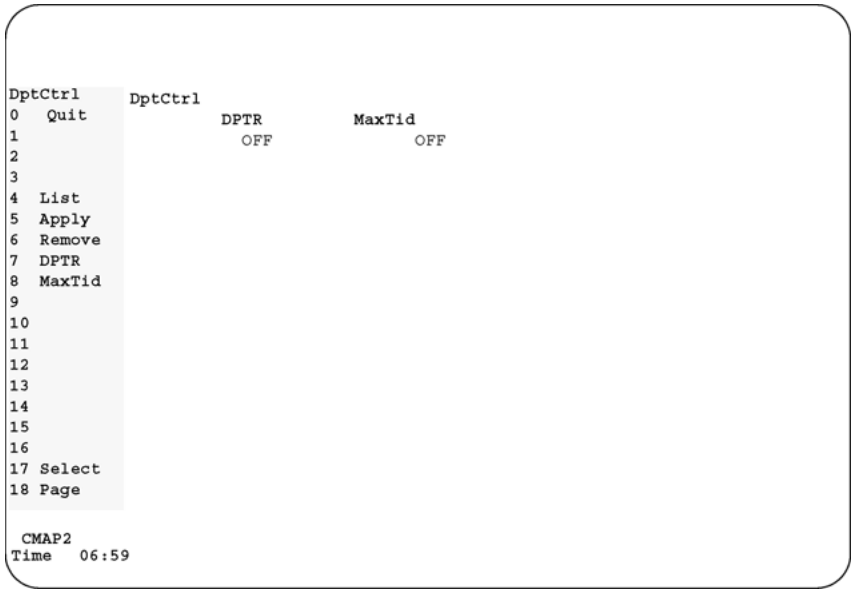
1 Go to the DPT control map level. Type

```
>MAPCI;NWM;DPTCTRL
```

and press the Enter key.

Example of system response:

DPTCTRL MAP level



2 Remove the DPT reservation control. Type

>REMOVE DPTR

and press the Enter key.

In response, the system displays OFF beneath DPTR on the DPTRCTRL screen.

3 You have completed the procedure. If applicable, return to the higher level task flow or procedure that directed you to this procedure.

—End—

Setting the MaxTid-Limit Control

This procedure contains instructions for setting the MaxTid-limit control, using the MAP user interface.

An alternative way of setting the MaxTid-limit control uses a network-management operations system (NM OS) that communicates with the CS 2000 by way of the EADAS interface. (The EADAS interface is defined in Telcordia Specification TR-746.) To support the MaxTid-limit control, Nortel has defined extensions to the EADAS interface. For information on the extensions, contact Nortel Global Customer Support regarding activity 59035929.

Use the MAP interface and this procedure to set the MaxTD-limit control

The MaxTid-limit control enables you to specify the maximum number of DPT terminal identifiers (TID) that the switch supports. Each DPT TID represents the ATM or IP bandwidth needed to carry a single DPT trunk call. You can use the MaxTid control to ensure that the ATM or IP bandwidth required by DPT trunks does nor exceed the ATM or IP bandwidth provided by the ATM or IP links that connect the switch to the rest of the ATM or IP network. Normally the TID limit is controlled by the DPT_MAX_PORTS office parameter. However, you may need to use the MaxTid control to impose a lower limit to respond to temporary conditions, such as when a subset of the ATM or IP links are down.

If the DPT_MAX_PORTS office parameter has been set to a non-zero value, and if the MaxTid limit is to any value (including zero), then the switch uses the lower of the two values as the maximum number of DPT terminal identifiers that the switch supports.

Interval

Perform this procedure as required.

Prerequisite

In packet wireline networks this procedure requires the implementation of software optionality control (SOC) CS2B0003.

ATTENTION

If the SOC is not implemented in packet wireline networks, you can specify MaxTid limit control, but your specifications will take effect only when the SOC is implemented.

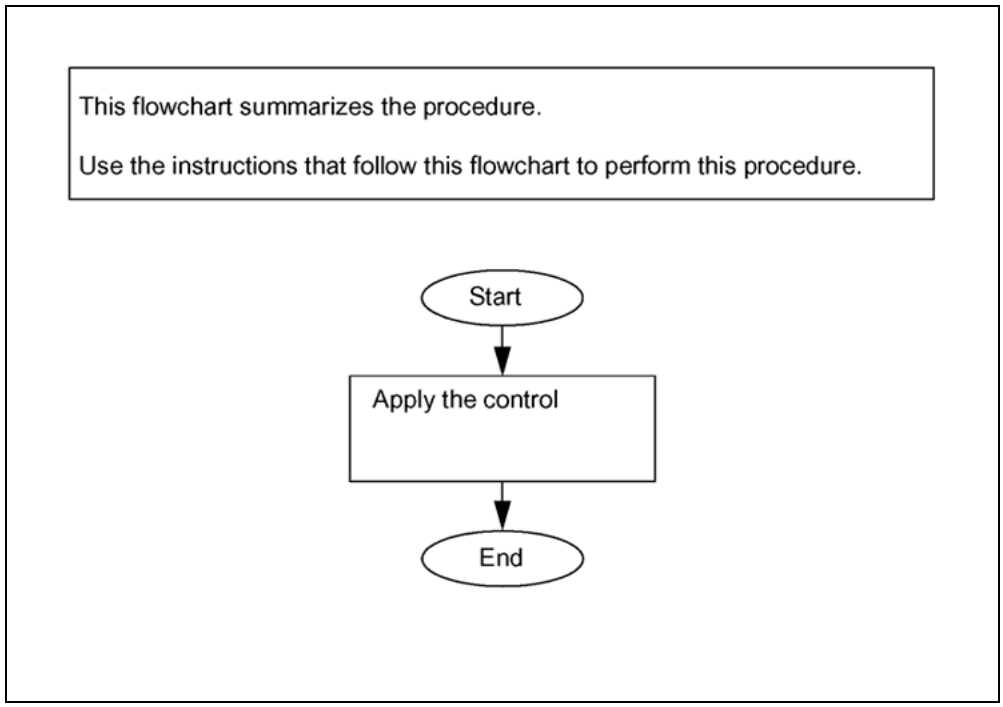
Common procedures

This procedure does not refer to any common procedures.

Action

The following flowchart summarizes this procedure.

Setting the MaxTid-limit control



Setting the MaxTid-limit control

Step	Action
	At the MAP terminal
1	Go to the DPT control map level. Type `>MAPCI;NWM;DPTCTRL` and press the Enter key. *Example of system response:*

DPTCTRL MAP level

```
DptCtrl      DptCtrl
0   Quit              DPTR          MaxTid
1                       OFF               OFF
2
3
4   List
5   Apply
6   Remove
7   DPTR
8   MaxTid
9
10
11
12
13
14
15
16
17  Select
18  Page

 CMAP2
Time   06:59
```

2 Specify the MaxTid limit. Type

>APPLY MAXTID <maxtid-number>

and press the Enter key

where

<maxtid-number> is an integer specifying the maximum number of DPT terminal identifiers available in the CS 2000 from the ATM or IP backbone point of view

For example, to specify a MaxTid-limit value of 8200, type

>APPLY MAXTID 8200

and press the Enter key.

In response, the system displays ON beneath MaxTid on the DPTRCTRL screen.

3 Tell the system to echo the value level that you have specified. Type

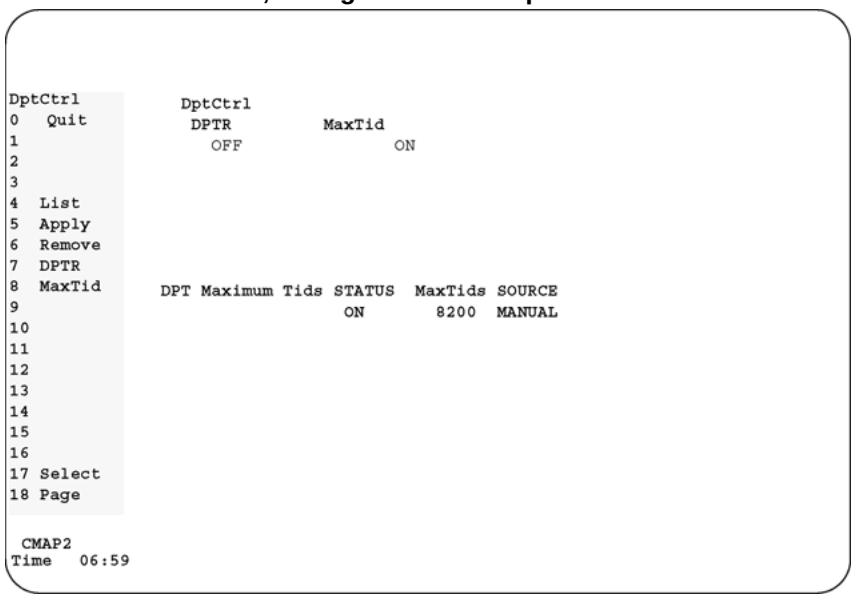
>LIST MAXTID

and press the Enter key.

In response, the system lists the specified value.

Example of system response:

DPTCTRL MAP level, listing the MaxTid specification



4 You have completed the procedure. If applicable, return to the higher level task flow or procedure that directed you to this procedure.

—End—

Removing the MaxTid-Limit Control

This procedure contains instructions for removing the MaxTid-limit control, using the MAP user interface.

An alternative way of removing the MaxTid-limit control uses a network-management operations system (NM OS) that communicates with the CS 2000 by way of the EADAS interface. (The EADAS interface is defined in Telcordia Specification TR-746.) To support the MaxTid-limit control, Nortel has defined extensions to the EADAS interface. For information on the extensions, contact Nortel Global Customer Support regarding activity 59035929.

Use the MAP interface and this procedure to remove the MaxTid-limit control.

After you remove the MaxTid-limit control, the system uses the value of the DPT_MAX_PORTS office parameter as the maximum number of DPT terminal identifiers that the switch supports.

Interval

Perform this procedure as required.

Prerequisite

A prerequisite for this procedure is that the software optionality control (SOC) CS2B0003 must be implemented.

ATTENTION

If the SOC is not implemented in packet wireline networks, you can specify MaxTid limit control, but your specifications will take effect only when the SOC is implemented.

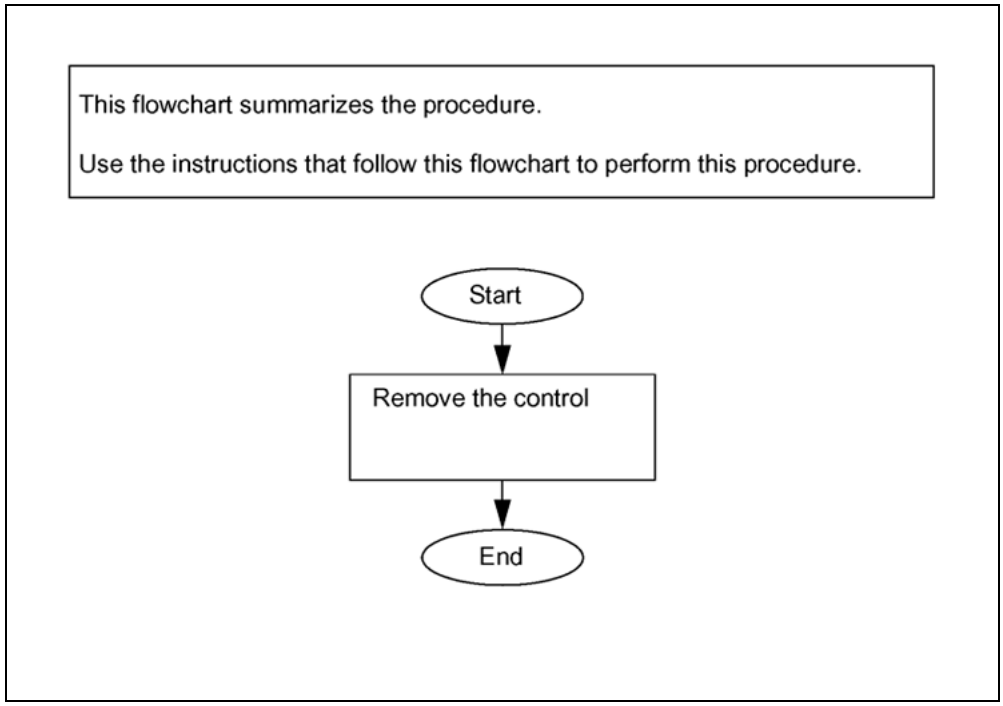
Common procedures

This procedure does not refer to any common procedures.

Action

The following flowchart summarizes this procedure.

Removing the MaxTid-limit control



Removing the MaxTid-limit control

Step	Action

At the MAP terminal

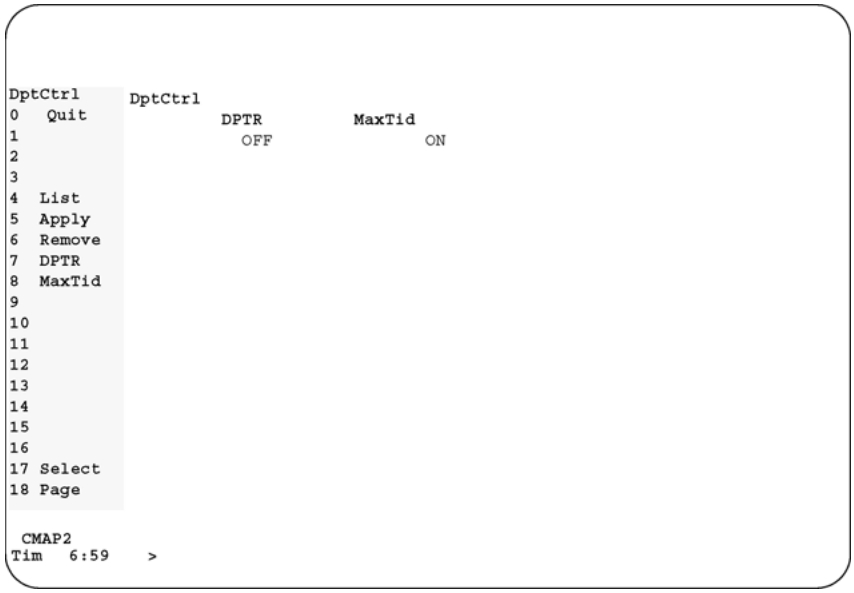
1 Go to the DPT control map level. Type

```
>MAPCI;NWM;DPTCTRL
```

and press the Enter key.

Example of system response:

DPTCTRL MAP level



2 Remove the MaxTid-limit control. Type

```
>REMOVE MAXTID
```

and press the Enter key.

In response, the system displays OFF beneath MaxTid on the DPTRCTRL screen.

3 You have completed the procedure. If applicable, rReturn to the higher level task flow or procedure that directed you to this procedure.

—End—

Setting the DPT-Priority Control for DPT Trunk Groups

This procedure contains instructions for setting the DPT-priority control, using the MAP user interface.

An alternative way of setting the DPT-priority control uses a network-management operations system (NM OS) that communicates with the CS 2000 by way of the EADAS interface. (The EADAS interface is defined in Telcordia Specification TR-746.) To support the DPT-priority control, Nortel has defined extensions to the EADAS interface. For information on the extensions, contact Nortel Global Customer Support regarding activity 59035929.

Use the MAP interface and this procedure to set the DPT-priority control.

The DPT-priority control enables you to control which calls are completed during periods of high call volume. For example, you can assign higher priority levels to trunk groups between nodes that are near each other, in order to reserve bandwidth for calls within a region.

You assign DPT-priority levels by specifying numeric values. Remember that a lower specified value means a higher priority level. The numeric value specifies a percentage of idle DPT terminal identifiers (TID) on the CS 2000. A DPT trunk group can continue to seize trunks as long as the percentage of idle terminal identifiers does not fall below the priority-threshold that applies to the trunk group.

If you never set priority controls for DPT trunk groups, the system applies a default setting of 0% to all DPT trunk groups, allowing all DPT trunk groups to continue to seize trunks as long as there are any idle terminal identifiers.

Interval

Perform this procedure as required.

Prerequisites

Prerequisites for this procedure are as follows.

- You must know the clli for the DPT of the related trunk group.
- In packet wireline networks this procedure requires the implementation of software optionality control (SOC) CS2B0003.

  If the SOC is not implemented in packet wireline networks, you can specify DPT-priority control, but your specifications will take effect only when the SOC is implemented.

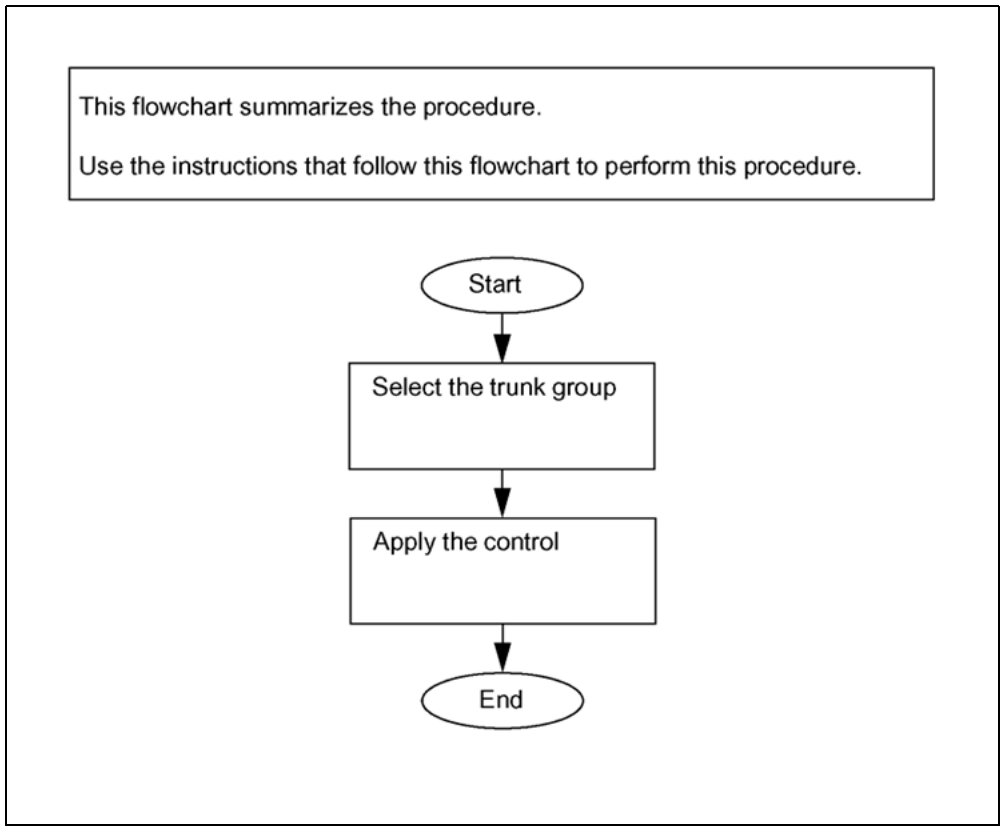
Common procedures

This procedure does not refer to any common procedures.

Action

The following flowchart summarizes this procedure.

Setting the DPT-priority control for DPT trunk groups



Setting the DPT-priority control for DPT trunk groups

Step	Action
	At the MAP terminal
1	Go to the group-control map level. Type **`>MAPCI;NWM;GRPCTRL`** and press the Enter key. *Example of system response:*

GRPCTRL MAP level

```
Ctrl        ITS    RADR     CPU    Init    IDOC    CS    DCR    Fs
GCRA          0      0%      0%   12:56.     .     .     .     0


GrpCtrl     GrpCtrl   Selected Group:
0  Quit        DRE    PRE    CanT    CanF    Skip    ITB    STR    DPTP
1                0      0       0       0       0      0      0       0
2
3  DPTP        FRR
4  List          0
5  Apply
6  Remove
7  DRE
8  PRE
9  CanT
10 CanF
11 Skip
12 ITB
13 STR
14 FRR
15
16
17 Select
18 Page

 CMAP2
Time   06:55
```

2 Select the DPT trunk group whose priority level you intend to set. Type

`>SELECT <clli-name>`

and press the Enter key

where

`<clli-name>` is the clli of the DPT trunk group, as specified in table CLLI

In response, the system displays the clli-name in the "Selected Group" field on the GRPCTRL screen.

3 Specify the priority level for the selected trunk group. Type

`>APPLY DPTP selected-group-level> <default-level>`

and press the Enter key

where

`<selected-group level>` is an integer specifying a percentage of idle DPT terminal identifiers on the CS 2000. The selected trunk group can continue to seize trunks as long as the percentage of idle terminal identifiers does not fall below the specified threshold. If it does fall below the threshold, calls on the selected trunk group are blocked.

`<default-level>` is an integer specifying a percentage of idle DPT terminal identifiers on the CS 2000. This threshold is the value that applies to DPT trunk groups for which you do not specify individual priority levels. Those trunk groups can continue

to seize trunks as long as the percentage does not fall below the specified threshold. If it does fall below the threshold, calls on those trunk groups are blocked.

For example, if the default priority value is 20%, and you want to assign a higher priority to the selected trunk group, for example, 10%, type

```
>APPLY DPTP  10  20
```

and press the Enter key.

In response, the system increments the value displayed beneath DPTP on the GRPCTRL screen, to indicate that DPT priority has been specified for an additional trunk group.

ATTENTION

You must specify the <default-level> parameter every time you use the **APPLY DPTP** command.

If you want to update the <default-level> value, select a DPT trunk group and use the **APPLY DPTP** command, specifying a priority value for the selected trunk group and specifying the updated <default-level> value.

4 Tell the system to echo the priority level that you have specified. Type

```
>LIST DPTP <clli-name>
```

and press the Enter key

where

<clli-name> is the clli of the DPT trunk group, as specified in table CLLI

In response, the system lists the specified priority value.

Example of system response:

GRPCTRL MAP level, listing the DPT-priority specification

```
Ctrl        ITS   RADR    CPU   Init   IDOC   CS   DCR   Fs
GCRA          0      0%     0%  12:56.     .    .     .    0

GrpCtrl     GrpCtrl   Selected Group: ISUPT2    ISUPT2   2W
0  Quit        DRE   PRE   CanT   CanF   Skip   ITB   STR   DPTP
1                0     0      1      0      0     0     0      1
2
3  DPTP        FRR
4  List          0
5  Apply
6  Remove
7  DRE
8  PRE       DPTP                                Page 1 of 1
9  CanT      ========================================
10 CanF      SCLLI   CLLI           P_Thr   OtherThr    SOURCE
11 Skip      ISUPT2  ISUPT2          10      20         MANUAL
12 ITB
13 STR
14 FRR
15
16
17 Select
18 Page

 CMAP2
Time   06:55
```

5 You have completed the procedure. If applicable, return to the higher level task flow or procedure that directed you to this procedure.

—End—

Removing the DPT-Priority Control from DPT Trunk Groups

This procedure contains instructions for removing DPT-priority control from a trunk group, using the MAP user interface.

An alternative way of removing DPT-priority control from a trunk group uses a network-management operations system (NM OS) that communicates with the CS 2000 by way of the EADAS interface. (The EADAS interface is defined in Telcordia Specification TR-746.) To support the DPT-priority control, Nortel has defined extensions to the EADAS interface. For information on the extensions, contact Nortel Global Customer Support regarding activity 59035929.

Use the MAP interface and this procedure to remove DPT-priority control from a trunk group.

If DPT-priority control is in effect for a trunk group, the trunk group has a priority level, which specifies a percentage of idle DPT terminal identifiers on the CS 2000. The trunk group can continue to seize trunks as long as the percentage of idle DPT terminal identifiers does not fall below the specified threshold.

When you remove priority control from a trunk group, the system assigns a default priority level to the trunk group. If you have specified a priority level that applies to "other" DPT trunk groups, the system uses the value you specified. (For instructions on specifying that value, see procedure "Setting the DPT-priority control for DPT trunk groups".) If you have not specified such a value, the system uses the default value of 0%, which means that the trunk group can continue to seize DPT trunks as long as there are any idle DPT terminal identifiers.

Interval

Perform this procedure as required.

Prerequisites

Prerequisites for this procedure are as follows.

- You must know the clli of the DPT trunk group whose priority control you intend to remove.
- In packet wireline networks this procedure requires the implementation of software optionality control (SOC) CS2B0003.

ATTENTION

If the SOC is not implemented in packet wireline networks, you can specify DPT-priority control, but your specifications will take effect only when the SOC is implemented.

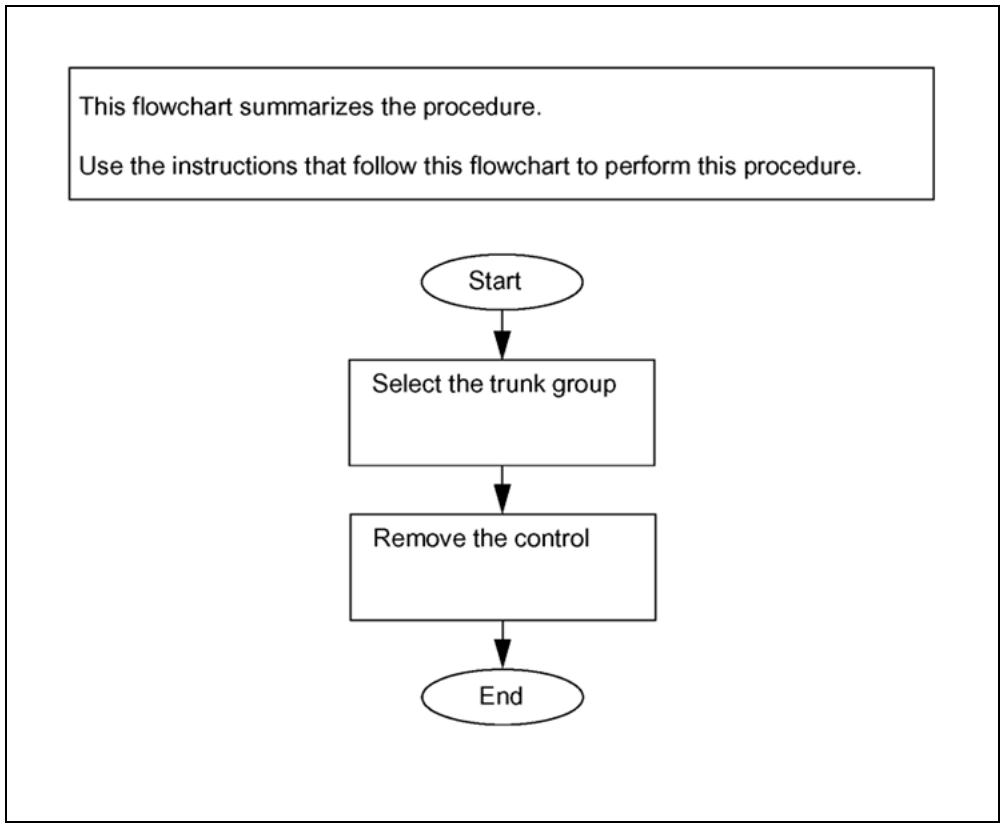
Common procedures

This procedure does not refer to any common procedures.

Action

The following flowchart summarizes this procedure.

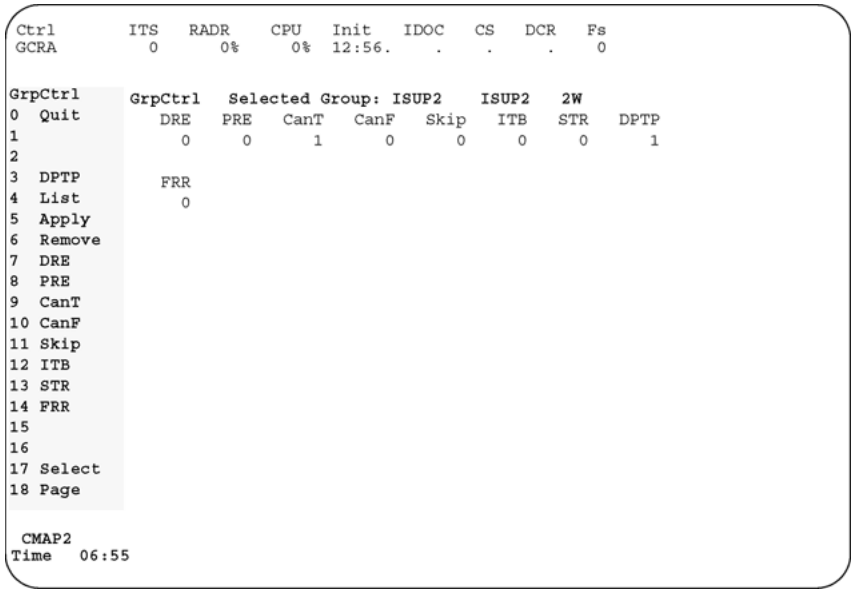
Removing DPT-priority control from a DPT trunk group



Removing DPT-priority control from a DPT trunk group

Step	Action
	At the MAP terminal
1	Go to the group-control map level. Type `>MAPCI;NWM;GRPCTRL` and press the Enter key. *Example of system response:*

GRPCTRL MAP level



2 Select the DPT trunk group whose priority control you intend to remove. Type

>SELECT <clli-name>

and press the Enter key

where

<clli-name> is the clli of the DPT trunk group, as specified in table CLLI

In response, the system displays the clli-name in the "Selected Group" field on the GRPCTRL screen.

3 Remove the DPT-priority control. Type

>REMOVE DPTP

and press the Enter key.

In response, the system decrements the value displayed beneath DPTP on the GRPCTRL screen, to indicate that DPT-priority control has been removed from a trunk group.

4 You have completed this procedure.

—End—

Setting the CANT control for a DPT trunk group

This procedure contains instructions for setting the cancel to (CANT) control for a DPT trunk group, using the MAP user interface.

> ***Note:*** An alternative way of setting the CANT control for a DPT trunk group is to use a network-management operations system (NM OS) that communicates with the CS 2000 by way of the EADAS interface. (The EADAS interface is defined in Telcordia Specification TR-746.) To support the enhanced CANT control for DPT trunk groups, Nortel has defined extensions to the EADAS interface. For information on the extensions, contact Nortel Global Customer Support regarding activity 59028697.

CANT control is a network-management control. The purpose of the network-management controls is to ensure maximum traffic flow in the network during times of overload or equipment failure. During these times, the network-management controls alter or restrict the normal traffic patterns to maximize the use of available resources and to prevent congestion from spreading through the network.

You apply CANT control to one-way outgoing trunk groups and to two-way trunk groups.

Once applied to a trunk group, the CANT control blocks calls that would normally go to other switches. The control cancels a percentage of the traffic offered to the trunk group.

The CANT blocks a percentage of the traffic offered to the trunk group. The blocked calls are routed to one of the following treatments:

- No Circuit Announcement (NCA)
- Emergency Announcement 1 (EA1)
- Emergency Announcement 2 (EA2)

Basic and enhanced CANT controls

There are two levels of CANT control for DPT trunk groups, the basic CANT control and the enhanced CANT control. The enhanced control is available if SOC OAN00012 has been implemented; otherwise, the basic control is available.

Basic CANT control enables you to specify call-blockage levels for alternate-routed (AR) traffic and for direct-routed (DR) traffic. You specify the call-blockage levels as percentage values in the range from 1 to 100.

Enhanced CANT control enables you to specify call-blockage levels for each of the following traffic categories: alternate-routed easy-to-reach traffic, alternate-routed hard-to-reach traffic, direct-routed easy-to-reach traffic, and direct-routed hard-to-reach traffic. You specify the call-blockage levels as percentage values in the range from 1 to 100.

Interval

Perform this procedure as required.

Prerequisites

Prerequisites for this procedure are as follows.

- You must know the clli of that DPT trunk group to which you intend to apply the CANT control.
- You should know whether software optionality control (SOC) OAM00012 has been implemented. If it has been implemented, then enhanced CANT control will apply to the DPT trunk group; if it has not been implemented, then basic CANT control will apply.

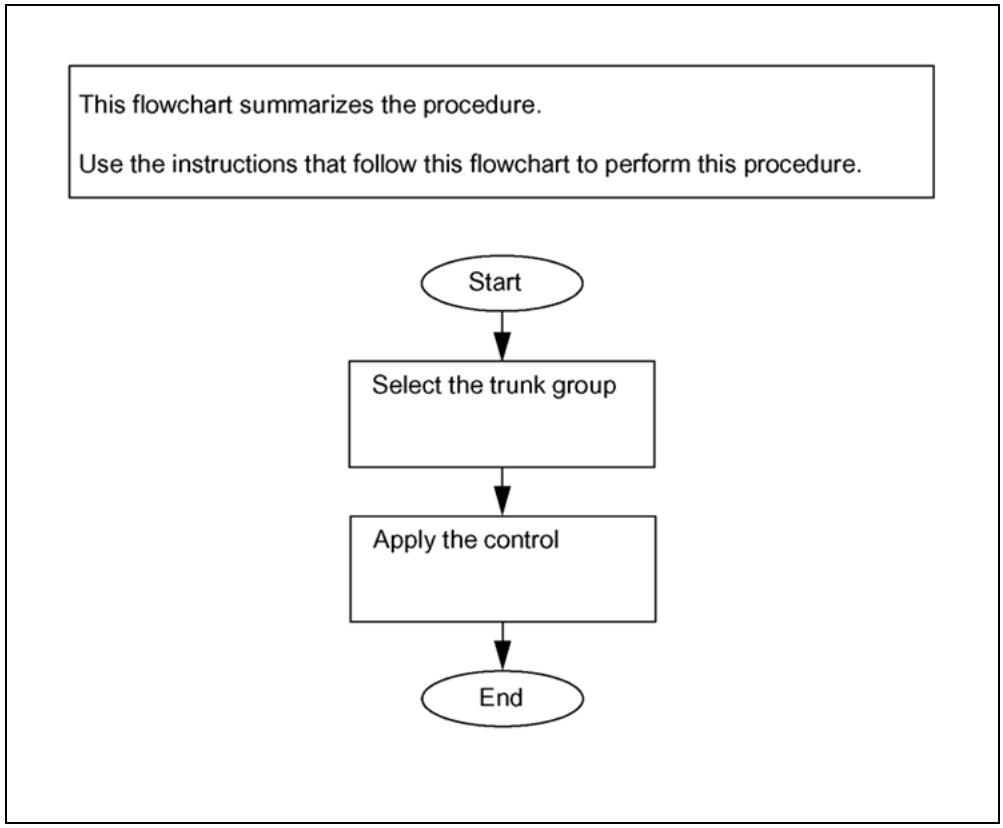
Common procedures

This procedure does not refer to any common procedures.

Action

The following flowchart summarizes this procedure.

Setting the CANT control for a DPT trunk group



Setting the CANT control for a DPT trunk group

Step	Action

At the MAP terminal

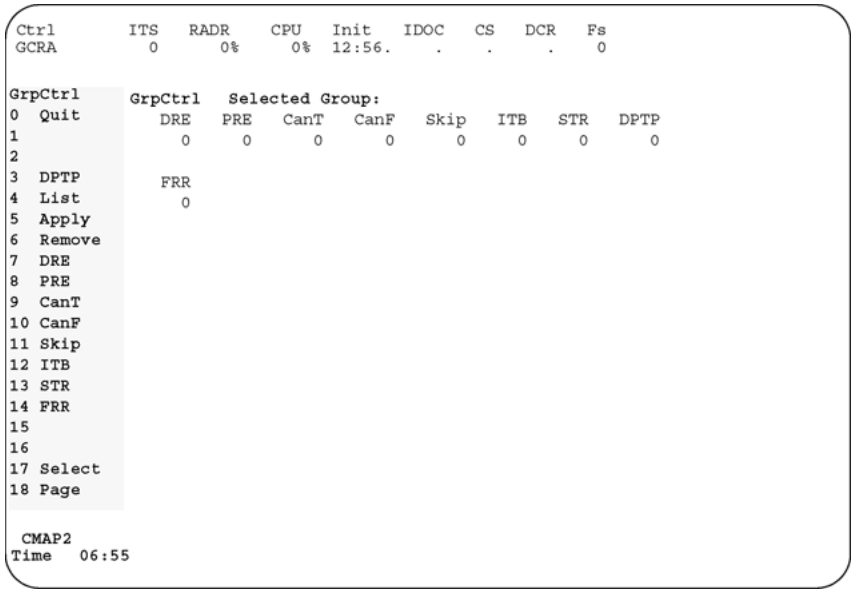
1 Go to the group-control map level. Type

```
>MAPCI;NWM;GRPCTRL
```

and press the Enter key.

Example of system response:

GRPCTRL MAP level



2 Select the DPT trunk group to which you intend to apply the CANT control. Type

`>SELECT <clli-name>`

and press the Enter key

where

`<clli-name>` is the clli of the DPT trunk group, as specified in table CLLI

In response, the system displays the clli-name in the "Selected Group" field on the GRPCTRL screen.

3

If SOC OAM00012	Do
has not been implemented, so you can use basic CANT control	step 4
has been implemented, so you can use enhanced CANT control	step 7

4 Specify basic CANT control for the selected DPT trunk group. Type

`>APPLY CANT <dr-pct> <ar-pct> <ann>`

and press the Enter key

where

<dr-pct> is an integer in the range 1 to 100 specifying a percentage of direct-routed traffic that is to be controlled

<ar-pct> is an integer in the range 1 to 100 specifying a percentage of alternate-routed traffic that is to be controlled

<ann> is one of the following codes, to specify the announcement to which blocked calls are to be connected (No Circuit Announcement, Emergency Announcement 1, or Emergency Announcement 2):

- NCA
- EA1
- EA2

For example, type

```
>APPLY CANT  10  20  NCA
```

and press the Enter key.

In response, the system increments the value displayed beneath CanT on the GRPCTRL screen, to indicate that CANT control has been applied to an additional trunk group.

5 Tell the system to echo the CANT control that you have specified. Type

```
>LIST CANT <clli-name>
```

and press the Enter key

where

<clli-name> is the clli of the DPT trunk group, as specified in table CLLI

In response, the system lists the specified CANT control.

Example of system response:

GRPCTRL MAP level, listing the basic CANT specification

```
Ctrl        ITS   RADR    CPU   Init   IDOC   CS   DCR   Fs
GCRA          0      0%     0%  12:56.     .    .     .    0


GrpCtrl     GrpCtrl   Selected Group: ISUPT2    ISUPT2   2W
0  Quit        DRE   PRE   CanT   CanF   Skip   ITB   STR   DPTP
1                0     0      1      0      0     0     0      0
2
3  DPTP        FRR
4  List          0
5  Apply
6  Remove
7  DRE
8  PRE       CanT                                Page 1 of 1
9  CanT      ============================================
10 CanF      SCLLI   CLLI          DR_Pct AR_Pct Ann  SOURCE
11 Skip      ISUPT2  ISUPT2         10     20    NCA  MANUAL
12 ITB
13 STR
14 FRR
15
16
17 Select
18 Page

 CMAP2
Time   06:55
```

6 Go to step 9.

7 Specify enhanced CANT control for the selected DPT trunk group. Type

>APPLY CANT <etr-dr-pct> <etr-ar-pct> <htr-dr-pct> <htr-ar-pct> <ann>

and press the Enter key

where

<etr-dr-pct> is an integer in the range 1 to 100 specifying a percentage of easy-to-reach direct-routed traffic that is to be controlled

<etr-ar-pct> is an integer in the range 1 to 100 specifying a percentage of easy-to-reach alternate-routed traffic that is to be controlled

<htr-dr-pct> is an integer in the range 1 to 100 specifying a percentage of hard-to-reach direct-routed traffic that is to be controlled

<htr-ar-pct> is an integer in the range 1 to 100 specifying a percentage of hard-to-reach alternate-routed traffic that is to be controlled

<ann> is one of the following codes, to specify the announcement to which blocked calls are to be connected (No Circuit Announcement, Emergency Announcement 1, or Emergency Announcement 2):

- NCA
- EA1
- EA2

For example, type

>APPLY CANT 10 20 30 40 NCA

and press the Enter key.

In response, the system increments the value displayed beneath CanT on the GRPCTRL screen, to indicate that CANT control has been applied to an additional trunk group.

8 Tell the system to echo the CANT control that you have specified. Type

>LIST CANT <clli-name>

and press the Enter key

where

<clli-name> is the clli of the DPT trunk group, as specified in table CLLI

In response, the system lists the specified CANT control.

Example of system response:

GRPCTRL MAP level, listing the enhanced CANT specification

```
Ctrl        ITS   RADR    CPU   Init   IDOC   CS   DCR   Fs
GCRA          0      0%     0%  12:56.    .    .     .    0

GrpCtrl     GrpCtrl   Selected Group: ISUPT2   ISUPT2   2W
0  Quit        DRE   PRE   CanT   CanF   Skip   ITB   STR   DPTP
1                0     0      1      0      0     0     0      0
2
3  DPTP        FRR
4  List          0
5  Apply
6  Remove
7  DRE
8  PRE       CanT                                  Page 1 of 1
9  CanT      ========================================
10 CanF      SCLLI   CLLI    ETR_DR_Pct ETR_AR_Pct
11 Skip      ISUPT2  ISUPT2      10%        20%
12 ITB                       HTR_DR_Pct HTR_AR_Pct Ann SOURCE
13 STR                           30%        40%    NCA MANUAL
14 FRR
15
16
17 Select
18 Page

 CMAP2
Time   06:55
```

9 You have completed this procedure

—End—

Removing the CANT control from a DPT trunk group

This procedure contains instructions for removing the Cancel To (CANT) control from a DPT trunk group, using the MAP user interface.

> ***Note:*** An alternative way of removing the CANT control from a DPT trunk group is to use a network-management operations system (NM OS) that communicates with the CS 2000 by way of the EADAS interface. (The EADAS interface is defined in Telcordia Specification TR-746.) To support the enhanced CANT control for DPT trunk groups, Nortel has defined extensions to the EADAS interface. For information on the extensions, contact Nortel Global Customer Support regarding activity 59028697.

This procedure applies regardless of whether you are using basic or enhanced CANT control.

Interval

Perform this procedure as required.

Prerequisite

You must know the clli of the DPT trunk group from which you intend to remove the CANT control.

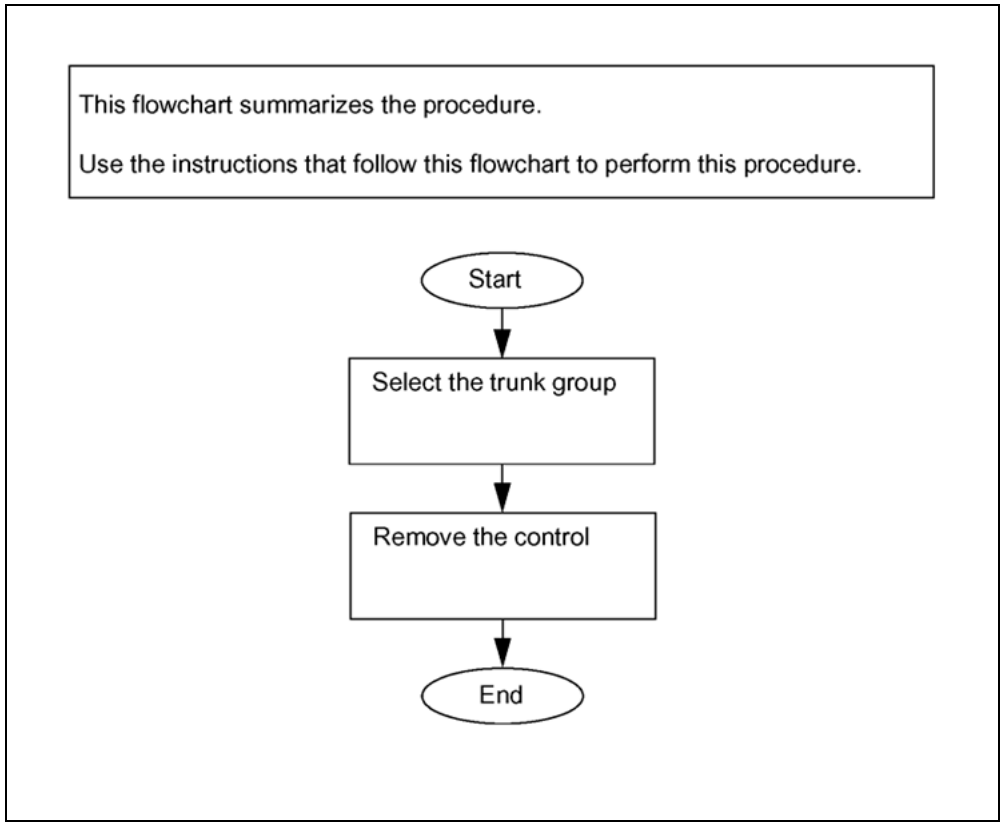
Common procedures

This procedure does not refer to any common procedures.

Action

The following flowchart summarizes this procedure.

Removing the CANT control from a DPT trunk group



Removing the CANT control from a DPT trunk group

Step	Action

At the MAP terminal

1 Go to the group-control map level. Type

```
>MAPCI;NWM;GRPCTRL
```

and press the Enter key.

Example of system response:

GRPCTRL MAP level

```
Ctrl        ITS    RADR     CPU    Init    IDOC    CS    DCR    Fs
GCRA          0      0%      0%   12:56.     .     .     .     0


GrpCtrl     GrpCtrl   Selected Group:
0  Quit        DRE    PRE    CanT    CanF    Skip    ITB    STR    DPTP
1                0      0       1       0       0      0      0       0
2
3  DPTP        FRR
4  List          0
5  Apply
6  Remove
7  DRE
8  PRE
9  CanT
10 CanF
11 Skip
12 ITB
13 STR
14 FRR
15
16
17 Select
18 Page

 CMAP2
Time   06:55
```

2 Select the DPT trunk group from which you intend to remove the CANT control. Type

`>SELECT <clli-name>`

and press the Enter key

where

`<clli-name>` is the clli of the DPT trunk group, as specified in table CLLI

In response, the system displays the clli-name in the "Selected Group" field on the GRPCTRL screen.

3 Remove CANF control from the selected DPT trunk group. Type

`>REMOVE CANT`

and press the Enter key.

In response, the system decrements the value displayed beneath CanT on the GRPCTRL screen, to indicate that CANT control has been removed from a trunk group.

4 You have completed this procedure.

—End—

Setting the CANF control for a DPT trunk group

This procedure contains instructions for setting the Cancel From (CANF) control for a DPT trunk group, using the MAP user interface.

> ***Note:*** An alternative way of setting the CANF control for a DPT trunk group is to use a network-management operations system (NM OS) that communicates with the CS 2000 by way of the EADAS interface. (The EADAS interface is defined in Telcordia Specification TR-746.) To support the enhanced CANF control for DPT trunk groups, Nortel has defined extensions to the EADAS interface. For information on the extensions, contact Nortel Global Customer Support regarding activity 59028697.

CANF control is a network-management control. The purpose of the network-management controls is to ensure maximum traffic flow in the network during times of overload or equipment failure. During these times, the network-management controls alter or restrict the normal traffic patterns to maximize the use of available resources and to prevent congestion from spreading through the network.

You apply CANF control to one-way outgoing trunk groups and to two-way trunk groups.

Once applied to a trunk group, the CANF control diverts traffic attempts overflowing from the trunk group. It prevents the overflow traffic from continuing to its next group within the route list of trunks.

The CANF control blocks a percentage of the overflow traffic from the trunk group. The blocked calls are routed to one of the following treatments:

- No Circuit Announcement (NCA)
- Emergency Announcement 1 (EA1)
- Emergency Announcement 2 (EA2)

Basic and enhanced CANF controls

There are two levels of CANF control for DPT trunk groups, the basic CANF control and the enhanced CANF control. The enhanced control is available if SOC OAN00012 has been implemented; otherwise, the basic control is available.

Basic CANF control enables you to specify call-blockage levels for overflow traffic. You can specify separate call blockage levels for alternate-routed (AR) overflow traffic and for direct-routed (DR) overflow traffic. You specify the call-blockage levels as percentage values in the range from 1 to 100.

Enhanced CANF control enables you to specify call-blockage levels for each of the following categories of overflow traffic: alternate-routed easy-to-reach overflow traffic, alternate-routed hard-to-reach overflow traffic, direct-routed easy-to-reach overflow traffic, and direct-routed hard-to-reach overflow traffic. You specify the call-blockage levels as percentage values in the range from 1 to 100.

Interval

Perform this procedure as required.

Prerequisite

You must know the clli of that DPT trunk group to which you intend to apply the CANF control.

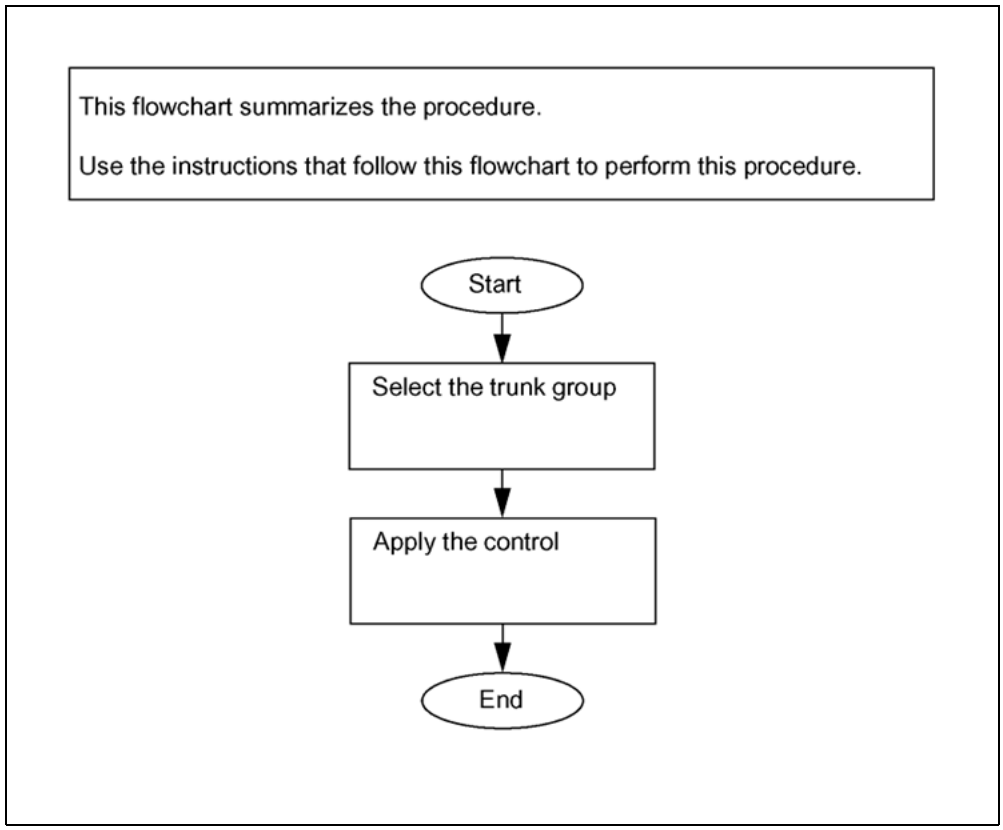
Common procedures

This procedure does not refer to any common procedures.

Action

The following flowchart summarizes this procedure.

Setting the CANF control for a DPT trunk group



Setting the CANF control for a DPT trunk group

Step	Action

At the MAP terminal

1 Go to the group-control map level. Type

```
>MAPCI;NWM;GRPCTRL
```

and press the Enter key.

Example of system response:

GRPCTRL MAP level

```
Ctrl       ITS   RADR    CPU   Init   IDOC   CS   DCR   Fs
GCRA         0     0%     0%  12:56.    .     .    .    0


GrpCtrl    GrpCtrl   Selected Group:
0  Quit       DRE   PRE   CanT   CanF   Skip   ITB   STR   DPTP
1               0     0      0      0      0     0     0      0
2
3  DPTP       FRR
4  List         0
5  Apply
6  Remove
7  DRE
8  PRE
9  CanT
10 CanF
11 Skip
12 ITB
13 STR
14 FRR
15
16
17 Select
18 Page

 CMAP2
Time   06:55
```

2 Select the DPT trunk group to which you intend to apply the CANF control. Type

```
>SELECT <clli-name>
```

and press the Enter key

where

<clli-name> is the clli of the DPT trunk group, as specified in table CLLI

In response, the system displays the clli-name in the "Selected Group" field on the GRPCTRL screen.

3

If SOC OAM00012	Do
has not been implemented, so you can use basic CANF control	step 4
has been implemented, so you can use enhanced CANF control	step 7

4 Specify basic CANF control for the selected DPT trunk group. Type

```
>APPLY CANF <dr-pct> <ar-pct> <ann>
```

and press the Enter key

where

<dr-pct> is an integer in the range 1 to 100 specifying a percentage of direct-routed overflow traffic that is to be prevented from continuing to its next group in the route list of trunks
<ar-pct> is an integer in the range 1 to 100 specifying a percentage of alternate-routed overflow traffic that is to be prevented from continuing to its next group in the route list of trunks
<ann> is one of the following codes, to specify the announcement to which blocked calls are to be connected (No Circuit Announcement, Emergency Announcement 1, or Emergency Announcement 2):

- NCA
- EA1
- EA2

For example, type

```
>APPLY CANF  20  10  NCA
```

and press the Enter key.

In response, the system increments the value displayed beneath CanF on the GRPCTRL screen, to indicate that CANF control has been applied to an additional trunk group.

5 Tell the system to echo the CANF control that you have specified. Type

```
>LIST CANF <clli-name>
```

and press the Enter key

where

<clli-name> is the clli of the DPT trunk group, as specified in table CLLI

In response, the system lists the specified CANF control.

Example of system response:

GRPCTRL MAP level, listing the basic CANF specification

```
Ctrl        ITS    RADR     CPU    Init    IDOC    CS    DCR    Fs
GCRA          0      0%      0%   12:56.     .     .      .     0


GrpCtrl                GrpCtrl   Selected Group: ISUPT2    ISUPT2   2W
0  Quit                   DRE    PRE    CanT    CanF    Skip    ITB    STR    DPTP
1                           0      0       0       1       0      0      0       0
2
3  DPTP                   FRR
4  List                     0
5  Apply
6  Remove
7  DRE
8  PRE                  CanF                                  Page 1 of 1
9  CanT                 ==========================================
10 CanF                 SCLLI    CLLI          DR_Pct AR_Pct Ann  SOURCE
11 Skip                 ISUPT2   ISUPT2         20     10    NCA  MANUAL
12 ITB
13 STR
14 FRR
15
16
17 Select
18 Page


 CMAP2
Time   06:55
```

6 Go to step 9.

7 Specify enhanced CANF control for the selected DPT trunk group. Type

`>APPLY CANF <etr-dr-pct> <etr-ar-pct> <htr-dr-pct> <htr-ar-pct> <ann>`

and press the Enter key

where

`<etr-dr-pct>` is an integer in the range 1 to 100 specifying a percentage of easy-to-reach direct-routed overflow traffic that is to be controlled

`<etr-ar-pct>` is an integer in the range 1 to 100 specifying a percentage of easy-to-reach alternate-routed overflow traffic that is to be controlled

`<htr-dr-pct>` is an integer in the range 1 to 100 specifying a percentage of hard-to-reach direct-routed overflow traffic that is to be controlled

`<htr-ar-pct>` is an integer in the range 1 to 100 specifying a percentage of hard-to-reach alternate-routed overflow traffic that is to be controlled

`<ann>` is one of the following codes, to specify the announcement to which blocked calls are to be connected (No Circuit

Announcement, Emergency Announcement 1, or Emergency Announcement 2):

- NCA
- EA1
- EA2

For example, type

```
>APPLY CANF  15  25  35  45  NCA
```

and press the Enter key.

In response, the system increments the value displayed beneath CanF on the GRPCTRL screen, to indicate that CANF control has been applied to an additional trunk group.

8 Tell the system to echo the CANF control that you have specified. Type

```
>LIST CANF <clli-name>
```

and press the Enter key

where

<clli-name> is the clli of the DPT trunk group, as specified in table CLLI

In response, the system lists the specified CANF control.

Example of system response:

GRPCTRL MAP level, listing the enhanced CANF specification

```
Ctrl       ITS   RADR    CPU   Init   IDOC   CS   DCR   Fs
GCRA         0     0%     0%  12:56.    .     .     .    0


GrpCtrl    GrpCtrl   Selected Group: ISUPT2   ISUPT2   2W
0  Quit       DRE   PRE   CanT   CanF   Skip   ITB   STR   DPTP
1               0     0      0      1      0     0     0      0
2
3  DPTP       FRR
4  List         0
5  Apply
6  Remove
7  DRE
8  PRE       CanF                                Page 1 of 1
9  CanT      ============================================
10 CanF      SCLLI   CLLI     ETR_DR_Pct ETR_AR_Pct
11 Skip      ISUPT2  ISUPT2       15%        25%
12 ITB                       HTR_DR_Pct HTR_AR_Pct Ann SOURCE
13 STR                           35%        45%    NCA MANUAL
14 FRR
15
16
17 Select
18 Page


 CMAP2
Time   06:55
```

9 You have completed this procedure.

—End—

Removing the CANF control from a DPT trunk group

This procedure contains instructions for removing the Cancel From (CANF) control from a DPT trunk group, using the MAP user interface.

> ***Note:*** An alternative way of removing the CANF control from a DPT trunk group is to use a network-management operations system (NM OS) that communicates with the CS 2000 by way of the EADAS interface. (The EADAS interface is defined in Telcordia Specification TR-746.) To support the enhanced CANF control for DPT trunk groups, Nortel has defined extensions to the EADAS interface. For information on the extensions, contact Nortel Global Customer Support regarding activity 59028697.

This procedure applies regardless of whether you are using basic or enhanced CANF control.

Interval

Perform this procedure as required.

Prerequisite

You must know the clli of the DPT trunk group from which you intend to remove the CANF control.

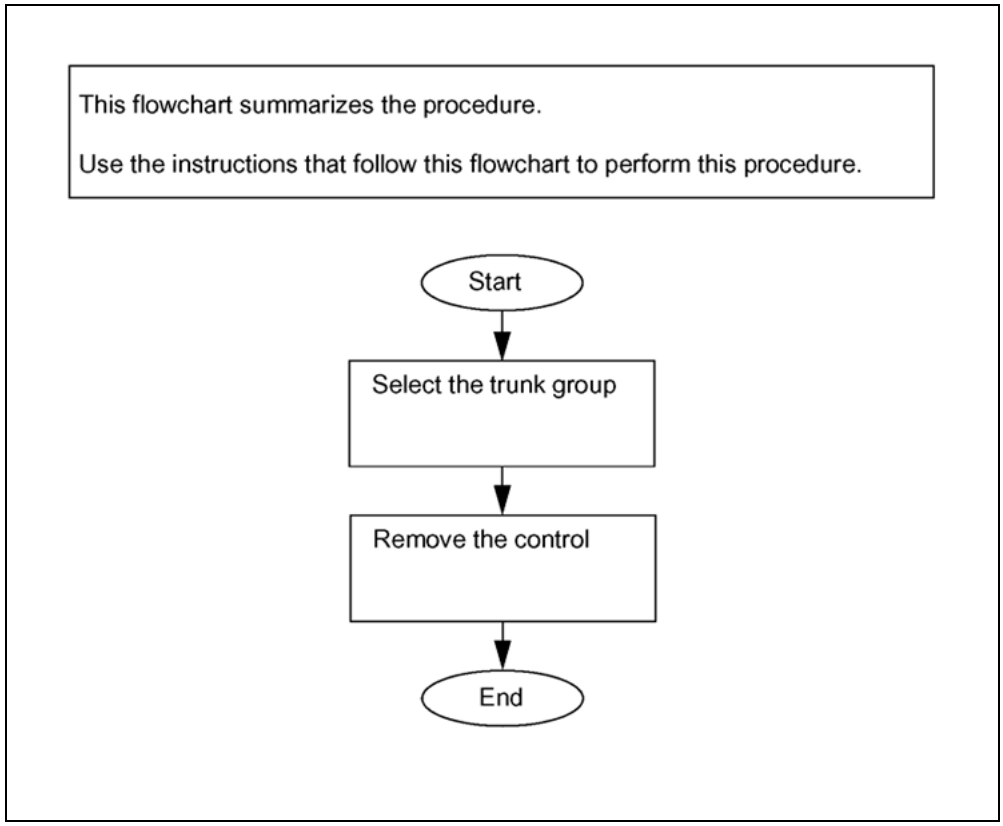
Common procedures

This procedure does not refer to any common procedures.

Action

The following flowchart summarizes this procedure.

Removing the CANF control from a DPT trunk group



Removing the CANF control from a DPT trunk group

Step	Action

At the MAP terminal

1 Go to the group-control map level. Type

```
>MAPCI;NWM;GRPCTRL
```

and press the Enter key.

Example of system response:

GRPCTRL MAP level

```
Ctrl        ITS    RADR     CPU    Init    IDOC    CS    DCR    Fs
GCRA          0      0%      0%   12:56.     .     .     .     0

GrpCtrl     GrpCtrl   Selected Group:
0  Quit        DRE    PRE    CanT    CanF    Skip    ITB    STR    DPTP
1                0      0       0       1       0      0      0       0
2
3  DPTP        FRR
4  List          0
5  Apply
6  Remove
7  DRE
8  PRE
9  CanT
10 CanF
11 Skip
12 ITB
13 STR
14 FRR
15
16
17 Select
18 Page

 CMAP2
Time   06:55
```

2 Select the DPT trunk group from which you intend to remove the CANF control. Type

`>SELECT <clli-name>`

and press the Enter key

where

`<clli-name>` is the clli of the DPT trunk group, as specified in table CLLI

In response, the system displays the clli-name in the "Selected Group" field on the GRPCTRL screen.

3 Remove CANF control from the selected DPT trunk group. Type

`>REMOVE CANF`

and press the Enter key.

In response, the system decrements the value displayed beneath CanF on the GRPCTRL screen, to indicate that CANF control has been removed from a trunk group.

4 You have completed this procedure.

—End—

Setting the SKIP control for a DPT trunk group

This procedure contains instructions for setting the SKIP control for a DPT trunk group, using the MAP user interface.

> ***Note:*** An alternative way of setting the SKIP control for a DPT trunk group is to use a network-management operations system (NM OS) that communicates with the CS 2000 by way of the EADAS interface. (The EADAS interface is defined in Telcordia Specification TR-746.) To support the enhanced SKIP control for DPT trunk groups, Nortel has defined extensions to the EADAS interface. For information on the extensions, contact Nortel Global Customer Support regarding activity 59028697.

SKIP control is a network-management control. The purpose of the network-management controls is to ensure maximum traffic flow in the network during times of overload or equipment failure. During these times, the network-management controls alter or restrict the normal traffic patterns to maximize the use of available resources and to prevent congestion from spreading through the network.

You apply SKIP control to one-way outgoing trunk groups and to two-way trunk groups.

Once applied to a trunk group, the SKIP control blocks a portion of the traffic from accessing the trunk group. The system redirects the blocked traffic to the next in-chain route that has SKIP control.

If all the trunk groups in the routing chain are exhausted, the blocked calls are sent to treatment.

Basic and enhanced SKIP controls

There are two levels of SKIP control for DPT trunk groups, the basic SKIP control and the enhanced SKIP control. The enhanced control is available if SOC OAN00012 has been implemented; otherwise, the basic control is available.

Basic SKIP control enables you to specify percentages of alternate-routed (AR) traffic and direct-routed (DR) traffic that will be denied access to the trunk group. You specify the percentage values in the range from 1 to 100.

Enhanced SKIP control enables you to specify call-blockage levels for each of the following categories of overflow traffic: alternate-routed easy-to-reach overflow traffic, alternate-routed hard-to-reach overflow traffic, direct-routed

easy-to-reach overflow traffic, and direct-routed hard-to-reach overflow traffic. You specify the call-blockage levels as percentage values in the range from 1 to 100.

Interval

Perform this procedure as required.

Prerequisite

You must know the clli of that DPT trunk group to which you intend to apply the SKIP control.

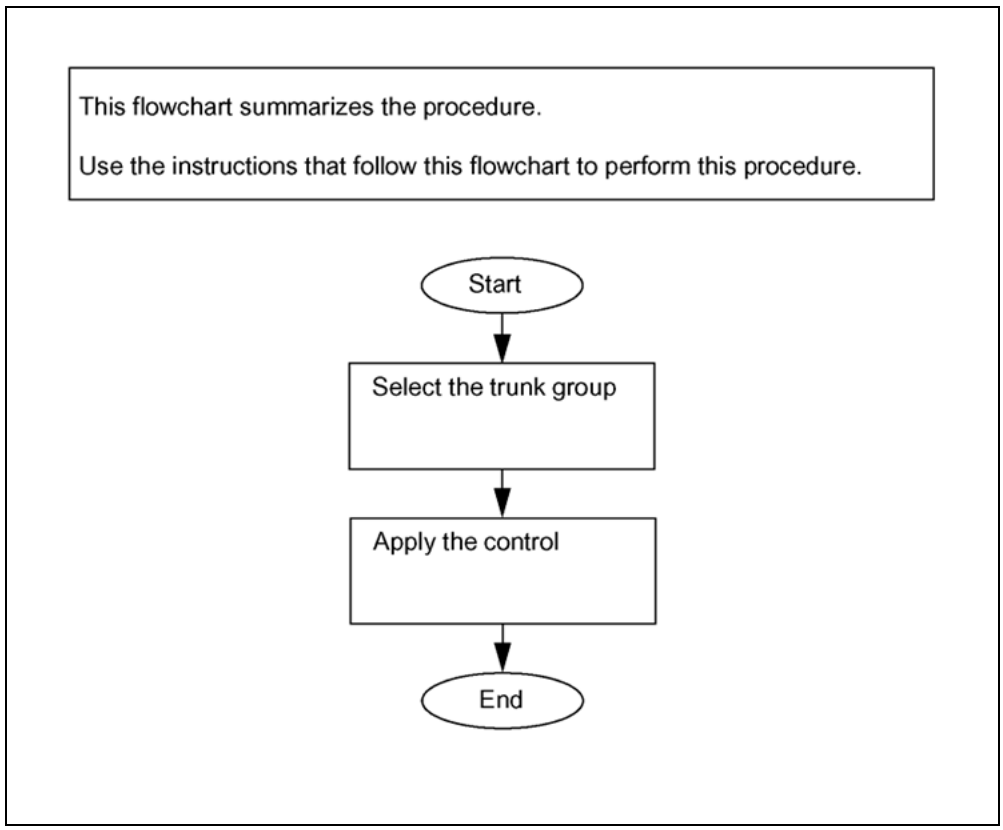
Common procedures

This procedure does not refer to any common procedures.

Action

The following flowchart summarizes this procedure.

Setting the SKIP control for a DPT trunk group



Setting the SKIP control for a DPT trunk group

Step	Action

At the MAP terminal

1 Go to the group-control map level. Type

>MAPCI;NWM;GRPCTRL

and press the Enter key.

Example of system response:

GRPCTRL MAP level

```
Ctrl        ITS   RADR    CPU   Init   IDOC   CS   DCR   Fs
GCRA          0      0%     0%  12:56.    .    .     .    0


GrpCtrl     GrpCtrl   Selected Group:
0  Quit        DRE   PRE   CanT   CanF   Skip   ITB   STR   DPTP
1                0     0      0      0      0     0     0      0
2
3  DPTP        FRR
4  List          0
5  Apply
6  Remove
7  DRE
8  PRE
9  CanT
10 CanF
11 Skip
12 ITB
13 STR
14 FRR
15
16
17 Select
18 Page


 CMAP2
Time   06:55
```

2 Select the DPT trunk group to which you intend to apply the SKIP control. Type

>SELECT <clli-name>

and press the Enter key

where

<clli-name> is the clli of the DPT trunk group, as specified in table CLLI

In response, the system displays the clli-name in the "Selected Group" field on the GRPCTRL screen.

3

If SOC OAM00012	Do
has not been implemented, so you can use basic SKIP control	step 4
has been implemented, so you can use enhanced SKIP control	step 7

4 Specify basic SKIP control for the selected DPT trunk group. Type

>APPLY SKIP <dr-pct> <ar-pct>

and press the Enter key

where

<dr-pct> is an integer in the range 1 to 100 specifying a percentage of direct-routed traffic that is to be prevented from accessing this trunk group
<ar-pct> is an integer in the range 1 to 100 specifying a percentage of alternate-routed traffic that is to be prevented from accessing this trunk group

For example, type

>APPLY SKIP 30 40

and press the Enter key.

In response, the system increments the value displayed beneath Skip on the GRPCTRL screen, to indicate that SKIP control has been applied to an additional trunk group.

5 Tell the system to echo the SKIP control that you have specified. Type

>LIST SKIP <clli-name>

and press the Enter key

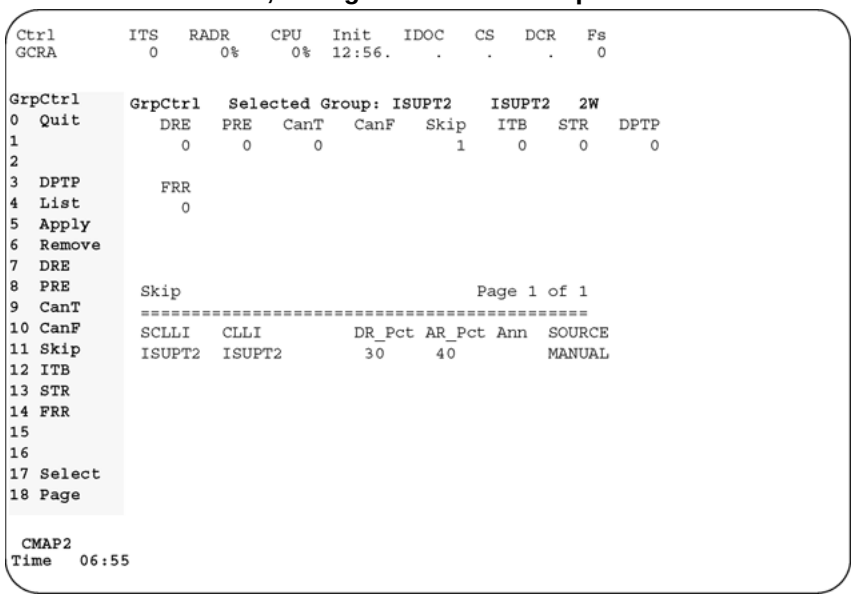
where

<clli-name> is the clli of the DPT trunk group, as specified in table CLLI

In response, the system lists the specified SKIP control.

Example of system response:

GRPCTRL MAP level, listing the basic SKIP specification



Note: The Ann field is blank because you do not have the option of specifying the treatment type when you specify the SKIP control.

6 Go to step 9.

7 Specify enhanced SKIP control for the selected DPT trunk group. Type

>APPLY SKIP <etr-dr-pct> <etr-ar-pct> <htr-dr-pct> <htr-ar-pct>

and press the Enter key

where

<etr-dr-pct> is an integer in the range 1 to 100 specifying a percentage of easy-to-reach direct-routed traffic that is to be prevented from accessing this trunk group

<etr-ar-pct> is an integer in the range 1 to 100 specifying a percentage of easy-to-reach alternate-routed traffic that is to be prevented from accessing this trunk group

<htr-dr-pct> is an integer in the range 1 to 100 specifying a percentage of hard-to-reach direct-routed traffic that is to be prevented from accessing this trunk group

<htr-ar-pct> is an integer in the range 1 to 100 specifying a percentage of hard-to-reach alternate-routed traffic that is to be prevented from accessing this trunk group

For example, type

```
>APPLY SKIP  40  30  20  10
```

and press the Enter key.

In response, the system increments the value displayed beneath Skip on the GRPCTRL screen, to indicate that SKIP control has been applied to an additional trunk group.

8 Tell the system to echo the SKIP control that you have specified. Type

```
>LIST SKIP <clli-name>
```

and press the Enter key

where

<clli-name> is the clli of the DPT trunk group, as specified in table CLLI

In response, the system lists the specified SKIP control.

Example of system response:

GRPCTRL MAP level, listing the enhanced SKIP specification

```
Ctrl        ITS   RADR    CPU   Init   IDOC   CS   DCR   Fs
GCRA          0      0%     0%  12:56.    .    .     .    0

GrpCtrl
0  Quit
1
2
3  DPTP
4  List
5  Apply
6  Remove
7  DRE
8  PRE
9  CanT
10 CanF
11 Skip
12 ITB
13 STR
14 FRR
15
16
17 Select
18 Page

 CMAP2
Time   06:55
```

```
GrpCtrl   Selected Group: ISUPT2   ISUPT2   2W
   DRE   PRE   CanT   CanF   Skip   ITB   STR   DPTP
     0     0      0              1     0     0      0

   FRR
     0
```

```
Skip                                    Page 1 of 1
========================================
SCLLI   CLLI    ETR_DR_Pct ETR_AR_Pct
ISUPT2  ISUPT2       40%        30%
                HTR_DR_Pct HTR_AR_Pct Ann SOURCE
                     20%        10%        MANUAL
```

Note: The Ann field is blank because you do not have the option of specifying the treatment type when you specify the SKIP control.

9 You have completed this procedure.

—End—

Removing the SKIP control from a DPT trunk group

This procedure contains instructions for removing the SKIP control from a DPT trunk group, using the MAP user interface.

> ***Note:*** An alternative way of removing the SKIP control from a DPT trunk group is to use a network-management operations system (NM OS) that communicates with the CS 2000 by way of the EADAS interface. (The EADAS interface is defined in Telcordia Specification TR-746.) To support the enhanced SKIP control for DPT trunk groups, Nortel has defined extensions to the EADAS interface. For information on the extensions, contact Nortel Global Customer Support regarding activity 59028697.

This procedure applies regardless of whether you are using basic or enhanced SKIP control.

Interval

Perform this procedure as required.

Prerequisite

You must know the clli of the DPT trunk group from which you intend to remove the SKIP control.

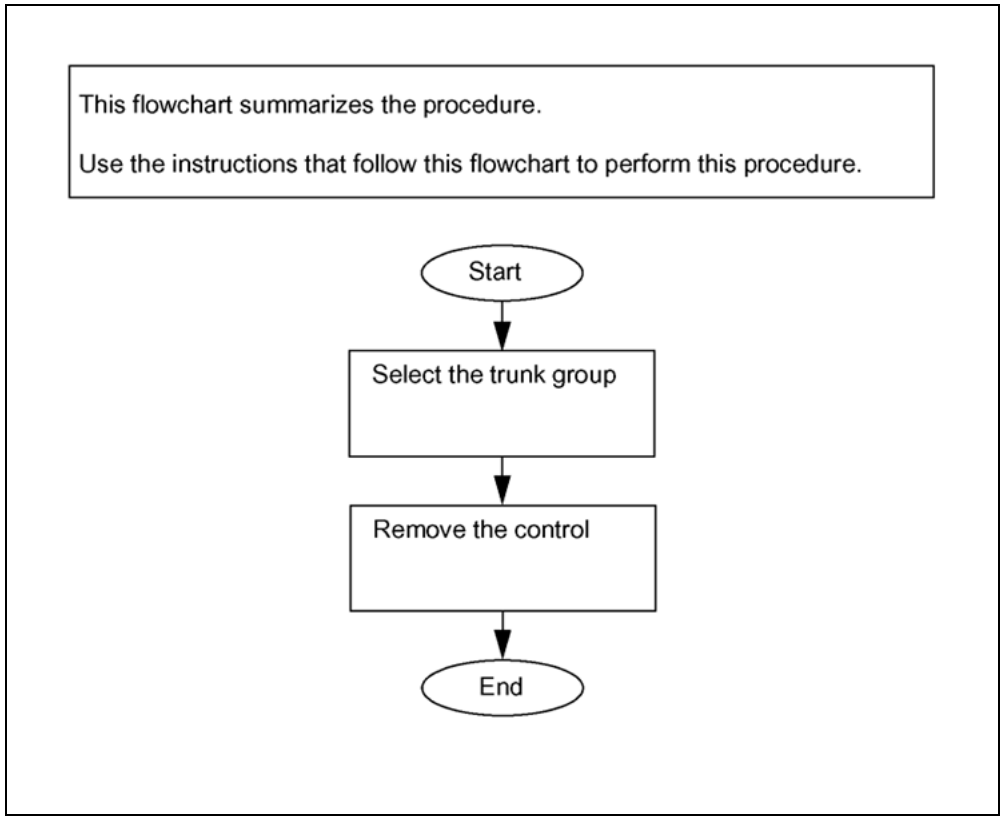
Common procedures

This procedure does not refer to any common procedures.

Action

The following flowchart summarizes this procedure.

Removing the SKIP control from a DPT trunk group



Removing the SKIP control from a DPT trunk group

Step	Action

At the MAP terminal

1 Go to the group-control map level. Type

```
>MAPCI;NWM;GRPCTRL
```

and press the Enter key.

Example of system response:

GRPCTRL MAP level

```
Ctrl        ITS    RADR     CPU    Init    IDOC    CS    DCR    Fs
GCRA          0      0%      0%   12:56.     .     .     .     0


GrpCtrl     GrpCtrl   Selected Group:
0  Quit        DRE    PRE    CanT    CanF    Skip    ITB    STR    DPTP
1                0      0       0       0       1      0      0       0
2
3  DPTP        FRR
4  List          0
5  Apply
6  Remove
7  DRE
8  PRE
9  CanT
10 CanF
11 Skip
12 ITB
13 STR
14 FRR
15
16
17 Select
18 Page

 CMAP2
Time   06:55
```

2 Select the DPT trunk group from which you intend to remove the SKIP control. Type

>SELECT <clli-name>

and press the Enter key

where

<clli-name> is the clli of the DPT trunk group, as specified in table CLLI

In response, the system displays the clli-name in the "Selected Group" field on the GRPCTRL screen.

3 Remove SKIP control from the selected DPT trunk group. Type

>REMOVE SKIP

and press the Enter key.

In response, the system decrements the value displayed beneath Skip on the GRPCTRL screen, to indicate that SKIP control has been removed from a trunk group.

4 You have completed this procedure.

—End—

Setting the FRR control for a DPT trunk group

This procedure contains instructions for setting the FRR (Flexible Reroute) control for a DPT trunk group, using the MAP user interface.

> ***Note:*** An alternative way of setting the FRR control for a DPT trunk group is to use a network-management operations system (NM OS) that communicates with the CS 2000 by way of the EADAS interface. (The EADAS interface is defined in Telcordia Specification TR-746.) To support the enhanced FRR control for DPT trunk groups, Nortel has defined extensions to the EADAS interface. For information on the extensions, contact Nortel. Refer to activity 59028697.

FRR control is a network-management control. The purpose of the network-management controls is to ensure maximum traffic flow in the network during times of overload or equipment failure. During these times, the network-management controls alter or restrict the normal traffic patterns to maximize the use of available resources and to prevent congestion from spreading through the network.

FRR control enables you to reroute traffic from one trunk group to another without modifying the datafill in the data schema tables. This means you can direct traffic on an as-needed basis so you can respond to traffic overload and congestion within the network.

You can use the immediate reroute (IRR) option of the FRR control to reroute calls that try to access the trunk group. Alternatively, you can use the regular reroute (RRR) option of the FRR control to reroute calls that overflow from the trunk group. The IRR and RRR options are mutually exclusive.

Basic and enhanced FRR controls

There are two levels of FRR control for DPT trunk groups, the basic level and the enhanced level. Enhanced control is available if SOC OAN00012 has been implemented; otherwise, basic control is available.

Regardless of whether you are using basic or enhanced FRR control, you specify that the FRR control will reroute percentages of traffic attempting to access the controlled trunk group, or that it will reroute percentages of traffic overflowing from the controlled trunk group.

Basic FRR control enables you to specify separate call-blockage levels for direct-routed (DR) traffic and for alternate-routed (AR) traffic. You specify the blockage levels as percentage values in the range 1 to 100.

Enhanced FRR control gives you the following enhanced capabilities:

- You can specify call-blockage levels for each of the following categories of traffic: direct-routed easy-to-reach traffic, alternate-routed easy-to-reach traffic, direct-routed hard-to-reach traffic, and alternate-routed hard-to-reach traffic. You specify the blockage levels as percentage values in the range 1 to 100.
- You can specify up to 16 separate code-specific rerouting instructions for the affected traffic.

Interval

Perform this procedure as required.

Prerequisite

You must know the clli of that DPT trunk group to which you intend to apply the FRR control.

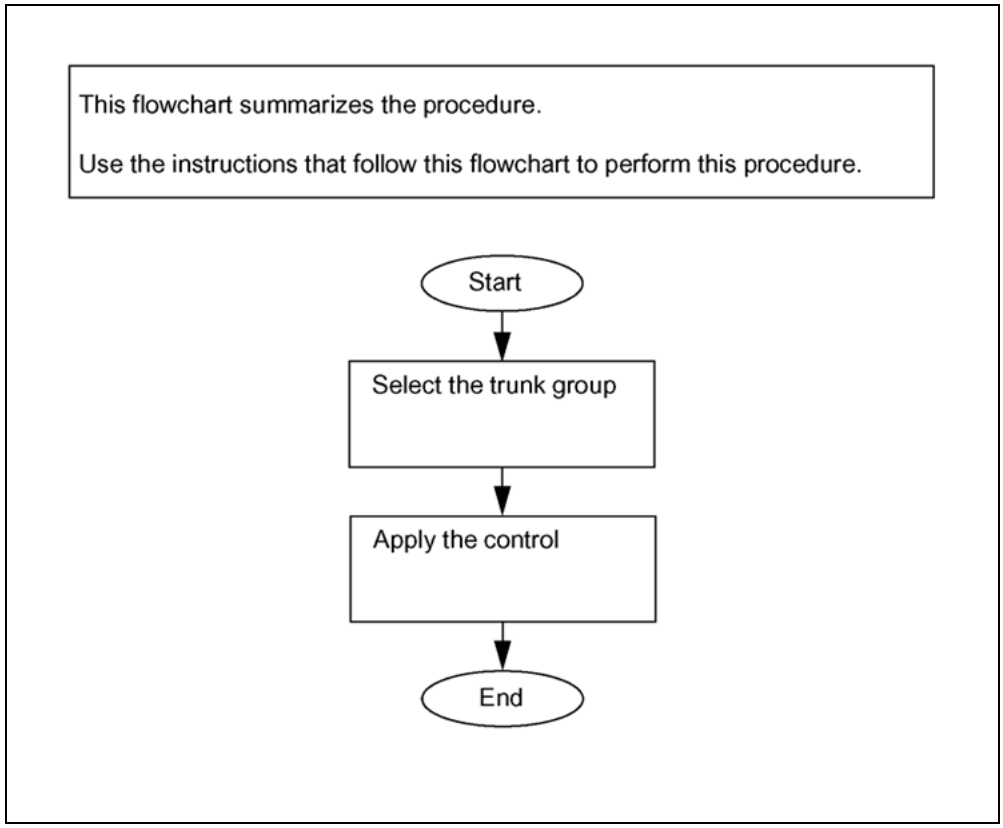
Common procedures

This procedure does not refer to any common procedures.

Action

The following flowchart summarizes this procedure.

Setting the FRR control for a DPT trunk group



Setting the FRR control for a DPT trunk group

Step	Action

At the MAP terminal

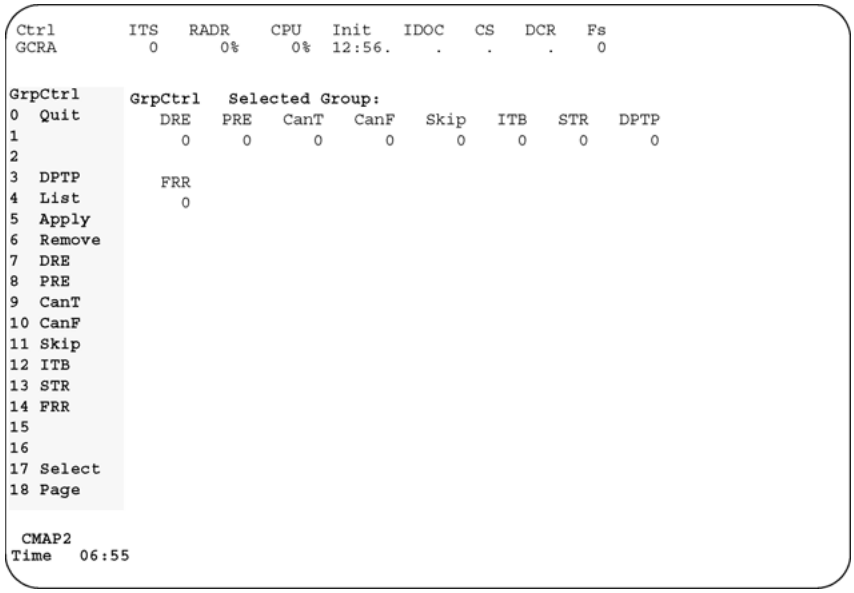
1 Go to the group-control map level. Type

```
>MAPCI;NWM;GRPCTRL
```

and press the Enter key.

Example of system response:

GRPCTRL MAP level



2 Select the DPT trunk group to which you intend to apply the FRR control. Type

>SELECT <clli-name>

and press the Enter key

where

<clli-name> is the clli of the DPT trunk group, as specified in table CLLI

In response, the system displays the clli-name in the "Selected Group" field on the GRPCTRL screen.

3

If SOC OAM00012	Do
has not been implemented, so you can use basic FRR control	step 4
has been implemented, so you can use enhanced FRR control	step 7

4 Specify basic FRR control for the selected DPT trunk group. Type

>APPLY FRR <dr-pct> <ar-pct> <ctrlopt> [<htropt>] [<eaopt>] [<cicropt>] <viaopt>

and press the Enter key

where

<dr-pct> is an integer in the range 1 to 100 specifying a percentage of direct-routed traffic that is to be rerouted

<ar-pct> is an integer in the range 1 to 100 specifying a percentage of alternate-routed traffic that is to be rerouted

<ctrlopt> has one of the following values: IRR, RRR or TRR. The meanings are as follows:

- IRR. Immediate reroute. IRR causes reroutes calls that try to access the controlled trunk group.
- RRR. Regular reroute. RRR reroutes calls that overflow from the controlled trunk group.
- TRR. Table reroute. The TRR option reroutes traffic according to the specifications found in a data schema table. For more information, see the description of the <viaopt> parameter, below.

<htropt> is an optional parameter, and has the value HTR. If you specify HTR, then the specified rerouting applies only to hard-to-reach calls. If you omit HTR, then the specified rerouting applies to all calls.

<eaopt> is an optional parameter, and has one of the following values: EA, NEA, or ALL. The meanings are as follows:

- EA. The rerouting applies only to Equal Access calls.
- NEA. The rerouting applies only to calls other than Equal Access calls.
- ALL. The rerouting applies to both EA and NEA calls.

<cicropt> is an optional parameter, and has the value CICR. If you specify CICR, you cancel in-chain routing. That means that if the out-of-chain route list for a call is exhausted, the system sends the call to treatment. If you do not specify CICR, then if the out-of-chain route list for a call is exhausted, the system then sends the call to following routes in the route list.

<viaopt> specifies the out-of-chain route to which the rerouted calls will be directed, or a sequence of up to seven such routes. The syntax of the <viaopt> parameter depends on the value of the <ctrlopt> parameter, as follows:

- If the <ctrlopt> value is IRR or RRR, the syntax of <viaopt> isVIA <clli1> [<clli2>] [<clli3>] [<clli4>] [<clli5>] [<clli6>] [<clli7>]

  where <clli1> to <clli7> identify the of out-of-chain route or the sequence of such routes to which traffic will be offered. You must specify at least one route. Each out-of-chain route is a trunk group, and each is identified by its CLLI.

- If the <ctrlopt> value is TRR, the syntax of <viaopt> isVIAOFC <office-route-table>

  where <office-route-table> is the data schema table specifying the out-of-chain routes to which the rerouted calls will be directed. You can specify one of the following office route tables: OFRT, OFR2, OFR3, or OFR4. (For information on the office route tables, see *North American DMS-100 Customer Data Schema Reference Manual*, Vol. 8, 297-8001-351, or see *DMS-100 MMP Customer Data Schema Reference Manual*, Vol. 8, 297-9051-351.)

For example, type

```
>APPLY FRR 20 30 IRR NEA CICR VIA ISUPT21 ISUPT22
```

and press the Enter key.

In response, the system increments the value displayed beneath FRR on the GRPCTRL screen, to indicate that FRR control has been applied to an additional trunk group.

5 Tell the system to echo the FRR control that you have specified. Type

```
>LIST FRR <clli-name>
```

and press the Enter key

where

<clli-name> is the clli of the DPT trunk group, as specified in table CLLI

In response, the system lists the specified FRR control.

Example of system response:

GRPCTRL MAP level, listing the basic FRR specification

```
Ctrl        ITS   RADR    CPU   Init   IDOC   CS   DCR   Fs
GCRA          0      0%     0%  12:56.    .    .    .    0

GrpCtrl     GrpCtrl   Selected Group: ISUPT2    ISUPT2   2W
0  Quit        DRE   PRE   CanT   CanF   Skip   ITB   STR   DPTP
1                0     0      0             0     0     0      0
2
3  DPTP        FRR
4  List          1
5  Apply
6  Remove    FRR                                  Page 1 of 1
7  DRE       ============================================
8  PRE       SCLLI   CLLI          DR_Pct     AR_Pct
9  CanT      ISUPT2  ISUPT2         20          30
10 CanF
11 Skip                                 OPTIONS       SOURCE
12 ITB                                IRR NEA CICR     MANUAL
13 STR
14 FRR       VIAS: 1. ISUPT21
15                 2. ISUPT22
16
17 Select
18 Page

 CMAP2
Time   06:55
```

6 Go to step 9.

7 Specify enhanced FRR control for the selected DPT trunk group. Type

>APPLY FRR <etr-dr-pct> <etr-ar-pct> <htr-dr-pct> <htr-ar-pct> <ctrlopt> [<htropt>] [<eaopt>] [<cicropt>] <viaopt> <number-of-CSR-codes> [<CSR-code1> . . . <CSR-code16>]

and press the Enter key

where

<etr-dr-pct> is an integer in the range 1 to 100 specifying a percentage of easy-to-reach direct-routed traffic that is to be rerouted

<etr-ar-pct> is an integer in the range 1 to 100 specifying a percentage of easy-to-reach alternate-routed traffic that is to be rerouted

<htr-dr-pct> is an integer in the range 1 to 100 specifying a percentage of hard-to-reach direct-routed traffic that is to be rerouted

<htr-ar-pct> is an integer in the range 1 to 100 specifying a percentage of hard-to-reach alternate-routed traffic that is to be rerouted

<ctrlopt> has one of the following values: IRR, RRR or TRR. The meanings are as follows:

- IRR. Immediate reroute. IRR causes reroutes calls that try to access the controlled trunk group.
- RRR. Regular reroute. RRR reroutes calls that overflow from the controlled trunk group.
- TRR. Table reroute. The TRR option reroutes traffic according to the specifications found in a data schema table. For more information, see the description of the <viaopt> parameter, below.

<htropt> is an optional parameter, and has the value HTR. If you specify HTR, then the specified rerouting applies only hard-to-reach calls. If you omit HTR, then the specified rerouting applies to all calls.

<eaopt> is an optional parameter, and has one of the following values: EA, NEA, or ALL. The meanings are as follows:

- EA. The rerouting applies only to Equal Access calls.
- NEA. The rerouting applies only to non-EA calls.
- ALL. The rerouting applies to both EA and NEA calls.

<cicropt> is an optional parameter, and has the value CICR. If you specify CICR, you cancel in-chain routing. That means that if the out-of-chain route list for a call is exhausted, the system sends the call to treatment. If you do not specify CICR, then if the out-of-chain route list for a call is exhausted, the system then sends the call to following routes in the route list.

<viaopt> specifies the out-of-chain route to which the rerouted calls will be directed, or a sequence of up to seven such routes. The syntax of the <viaopt> parameter depends on the value of the <ctrlopt> parameter, as follows:

- If the <ctrlopt> value is IRR or RRR, the syntax of <viaopt> isVIA <clli1> [<clli2>] [<clli3>] [<clli4>] [<clli5>] [<clli6>] [<clli7>]

  where <clli1> to <clli7> identify the of out-of-chain route or the sequence of such routes to which traffic will be offered. You must specify at least one route. Each out-of-chain route is a trunk group, and each is identified by its CLLI.

- If the <ctrlopt> value is TRR, the syntax of <viaopt> is VIAOFC <office-route-table>

  where <office-route-table> is the data schema table specifying the out-of-chain routes to which the rerouted calls will be directed. You can specify one of the following office route tables: OFRT, OFR2, OFR3, or OFR4. (For information on the tables, see

North American DMS-100 Customer Data Schema Reference Manual, Vol. 8, 297-8001-351, or see *DMS-100 MMP Customer Data Schema Reference Manual*, Vol. 8, 297-9051-351.)>

<number-of-CSR-codes> specifies the number of code-specific-reroute (CSR) codes. You can specify an integer in the range 0 to 16. If you specify 0, then code-specific routing is not in effect. If you specify an integer in the range 1 to 16, then you must specify that many code-specific-routing specifications, as explained below.

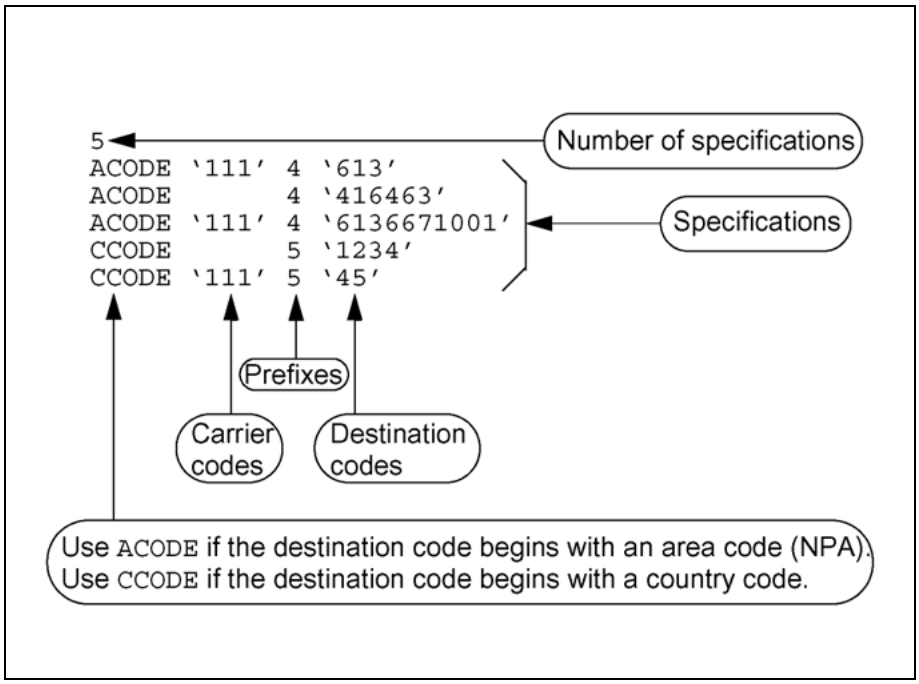
<CSR-code1> to <CSR-code16> are code-specific-routing specifications. The number of code-specific-routing specifications must match the value specified for the <number-of-CSR-codes> parameter. The following table lists the formats for code-specific-rerouting specifications.

Carrier code (CIC)	Prefix	Destination code used for provisioning	Treatment
Blank	5 (Inter-national)	Country_Code+"Blanks"	Applicable to calls going out to other countries. The country code of the destination number is compared to the country code in the CSR specification.
Example: CCODE 5 ’34’			
Blank	4 (National)	NPA+"Blanks"	Applicable to all National calls. The NPA of the called party is compared to the NPA in the CSR specification.
Example: ACODE 4 ’345’			
Blank	4 (National)	NPA+NXX+"Blanks"	Applicable to all National calls. NPA + NXX of the called party is compared to NPA + NXX in the CSR specification.
Example: ACODE 4 ’416463’			
Blank	4 (National)	NPA+NXX+XXXX	Applicable to all National calls. NPA + NXX + XXXX of the called party is compared to NPA + NXX + XXXX in the CSR specification.
Example: ACODE 4 ’1234567890’			
CIC	5 (Inter-national)	Country_Code+"Blanks"	Applicable to calls going out to other countries. The carrier code and country code of the destination number is compared to the carrier code and country code in the CSR specification.
Example: CCODE ’111’ 5 ’45’			

Carrier code (CIC)	Prefix	Destination code used for provisioning	Treatment
CIC	4 (National)	NPA+"Blanks"	Applicable to all National calls. The carrier code and NPA of the called party is compared to the carrier code and NPA in the CSR specification.
Example: ACODE ’111’ 4 ’613’			
CIC	4 (National)	NPA+NXX+"Blanks"	Applicable to all National calls. The carrier code and NPA + NXX of the called party is compared to the carrier code and NPA + NXX in the CSR specification.
Example: ACODE ’133’ 4 ’678345’			
CIC	4 (National)	NPA+NXX+XXXX	Applicable to all National calls. The carrier code and NPA + NXX + XXXX of the called party is compared to the carrier code and NPA + NXX + XXXX in the CSR specification.
Example: ACODE ’222’ 4 ’1234567890’			

The following figure shows a sample code-specific-rerouting specification. The example shows the <number-of-CSR-codes> parameter as well as parameters <CSR-code1> to <CSR-code5>. For clarity, we have put each parameter on a separate line.

Code-specific rerouting specifications for FRR control



For example, to set FRR control for the selected trunk group, type

```
>APPLY FRR 20 30 25 35 IRR NEA CICR VIA ISUPT21 ISUPT22
2 ACODE ’111’ 4 ’613’ ACODE 4 ’416463’
```

and press the Enter key.

In response, the system increments the value displayed beneath FRR on the GRPCTRL screen, to indicate that FRR control has been applied to an additional trunk group.

8 Tell the system to echo the FRR control that you have specified. Type

```
>LIST FRR <clli-name>
```

and press the Enter key

where

<clli-name> is the clli of the DPT trunk group, as specified in table CLLI

In response, the system lists the specified FRR control.

Example of system response:

GRPCTRL MAP level, listing the enhanced FRR specification

```
Ctrl        ITS   RADR    CPU   Init   IDOC   CS   DCR   Fs
GCRA          0      0%     0%  12:56.    .    .     .    0

GrpCtrl
0  Quit
1
2
3  DPTP
4  List
5  Apply
6  Remove
7  DRE
8  PRE
9  CanT
10 CanF
11 Skip
12 ITB
13 STR
14 FRR
15
16
17 Select
18 Page

 CMAP2
Time   06:55
```

```
GrpCtrl   Selected Group: ISUPT2    ISUPT2   2W
   DRE   PRE   CanT   CanF   Skip   ITB   STR   DPTP
     0     0      0              0     0     0      0

   FRR
     1

FRR                                  Page 1 of 1
=============================================
SCLLI   CLLI      ETR_DR_Pct ETR_AR_Pct
ISUPT2  ISUPT2         20         30

HTR_DR_Pct HTR_AR_Pct      OPTIONS      SOURCE
    25         35      IRR NEA CICR     MANUAL

VIAS: 1. ISUPT21
      2. ISUPT22

       CIC_DIGIT   PREFIX      CSR_DESTN_CODE
   1.  111         NC          613
   2.              NC          416463
```

Note: If the list of code-specific-rerouting specifications is too large to fit on the screen, you can use the **PAGE** command to display the rest of the list.

9 You have completed this procedure.

—End—

Removing the FRR control from a DPT trunk group

This procedure contains instructions for removing the FRR (Flexible Reroute) control from a DPT trunk group, using the MAP user interface.

> ***Note:*** An alternative way of removing the FRR control from a DPT trunk group is to use a network-management operations system (NM OS) that communicates with the CS 2000 by way of the EADAS interface. (The EADAS interface is defined in Telcordia Specification TR-746.) To support the enhanced FRR control for DPT trunk groups, Nortel has defined extensions to the EADAS interface. For information on the extensions, contact Nortel. Refer to activity 59028697.

This procedure applies regardless of whether you are using basic or enhanced FFR control.

Interval

Perform this procedure as required.

Prerequisite

You must know the clli of the DPT trunk group from which you intend to remove the FRR control.

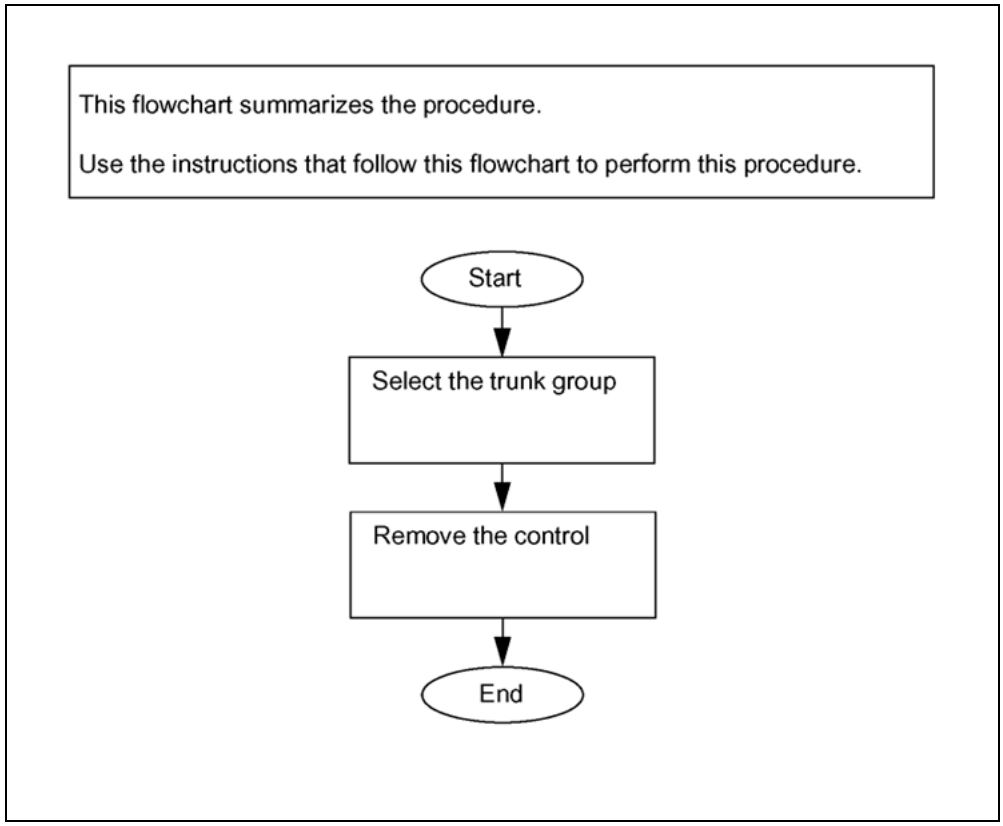
Common procedures

This procedure does not refer to any common procedures.

Action

The following flowchart summarizes this procedure.

Removing the FRR control from a DPT trunk group



Removing the FRR control from a DPT trunk group

Step	Action

At the MAP terminal

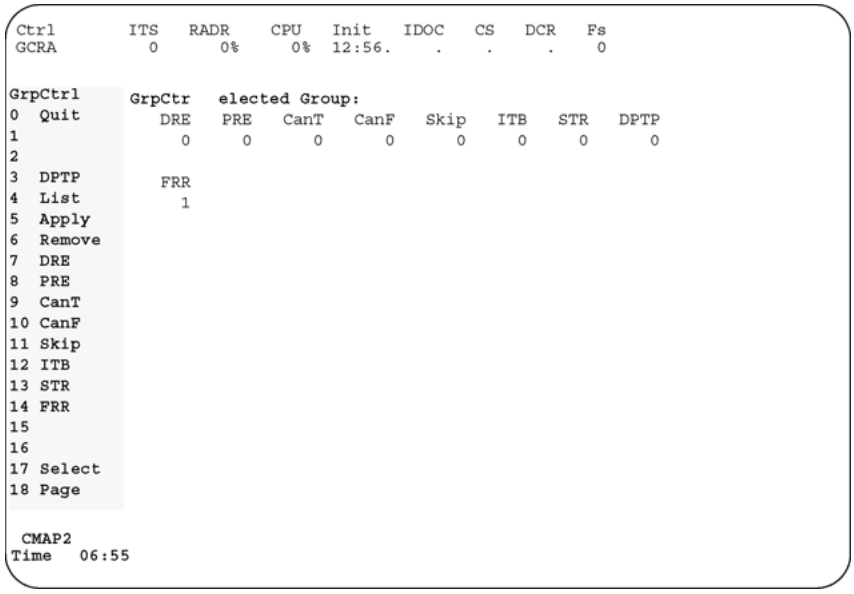
1 Go to the group-control map level. Type

```
>MAPCI;NWM;GRPCTRL
```

and press the Enter key.

Example of system response:

GRPCTRL MAP level



2 Select the DPT trunk group from which you intend to remove the FRR control. Type

>SELECT <clli-name>

and press the Enter key

where

<clli-name> is the clli of the DPT trunk group, as specified in table CLLI

In response, the system displays the clli-name in the "Selected Group" field on the GRPCTRL screen.

3 Remove FRR control from the selected DPT trunk group. Type

>REMOVE FRR

and press the Enter key.

In response, the system decrements the value displayed beneath FRR on the GRPCTRL screen, to indicate that FRR control has been removed from a trunk group.

4 You have completed this procedure.

—End—

Specifying network route advance for DPT and ISUP trunks

To specify network route advance, you enter datafill into the route tables.

Network route advance (NRR) enhances the flexibility of Carrier Voice over IP trunking. It allows calls to complete by way of alternative routes. Without NRR, the calls would fail as a result of local or remote blocking. You specify NRR by adding "CND NRR" specifications and/or "NOT NRR" specifications to route lists.

> ***Note:*** CND means conditional and NRR means network-blocking reroute. For detailed information on CND, NOT, and NRR, see the section describing the OFRT route table in *North American DMS-100 Customer Data Schema Reference Manual*, Vol. 8, 297-8001-351, or in *DMS-100 MMP Customer Data Schema Reference Manual*, Vol. 8, 297-9051-351.

You can specify NRR instructions for rerouting calls blocked over the following types of trunks

- DPT trunks in intertoll (IT) trunk groups
- DPT trunks in access-tandem-to-carrier (ATC) trunk groups
- ISUP trunks in IT trunk groups
- ISUP trunks in access-tandem-to-carrier (ATC) trunk groups

Remote blocking and local blocking

Route advance specifications take effect if calls fail because certain types of blocking occur.

Remote blocking

Remote blocking refers to the scenario in which a call fails to complete, and the switch receives an ISUP release message from a tandem office. The ISUP release message trigger network route advance if the proper datafill exists in table FLXCMAP.

Table FLXCMAP contains one tuple for each ISUP release code, and each tuple contains a RTEADV field. A release code can trigger network route advance only if the RTEADV field in its tuple is set to Y. By default the RTEADV field is set to

- Y for the code associated with the CI_NO_CIRCUIT_AVAILABLE release message
- Y for the code associated with the CI_SWITCHING_EQUIP_CONG release message

- N for all other release codes

If you want network route advance to be triggered by additional ISUP release codes (for example, the codes associated with the CI_RESOURCE_UNAVAILABLE and CI_TEMPORARY_FAILURE release messages), you must edit table FLXCMAP, setting the RTEADV fields for those codes to Y. For instructions, see "Editing FLXCMAP to allow a release code to trigger network route advance" (page 355).

Local blocking

Local blocking refers to the scenario in which a call fails to complete because of the unavailability of routes leaving the local switch.

Example without network route advance

Here is an example showing how certain calls may be blocked if you do not specify network route advance. Suppose that a call comes in an a DPT intertoll trunk and needs to be routed to its destination. The system tries to route the call according to the instructions in the route list.

<route-reference-index> <element1> <element2> . . . <element8> $

> ***Note:*** For detailed information on route-list specifications, see the section describing the OFRT route table in *North American DMS-100 Customer Data Schema Reference Manual*, Vol. 8, 297-8001-351, or in *DMS-100 MMP Customer Data Schema Reference Manual*, Vol. 8, 297-9051-351.

For example, suppose the route list for the DPT intertoll trunk contains three elements, as follows:

371 (N D dptitlog1 3 621 N) (S D dptitlog2) (N D ALTTOGS7 3 621 N) $

The system tries to route the call by way of the trunk specified by the first element in the route list. If, in response, the system receives a release message saying that remote blocking has occurred, then the call goes to treatment.

Example with network route advance

Here is an example showing how the same call is rerouted if network route advance has been specified.

Suppose that we have modified the route list by adding a network-route-advance specification. The specification follows the route-list element that it refers to. In this case it follows the first element. The modified route list is as follows:

371 (N D dptitlog1 3 621 N) (CND NRR SK 1) (S D dptitlog2) (N D ALTTOGS7 3 621 N) $

The system tries to route the call by way of the trunk specified by the first element in the route list. If, in response, the system receives a release message saying that remote blocking has occurred, then the system reroutes the call according to the routing option in the network-route-advance specification. In this case the routing option is "SK 1", which instructs the system to skip one element in the route list.

Network-route-advance specifications

There are two types of network -route-advance specifications: CND NRR and NOT NRR.

CND NRR for remote blocking

The CND NRR specification takes effect when remote blocking occurs.

For example, suppose that we have the following route list.

371 (N D dptitlog1 3 621 N) (CND NRR ST 400 4) (S D dptitlog2) (N D ALTTOGS7 3 621 N) $

The CND NRR specification takes effect only if the system tries to route the call by the preceding route, and receives a message indicating that the call has failed because of remote blocking. (The CND NRR specification in the example directs the system to try to route the call by way of the routes in route list 400 in the current route table.) If the call fails for any reason other than remote blocking, the system proceeds to try to route the call by way of the next route in the route list.

NOT NRR for local blocking

The NOT NRR specification takes effect when local blocking occurs.

For example, suppose that we have the following route list.

371 (N D dptitlog1 3 621 N) (NOT NRR ST 600) (S D dptitlog2) (N D ALTTOGS7 3 621 N) $

The NOT NRR specification takes effect only if the system tries to route the call by the preceding route, and the call fails because of local blocking. (The NOT NRR specification in the example directs the system to try to route the call by way of the routes in route list 600 in the current route table.) If the call fails for any reason other than local blocking, the system proceeds to try to route the call by way of the next route in the route list.

NOT NRR and CND NRR

It is permitted to specify both NOT NRR and CND NRR specifications one after the other in a route list.

> ***Note:*** We do not recommend this because it can be confusing and unnecessary.

For example, suppose that we have the following route list.

371 (N D dptitlog1 3 621 N) (CND NRR ST 400 4) (NOT NRR ST 600) (S D dptitlog2) (N D ALTTOGS7 3 621 N) $

If the system tries the first route in the list and if remote blocking occurs, the system then reroutes the call according to the CND NRR specification, that is, it transfers control to the route list 400 in the current route table.

If we change the route list by putting the NOT NRR specification before the CND NRR specification, we get the same result when remote blocking occurs. The system reroutes the call according to the CND NRR specification, that is, it transfers control to the route list 400 in the current route table

Syntax of NRR specifications

The formats of the NRR specifications are as follows

(CND NRR <routing-option>)

(NOT NRR <routing-option>)

There are three routing options, as follows:

- The "T" option transfers control to a route list in another route table.
- The "ST" (same table) option transfers control to a higher-numbered route list in the current route table.
- The "SK" (skip) transfers control to another element in the current route list. The system skips the specified number of elements.

Routing option T

For routing-option T, the format is **`T <route-table> <route-ref.-index>`**

where

`<route-table>` is the name of a route table.
`<route-ref.-index>` is the route reference index number of the route list

Here is an example of a route list that contains the T routing option:

371 (N D dptitlog1 3 621 N) (CND NRR T OFR3 40) (S D dptitlog2) (N D ALTTOGS7 3 621 N) $

If remote blocking occurs, the CND NRR specification will transfer control to route list 40 in the OFR3 route table.

Routing option ST

For routing-option ST, the format is **ST <route-ref.-index>**

where

<route-ref.-index> is the route reference index of the route list. The route list must have a higher index number than the current route list.

Here is an example of a route list that contains the ST routing option:

371 (N D dptitlog1 3 621 N) (CND NRR ST 797) (S D dptitlog2) (N D ALTTOGS7 3 621 N) $

If remote blocking occurs, the CND NRR specification will transfer control to route list 797 in the current route table.

Routing option SK

For routing-option SK, the format is **SK <number>**

where

<number> is the number of elements to skip. The number can be in the range 0 to 7

Here is an example of a route list that contains the SK routing option:

371 (N D dptitlog1 3 621 N) (CND NRR SK 1) (S D dptitlog2) (N D ALTTOGS7 3 621 N) $

If remote blocking occurs, the CND NRR specification will skip one route and transfer control to the route specified by "(N D ALTTOGS7 3 621 N)" in the current route list.

Tables in which you can use CND NRR and NOT NRR

You can include CND NRR specifications and/or NOT NRR specifications in route lists in the following tables:

- IBN route tables:
  - IBNRTE
  - IBNRT2
  - IBNRT3

  - IBNRT4

- office route tables:
  - OFRT
  - OFR2
  - OFR3
  - OFR4

- subtable RTEREF of table HNPACONT (home NPA route reference subtable)
- subtable RTEREF of table FNPACONT (foreign NPA route reference subtable)
- Universal Route tables:
  - ACRTE (access route table)
  - CTRTE (country code route table)
  - FARTE (foreign area code route table)
  - FTRTE (utility code route table)
  - NSCRTE (number service code route table)
  - OFCRTE (office code route table)
  - PXRTE (prefix code route table)

Configuration example

The following example provides a high-level description of the steps required to provision network route advance for Carrier Voice over IP trunks. The flexibility of the route tables allows for multiple means of datafilling the NRR specifications. Here we present one example, in which we configure DPTs as the primary route and Carrier Voice over IP ISUP trunks as the alternate routes. Note that it is optional to configure DPTs as the first route.

1. In table CLLI, provision the DPT and Carrier Voice over IP ISUP trunk groups.

2. In table TRKGRP, provision the trunk-group data for the DPT trunk group and the Carrier Voice over IP ISUP trunk group.

3. In table TRKSGRP provision the trunk-subgroup data for the DPT trunk group and the Carrier Voice over IP ISUP trunk group.

4. In table TRKOPTS, specify the following things for the DPT trunk group: the signaling is BICC; the bearer network is ATM; the application is DPT.

5. In table TRKMEM provision the members of the Carrier Voice over IP ISUP trunk group. (Note that the Carrier Voice over IP ISUP trunks can reside on MG 4000s or on DPT-SPMs.)

6. In table C7TRKMEM provision the CIC data for the Carrier Voice over IP ISUP trunk group members.

7. In table DPTRKMEM, provision the CIC data for the DPT trunk group.

8. In table ISUPDEST, provision the routeset data for the DPT trunk group and for the Carrier Voice over IP ISUP trunk group.

9. In table HNPACONT, subtables RTEREF and HNPACODE, provision the primary DPT route and the subsequent alternate Carrier Voice over IP ISUP routes to handle remote blocking (using a CND NRR specification). The CND NRR specification routes calls to TDM ISUP routes.

10. If you want network route advance to be triggered by ISUP release codes in addition to CI_NO_CIRCUIT_AVAILABLE and CI_SWITCHING_EQUIP_CONG, you must edit table FLXCMAP. For instructions, see "Editing FLXCMAP to allow a release code to trigger network route advance" (page 355).

Editing FLXCMAP to allow a release code to trigger network route advance

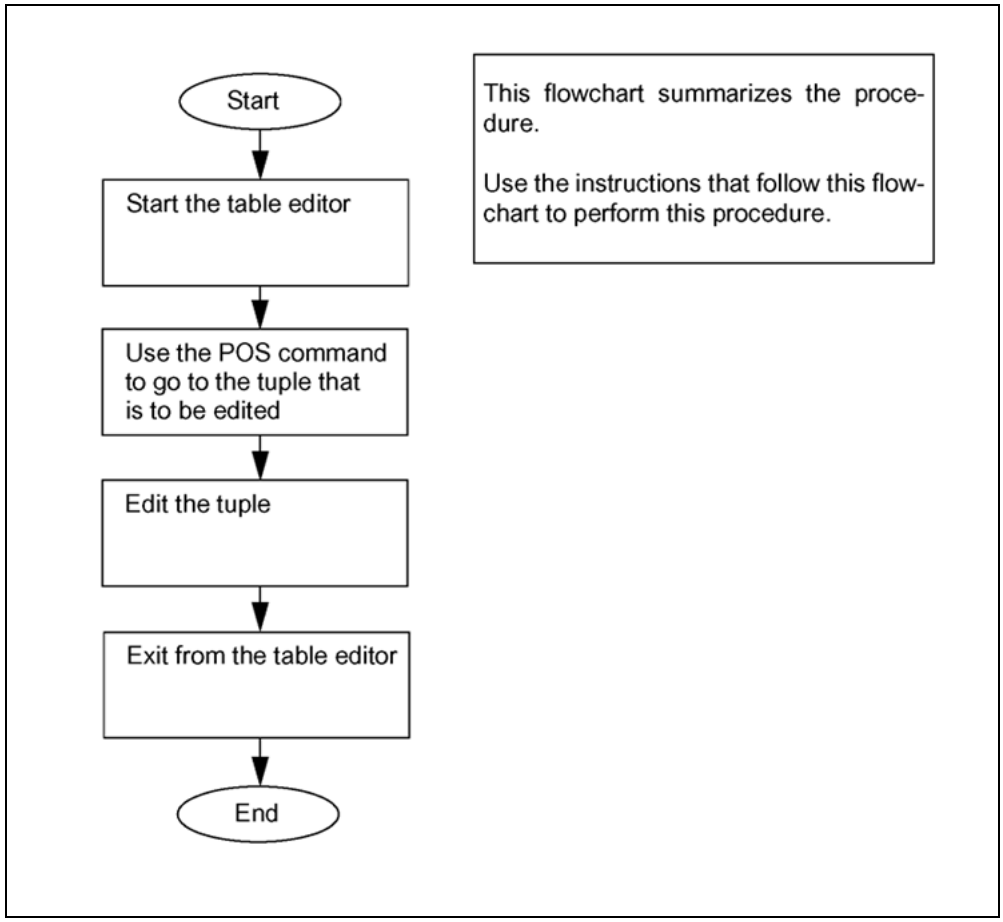
Prerequisite. You can edit table FLXCMAP only if you have obtained SOC ISP70008.

If you want to allow an ISUP release code to trigger network route advance, then you must edit table FLXCMAP. The table contains one tuple for each release code. You must edit the RTEADV field in the appropriate tuple. RTEADV is the final field in the tuple. You must change the value of RTEADV from N to Y.

> ***Note:*** For information on table FLXCMAP, see *North American DMS-100 Customer Data Schema Reference Manual*, Vol. 4, 297-8001-351, or *DMS-100 MMP Customer Data Schema Reference Manual*, Vol. 4, 297-9051-351.

The following flowchart summarizes this procedure.

Editing FLXCMAP to allow a release code to trigger network route advance



Editing FLXCMAP to allow a release code to trigger network route advance

Step	Action

At the MAP terminal

1 Start the table editor. At the user interface prompt on any MAP screen type.

```
>TABLE FLXCMAP
```

and press the Enter key.

Example of system response:

```
TABLE: FLXCMAP
```

2 Use the POS command to move to the tuple that you want to edit. Type

```
>POS <CSEMPKEY-value>
```

and press the Enter key.

where

<CSEMPKEY-value> is the key value identifying the tuple

For example, if you want to permit network route advance to occur when the system receives the CI_TEMPORARY_FAILURE release message, you must edit the tuple for the TEMPFAIL release code. In this case, you must type

```
>POS TEMPFAIL CCITT_STANDARD
```

Example of system response, continuing the example:

```
TEMPFAIL  CCITT_STANDARD  CHNF  N
```

3 Indicate that you intend to change the tuple. Type

```
>CHA
```

and press the Enter key.

In response, the system prompts you to supply a new value for each field in the tuple, one field at a time. For each field you can specify a new value, or you can just press the Enter key to retain the existing value.

In this case you want to change only the final field. The proper sequence of prompts and responses is as follows:

```
TREAT: CHNF

>

RTEADV: N

>Y
```

After obtaining the edited field values, the system responds as follows.

Example of system response:

```
TUPLE TO BE CHANGED:
TEMPFAIL  CCITT_STANDARD  CHNF  Y
ENTER Y TO CONFIRM, N TO REJECT OR E TO EDIT.
```

4 Confirm the change. Type

```
>Y
```

and press the Enter key.

Example of system response:

```
TUPLE CHANGED:
WRITTEN TO JOURNAL FILE AS JF NUMBER 876
```

5 Exit from the table editor. Type

```
>QUIT
```

and press the Enter key.

6 You have completed the procedure.

—End—

Specifying Route List Selection Based on Originating Network Fabric

You use routing options to specify routing instructions that will apply to traffic only if that traffic originated on a certain network fabric, or on a particular bearer network.

You can use the following routing options in route tables

- FABRIC. You can use this option to specify that the fabric of the originating agent's bearer network should determine the next route in the route list. You can use this option to select specific routing of a call based on the fabric of the originator. The syntax of the option is as follows: **FABRIC <fabric-type>**. The legal values for <fabric-type> are the same values that you can specify in the FABRIC field in table BEARNETS.
- BEARNET. You can use this option to specify that the originating agent's bearer network should determine the next route in the route list. You can use this option to keep a call on a particular bearer network. The syntax of the option is as follows:
  BEARNET <bnetname>. The legal values for <bnetname> are the values you specify in the tuples of table BEARNETS, in the BNETNAME field.

You can use the FABRIC and BEARNET options in all tables with route lists. You can use FABRIC or BEARNET following the CND routing selector or following the NOT routing selector.

Example without route-list selection based on fabric or bearer network

Here is an example showing how a call from an ENET-based originator (trunk or line) might be routed. The system tries to route the call according to the instructions in the route list.

<route-reference-index> <element1> <element2> . . . <element8> $

> ***Note:*** For detailed information on route-list specifications, see the section describing the OFRT route table in the *North American DMS-100 Customer Data Schema Reference Manual* (297-8001-351 Vol. 8) or in *DMS-100 MMP Customer Data Schema Reference Manual* (297-9051-351 Vol. 8).

For example, suppose the route list contains two elements, as follows:

219 (S D MYSIPGRP) (S D MYTDMGRP) $

The system tries to route the call by way of the trunk specified by the first element in the route list. If the call originated on an ENET-based originator (trunk or line), the system will nevertheless route the call to a packet trunk.

Use of the FABRIC option with the CND routing selector

Here is an example showing the use of the FABRIC option with the CND routing selector.

Suppose that we have specified CND FABRIC in the first element in the route list.

221 (CND FABRIC ENET SK 1) (S D MYSIPGRP) (S D MYTDMGRP) $

If the call originated on an ENET-based originator (trunk or line), the system skips the second element of the route list, and routes the call to the TDM trunk group specified in the third element.

Note: The example uses the SK (skip) routing option. For more information on routing options, see "Routing options that can be used with FABRIC and BEARNET" (page 362) in this module.

Use of the FABRIC option with the NOT routing selector

Here is an example showing the use of the FABRIC option with the NOT routing selector.

Suppose that we have specified NOT FABRIC in the first element of the route list:

274 (NOT FABRIC ENET SK 1) (S D MYTDMGRP) (S D MYSIPGRP) $

If the call did not originate on an ENET-based originator (trunk or line), the system skips the second element of the route list, and routes the call to the SIP-T trunk group specified in the third element. If the call originated on an ENET-based originator, the system routes the call to the TDM trunk group specified in the second element. (If that routing fails, then the system routes the call to the SIP-T trunk group specified in the third element.)

Note: The example uses the SK (skip) routing option. For more information on routing options, see "Routing options that can be used with FABRIC and BEARNET" (page 362) in this module.

Use of the BEARNET option with the CND routing selector

Here is an example showing the use of the BEARNET option with the CND routing selector.

Suppose that we have specified CND BEARNET in the first element in the route list.

221 (CND BEARNET TDM_ENET SK 1) (S D MYSIPGRP) (S D MYTDMGRP) $

If the call originated on a trunk or line on the TDM_ENET bearer network, the system skips the second element of the route list, and routes the call to the TDM trunk group specified in the third element.

Note 1: This example assumes that you have specified that TDM_ENET is the name of a bearer network. You specify the name in field BNETNAME of table BEARNETS.

Note 2: The example uses the SK (skip) routing option. For more information on routing options, see "Routing options that can be used with FABRIC and BEARNET" (page 362) in this module.

Use of the BEARNET option with the NOT routing selector

Here is an example showing the use of the BEARNET option with the NOT routing selector.

Suppose that we have specified NOT BEARNET in the first element in the route list:

274 (NOT BEARNET TDM_ENET SK 1) (S D MYTDMGRP) (S D MYSIPGRP) $

If the call did not originate on a trunk or line on the TDM_ENET bearer network, the system skips the second element of the route list, and routes the call to the SIP-T trunk group specified in the third element. If the call originated on a trunk or line on the TDM_ENET bearer network, the system routes the call to the TDM trunk group specified in the second element. (If that routing fails, then the system routes the call to the SIP-T trunk group specified in the third element.)

Note 1: This example assumes that you have specified that TDM_ENET is the name of a bearer network. You specify the name in field BNETNAME of table BEARNETS.

Note 2: The example uses the SK (skip) routing option. For more information on routing options, see "Routing options that can be used with FABRIC and BEARNET" (page 362) in this module.

Routing options that can be used with FABRIC and BEARNET

In conjunction with the FABRIC or BEARNET routing option, you can use other routing options to tell the system what to do as a result of its evaluation of the fabric or the bearer network.

In the examples in this document, we have used the SK routing option, as in

(CND BEARNET TDM_ENET SK 1)

Here, "SK 1" instructs the system to skip one element in the route list.

There are three routing options, as follows:

- The "T" option transfers control to a route list in another route table.
- The "ST" (same table) option transfers control to a higher-numbered route list in the current route table.
- The "SK" (skip) transfers control to another element in the current route list. The system skips the specified number of elements.

Routing option T

For routing-option T, the format is **`T <route-table> <route-ref.-index>`**

where

`<route-table>` is the name of a route table.
`<route-ref.-index>` is the route reference index number of the route list

Here is an example of a route list that contains the T routing option:

219 (CND FABRIC ENET T OFR3 70) (S D SIPGRP3) (S D SIPGRP4) $

Routing option ST

For routing-option ST, the format is **`ST <route-ref.-index>`**

where

`<route-ref.-index>` is the route reference index of the route list. The route list must have a higher index number than the current route list.

Here is an example of a route list that contains the ST routing option:

220 (CND FABRIC ENET ST 250) (S D SIPGRP1) (S D SIPGRP2) $

Routing option SK

For routing-option SK, the format is **`SK <number>`**

where

<number> is the number of elements to skip. The number can be in the range 0 to 7

Here is an example of a route list that contains the SK routing option:

221 (CND FABRIC ENET SK 1) (S D MYSIPGRP) (S D MYTDMGRP) $

Provisioning Conference Support in a Packet-Based Network

This procedure contains instructions for entering datafill into the data schema tables of the XA-Core to support MS2000/UAS-based conferencing in a hybridconcurrent configuration of a Packet MSC network (containing TDM-based peripherals and packet-based peripherals) or in a non-hybridgateway or serving configuration of a Packet MSC network (containing packet-based peripherals only).

The general recommendation for hybrid offices is to have TDM-based circuits only, because these circuits can be used by both TDM and packet-based agents. The interworking of packet-based agents and TDM conference circuits across an IW/SPM bridge is supported. The reverse interworking of TDM agents and packet-based conference circuits is not supported.

The MS2000/UAS can support three-way and six-way conferences, and large conferences with up to 30 members. The procedure provides sample input values for illustrative purposes. The data schema tables are listed in the sequence in which you must enter the datafill.

If the CS 2000 connects to two or more packet bearer networks, then you must not try to use MS2000/UAS conferencing as described in this module. This is true regardless of whether the multiple packet bearer networks use the same fabric or different fabrics. If the CS 2000 connects to two or more packet bearer networks, the ENET-based MTM provides all conferencing (as well as announcements and test facilities). Each packet bearer network must have connectivity to the ENET network in order to obtain conference ports (as well as announcements and test facilities). If a packet bearer network does not have such connectivity, then on that network, services that require these facilities will fail.

ATTENTION

Nortel only supports the Universal Audio Server in MTX14 for existing MTX13 Packet MSC customers that already use the Universal Audio Server and upgrade to MTX14.

If the MSC Server 1000 connects to two or more packet bearer networks, then you cannot use MS2000/UAS conferencing as described in this module. This is true regardless of whether the multiple packet bearer networks use the same fabric or different fabrics. If the MSC Server 1000 connects to two or more packet bearer networks, the ENET-based MTM provides all conferencing (as well as announcements and test facilities). Each packet bearer network must have connectivity to the ENET network in order to obtain conference ports (as well as announcements and test facilities). If a packet bearer network does not have such connectivity, then on that network, services that require these facilities will fail.

Enhancements to MS2000/UAS-supported conferences

In SN05 and subsequent releases, tThe MS2000/UAS supports large conferences, that is, conferences of up to 30 members. Large conferences are supported for

- Station Controlled Conferencing (SCC)
- the following types of MeetMe Conferencing:
  - FLASHONLY
  - CODEONLY
  - CNF6ADDON
  - CODEADDON

ATTENTION

STD Meet Me Conferencing is not supported.

To support large conferences, you do not need to do special provisioning in the CS 2000MSC Server 1000. You need only provision the SCC, MeetMe, or PC conferencing features in the usual way.

If a large conference is supported by a MS2000/UAS, it is not possible to guarantee with absolute certainty that sufficient MS2000/UAS ports will always be available to allow additional persons to join the conference. If an additional person tries to join a large conference at a time when a MS2000/UAS port is not available, the system provides treatment (a reorder tone) to the user and leaves the existing conference intact.

ATTENTION

If the resource allocation allows for the creation of conferences with more than six members, and if the attempt to add member (n+1) causes member (n+1) and member n to be dropped, (where n is 6 or 10 or 14 or 18 or 22 or 26), that indicates a problem in the datafill. To correct the problem, you must adjust the resources specified for three-port and/or six-port conferences. Adjust the resources by following the instructions in this procedure.

Interval

Perform this procedure as required.

Prerequisites

Prerequisites for provisioning conference resources in a packet-based network are as follows:

- Before you begin this procedure, you must know the name of the gateway controller (GWC). Examples of GWC names are GWC 0, GWC 1, and GWC 2. You specify the GWC name when you configure the GWC.

For information on configuring gateway controllers, see *GWC Configuration Management* (NN10205-511).

- Before you begin this procedure, you must decide whether you intend to support three-way conferencing, six-way conferencing, or both.
- Before you begin this procedure, you must know the number of MS2000/UAS terminal identifiers (TID) that you intend to provision for each type of conferencing. You must work within the following limits:
  - The maximum total number of terminal identifiers you can provision for three-way and six-way conferencing is 3174. (See the note at the end of this list.)
  - You can provision up to 3174 terminal identifiers for three-way conferencing. This enables the system to support 1058 three-way conferences.
  - You can provision up to 2046 terminal identifiers for six-way conferencing. This enables the system to support 641 six-way conferences, and leaves 1128 terminal identifiers that can be used to support three-way conferencing, representing 376 three-way conferences.

In releases prior to SN05 release, you were able to provision additional conference ports for MS2000/UAS-supported three-way conferencing by way of the AUD tuple in table CONF3PR. In SN05 and subsequent releases, this is no longer supported.

To find out the number of terminal identifiers required for each type of conference, see the information about the various conference types found in the following documents. If you are in the North American market, see *North American DMS-100 Customer Data Schema Reference Manual* (297-8001-351) and *North American DMS-100 Family Translations Guide* (297-8001-350). If you are in the international market, see *DMS-100 MMP Customer Data Schema Reference Manual* (297-9051-351) and *DMS-100 MMP Translations Guide* (297-9051-350).

ATTENTION

For information about determining the number of terminal identifiers (TID) required for each type of conference, see the information about the various conference types found in *North American DMS-100 Customer Data Schema Reference Manual* (297-8001-351).

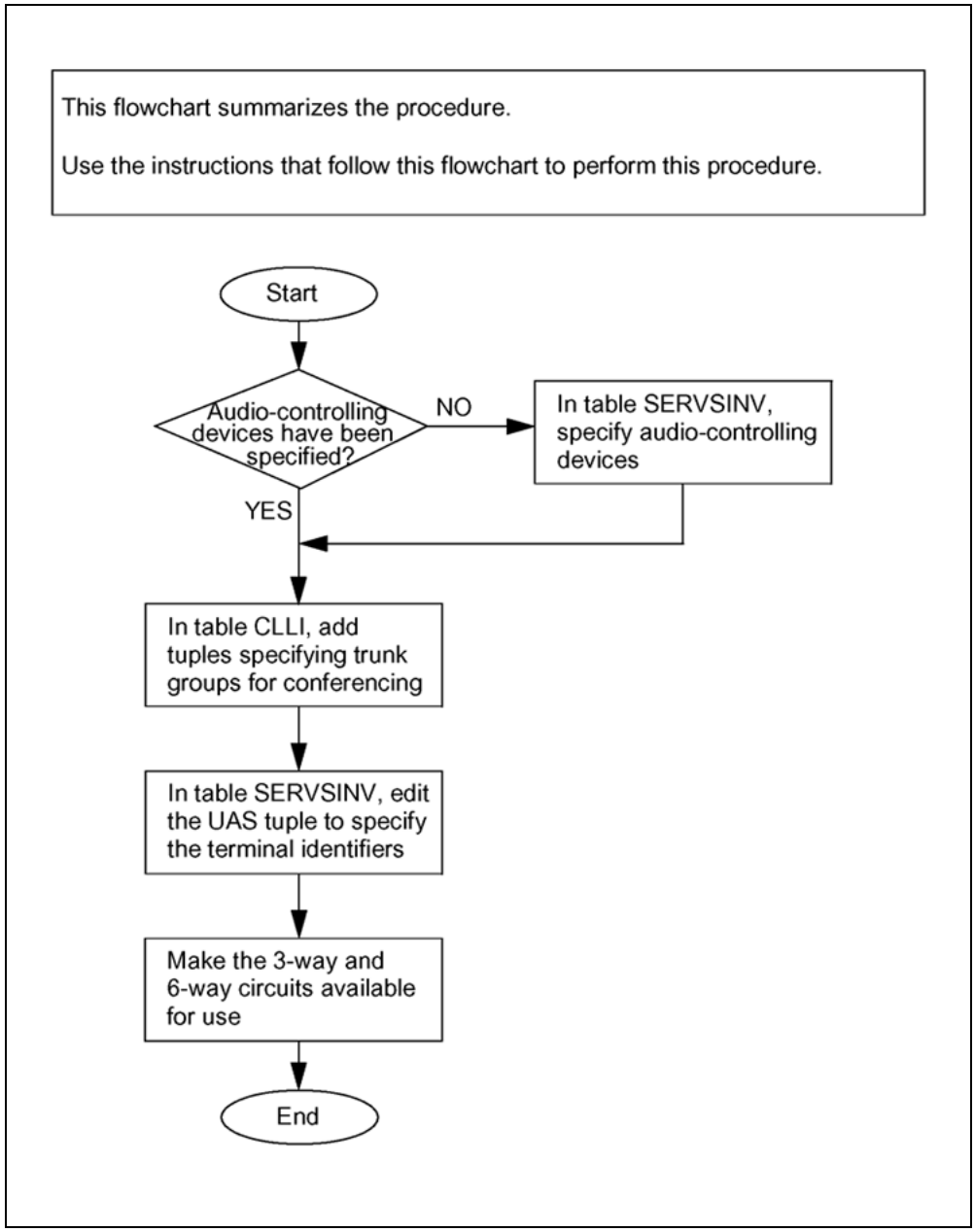
Common procedures

This procedure does not refer to any common procedures.

Action

The following flowchart summarizes this procedure.

Provisioning conference resources in a packet-based network



Provisioning conferencing resources in a packet-based network

Step	Action

At the MAP terminal

1

If	Do
The MS2000s/UASs have not yet been specified in table SERVSINV	step 2
The MS2000s/UASs have already been specified in table SERVSINV	step 3

2 Use the table editor to add one or more tuples to table SERVSINV. Each tuple specifies an audio-controlling device.

ATTENTION
You must specify a separate audio-controlling device for each GWC that is configured to serve MS2000/UAS devices. The system can include multiple GWCs, and each one can serve multiple MS2000/UAS devices.

Proceed as follows.

a. Start the table editor. Type

>TABLE SERVSINV

and press the Enter key

Example of system response:

```
TABLE: SERVSINV
```

b. Indicate that you intend to add a tuple. Type

>ADD

and press the Enter key

Example of system response:

```
SRVSNAME:
```

c. Specify the value for the SRVSNAME field. Type

>AUD <pm-number>

and press the Enter key

where

AUD specifies the audio-controlling segment of the GWC

<pm-number> is an integer in the range 0 to 255, representing the unique peripheral-module number of the audio-controlling device

ATTENTION
For information on audio-controlling devices, see the note at the beginning of step 2.

Example of system response:

```
SRVRNAME:
```

d. Specify the value for the SRVRNAME (server name) field. This is the name of the gateway controller. Type

>GWC <n>

and press the Enter key

where

<n> is an integer

ATTENTION

For information on the gateway-controller name, see the "Prerequisites" (page 365) section of this procedure.

Example of system response:

```
NUMTERMS:
```

e. Specify the value for the NUMTERMS (number of terminals) field. Type

> <number>

and press the Enter key

where

<number> is 1024, 2048, or 4095

ATTENTION

Nortel recommends setting this variable to 4095.

Example of system response:

```
OPTIONS:
```

f. Indicate that there are no options to specify. Type

>$

and press the Enter key

Example of system response:

```
TUPLE TO BE ADDED:
AUD 4  GWC 1  4095  $
ENTER Y TO CONFIRM, N TO REJECT OR E TO EDIT.
```

g. Confirm the addition. Type

>Y

and press the Enter key

Example of system response:

```
TUPLE ADDED.
```

h.

If	Do
you need to specify another audio-controlling device	repeat step 2b to step 2g
you have specified all the audio-controlling devices	proceed to step 2i

ATTENTION

For information on audio-controlling devices, see the attention box at the beginning of step 2.

i. Exit from the table editor. Type

```
>QUIT
```

and press the Enter key

3 Use the table editor to add one or more tuples to table CLLI. You add tuples for trunk groups. The trunk groups are for the circuits that support conferencing. For three-way conferencing you must specify one or two trunk groups, depending on the number of circuits. For six-way conferencing you specify one trunk group.

Proceed as follows.

a. Start the table editor. Type

```
>TABLE CLLI
```

and press the Enter key

Example of system response:

```
TABLE: CLLI
```

If	Do
you want to provision three-way conferencing	proceed to step 3b
you do not want to provision three-way conferencing	proceed to step 3n

b. Indicate that you intend to add a tuple. Type

```
>ADD
```

and press the Enter key

Example of system response:

```
CLLI:
```

c. Specify the CLLI name for the first trunk group for three-way conferencing circuits. Type

>UASCF3P

and press the Enter key

Example of system response:

```
ADNUM:
```

d. Specify the administrative trunk-group number. Type

> <number>

and press the Enter key

where

<number> is an integer in the range 0 to 8191, and is unique to the CLLI

Example of system response:

```
TRKGRSIZ:
```

e. To specify the number of terminal identifiers to support three-way conferencing, type:

> <number>

and press the Enter key

where

<number> is a multiple of three, maximum value 2046

ATTENTION

If you want to provision a total of more than 2046 terminal identifiers for three-way conferencing, you will need to add another tuple to table CLLI, following the instructions in step 3h to step 3m.

For example, type

>2046

and press the Enter key

Example of system response:

```
ADMININF:
```

f. To specify the administrative information for the trunk group (a description for information purposes), type

> <info>

and press the Enter key

where

<info> is an alphanumeric string up to 32 characters in length

For example, type

>1stTrunkGroupFor3wayConf

and press the Enter key

Example of system response:

```
TUPLE TO BE ADDED:
UASCF3P 220 2046 1stTrunkGroupFor3wayConf
ENTER Y TO CONFIRM, N TO REJECT OR E TO EDIT.
```

g. Confirm the addition. Type

>Y

and press the Enter key

Example of system response:

```
TUPLE ADDED.
```

If	Do
you do not want to provision any further terminals for conferencing	proceed to step 3t
you want to provision more than 2046 terminals for three-way conferencing	proceed to step 3h
you do not want to provision any further terminals for three-way conferencing, but you do want to provision six-way conferencing	proceed to step 3n

h. Indicate that you intend to add a tuple. Type

>ADD

and press the Enter key

Example of system response:

```
CLLI:
```

i. Specify the CLLI name for the second trunk group for three-way conferencing circuits. Type

>UASCF3PX

and press the Enter key

Example of system response:

```
ADNUM:
```

j. Specify the administrative trunk-group number. Type

> <number>

and press the Enter key

where

<number> is an integer in the range 0 to 8191, and is unique to the CLLI

Example of system response:

```
TRKGRSIZ:
```

k. Specify the number of terminal identifiers to support three-way conferencing. Type

> <number>

and press the Enter key

where

<number> is a multiple of three, maximum value 1128

For example, type

>48

and press the Enter key

ATTENTION

The 2046 terminal identifiers specified in step 3e will support 682 three-way conferences; the 48 terminal identifiers specified in this substep will support 16 additional three-way conferences.

Example of system response:

```
ADMININF:
```

l. Specify the administrative information for the trunk group. (This is a description for information purposes.) Type

> <info>

and press the Enter key

where

<info> is an alphanumeric string up to 32 characters in length

For example, type

>2ndTrunkGroupFor3wayConf

and press the Enter key

Example of system response:

```
TUPLE TO BE ADDED:
UASCF3P 221 48 2ndTrunkGroupFor3wayConf
ENTER Y TO CONFIRM, N TO REJECT OR E TO EDIT.
```

m. Confirm the addition. Type

>Y

and press the Enter key

Example of system response:

```
TUPLE ADDED.
```

It	Do
you want to provision six-way conferencing	proceed to step 3n
you do not want to provision six-way conferencing	proceed to step 3t

n. Indicate that you intend to add a tuple. Type

>ADD

and press the Enter key

Example of system response:

```
CLLI:
```

o. Specify the CLLI name for the trunk group for six-way conferencing circuits. Type

>UASCF6P

and press the Enter key

Example of system response:

```
ADNUM:
```

p. Specify the administrative trunk-group number. Type

> <number>

and press the Enter key

where

<number> is an integer in the range 0 to 8191, and is unique to the CLLI

Example of system response:

```
TRKGRSIZ:
```

q. Specify the number of terminal identifiers to support six-way conferencing. Type

> <number>

and press the Enter key

where

<number> is a multiple of six, with a maximum value that is the lesser of the following: 2046; the difference between 3174 and the total number of terminal identifiers specified for 3-way conferencing in step 3e and step 3k.

For example, type

>1080

and press the Enter key

ATTENTION

1080 terminal identifiers will support 180 six-way conferences. 1080 is the difference between 3174 and the total number of terminal identifiers specified for 3-way conferencing in step 3e and step 3k.

Example of system response:

```
ADMININF:
```

r. Specify the administrative information for the trunk group. (This is a description for information purposes.) Type

> <info>

and press the Enter key

where

<info> is an alphanumeric string up to 32 characters in length

For example, type

>TrunkGroupFor6wayConf

and press the Enter key

Example of system response:

```
TUPLE TO BE ADDED:
UASCF6P 222 1080 TrunkGroupFor6wayConf
ENTER Y TO CONFIRM, N TO REJECT OR E TO EDIT.
```

s. Confirm the addition. Type

>Y

and press the Enter key

Example of system response:

```
TUPLE ADDED.
```

t. Exit from the table editor. Type

>QUIT

and press the Enter key

4 Use the table editor to edit the tuple for the MS2000/UAS in table SERVSINV.

ATTENTION

You will edit a tuple that specifies the audio-controlling device for the MS2000/UAS. For each MS2000/UAS, table SERVSINV has a separate tuple specifying an audio-controlling device. Audio-controlling devices are entities that exist in the GWC. Further explanation of these entities is beyond the scope of this procedure.

Proceed as follows.

a. Start the table editor. Type

>TABLE SERVSINV

and press the Enter key

Example of system response:

```
TABLE: SERVSINV
```

b. To move to the tuple for the audio-controlling device for the MS2000/UAS, type

>POS AUD <pm-number>

and press the Enter key

where

<pm_number> is the peripheral-module number of the MS2000/UAS, an integer in the range 0 to 255

(AUD specifies the audio-controlling segment of the GWC)

For example, type

>POS AUD 6

and press the Enter key.

Example of system response:

```
AUD 6 GWC 2  4095  $
```

c. Indicate that you intend to change the value of the tuple. Type

>CHA

and press the Enter key.

Example of system response:

```
SERVRNAME: GWC 2
```

d. Press the Enter key to retain the existing value for the SRVRNAME (server name) field.

Example of system response:

```
NUMTERMS: 4095
```

e. Press the Enter key to retain the existing value for the NUMTERMS (number of terminals) field.

Example of system response:

```
OPTIONS:
```

If	Do
you want to provision three-way conferencing	proceed to step 4f
you do not want to provision three-way conferencing	proceed to step 4g

f. Specify the number of terminal identifiers for three-way conferencing in the OPTIONS field. Type

>3PORT <number>

and press the Enter key

where

<number> is the number of terminal identifiers for three-way conferencing

For example, type

>3PORT 2094

and press the Enter key.

ATTENTION

2094 is the total number of terminal identifiers specified for three-way conferencing in step 3e and step 3k of this procedure.

Example of system response:

```
OPTIONS:
```

If	Do
you want to provision six-way conferencing	proceed to step 4g
you do not want to provision six-way conferencing	proceed to step 4h

g. Specify the number of terminal identifiers for six-way conferencing in the OPTIONS field. Type

>6PORT <number>

and press the Enter key

where

<number> is the number of terminal identifiers for six-way conferencing

For example, type

>6PORT 1080

and press the Enter key.

ATTENTION

1080 is the total number of terminal identifiers specified for six-way conferencing in step 3q of this procedure.

Example of system response:

```
OPTIONS:
```

h. Indicate that you have finished specifying options. Type

>$

and press the Enter key.

Example of system response:

```
TUPLE TO BE CHANGED:
AUD 6 GWC 2 4095 (3PORT 2094) (6PORT 1080)  $
ENTER Y TO CONFIRM, N TO REJECT OR E TO EDIT.
```

i. Confirm the change. Type

>Y

and press the Enter key.

Example of system response:

```
TUPLE CHANGED.
```

j. Exit from the table editor. Type

>QUIT

and press the Enter key.

5 To go to the trunk test position level of the MAP CI, type:

>CI;MAPCI;MTC;TRKS;TTP

and press the Enter key.

In response, the system displays the TTP MAP CI level.

6

If	Do
you have provisioned three-way conferencing	step 7
you have not provisioned three-way conferencing	step 8

7 Make the newly provisioned three-way conferencing circuits available for use.

Proceed as follows.

a. Post the circuits in the UASCF3P trunk group. Type

```
>POST  G  UASCF3P
```

and press the Enter key.

b. Return the posted circuits to service. Type

```
>RTS
```

and press the Enter key.

ATTENTION

If a posted circuit is in the PMB state or in the INB state, then you must busy the circuit (using the BSY command) before you return it to service.

If	Do
you created trunk group UASCF3PX in step 3	proceed to step 7c
you did not create trunk group UASCF3PX	proceed to step 8

c. Post the circuits in the UASCF3PX trunk group. Type

```
>POST  G  UASCF3PX
```

and press the Enter key.

d. Return the posted circuits to service. Type

```
>RTS
```

and press the Enter key.

ATTENTION
If a posted circuit is in the PMB state or in the INB state, then you must busy the circuit (using the BSY command) before you return it to service.

8

If	Do
you have provisioned six-way conferencing	step 9
you have not provisioned six-way conferencing	step 10

9 Make the newly provisioned six-way conferencing circuits available for use.

Proceed as follows.

a. Post the circuits in the UASCF6P trunk group. Type

```
>POST  G  UASCF6P
```

and press the Enter key.

b. Return the posted circuits to service. Type

```
>RTS
```

and press the Enter key.

ATTENTION
If a posted circuit is in the PMB state or in the INB state, then you must busy the circuit (using the BSY command) before you return it to service.

10 You have completed the procedure for provisioning conference support in a packet-based network.

—End—

Provisioning Announcement Resources

This procedure contains instructions for entering datafill into the data schema tables of the XA-Core to support MS2000/UAS announcements. You must perform this procedure once for each kind of announcement that the MS2000/UAS will issue. In the procedure we provide sample input values for illustrative purposes. The data schema tables are listed in the sequence in which you must enter the datafill.

ATTENTION

Nortel only supports the Universal Audio Server in MTX14 for existing MTX13 Packet MSC customers that already use the Universal Audio Server and upgrade to MTX14.

For a high-level description of the datafill sequence for TDM announcements, see section "TDM announcements" (page 403).

If the MCS Server 1000 connects to two or more packet bearer networks, then you must not try to use MS2000/UAS announcements as described in this module. This is true regardless of whether the multiple packet bearer networks use the same fabric or different fabrics. If the MCS Server 1000 connects to two or more packet bearer networks, the ENET-based MTM provides all announcements (as well as conferencing and test facilities). Each packet bearer network must have connectivity to the ENET network in order to obtain announcements (as well as conference ports and test facilities). If a packet bearer network does not have such connectivity, then on that network, services that require these facilities will fail.

Note: As of SN06, there is a new datafill sequence for provisioning TDM announcements. For a high-level description of the datafill sequence for TDM announcements, see section "TDM announcements" (page 403) at the end of this module.

If the CS 2000 connects to two or more packet bearer networks, then you must not try to use MS2000/UAS announcements as described in this module. This is true regardless of whether the multiple packet bearer networks use the same fabric or different fabrics. If the CS 2000 connects to two or more packet bearer networks, the ENET-based MTM provides all announcements (as well as conferencing and test facilities). Each packet bearer network must have connectivity to the ENET network in order to obtain announcements (as well as conference ports and test facilities). If a packet bearer network does not have such connectivity, then on that network, services that require these facilities will fail.

Interval

Perform this procedure before you put the MS2000/UAS into use.

Prerequisites

Prerequisites for provisioning announcement resources are as follows:

- Before you begin this procedure, the gateway controllers must be configured. When you configure the gateway controllers, the system automatically enters the required datafill in table SERVRINV.

  For information on configuring the gateway controllers, see *GWC Configuration Management* (NN10205-511).

- You must know the name of the gateway controller (GWC). Examples of GWC names are GWC 0, GWC 1, and GWC 2. You specify the GWC name when you configure the GWC.

  For information on configuring the gateway controllers, see *GWC Configuration Management* (NN10205-511).

- You must know the ID numbers that uniquely identify the announcements. The ID numbers are the segment IDs that were specified in the Audio Provisioning Server (APS) GUI.

  For information on segment IDs, see *Universal Audio Server Configuration Management* (NN10095-511).

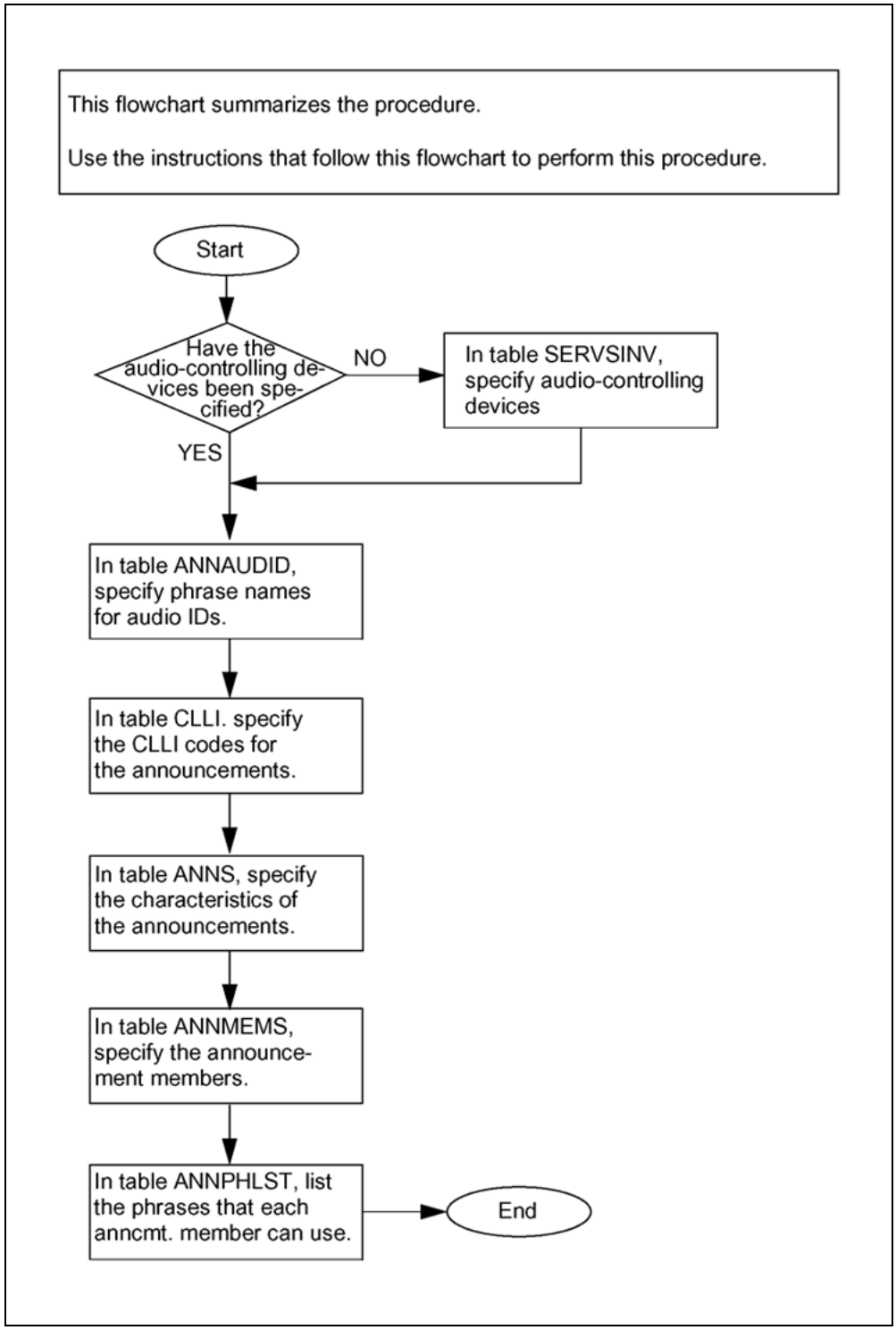
Common procedures

This procedure does not refer to any common procedures.

Action

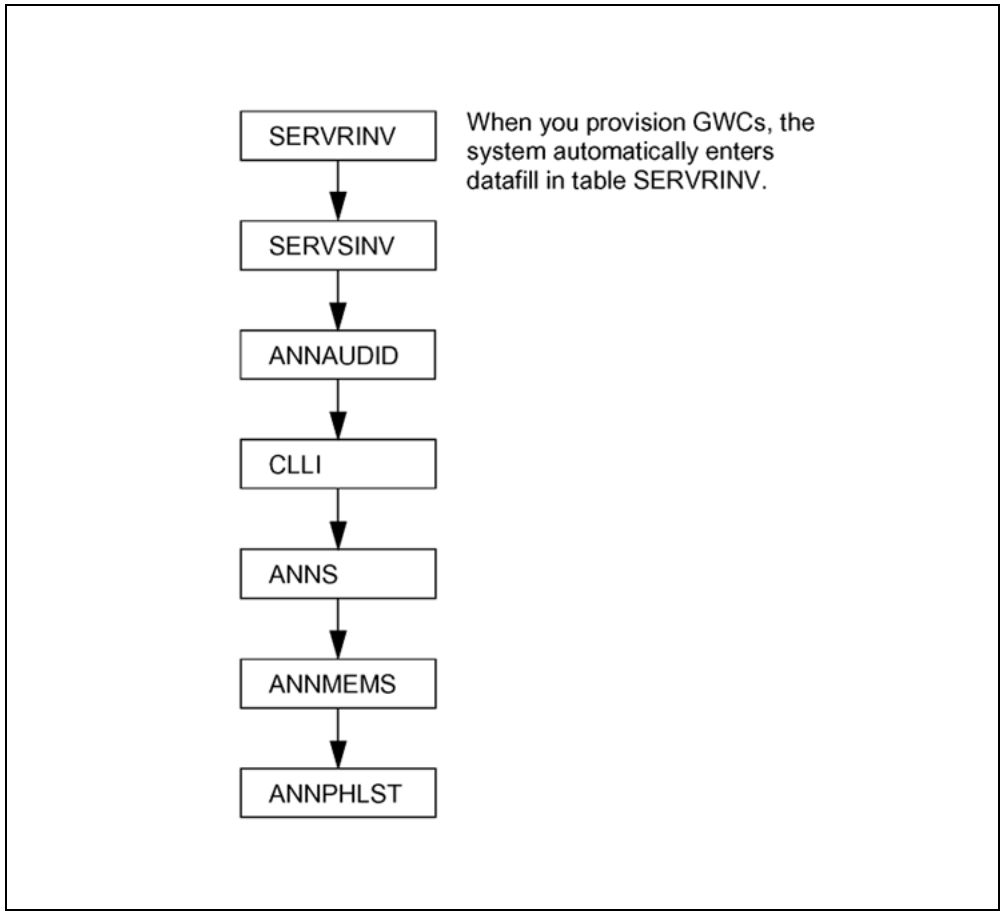
The following flowchart summarizes this procedure.

Provisioning announcement resources



The following figure shows the datafill sequence for provisioning MS2000/UAS announcements as of SN06.

Datafill sequence for MS2000/UAS announcements as of SN06



Provisioning announcement resources

Step	Action

At the MAP terminal

1

If	Do
The audio controllers have not yet been specified in table SERVSINV	step 2
The audio controllers have already been specified in table SERVSINV	step 4

2 Use the table editor to add one or more tuples to table SERVSINV.

Each tuple specifies an audio-controlling device.

ATTENTION

You must specify a separate audio-controlling device for each GWC that is configured to serve MS2000/UAS devices. The system can include multiple GWCs, and each one can serve multiple MS2000/UAS devices providing announcement functionality.

Proceed as follows.

a. Start the table editor. Type

>TABLE SERVSINV

and press the Enter key.

Example of system response:

```
TABLE: SERVSINV
```

b. Indicate that you intend to add a tuple. Type

>ADD

and press the Enter key.

Example of system response:

```
SRVSNAME:
```

c. Specify the value for the SRVSNAME field. Type

> AUD <pm-number>

and press the Enter key

where

AUD specifies the audio-controlling segment of the GWC

<pm-number> is an integer in the range 0 to 255, representing the unique peripheral-module number of the audio-controlling device

ATTENTION

For information on audio-controlling devices, see the note at the beginning of step 2.

Example of system response:

```
SRVRNAME:
```

d. Specify the value for the SRVRNAME (server name) field. This is the name of the gateway controller. Type

>GWC <n>

and press the Enter key

where

<n> is an integer

Note: For information on the gateway-controller name, see the "Prerequisites" (page 382) section of this procedure.

Example of system response:

```
NUMTERMS:
```

e. Specify the value for the NUMTERMS (number of terminals) field. Type

> <number>

and press the Enter key

where

<number> is 1024, 2048, or 4095

4095 is the recommended value.

Example of system response:

```
OPTIONS:
```

f. Type

>ANNC

and press the Enter key.

Example of system response:

```
ANNTERMS:
```

g. Specify the number of announcement terminals that are supported. Type

> <number-of-terminals>

and press the Enter key.

where

<number-of-terminals> is an integer in the range 1 to 300

For example, to specify that 300 announcement terminals will be supported, type

>300

and press the Enter key.

Example of system response:

```
OPTIONS:
```

h. Indicate that there are no further options to specify. Type

>$

and press the Enter key.

Example of system response:

```
TUPLE TO BE ADDED:
AUD 4  GWC 1  4095  ANNC 300  $
ENTER Y TO CONFIRM, N TO REJECT OR E TO EDIT.
```

i. Confirm the addition. Type

>Y

and press the Enter key.

Example of system response:

```
TUPLE ADDED.
```

j.

If	Do
you need to specify another audio-controlling device	repeat step 2b and step 2i
you have specified all the audio-controlling devices	proceed to step 2k

For information on audio-controlling devices, see the precaution at the beginning of step 2.

k. Exit from the table editor. Type

>QUIT

and press the Enter key.

3 Use the table editor to add a one or more tuples to table ANNAUDID. Each tuple specifies the mapping of a phrase name to an announcement audio ID. For a MS2000/UAS announcement, this means that you are specifying a phrase name that will be associated with the segment ID (specified in the Audio Provisioning Server GUI) that identifies the announcement.

ATTENTION

Prior to SN06 MTX121P only MS2000/UAS custom phrases were listed in table ANNAUDID. In SN06MTX121P, both custom and broadcast phrases are listed in table ANNAUDID. During the upgrade to SN06MTX121P, the system automatically adds tuples for MS2000/UAS broadcast phrases. The system uses the AUDIOID value from the earlier version of table ANNMEMS. (Prior to SN06MTX121P, the AUDIOID field was in table ANNMEMS. In SN06MTX121P, the AUDIOD field is no longer in table ANNMEMS.)

For more information on broadcast and custom announcements, see step 3c.

Proceed as follows.

a. Start the table editor. Type

>TABLE ANNAUDID

and press the Enter key.

Example of system response:

```
TABLE: ANNAUDID
```

b. Indicate that you intend to add a tuple. Type

>ADD

and press the Enter key.

Example of system response:

```
PHRASEKY:
```

c. Specify the phrase name. Type

> <phrase-name>

and press the Enter key.

where

<phrase-name> is the name of the phrase. The name is composed of up to 16 alphanumeric characters.

- For a phrase that is to be used in a MS2000/UAS custom announcement, enter the predefined or custom phrase name.

ATTENTION

A custom announcement is one whose announcement type, as specified in step 5h of this procedure, is other than STND. For most custom announcements, the names of the phrases are predefined in software. These predefined phrase names must be used to create custom announcements. For information on the predefined phrase names, refer to the NTP for the custom announcements that you are using.

- For a phrase that is to be used in a MS2000/UAS broadcast announcement, define a phrase name to represent the broadcast announcement.

ATTENTION
A broadcast announcement is one whose announcement type, as specified in step 5h of this procedure, is STND. The phrases used in broadcast announcements do not have predefined names. The phrase names are defined by the user.

- If the phrase is a phrase that is on a TDM facility, enter the phrase name as specified in the PHRSNAME field of table DRAMPHRS. (For information on table DRMPHRS, see *North American DMS-100 Customer Data Schema Reference Manual* (297-8001-351 Vol. 4) or *DMS-100 MMP Customer Data Schema Reference Manual*(297-9051-351 Vol. 4).

ATTENTION
The phrase names are used in table ANNPHLST. Each tuple in table ANNPHLST contains a list of up to 32 phrase names. Each announcement member points to a tuple in ANNPHLST. (Announcement members are specified in step 6.) The announcement member can use the phrases whose names are listed in the associated ANNPHLST tuple. Instructions for adding tuples to table ANNPHLST are found in step 7.

For example, type

```
>AUD_1001
```

and press the Enter key.

Example of system response:

```
AUDID:
```

d. Specify the ID number that uniquely identifies the phrase. The ID number is the segment ID that was specified in the Audio Provisioning Server (APS) GUI. Type

> <number>

and press the Enter key

where

<number> is an integer in the range 0 to 32767.

For example, type

```
>1001
```

and press the Enter key.

Example of system response:

```
TUPLE TO BE ADDED:
AUD_1001  1001
ENTER Y TO CONFIRM, N TO REJECT OR E TO EDIT.
```

e. Confirm the addition. Type

>Y

and press the Enter key.

Example of system response:

```
WARNING: AUD_1001 IS A USER-DEFINED PHRASE TUPLE
ADDED.
```

ATTENTION

If the phrase is going to be used in a broadcast announcement, then it is supposed to have a user-defined name, and you can disregard the warning message. If the phrase is going to be used in a custom announcement, then the phrase name is predefined and the warning message indicates that you have misspelled it. If this is the case, then the way to correct the error is to delete the tuple and re-add it.

f. Select the next step as follows.

If	Do
you need to define a phrase name for another MS2000/UAS announcement	go to step 3b
you do not need to define phrase names for any more MS2000/UAS announcements	proceed to step 3g

g. Exit from the table editor. Type

>QUIT

and press the Enter key.

4 Use the table editor to add a tuple to table CLLI. The tuple specifies an announcement.

Proceed as follows.

a. Start the table editor. Type

>TABLE CLLI

and press the Enter key.

Example of system response:

```
TABLE: CLLI
```

b. Indicate that you intend to add a tuple. Type

>ADD

and press the Enter key.

Example of system response:

```
CLLI:
```

c. Specify the CLLI name for the announcement. Type

> <clli>

and press the Enter key

where

<clli> is the name of the announcement. The name is composed of up to 16 alphanumeric characters, and the first character must be alphabetic.

For example, if the announcement is a blank-directory-number announcement, type

>UASBLDNANN

and press the Enter key.

Example of system response:

```
ADNUM:
```

d. Specify the administrative trunk-group number. Type

> <number>

and press the Enter key.

where

<number> is an integer in the range 0 to 8191, and is unique to the CLLI

Example of system response:

```
TRKGRSIZ:
```

e. Specify the value of field TRKGRSIZ. Type

> <number>

and press the Enter key

where

<number> is an integer in the range 1 to 256, specifying the number of members that can be added for the announcement CLLI.

For example, type

```
>10
```

and press the Enter key.

Example of system response:

```
ADMININF:
```

f. Specify the administrative information for the announcement. (This is a description for information purposes.) Type

```
> <info>
```

and press the Enter key.

where

<info> is an alphanumeric string up to 32 characters in length

For example, type

```
>UasBlankDirNumberAnnouncmt
```

and press the Enter key.

Example of system response:

```
TUPLE TO BE ADDED:
UASBLDNANN 301 10 UasBlankDirNumberAnnouncmt
ENTER Y TO CONFIRM, N TO REJECT OR E TO EDIT.
```

g. Confirm the addition. Type

```
>Y
```

and press the Enter key.

Example of system response:

```
TUPLE ADDED.
```

h. Exit from the table editor. Type

```
>QUIT
```

and press the Enter key.

5 Use the table editor to add a tuple to table ANNS. The tuple defines the characteristics of the announcement.

Proceed as follows.

a. Start the table editor. Type

```
>TABLE ANNS
```

and press the Enter key.

Example of system response:

```
TABLE: ANNS
```

b. Indicate that you intend to add a tuple. Type

>ADD

and press the Enter key.

Example of system response:
CLLI:

c. Specify the CLLI name for the announcement. For example, if the announcement were for the purpose of saying the directory number is blank, you would type

> <clli>

and press the Enter key

where

<clli> is the name of the announcement as specified in table CLLI.

For example, type

>UASBLDNANN

and press the Enter key.

Example of system response:
ANNARCH:

d. Specify the announcement platform architecture. Type

>NETWK

and press the Enter key.

Example of system response:
TRAFSNO:

e. Specify the traffic separation number that is assigned to the announcement. Type

> <number>

and press the Enter key

where

<number> is an integer in the range 0 to 127

- 0 indicates that traffic separation is not required.
- If the switch has feature package X085AA (Traffic Separation Peg Count), enter the traffic separation number, in the range 1 to 127, that is assigned to the announcement.

ATTENTION

The range of values available for traffic separation numbers depends on the value of office parameter TFAN_OUT_MAX_NUMBER in table OFCENG.

- If the switch does not have feature package X085AA, the range of values for traffic separation numbers is 0 to 15.
- Reserve numbers 1 to 9 for generic traffic separation numbers.

ATTENTION

For more information about traffic separation numbers, see the information about table TFANINT in *North American DMS-100 Customer Data Schema Reference Manual* (297-8001-351 Vol. 10) or *DMS-100 MMP Customer Data Schema Reference Manual* (297-9051-351 Vol. 10).

For example, type

```
>0
```

and press the Enter key.

Example of system response:

```
CYTIME:
```

f. Specify the cycle time, in seconds. The cycle time is the time for one announcement cycle on one channel, in seconds. Type

```
> <number>
```

and press the Enter key.

where

<number> is an integer in the range 0 to 255.

ATTENTION

Round the actual announcement time up to the next full second. For example, round 9.24 to 10.

For flexible announcement timing, enter 0 as the cycle time. With flexible announcement timing, the length of the announcement will be matched without datafill change.

For example, type

```
>6
```

and press the Enter key.

Example of system response:

```
MAXCYC:
```

g. Specify the maximum number of cycles. This is the maximum number of times the complete announcement is heard before the call is advanced to the next route in the route list. Type

> <number>

and press the Enter key.

where

<number> is an integer in the range 1 to 255.

For example, type

>1

and press the Enter key.

Example of system response:

```
ANNTYP:
```

h. Specify the announcement type. Type

> <anntyp>

and press the Enter key.

where

<anntyp> is the announcement type

ATTENTION

For a list of announcement types, see "Announcement types" (page 402) at the end of this procedure.

If the system response is	Do
GAP:	proceed to step 5i
MAXCONN:	proceed to step 5j

i. Specify the system should generate a gap between the tracks of a multi-track announcement. Type

> <boolean>

and press the Enter key

where

<boolean> is either Y or N.

For example, type

>Y

and press the Enter key.

ATTENTION

The system prompts for a GAP value only for some of the announcement types.

Example of system response:

```
MAXCONN:
```

j. Specify the maximum number of simultaneous connections that are permitted on the announcement. Type

> <number>

and press the Enter key

where

<number> is an integer in the range 1 to 255, specifying a number of announcement ports

For example, type

>25

and press the Enter key.

ATTENTION

To determine the MAXCONN value, you need to know (1) the estimated percentage of announcement traffic that will access this announcement, and (2) the total number of announcement ports in the set of MS2000s/UASs. For example, if you estimate that 25% of announcement traffic will access this announcement, and if there are 100 announcement ports in the set of MS2000s/UASs, you would specify 25 as the MAXCONN value.

To determine the total number of announcement ports in the set of MS2000s/UASs, multiply the number of DSP cards in the set of MS2000s/UASs by the number of announcement ports per card. (The number of announcement ports per card is calculated during system engineering.)

The total of the MAXCONN values specified for all MS2000/UAS-supported announcements must not exceed the total number of announcement ports in the set of MS2000s/UASs.

Example of system response:

```
TUPLE TO BE ADDED:
UASBLDNANN NETWK 0 6 1 STND  Y  25
ENTER Y TO CONFIRM, N TO REJECT OR E TO EDIT.
```

k. Confirm the addition. Type

>Y

and press the Enter key.

Example of system response:

```
TUPLE ADDED.
```

l. Exit from the table editor. Type

>QUIT

and press the Enter key.

6 Use the table editor to add one or more tuples to table ANNMEMS. Each tuple in this table specifies an announcement member. The announcement members are logical entities.

ATTENTION

There is no permanent relationship between the announcement members and specific ports on a MS2000/UAS. It is only during call processing that the system associates an announcement member with a port on a MS2000/UAS. (This is in contrast to what we have in a TDM network, in which announcement members are the physical locations of the circuits associated with the announcements.)

Proceed as follows.

a. Start the table editor. Type

>TABLE ANNMEMS

and press the Enter key.

Example of system response:

```
TABLE: ANNMEMS
```

b. Indicate that you intend to add a tuple. Type

>ADD

and press the Enter key.

Example of system response:

```
ANNMEM:
```

c. Specify the announcement-member identifier. Type

> <clli> <number>

and press the Enter key.

where

<clli> is the name of the announcement as specified in table CLLI.
and <number> is an integer identifying the member, in the range 0 to 255.

ATTENTION

There can be up to 256 members associated with a single announcement. Therefore, for each announcement defined in table CLLI, table ANNMEMS can contain the specifications for up to 256 members.

Number the members consecutively, starting from zero.

For example, type

>UASBLDNANN 0

and press the Enter key.

Example of system response:

```
HDWTYPE:
```

d. Specify the hardware type. Type

>UAS

and press the Enter key.

Example of system response:

```
CARDCODE:
```

e. Specify the card type. Type

>AUD

and press the Enter key.

Example of system response:

```
PHLSTIDX:
```

f. Specify the phrase-list index. Type

> <phrase-list-index>

and press the Enter key.

where

<phrase-list-index> is an integer in the range 0 to 255, and is an index into table ANNPHLST (announcement phrase list table)

ATTENTION

The phrase-list-index value identifies a tuple in table ANNPHLST. (The phrase-list index is part of the key field for table ANNPHLST.) Each tuple in table ANNPHLST specifies a list of up to 32 phrases. The announcement member can use the phrases that are listed in the ANNPHLST tuple. Instructions for adding tuples to table ANNPHLST are found in step 7.

For example, type

```
>39
```

and press the Enter key.

Example of system response:

```
PMTYPE:
```

g. Specify the type of trunk module on which the announcement circuit resides. Type

```
>AUD
```

and press the Enter key.

Example of system response:

```
AUDNO:
```

h. Specify the peripheral-module number of the audio-controlling device that serves the MS2000/UAS, as specified in the SRVSNAME field in table SERVSINV. (You entered this value in step 2c.) For example, type

```
>4
```

and press the Enter key.

Example of system response:

```
TUPLE TO BE ADDED:
UASBLDNANN 0  UAS  AUD  39  AUD  4
ENTER Y TO CONFIRM, N TO REJECT OR E TO EDIT.
```

i. Confirm the addition. Type

```
>Y
```

and press the Enter key.

Example of system response:

```
TUPLE ADDED.
```

j.

If	Do
you need to specify an additional member for the announcement	see the note in this step, then repeat step 6b to step 6i
you have specified all the members for the announcement	proceed to step 6k

Note: If you are going to specify another member for the broadcast announcement, the additional member must be on a different audio controller. For example, if you have already specified a member whose AUDNO is 4, as shown in step

6h, then an additional member could not have the same AUDNO value.

k. Exit from the table editor. Type

>QUIT

and press the Enter key.

7 Use the table editor to add a one or more tuples to table ANNPHLST. Each tuple contains a list of up to 32 phrase names. (The phrase names are specified in table ANNAUDID.) Each announcement member (specified in table ANNMEMS) points to a tuple in table ANNPHLST. The announcement member can use the phrases named in the ANNPHLST tuple.

ATTENTION
Table ANNPHLST replaces table DRAMTRK and DRMUSERS. ANNPHLST contains all the data that was formerly (that is, before SN06) in those tables.

Proceed as follows.

a. Start the table editor. Type

>TABLE ANNPHLST

and press the Enter key.

Example of system response:
```
TABLE: ANNPHLST
```

b. Indicate that you intend to add a tuple. Type

>ADD

and press the Enter key.

Example of system response:
```
ANNPHKEY:
```

c. Specify the key value. Type

> <clli> <phrase-list index>

and press the Enter key

where

<clli> is the clli name for the announcement, as specified in step 5d

<phrase-list index> is an integer in the range 0 to 255

Note: An announcement member will find the MS2000/UAS announcement by finding the phrase-list index. Each

announcement member contains a phrase-list index, as specified in step 6f.

For example, type

>UASBLDNANN 39

and press the Enter key.

Example of system response:

```
PHRASES:
```

d. Specify the name of a phrase that can be used in the announcement. The phrase name must be one of the names specified in table ANNAUDID. Type

> <phrase-name>

and press the Enter key.

where

<phrase-name> is one of the phrase names specified in table ANNAUDID

For example, type

>AUD_1001

and press the Enter key.

Example of system response:

```
PHRASES:
```

e. Select the next step as follows.

If	Do
you need to specify another phrase that will be usable in the announcement	go to step 7d
you do not need to specify any further phrases that will be usable in the announcement	proceed to step 7f

f. Indicate that there are no further phrases to be usable in the announcement. Type

>$

and press the Enter key.

Example of system response:

```
TUPLE TO BE ADDED:
UASBLDNANN 39  AUD_1001  $
```

```
ENTER Y TO CONFIRM, N TO REJECT OR E TO EDIT.
```

g. Confirm the addition. Type

>Y

and press the Enter key.

Example of system response:

```
TUPLE ADDED.
```

h. Select the next step as follows.

If	Do
you need to add another tuple to table ANNPHLST	step 7b
you do not need to define phrase names for any more MS2000/UAS announcements	step 7i

i. Exit from the table editor. Type

>QUIT

and press the Enter key.

8 You have completed the procedure for provisioning announcement resources to support MS2000/UAS announcements.

—End—

Announcement types

The following table lists announcement types that can be specified in field ANNTYP in table ANNS.

Announcement types

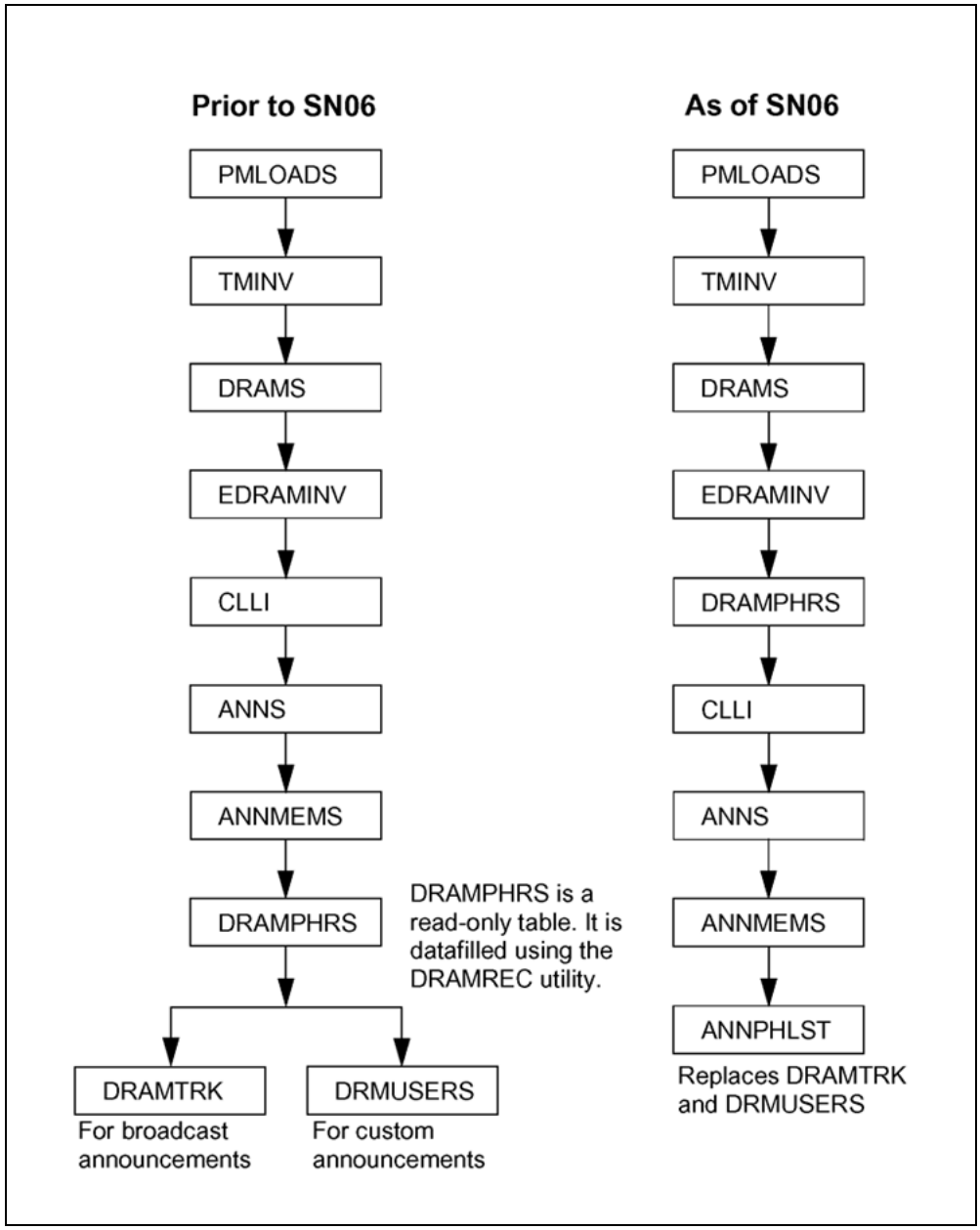
Announcement type	Explanation
ACTS	To specify Automatic Coin Toll Service.
AIN	To specify a given DMS user interface for each customer group.
AIS	To specify Automatic Intercept System announcement if the switch has the AIS feature.
AOSSVR	To specify Auxiliary Operator Services System Voice Response.
CFPA	To specify Call Forwarding Programming announcement.
CFRA	To specify Call Forwarding Remote Access announcement.

Announcement type	Explanation
CLASS	To specify Custom Local Area Signaling Services announcement.
CNAL	To specify Calling Number Announcement playback to a line.
CNALT	To specify Calling Number Announcement playback to a line and over a trunk to a loudspeaker.
CNAT	To specify Calling Number Announcement playback over a trunk to a loudspeaker.
CSMI	To specify Call Screening, Monitoring, and Intercept.
DMCT	To specify Denied Malicious Call Termination.
ECWTPA	To specify Enhanced Call Waiting Programming announcements.
IN	To specify an Intelligent Network (IN) Capability Set 1 Revised (CS1-R) custom announcement.
MCCS	To specify Mechanized Calling Card announcement.
MDS	To specify Audiogram Delivery Services (ADS) announcements.
NFRA	To specify Network Facility Remote Access.
NTC	To specify Notification of Time and Charge announcement.
RCTL	To specify Subscriber Programmable Ringing (SPRING) for Call Forward Don't Answer Variable Timer (CFDVT).
SACB	To specify Subscriber Activated Call Blocking.
SLEENG	To specify Screening List Editing English.
SLEFRE	To specify Screening List Editing French.
SPP	To specify Station Programmable PIN (personal identification number).
STND	To specify Standard announcement.
TOPSVR	To specify TOPS Voice Response. (Office parameter TOPS_ACTS in table OFCENG must be set to Y.)
VPSA	To specify Variable Phrase Standard announcements. (For DMS-250 only.)

TDM announcements

As of SN06, there is a new datafill sequence for provisioning TDM announcements. (TDM announcements are also known as EDRAM announcements. EDRAM stands for enhanced digital recording announcement machine.) The following figure contrasts the pre-SN06 and SN06 datafill sequences for these announcements.

Datafill sequence for EDRAM announcements



The following table lists the data schema tables in which you enter datafill for EDRAM announcements.

data schema tables requiring datafill for EDRAM announcements

Table	Role in provisioning of EDRAM announcements
PMLOADS	Stores the device location of every PM load file and the mapping between the load names and devices on which the loads exist. This provides a general autoload capability for the PM loaded.
TMINV	Trunk module inventory. Lists assignment data for each trunk module. Defines the firmware load location.
DRAMS	Defines virtual card layout and corresponding blocks.
EDRAMINV	Assigns voice files to blocks.
DRAMPHRS	Contains phrase information for the DRAM peripheral to allow the transfer of this data during a software upgrade. This is a read-only table and is datafilled using the DRAMREC utility.
CLLI	Defines the CLLI codes that identify announcements.
ANNS	Contains data for each announcement that is assigned in the switching unit. Categorizes the announcement as being broadcast or custom. (A broadcast announcement has the value STND in the ANNTYP field; a custom announcement has a value other than STND in the ANNTYP field.)
ANNMEMS	For DRAM and AUDICHRON hardware types, provides mapping between the announcement member and the physical voice channel where the announcement will be played.
ANNPHLST	This table replaces tables DRAMTRK and DRMUSERS, and has the same format as those tables. Each tuple in ANNPHLST contains a list composed of one or more phrases. Each tuple in ANNMEMS contains an index into table ANNPHLST. The announcement member specified in the ANNMEMS tuple can use the phrases listed in the pointed-to tuple in ANNPHLST.

For detailed information about the roles played by these tables in the provisioning of EDRAM announcements, see *North American DMS-100 Customer Data Schema Reference Manual* (297-8001-351) or *DMS-100 MMP Customer Data Schema Reference Manual* 297-9051-351.

Provisioning test line testing using a testhead

This procedure tells how to do the provisioning to support test line testing that uses a third-party testhead. The testhead can be a MS2000/UAS with the 945RTS Remote Test Server, from Sage Instruments Inc., henceforth referred to as the "Sage unit". Alternatively, the testhead can be an MS-2000-series device.

Note 1: The testheads mentioned in the preceding paragraph are for use only in a non-hybrid CS 2000 (with no ENET) or in a compact CS 2000 compact.

Note 2: If the CS 2000 connects to two or more packet bearer networks, then you must not try to use the testing that is described in this module. This is true regardless of whether the multiple packet bearer networks use the same fabric or different fabrics. If the CS 2000 connects to two or more packet bearer networks, the ENET-based MTM provides all test facilities (as well as conferencing and announcements). Each packet bearer network must have connectivity to the ENET network in order to obtain test facilities (as well as conference ports and announcements). If a packet bearer network does not have such connectivity, then on that network, services that require these facilities will fail.

If a testhead (either a MS2000/UAS with a Sage unit or an MS-2000-series device) is present, and if the necessary provisioning has been done, then a user can request test line trunk tests on the members of TDM trunk groups on TDM gateways. The user requests the tests just as he or she would in a legacy DMS system in which test lines are provided by a integrated service module equipment (ISME). The user can request tests using the TTP level of the MAP interface and can schedule tests using the ATT level of the MAP interface. The user receives the test results just as he or she would in a legacy DMS system. The system displays the test results to the user at the MAP terminal, or uses logs to report the results.

Note: The testheads will not operate on the members of TDM trunk groups hosted by XPMs.

The testhead (either a MS2000/UAS with a Sage unit or an MS-2000-series device) provides test lines for the following tests:

- The TL100 test line, also known as the quiet or balanced termination, provides noise and loss measurements.
- The TL102 test line, also known as the milli-watt test line, provides measurements of far-end-to-near-end transmission loss.

- The TL105 test line is a group of tests that provide two-way testing controlled by the originating office to measure transmission loss, noise, and loss with self-check.
- The T904 two-way transmitting test. This test is supported only in the international PT-IP solution, and only on Israeli ISUP trunks.
- The milli-watt tone swap test. In such a test, the system sends and simultaneously receives test tones on a trunk circuit, and measures the transmission loss on the received test tone.

Note 1: The T100, T102, and T105 tests are supported only on ISUP trunks and PRI trunks. Also, some international ISUP and PRI trunk types do not support these tests because they are North-American-based tests.

Note 2: The T904 test is supported on the MS-2000-series device but is not supported on the Sage unit.

Note 3: The milli-watt tone swap test is supported on the MS-2000-series device for testing the following types of TDM trunks hosted by gateways in the PT-IP solution: H.248 and TGCP ISUP trunks, and per-trunk signaling (PTS) ES and OP trunks. The milli-watt tone swap test is not supported on the Sage unit.

Note 4: The TL108 test line is not supported by the Sage unit, nor by the MS-2000-series device. The TL108 test line is supported on the MG 1500. It provides a digital loopback connection (transmit connected to receive) on a DS0 level. This test line is typically used to terminate a bit error rate test (BERT) for trunks.

Note 5: In legacy systems, lines for test line tests must be provided by integrated service module equipment (ISME). There must be an ISME connected to the originating switch, and another ISME (or equivalent hardware) connected to the terminating switch.

To support test line testing using a testhead (either a MS2000/UAS with a Sage unit or an MS-2000-series device), you must update the CLLI table to provision four common language location identifiers, and you must enable the office parameter that controls this functionality. This procedure contains detailed instructions.

Interval

Perform this procedure after setting up the MS2000/UAS with the Sage unit, or after setting up the MS-2000-series device.

Prerequisites

You must know the peripheral-module number of the audio-controlling device that serves the UAS or MS2000-series device. The value is specified in the SRVSNAME field of table SERVSINV. For example, if the value of that field is AUD 4, then the peripheral-module number of the audio-controlling device is 4. There is a separate audio-controlling device for each GWC that is configured to serve UAS devices or MS2000-series devices. The system can include multiple GWCs, and each one can serve multiple devices.

If you are connecting the testhead to a MS2000/UAS, the MS2000/UAS must be equipped with appropriate hardware. The hardware depends on the type of the packet network.

- If the packet network is an IP network, the MS2000/UAS must be equipped with a CG6000 card.
- If the packet network is an ATM network, the MS2000/UAS must be equipped with
  - an AG4000 T1 trunk card
  - a BX4000c ATM interface card

  Note: For details, see the MS2000/UAS-configuration document. To access that document, see *Universal Audio Server Configuration Management* (NN10095-511).

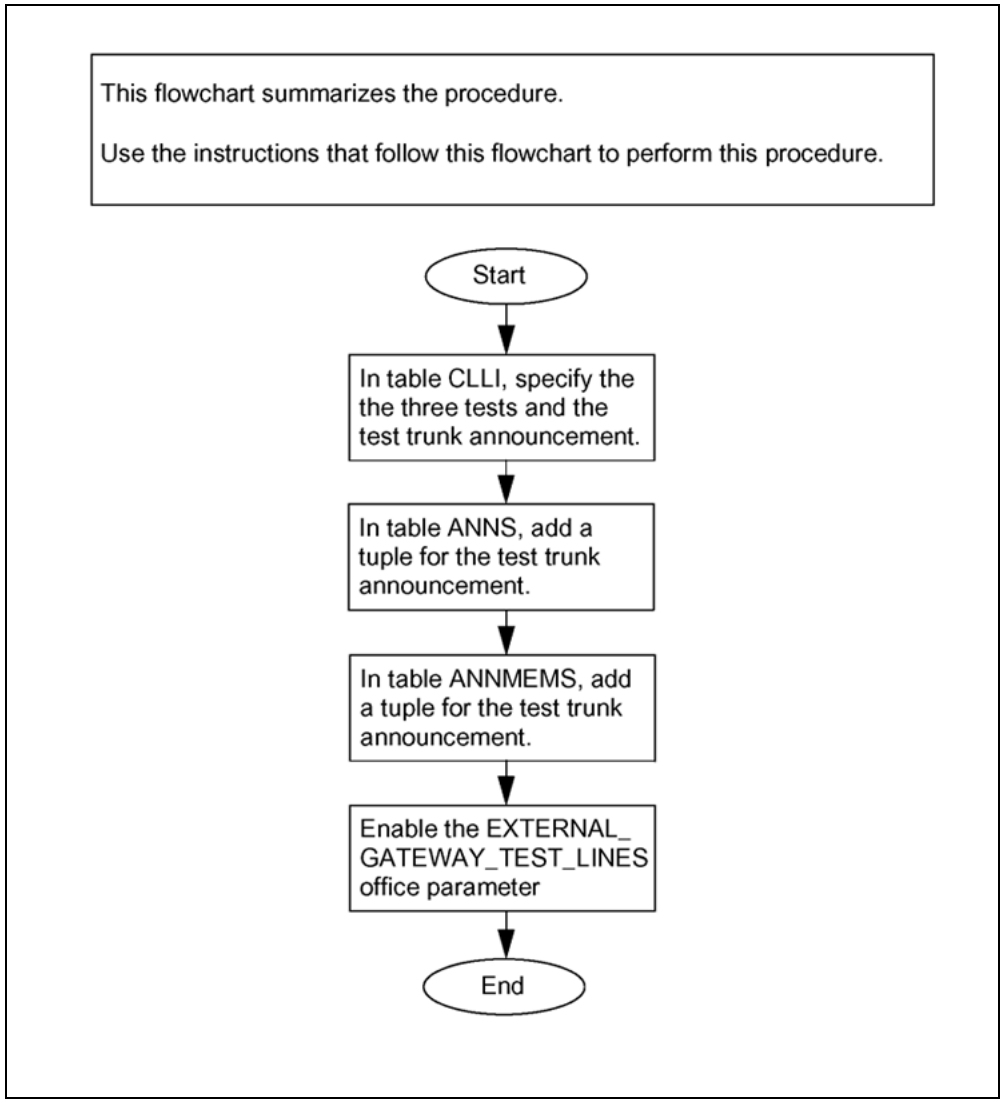
Common procedures

This procedure does not refer to any common procedures.

Action

The following flowchart summarizes this procedure.

Provisioning for test line testing using a testhead



Provisioning for test line testing using a testhead

Step	Action

At the MAP terminal

1 Use the table editor to edit table CLLI, to define the common language location identifier of the tests that will be supported by the testhead.

For detailed information about table CLLI, see *North American DMS-100 Customer Data Schema Reference Manual* (297-8001-351 Vol. 3) or *DMS-100 MMP Customer Data Schema Reference Manual* (297-9051-351 Vol. 3).

Proceed as follows.

a. Start the table editor. Type

>TABLE CLLI

and press the Enter key.

Example of system response:

```
TABLE: CLLI
```

b. Indicate that you intend to add a tuple. Type

>ADD TERM100X

and press the Enter key.

Example of system response:

```
ADNUM:
```

c. Specify the value for the ADNUM (administrative trunk group number) field. The value must be an integer in the range 51 to one less than the current size of table CLLI. (The current size of table CLLI appears in field SIZE of table DATASIZE.)

For example, type

>421

and press the Enter key.

Example of system response:

```
TRKGRSIZE:
```

d. Specify the value for the TRKGRSIZE field. Type

>1

and press the Enter key.

Example of system response:

```
ADMININF:
```

e. Specify the value for the ADMININF (administrative information) field. The value in this field is intended to allow someone looking at the common language location identifier to have an idea what it will be used for. You can type in up to 32 characters. Use only alphabetic characters, digits, and underscores. For example, type

>TESTLINE_T100

and press the Enter key.

Example of system response:

```
TUPLE TO BE ADDED:
TERM100X 421 1 TESTLINE_T100
ENTER Y TO CONFIRM, N TO REJECT OR E TO EDIT.
```

f. Confirm the addition. Type

>Y

and press the Enter key.

Example of system response:

```
TUPLE ADDED.
```

g. Indicate that you intend to add a tuple. Type

>ADD TERM102X

and press the Enter key.

Example of system response:

```
ADNUM:
```

h. Specify the value for the ADNUM (administrative trunk group number) field. The value must be an integer in the range 51 to one less than the current size of table CLLI. (The current size of table CLLI appears in field SIZE of table DATASIZE.)

For example, type

>422

and press the Enter key.

Example of system response:

```
TRKGRSIZE:
```

i. Specify the value for the TRKGRSIZE field. Type

>1

and press the Enter key.

Example of system response:

```
ADMININF:
```

j. Specify the value for the ADMININF (administrative information) field. The value in this field is intended to allow someone looking at the common language location identifier to have an idea what it will be used for. You can type in up to 32 characters. Use only alphabetic characters, digits, and underscores. For example, type

>TESTLINE_T102

and press the Enter key.

Example of system response:

```
TUPLE TO BE ADDED:
TERM100X 422 1 TESTLINE_T102
ENTER Y TO CONFIRM, N TO REJECT OR E TO EDIT.
```

k. Confirm the addition. Type

>Y

and press the Enter key.

Example of system response:

```
TUPLE ADDED.
```

l. Indicate that you intend to add a tuple. Type

>ADD TERM105X

and press the Enter key.

Example of system response:

```
ADNUM:
```

m. Specify the value for the ADNUM (administrative trunk group number) field. The value must be an integer in the range 51 to one less than the current size of table CLLI. (The current size of table CLLI appears in field SIZE of table DATASIZE.)

For example, type

>423

and press the Enter key.

Example of system response:

```
TRKGRSIZE:
```

n. Specify the value for the TRKGRSIZE field. Type

>1

and press the Enter key.

Example of system response:

```
ADMININF:
```

o. Specify the value for the ADMININF (administrative information) field. The value in this field is intended to allow someone looking at the common language location identifier to have an idea what it will be used for. You can type in up to 32 characters. Use only alphabetic characters, digits, and underscores. For example, type

>TESTLINE_T105

and press the Enter key.

Example of system response:

```
TUPLE TO BE ADDED:
TERM105X 423 1 TESTLINE_T105
ENTER Y TO CONFIRM, N TO REJECT OR E TO EDIT.
```

p. Confirm the addition. Type

>Y

and press the Enter key.

Example of system response:

```
TUPLE ADDED.
```

q. Select the next step as follows:

If	Do
you need to support the T904 line trunk test	go to step 1r
you do not need to support the T904 line trunk test	go to step 1w

Note: The T904 line trunk test is supported only in the international PT-IP solution, and only on Israeli ISUP trunks.

r. Indicate that you intend to add a tuple. Type

>ADD TERM904X

and press the Enter key.

Example of system response:

```
ADNUM:
```

s. Specify the value for the ADNUM (administrative trunk group number) field. The value must be an integer in the range 51 to one less than the current size of table CLLI. (The current size of table CLLI appears in field SIZE of table DATASIZE.)

For example, type

>424

and press the Enter key.

Example of system response:

```
TRKGRSIZE:
```

t. Specify the value for the TRKGRSIZE field. Type

>1

and press the Enter key.

Example of system response:

```
ADMININF:
```

u. Specify the value for the ADMININF (administrative information) field. The value in this field is intended to allow someone looking

at the common language location identifier to have an idea what it will be used for. You can type in up to 32 characters. Use only alphabetic characters, digits, and underscores. For example, type

```
>TESTLINE_T904
```

and press the Enter key.

Example of system response:

```
TUPLE TO BE ADDED:
TERM904X 424 1 TESTLINE_T904
ENTER Y TO CONFIRM, N TO REJECT OR E TO EDIT.
```

v. Confirm the addition. Type

```
>Y
```

and press the Enter key.

Example of system response:

```
TUPLE ADDED.
```

w. Exit from the table editor. Type

```
>QUIT
```

and press the Enter key.

2 Use the table editor to edit table CLLI, to define the common language location identifier of the test-trunk announcement. The test-trunk announcement provides information that the audio controller and the audio-server device (UAS or MS2000-series device) need in order to create the connection between the testhead and the TDM trunk that is to be tested.

For detailed information about table CLLI, see *North American DMS-100 Customer Data Schema Reference Manual* (297-8001-351 Vol. 3) or *DMS-100 MMP Customer Data Schema Reference Manual* (297-9051-351 Vol. 3).

Proceed as follows.

a. Start the table editor. Type

```
>TABLE CLLI
```

and press the Enter key.

Example of system response:

```
TABLE: CLLI
```

b. Indicate that you intend to add a tuple. Type

```
>ADD TESTTRKANN
```

and press the Enter key.

Example of system response:

```
ADNUM:
```

c. Specify the value for the ADNUM (administrative trunk group number) field. The value must be an integer in the range 51 to one less than the current size of table CLLI. (The current size of table CLLI appears in field SIZE of table DATASIZE.)

For example, type

>84

and press the Enter key.

Example of system response:

```
TRKGRSIZE:
```

d. Specify the value for the TRKGRSIZE field. Type

>1

and press the Enter key.

Example of system response:

```
ADMININF:
```

e. Specify the value for the ADMININF (administrative information) field. The value in this field is intended to allow someone looking at the common language location identifier to have an idea what it will be used for. You can type in up to 32 characters. Use only alphabetic characters, digits, and underscores. For example, type

>TEST_TRUNK_CLLI_FOR_UAS

and press the Enter key.

Example of system response:

```
TUPLE TO BE ADDED:
TESTTRKAMM 84 1 TEST_TRUNK_CLLI_FOR_UAS
ENTER Y TO CONFIRM, N TO REJECT OR E TO EDIT.
```

f. Confirm the addition. Type

>Y

and press the Enter key.

Example of system response:

```
TUPLE ADDED.
```

g. Exit from the table editor. Type

>QUIT

and press the Enter key.

3 Use the table editor to add a tuple to table ANNS. The tuple defines the characteristics of the test-trunk announcement.

Proceed as follows.

a. Start the table editor. Type

```
>TABLE ANNS
```

and press the Enter key.

Example of system response:

```
TABLE: ANNS
```

b. Indicate that you intend to add a tuple. Type

```
>ADD
```

and press the Enter key.

Example of system response:

```
CLLI:
```

c. Enter the common language location identifier for the test-trunk announcement, as specified in the CLLI table. Type

```
>TESTTRKANN
```

and press the Enter key.

Example of system response:

```
ANNARCH:
```

d. Specify the announcement platform architecture. Type

```
>NETWK
```

and press the Enter key.

Example of system response:

```
TRAFSNO:
```

e. Specify the traffic separation number that is assigned to the announcement. Type

```
>0
```

and press the Enter key.

Note: 0 indicates that traffic separation is not required.

Example of system response:

```
CYTIME:
```

f. Specify the cycle time, in seconds. The cycle time is the time for one announcement cycle on one channel, in seconds. Type

>1

and press the Enter key.

Example of system response:

```
MAXCYC:
```

g. Specify the maximum number of cycles. This is the maximum number of times the complete announcement is heard before the call is advanced to the next route in the route list. Type

> <number>

and press the Enter key

where

<number> is an integer in the range 1 to 255.

For example, type

>1

and press the Enter key.

Example of system response:

```
ANNTYP:
```

h. Specify the announcement type. Type

>STND

and press the Enter key.

Example of system response:

```
TRAFSNO:
```

i. Specify that the system should not generate a gap between the tracks of a multi-track announcement. Type

>N

and press the Enter key.

Example of system response:

```
MAXCONN:
```

j. Specify the maximum number of simultaneous connections that are permitted on the announcement. Type

>32

and press the Enter key.

Example of system response:

```
TUPLE TO BE ADDED:
TESTTRKANN NETWK 0 1 1 STND  N  32
ENTER Y TO CONFIRM, N TO REJECT OR E TO EDIT.
```

k. Confirm the addition. Type

>Y

and press the Enter key.

Example of system response:

```
TUPLE ADDED.
```

l. Exit from the table editor. Type

>QUIT

and press the Enter key.

4 Use the table editor to add one or more tuples to table ANNMEMS. The tuple defines the test-trunk-announcement member.

Proceed as follows.

a. Start the table editor. Type

>TABLE ANNMEMS

and press the Enter key.

Example of system response:

```
TABLE: ANNMEMS
```

b. Indicate that you intend to add a tuple. Type

>ADD

and press the Enter key.

Example of system response:

```
ANNMEM:
```

c. Specify the announcement-member identifier. Type

>TESTTRKANN 0

and press the Enter key.

Note: There can be up to 256 members associated with a single announcement. Members are numbered starting from zero. You are defining a single member.

Example of system response:

```
HDWTYPE:
```

d. Specify the hardware type. Type

>UAS

and press the Enter key.

Example of system response:

```
CARDCODE:
```

e. Specify the card code. Type

>AUD

and press the Enter key.

Example of system response:

```
PHSLSTIDX:
```

f. Specify the phrase-list index. Type

>0

and press the Enter key.

Note: The phrase-list index is supposed to indicate which tuple in table ANNPHLST contains the list of phrases that can be used in the announcement. We use 0 as the index value because the test trunk announcement does not use phrases.

Example of system response:

```
PMTYPE:
```

g. Specify the type of trunk module on which the announcement circuit resides. Type

>AUD

and press the Enter key.

Example of system response:

```
AUDNO:
```

h. Specify the peripheral-module number of the audio-controlling device that serves the UAS or MS2000-series device, as specified in the SRVSNAME field in table SERVSINV. For example, type

>4

and press the Enter key.

Example of system response:

```
TUPLE TO BE ADDED
TESTTRKANN 0 UAS AUD 0 AUD 4
ENTER Y TO CONFIRM, N TO REJECT OR E TO EDIT.
```

i. Confirm the addition. Type

```
>Y
```

and press the Enter key.

Example of system response:

```
TUPLE ADDED.
```

j. Exit from the table editor. Type

```
>QUIT
```

and press the Enter key.

5 Use the table editor to add a tuple to table ANNAUDID.

Proceed as follows.

a. Start the table editor. Type

```
>TABLE ANNAUDID
```

and press the Enter key.

Example of system response:

```
TABLE: ANNAUDID
```

b. Indicate that you intend to add a tuple. Type

```
>ADD
```

and press the Enter key.

Example of system response:

```
PHRASEKY:
```

c. Type

```
>NIL
```

and press the Enter key.

Example of system response:

```
AUDID:
```

d. Type

```
>0
```

and press the Enter key.

Example of system response:

```
TUPLE TO BE ADDED:
NIL  0
ENTER Y TO CONFIRM, N TO REJECT OR E TO EDIT.
```

e. Confirm the addition. Type

```
>Y
```

and press the Enter key.

Example of system response:

```
WARNING: NIL IS A USER-DEFINED PHRASE
TUPLE ADDED.
```

f. Exit from the table editor. Type

>QUIT

and press the Enter key.

6 Use the table editor to add a tuple to table ANNPHLST.

Proceed as follows.

a. Start the table editor. Type

>TABLE ANNPHLST

and press the Enter key.

Example of system response:

```
TABLE: ANNPHLST
```

b. Indicate that you intend to add a tuple. Type

>ADD

and press the Enter key.

Example of system response:

```
ANNPHKEY:
```

c. Specify the key value. Type

>TESTTRKANN 0

and press the Enter key.

Example of system response:

```
PHRASES:
```

d. The system is prompting for phrase a phrase name. Type

>NIL

and press the Enter key.

Example of system response:

```
PHRASES:
```

e. Indicate that there are no further phrases to be usable in the announcement. Type

>$

and press the Enter key.

Example of system response:

```
TUPLE TO BE ADDED:
TESTTRKANN 0  NIL  $
ENTER Y TO CONFIRM, N TO REJECT OR E TO EDIT.
```

f. Confirm the addition. Type

>Y

and press the Enter key.

Example of system response:

```
TUPLE ADDED.
```

g. Exit from the table editor. Type

>QUIT

and press the Enter key.

7 Use the table editor to set the value of the EXTERNAL_GATEWAY_TEST_LINES office parameter, to indicate that a testhead (that is, either a UAS with a Sage unit or an MS2000-series device) will provide the tests.

Proceed as follows.

a. Start the table editor. Type

>TABLE OFCVAR

and press the Enter key.

Example of system response:

```
TABLE: OFCVAR
```

b. Use the POS command to display the tuple for the EXTERNAL_GATEWAY_TEST_LINES parameter. Type

>POS EXTERNAL_GATEWAY_TEST_LINES

and press the Enter key.

Example of system response:

```
EXTERNAL_GATEWAY_TEST_LINES N
```

> ***Note:*** N is the default value of the office parameter. If the office parameter has the value N, then tests are provided by an integrated service module equipment (ISME).

c. Use the CHA command to indicate that you want to change the value of the tuple. Type

>CHA

and press the Enter key.

Example of system response:

```
PARMVAL: N
```

d. Type the new parameter value. Type

```
>Y
```

and press the Enter key.

Example of system response:

```
TUPLE TO BE CHANGED:
EXTERNAL_GATEWAY_TEST_LINES  Y
ENTER Y TO CONFIRM, N TO REJECT OR E TO EDIT.
```

e. Confirm the addition. Type

```
>Y
```

and press the Enter key.

Example of system response:

```
TUPLE CHANGED:
```

f. Exit from the table editor. Type

```
>QUIT
```

and press the Enter key.

8 You have completed the procedure.

Note: If you intend to use either testhead (that is, either a UAS with a Sage unit or an MS2000-series device) to terminate a test call, then you must provision the test's common language location identifier (TERM100X, TERM102X, TERM105X, or TERM904X) in the routing tables, for example, in table STDPRTCT. For information on STDPRTCT and on translations, see *North American DMS-100 Translations Guide* (297-8001-350), or *DMS-100 MMP Translations Guide*, 297-9051-350.

—End—

Activating/Deactivating the XPMOVLD OM group for GWCs

The XPMOVLD OM group collects statistics on overload conditions, for example, number of delayed originations, number of delayed terminations, and the numbers of lost originations and terminations due to different reasons. After you activate this OM group, the GWC collects and reports the statistics.

Use this procedure to activate or deactivate the OM group XPMOVLD for GWCs.

For detailed information about the XPMOVLD OM group, see the following documents:

- in the North American market, see *North American DMS-100 Operational Measurements Reference Manual* (297-8001-814 Vol. 5)
- in the international market, see *DMS-100 MMP Operational Measurements Reference Manual* (297-9051-814 Vol. 5)

Refer to *DMS-MTX Operational Measurements Quick Reference Guide* (411-2131-900) for more information about the XPMOVLD OM group.

Office parameter XPMOVLD_OM_CONTROL in table OFCVAR controls the collection of these OMs. The possible values of the office parameter are N and Y. By default, the office parameter is set to N, which means the OM group is deactivated. You activate or deactivate the OM group by toggling the value of the office parameter.

Interval

Perform this procedure as required.

Prerequisites

None.

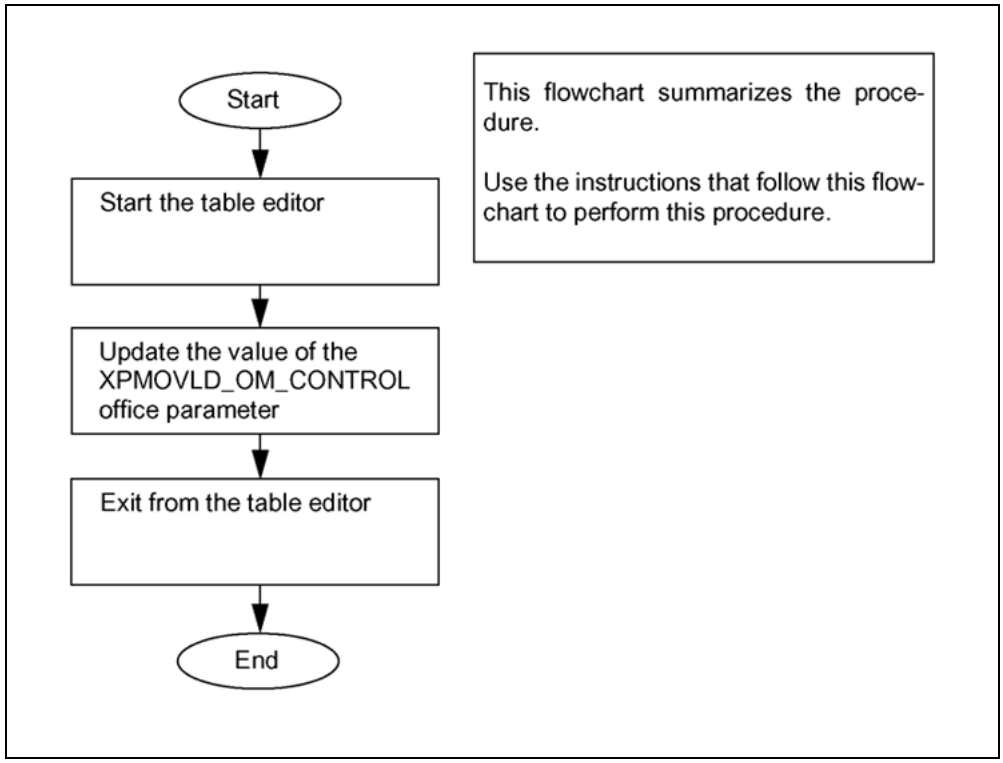
Common procedures

This procedure does not refer to any common procedures.

Action

The following flowchart summarizes this procedure.

Activating/Deactivating the XPMOVLD OM group for GWCs



Activating/Deactivating the XPMOVLD OM group for GWCs

Step	Action

At the MAP terminal

1 Start the table editor to edit the OCVAR table. At the user interface prompt on any MAP screen type.

```
>TABLE OFVAR
```

and press the Enter key.

Example of system response:

```
TABLE: OFCVAR
```

2 Use the POS command to go to the tuple for the HOST_MGCNAME parameter. Type

```
>POS XPMOVLD_OM_CONTROL
```

and press the Enter key.

Example of system response:

```
XPMOVLD_OM_CONTROL: N
```

Note: N is the default value.

3 Use the CHA command to indicate that you want to change the value of the tuple. Type

>CHA

and press the Enter key.

Example of system response:

```
PARMVAL: N
```

4 Type the new parameter value. To activate the office parameter, type

>Y

and press the Enter key.

Alternatively, if you are de-activating the office parameter, type

>N

and press the Enter key.

Example of system response if you enter the value Springfield:

```
TUPLE TO BE CHANGED:
XPMOVLD_OM_CONTROL: Y
ENTER Y TO CONFIRM, N TO REJECT OR E TO EDIT.
```

5 Confirm the change. Type

>Y

and press the Enter key.

Example of system response:

```
TUPLE CHANGED:
```

6 Exit from the table editor. Type

>QUIT

and press the Enter key.

7 You have completed the procedure.

—End—

Activating/Deactivating the XPMOCC OM group for GWCs

The XPMOCC OM group collects statistics on central-processing-unit (CPU) occupancy in the GWC. After you activate this OM group, the GWC collects and reports the statistics.

Use this procedure to activate or deactivate the OM group XPMOCC for GWCs.

For detailed information about the XPMOCC OM group, see the following documents:

- in the North American market, see *North American DMS-100 Operational Measurements Reference Manual* (297-8001-814 Vol. 5)
- in the international market, see *DMS-100 MMP Operational Measurements Reference Manual*(297-9051-814 Vol. 5)

Refer to the *DMS-MTX Operational Measurements Quick Reference Guide* (411-2131-900) for detailed information about the XPMOCC OM group

Office parameter XPMOCC_OM_CONTROL in table OFCVAR controls the collection of these OMs. The possible values of the office parameter are N and Y. By default, the office parameter is set to N, which means the OM group is deactivated. You activate or deactivate the OM group by toggling the value of the office parameter.

Interval

Perform this procedure as required.

Prerequisites

None.

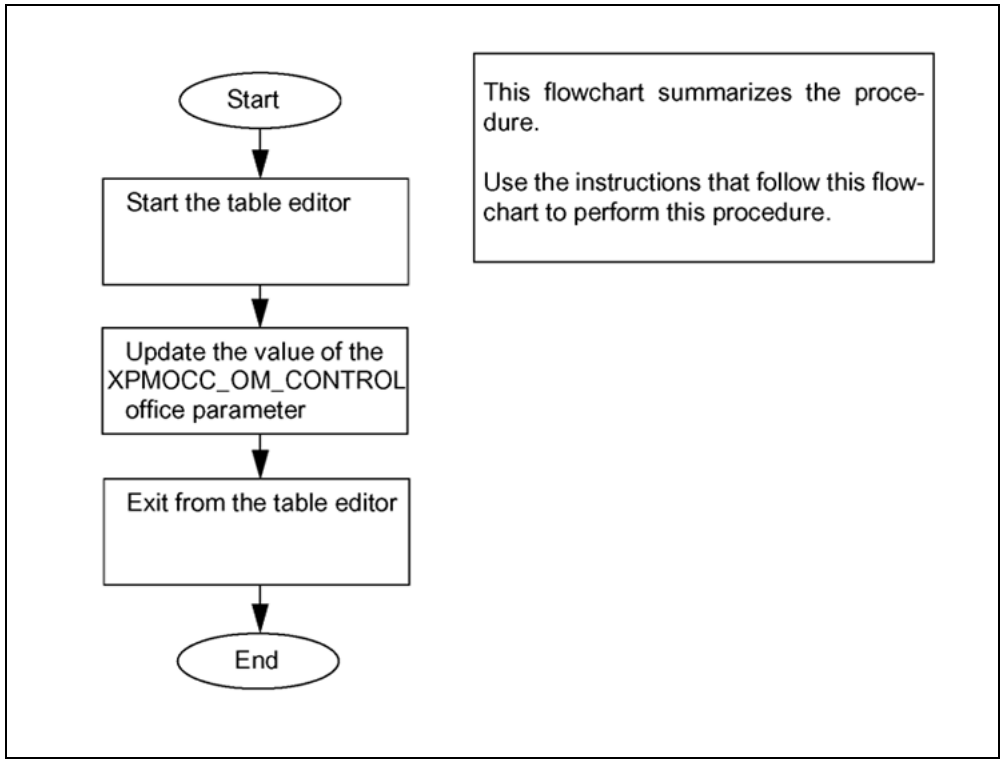
Common procedures

This procedure does not refer to any common procedures.

Action

The following flowchart summarizes this procedure.

Activating/Deactivating the XPMOCC OM group for GWCs



Activating/Deactivating the XPMOCC OM group for GWCs

Step	Action

At the MAP terminal

1 Start the table editor to edit the OCVAR table. At the user interface prompt on any MAP screen type.

```
>TABLE OFVAR
```

and press the Enter key.

Example of system response:

```
TABLE: OFCVAR
```

2 Use the POS command to go to the tuple for the HOST_MGCNAME parameter. Type

```
>POS XPMOCC_OM_CONTROL
```

and press the Enter key.

Example of system response:

```
XPMOCC_OM_CONTROL: N
```

Note: N is the default value.

3 Use the CHA command to indicate that you want to change the value of the tuple. Type

```
>CHA
```

and press the Enter key.

Example of system response:

```
PARMVAL: N
```

4 Type the new parameter value. To activate the office parameter, type

```
>Y
```

and press the Enter key.

Alternatively, if you are de-activating the office parameter, type

```
>N
```

and press the Enter key.

Example of system response if you enter the value Springfield:

```
TUPLE TO BE CHANGED:
XPMOCC_OM_CONTROL: Y
ENTER Y TO CONFIRM, N TO REJECT OR E TO EDIT.
```

5 Confirm the change. Type

```
>Y
```

and press the Enter key.

Example of system response:

```
TUPLE CHANGED:
```

6 Exit from the table editor. Type

```
>QUIT
```

and press the Enter key.

7 You have completed the procedure.

—End—

Provisioning the MULTINET_DISPLAY_ACTIVE Office Parameter

Use this procedure to provision, or de-provision, the **MULTINET_DISPLAY_ACTIVE** office parameter. For either activity you use the table editor to specify the value of the office parameter. You de-provision the parameter by specifying the default value.

The **MULTINET_DISPLAY_ACTIVE** office parameter activates or de-activates the ability of the CS 2000 to generate logs and operational measurements for multiple packet-based bearer networks.

The default value of MULTINET_DISPLAY_ACTIVE is N. You can set the value to Y only if the NETWORK_ACTIVE office parameter has been set to EXTENET. For information, see procedure "Provisioning the NETWORK_ACTIVE office parameter" (page 262).

When you change the value from N to Y, the following things occur.

- The system starts pegging the registers in the following OM groups: TRK2NET1, TRK2NET2, OFZ2NET1, OFZ2NET2, and DPTOFCP
- If you display the DPTNODE OM group, in the DPT node tuple, the system displays the signaling type, and, if the DPT node is SPM-based, the system displays the bearer network.
- The display of the bridge pool in IWBM 800-series logs is enabled.

When you change the value from Y to N, the following things occur:

- For the following OM groups, the system sets all the registers to zero, and it no longer pegs the registers: TRK2NET1, TRK2NET2, OFZ2NET1, OFZ2NET2, and DPTOFCP.
- The tuples in the following OM groups can no longer be displayed: TRK2NET1, TRK2NET2, OFZ2NET1, OFZ2NET2, and DPTOFCP. (The OMSHOW command displays the OM groups but not their tuples.).
- If you display the DPTNODE OM group, in the DPT node tuple, the signaling type and bearer network are not displayed
- The display of the bridge pool in IWBM 800-series logs is disabled.
- The system displays a warning message: "All OM and logs data pertaining to multiple bearer networks on this call server will be lost."

Activation

If you change the value of the office parameter, activation is immediate.

Interval

Perform this procedure as required.

Prerequisites

You can set the value of MULTINET_DISPLAY_ACTIVE to Y only if the NETWORK_ACTIVE office parameter has been set to EXTENET.

Common procedures

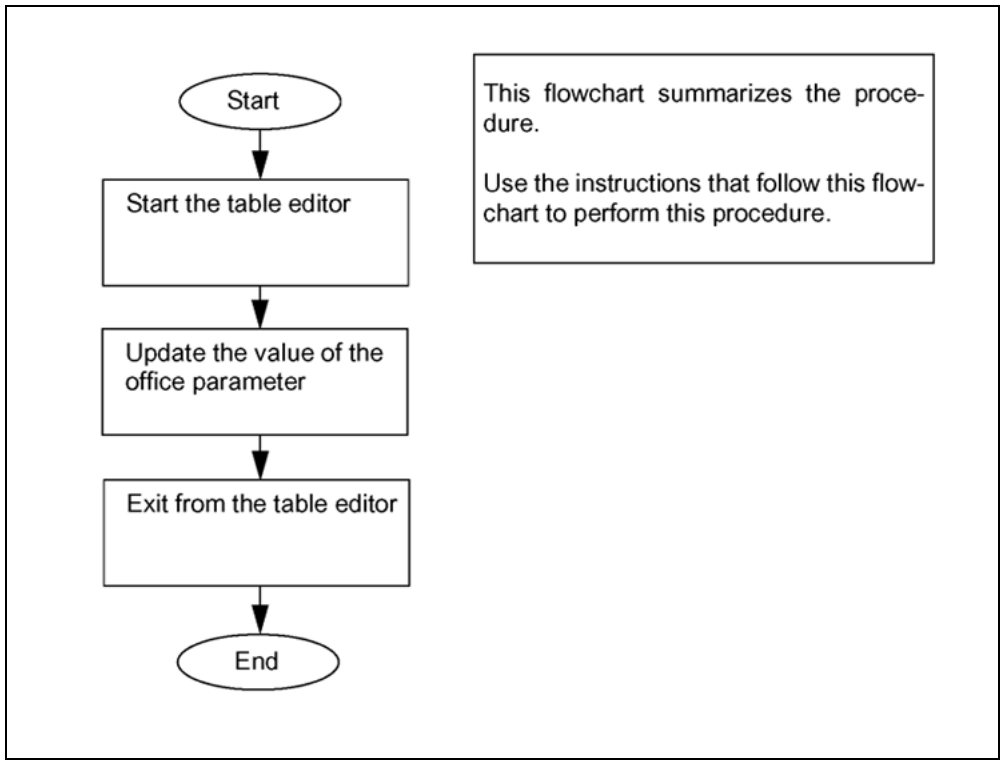
This procedure does not refer to any common procedures.

Action

Use this procedure to provision or to de-provision the office parameter. For either activity you use the table editor to specify the value of the office parameter. You de-provision the parameter by specifying the default value.

The following flowchart summarizes this procedure.

Provisioning the MULTINET_DISPLAY_ACTIVE office parameter



Provision the MULTINET_DISPLAY_ACTIVE office parameter

Step	Action
	At the MAP terminal
1	Start the table editor to edit the OFCVAR table. At the user interface prompt on any MAP screen type.

>TABLE OFCVAR

and press the Enter key.

Example of system response:

```
TABLE: OFCVAR
```

2 Use the POS command to display the tuple for the NETWORK_ACTIVE parameter. Type

>POS MULTINET_DISPLAY_ACTIVE

and press the Enter key.

Example of system response:

```
MULTINET_DISPLAY_ACTIVE <parameter-value>
```

where

<parameter-value> is one of the following: N or Y

3 Use the CHA command to indicate that you want to change the value of the tuple. Type

>CHA

and press the Enter key.

Example of system response:

```
PARMVAL: N
```

N is the default value of the parameter.

4 Type the new parameter value. Type

>Y

and press the Enter key.

Example of system response:

```
TUPLE TO BE CHANGED:
MULTINET_DISPLAY_ACTIVE Y
ENTER Y TO CONFIRM, N TO REJECT OR E TO EDIT.
```

5 Confirm the change. Type

>Y

and press the Enter key.

Example of system response:

```
TUPLE CHANGED:
```

6 Exit from the table editor. Type

>QUIT

and press the Enter key.

7 You have completed the procedure.

—End—

Provisioning the OSS_PROV_VERSION office parameter

Use this procedure to provision the office parameter. You use the table editor to specify the value of the office parameter. If you do not provision the office parameter, it retains its default value.

The OSS_PROV_VERSION office parameter specifies the software release that is running in the system (for example, SN07 or SN08).

In SN08, the setting of this office parameter determines whether enhancements to certain SERVORD query commands are active or inactive.

Possible values of OSS_PROV_VERSION are as follows.

- SN07. This is the default value. If the office parameter has this value, the enhancements to the SERVORD query commands remain inactive.
- SN08. Set the office parameter to this value to activate the enhancements to the SERVORD query commands.

The enhancements controlled by the office parameter are as follows.

- Bearer-network information is added to the output of the following SERVORD commands:
  - QDN
  - QDNWRK
  - QLT
  - QLEN
  - QLENWRK
  - QCUST
  - QGRP

  In each case, the output includes a field BEARERNET. The field contains the values <fabric> and <display>. The <fabric> value is the value specified for the FABRIC field in table BEARNETS, and is one of the following: ENET, AAL1, AAL2 or IP. The <display> value is the value specified for the DISPLAY field in table BEARNETS, to identify the bearer network.

  Note: If you issue a QDN, QLT, QGRP, QDNWRK, or QCUST command against an ISDN LTID that has not been attached to a LEN, the system will not display any bearer-network information.

- For the following SERVORD commands, there is a mandatory input parameter that specifies the bearer network:
  - QDNWRK
  - QLENWRK
  - QHASU

In each case, the input parameter is BEARNETWORK. Valid values are ALL, or any of the bearer-network identifier values specified in the DISPLAY field of table BEARNETS.

Note: For detailed information about SERVORD commands, see *the SERVORD Reference Manual*, 297-8001-808 in the North American market, or 297-9051-808 in the international market.

Activation

If you change the value of the office parameter, activation is immediate.

Interval

Perform this procedure as required.

Prerequisites

None.

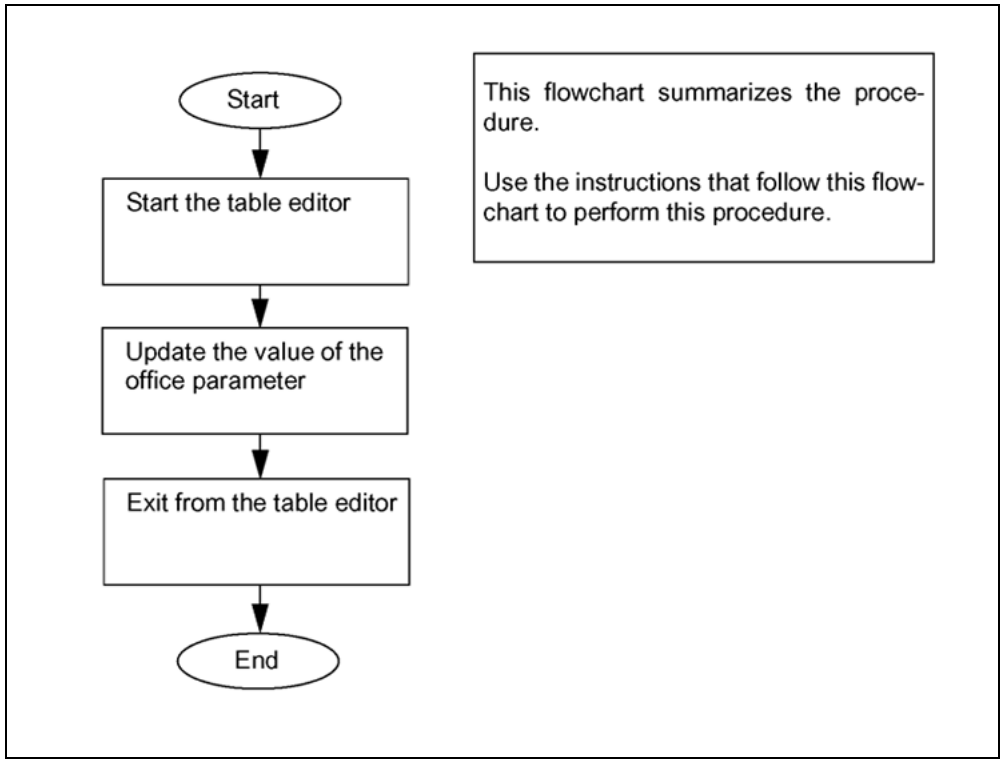
Common procedures

This procedure does not refer to any common procedures.

Action

The following flowchart summarizes this procedure.

Provisioning the OSS_PROV_VERSION office parameter



Provisioning the OSS_PROV_VERSION office parameter

Step	Action

At the MAP terminal

1 Start the table editor to edit the OFCVAR table. At the user interface prompt on any MAP screen type.

```
>TABLE OFCVAR
```

and press the Enter key.

Example of system response:

```
TABLE: OFCVAR
```

2 Use the POS command to display the tuple for the NETWORK_ACTIVE parameter. Type

```
>POS OSS_PROV_VERSION
```

and press the Enter key.

Example of system response:

```
OSS_PROV_VERSION <parameter-value>
```

where

<parameter-value> is SN07, which is the default value

3 Use the CHA command to indicate that you want to change the value of the tuple. Type

```
>CHA
```

and press the Enter key.

Example of system response:

```
PARMVAL: SN07
```

Note: SN07 is the default value of the parameter.

4 Type the new parameter value. Type

```
>SN08
```

and press the Enter key.

Example of system response:

```
Changing from a lower to a higher version.
Check if the OSS Software has been upgraded to
support all OSS impacting feature enhancements
contained in the load corresponding to the
higher version.  Use QOSSVER tool to get list
of OSS impacting features in various loads.
TUPLE TO BE CHANGED:
OSS_PROV_VERSION SN08
ENTER Y TO CONFIRM, N TO REJECT OR E TO EDIT.
```

Note: QOSSVER is a CI tool. It is usable from within the MAP user interface. For information on QOSSVER, type the command **`q qossver`** at the user interface prompt on a MAP screen, and press the Enter key.

5 Confirm the change. Type

```
>Y
```

and press the Enter key.

Example of system response:

```
TUPLE CHANGED:
```

6 Exit from the table editor. Type

```
>QUIT
```

and press the Enter key.

7 You have completed the procedure.

—End—

Specifying the Bearer Networks Served by the Call Server

In table BEARNETS you specify the names of the bearer networks served by the CS 2000 and the fabric of each bearer network. After you have specified the networks and their names, you can specify the bearer network to be used by each peripheral device (GWC, MG 4000, or, in a concurrent configuration, the IW SPM), and the bearer network to be used by each DPT trunk group.

This activity is one of several activities required to enable the CS 2000 to support calls on multiple packet-based bearer networks (as well as on the ENET).

The activities to enable the CS 2000 to support calls on multiple packet-based bearer networks are as follows.

- Check the values of the following office parameters: NETWORK_ACTIVE, MULTINET_DISPLAY_ACTIVE, and OSS_PROV_VERSION. Change the settings if necessary. For information, see the following procedures: "Provisioning the NETWORK_ACTIVE office parameter" (page 263), "Provision the MULTINET_DISPLAY_ACTIVE office parameter" (page 431), and "Provisioning the OSS_PROV_VERSION office parameter" (page 434).
- Specify the bearer networks, and the fabric type of each network. This module covers the specifying of the bearer networks and their fabric types.
- Specify the bearer network associated with each peripheral device. (Depending on the solution, the peripheral devices may be GWCs and/or MG 4000s and/or IW SPM ATMs and/or IW SPM IPs.) For information, see the configuration management documents pertaining to the peripheral devices that are connected to the CS 2000.
- Specify the bearer network associated with each dynamic packet trunk (DPT) group. For information, see the procedures for provisioning dynamic packet trunks in this document.
- Provision the bridge pools used by the CS 2000. Each bridge pool is composed of IW SPM bridges. The bridges support communication from one bearer network to another. For information, see procedure "Provisioning the bridge pools used by the CS 2000MSC Server 1000" (page 446).

ATTENTION

This provisioning activity creates bridge pools that have no members. Subsequently, you must provision the IW SPMs that are the members of the bridge pools. You provision an IW SPM and designate it as a member of one or more bridge pools by entering datafill into table MNNODE. For instructions for provisioning IW-SPMs, see the following documents: *IW SPM Configuration Management* (NN10100-511); *IW SPM ATM Configuration Management* (NN10099-511).

- Specify the connectivity rules that govern network-to-network communication. The rules state which network-to-network connections are allowed, and which bridge pools are to be used. For information, see procedure "Provisioning the connectivity rules for multiple bearer networks" (page 454).

Interval

Perform this procedure as required.

Prerequisites

The prerequisites are as follows.

- The NETWORK_ACTIVE office parameter must be set to EXTENET.
- You must know the packet-based networks that the CS 2000 will serve, you must know the fabric of each network, and you must have decided on the names by which you will identify the networks.

Common procedures

This procedure does not refer to any common procedures.

Action

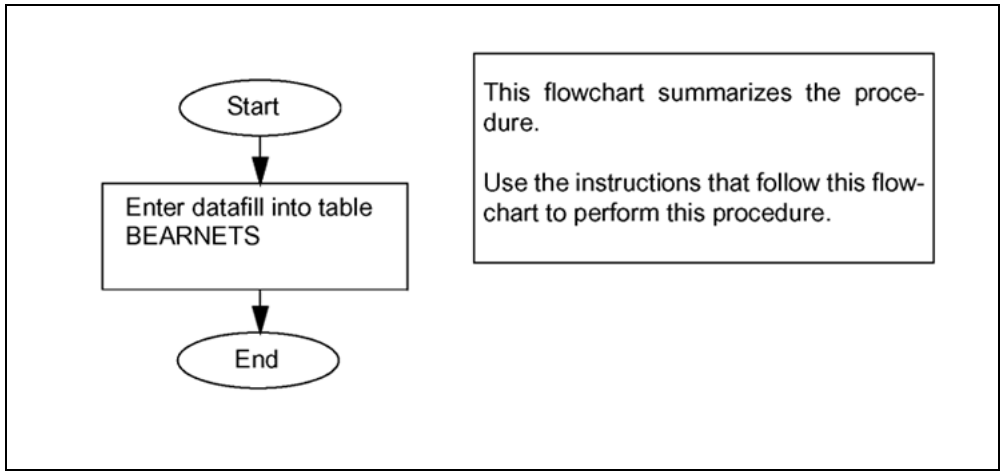
Use this procedure to specify the bearer networks that the CS 2000 serves. You specify the bearer networks by entering datafill into table BEARNETS.

The CS 2000 can serve the ENET bearer network, and can also serve one or more packet-based bearer networks. If the CS 2000 serves multiple packet-based networks, they can be on the same network fabric, or on differing network fabrics.

For example, a CS 2000 could serve five bearer networks: the ENET, two packet-based bearer networks that use the AAL1 fabric, and two packet-based bearer networks that use the IP fabric.

The following flowchart summarizes this procedure.

Specify the bearer networks



Specify the bearer networks served by the call server

Step	Action

At the MAP terminal

1 Start the table editor to edit table BEARNETS. At the user interface prompt on any MAP screen type.

```
>TABLE BEARNETS
```

and press the Enter key

Example of system response:

```
TABLE: BEARNETS
```

2 Indicate that you intend to add an entry. Type

`>ADD <netidx>`

and press the Enter key

where

`<netidx>` is the index value of the entry, composed of the word NET, followed by a space, followed by an integer in the range 0 to 7, for example, NET 1

ATTENTION

The netidx value NET 0 is reserved for the ENET network. The tuple with netidx value NET 0 is added automatically as part of the one night process (ONP) that first upgrades the system to a release in which the CS 2000 can support multiple bearer networks (release SN07 or later). If you are specifying packet-based bearer networks, use netidx values in the range NET 1 to NET 7.

For example, to specify the first packet bearer network, type

>ADD NET 1

and press the Enter key

Example of system response:

```
BNETNAME:
```

3 Specify the name of the bearer network. Type

><bnetname>

and press the Enter key

where

<bnetname> is the name of the bearer network. It can be up to 32 characters in length, and it must be unique in the table.

For example, type

>NET_IP1

and press the Enter key

Example of system response:

```
DISPLAY:
```

4 Specify the display value. The system will use the display value to identify the bearer network on MAP screens, and in the responses to certain SERVORD commands (listed in "Provisioning the OSS_PROV_VERSION office parameter" (page 434)). Type

><display>

where

<display> is a string composed of one to four alphanumeric characters. The underscore can also be used.

ATTENTION

Each display value must be unique in the table.

For example, type

>IP01

and press the Enter key

Example of system response:

```
FABRIC:
```

5 Specify the network fabric. Type

><fabric>

and press the Enter key

where

<fabric> is ENET or AAL1 or AAL2 or IP

For example, type

>IP

and press the Enter key

Example of system response:

```
OPTIONS:
```

6 Specify an option, or enter a dollar sign to indicate that there are no options.

There is only one option, PKT_NETWORK_DEFAULT. This option identifies the default packet bearer network. The system uses this value as follows: if the system cannot otherwise determine the bearer network that should be associated with a peripheral device or with a DPT trunk group, it uses the default packet bearer network.

The rules for assigning the PKT_NETWORK_DEFAULT option are as follows:

- You must assign this option to the first packet bearer network that you specify.
- Only one entry in the table can have this option. Therefore, if the option has already been assigned to an entry in the table, and you assign it to a subsequent entry, the system automatically removes it from the earlier entry.
- You cannot assign the PKT_NETWORK_DEFAULT option to the ENET network.

If you do not want to assign an option in this entry, type

>$

and press the Enter key

If you are specifying an entry for a packet bearer network and if you want to designate that network as the default packet bearer network, type

>PKT_NETWORK_DEFAULT

and press the Enter key

Example of system response:

```
TUPLE TO BE ADDED:
NET 1 NET_IP1 IP01 IP (PKT_NETWORK_DEFAULT) $
ENTER Y TO CONFIRM, N TO REJECT OR E TO EDIT.
```

7 Confirm the addition. Type

```
>Y
```

and press the Enter key

Example of system response:

```
TUPLE ADDED.
```

8 Select next step as follows:

If	Do
you want to specify another bearer network	step 2
you have finished specifying bearer networks	step 9

9 Exit from the table editor. Type

```
>QUIT
```

and press the Enter key

—End—

Provisioning Bridge Pools

Use this procedure to provision bridge pools. A bridge pool is a grouping of IW SPM bridges. The CS 2000 uses a bridge when it connects endpoints that are in different bearer networks. IW SPM ATMs provide bridges between the ENET and ATM fabrics; IW SPM IPs provide bridges between the ENET and IP fabrics. Each pool includes one or more IW SPMs. Each IW SPM has four groups of 504 bridges. You provision a bridge pool by entering datafill in table CLLI and in table NETBRDGE.

ATTENTION

This provisioning activity creates bridge pools that have no members. Subsequently, you must provision the IW SPMs that are the members of the bridge pools. You provision an IW SPM and designate it as a member of one or more bridge pools by entering datafill into table MNNODE. For instructions for provisioning IW-SPMs, refer to *IW SPM Configuration Management* (NN10100-511) or *IW SPM ATM Configuration Management* (NN10099-511).

This activity is one of several activities required to enable the CS 2000 to support calls on multiple packet-based bearer networks (as well as on the ENET).

The activities to enable the CS 2000 to support calls on multiple packet-based bearer networks are as follows.

- Check the following OPARM settings (changing them if necessary) :
  - **NETWORK_ACTIVE**
  - **MULTINET_DISPLAY_ACTIVE**
  - **OSS_PROV_VERSION**
- Specify the bearer networks, and the fabric type of each network. For information, see procedure "Specify the bearer networks served by the call server" (page 440).
- Specify the bearer network associated with each peripheral device. (Depending on the solution, the peripheral devices may be GWCs and/or MG 4000s and/or IW SPM ATMs and/or IW SPM IPs.) For information, see the configuration management documents pertaining to the peripheral devices that are connected to the CS 2000.
- Specify the bearer network associated with each dynamic packet trunk (DPT) group. For information, see the procedures covering trunk provisioning in this document.
- Provision the bridge pools used by the CS 2000. Each bridge pool is composed of IW SPM bridges. The bridges support communication from

one bearer network to another. This module covers the provisioning of the bridge pools.

ATTENTION

This provisioning activity creates bridge pools that have no members. Subsequently, you must provision the IW SPMs that are the members of the bridge pools. You provision an IW SPM and designate it as a member of one or more bridge pools by entering datafill into table MNNODE. For instructions for provisioning IW-SPMs, refer to the following documents: *IW SPM Configuration Management* (NN10100-511) or ; *IW SPM ATM Configuration Management* (NN10099-511).

- Specify the connectivity rules that govern network-to-network communication. The rules state which network-to-network connections are allowed, and which bridge pools are to be used. For information, see procedure "Provisioning the connectivity rules for multiple bearer networks" (page 454).

Interval

Perform this procedure as required.

Prerequisites

The prerequisites are as follows.

- The NETWORK_ACTIVE office parameter must be set to EXTENET.
- The networks that the CS 2000 will serve must have been specified in table BEARNETS.
- You must know the names by which you will identify the bridge pools.

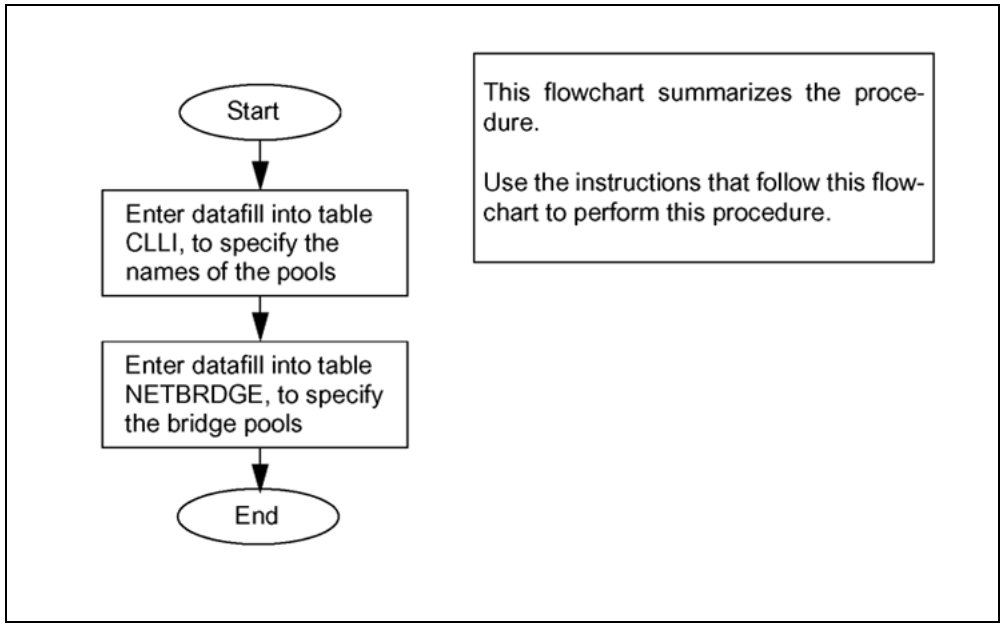
Common procedures

This procedure does not refer to any common procedures.

Action

The following flowchart summarizes this procedure.

Provision the bridge pools used by the CS 2000



Provisioning bridge pools

Step	Action

At the MAP terminal

1 Start the table editor to edit table CLLI. At the user interface prompt on any MAP screen type.

```
>TABLE CLLI
```

and press the Enter key

Example of system response:

```
TABLE: CLLI
```

2 Indicate that you intend to add an entry. Type

```
>ADD <brdgclli>
```

and press the Enter key

where

<brdgclli> is the clli name of the bridge pool. The name is composed of up to 16 alphanumeric characters, and the first character must be alphabetic.

For example, type

```
>ADD ENET_TO_IP
```

and press the Enter key

Example of system response:

```
ADNUM:
```

3 Specify the value for the ADNUM (administrative trunk group number) field. The value must be an integer in the range 51 to one less than the current size of table CLLI. (The current size of table CLLI appears in field SIZE of table DATASIZE.)

For example, type

```
>321
```

and press the Enter key

Example of system response:

```
TRKGRPSIZ:
```

4 Set the trunk group size to zero. Type

```
>0
```

and press the Enter key

Example of system response:

```
ADMININF:
```

5 Specify the value for the ADMININF (administrative information) field. The value in this field is intended to allow someone looking at the clli to have an idea what it will be used for. You can type in up to 32 characters. Use only alphabetic characters, digits, and underscores. For example, type

```
>ENET_TO_IP_BRIDGE_POOL
```

and press the Enter key

Example of system response:

```
TUPLE TO BE ADDED:
ENET_TO_IP 321 0 ENET_TO_IP_BRIDGE_POOL
ENTER Y TO CONFIRM, N TO REJECT OR E TO EDIT.
```

6 Confirm the addition. Type

```
>Y
```

and press the Enter key

Example of system response:

```
TUPLE ADDED.
```

7 Select the next step as follows:

If	Do
you want to provision the clli name of another bridge pool	step 2
you have finished specifying the clli names of bridge pools	step 8

8 Exit from the table editor. Type

>QUIT

and press the Enter key

9 Start the table editor to edit table NETBRDGE. At the user interface prompt on any MAP screen type

>TABLE NETBRDGE

and press the Enter key.

Example of system response:

```
TABLE: NETBRDGE
```

10 Indicate that you intend to add an entry. Type

>ADD <brdgclli>

and press the Enter key

where

<brdgclli> is the clli name of the bridge pool, as specified in table CLLI

For example, type

>ADD ENET_TO_IP

and press the Enter key

Example of system response:

```
BRDGTYPE:
```

11 Specify the type of the bridging resource. Type

>CORE_BRDGE

and press the Enter key

Example of system response:

```
DISPLAY:
```

12 Specify the display value. This is what the system will display on MAP screens, to identify the bridge pool. Type

> <display>

where

<display> is a unique string composed of one to four alphanumeric characters. The underscore can also be used.

For example, type

>E_IP

and press the Enter key

Example of system response:

```
BEARNETS:
```

13 Specify the two bearer networks that can be connected by way of the bridges in this bridge pool. Type

> <bnetname1> <bnetname2>

and press the Enter key

where

<bnetname1> and <bnetname2> are the names of bearer networks as specified in table BEARNETS. The two names cannot be identical. They must be the names of two different bearer networks.

For example, type

>TDM_ENET NET_IP

and press the Enter key

Example of system response:

```
TUPLE TO BE ADDED:
ENET_TO_IP CORE_BRDGE E_IP
(TDM_ENET NET_IP)
ENTER Y TO CONFIRM, N TO REJECT OR E TO EDIT.
```

14 Confirm the addition. Type

>Y

and press the Enter key

Example of system response:

```
TUPLE ADDED.
```

ATTENTION

At this time the system creates the bridge pool. The newly created bridge pool has no members. Subsequently, you must provision the IW SPMs that are the members of the bridge pools. You provision an IW SPM and designate it as a member of one or more bridge pools by entering datafill into table MNNODE. For instructions for provisioning IW-SPMs, refer to *IW SPM Configuration Management*: (NN10100-511) or *IW SPM ATM Configuration Management* (NN10099-511).

15 Select the next step as follows:

If	Do
you want to provision another bridge pool	step 10
you have finished provisioning bridge pools	step 16

16 Exit from the table editor. Type

```
>QUIT
```

and press the Enter key

17 You have completed the procedure. If applicable, return to the higher level task flow or procedure that directed you to this procedure.

—End—

Provisioning the Connectivity Rules for Multiple Bearer Networks

Use this procedure to provision the connectivity rules that govern the ability of the CS 2000MSC Server 1000 to make connections between different bearer networks.

You provision the connectivity rules by entering datafill into two tables.

- In table NETPATH you define connectivity paths. Each entry in the table specified a path. A path is composed of either one or two bridge pools. Each entry means that if the system is connecting by way of this type of path, it needs one bridge from each bridge pool named in the entry. (There can be up to two bridge pools in a path because a connection between an IP fabric and an ATM fabric requires two bridges.)
- Table NET2NET contains one entry for each bearer network that the CS 2000 serves. The entry for each bearer network specifies which other bearer networks it can connect to, and the paths to be used. These entries are created automatically by the system. When you specify a bearer network by adding an entry to table BEARNETS (as explained in the procedure "Specify the bearer networks served by the call server" (page 440)), the system automatically adds an entry for that network to table NET2NET. The automatically added entry specifies neither connecting networks nor paths. You must edit the entry to specify the other bearer networks that can be connected to, and, for each such network, the path to be used. Each path is identified by an index value that points to an entry in table NETPATH.
- Table NET2NET contains one entry for each bearer network that the MSC Server 1000 serves. The entry for each bearer network specifies which other bearer networks it can connect to, and the paths to be used. These entries are created automatically by the system. When you specify a bearer network by adding an entry to table BEARNETS (as explained in the Provision BEARNETS procedure), the system automatically adds an entry for that network to table NET2NET. The automatically added entry specifies neither connecting networks nor paths. You must edit the entry to specify the other bearer networks that can be connected to, and, for each such network, the path to be used. Each path is identified by an index value that points to an entry in table NETPATH.

This activity is one of several activities required to enable the CS 2000MSC Server 1000 to support calls on multiple packet-based bearer networks (as well as on the ENET).

The activities to enable the CS 2000MSC Server 1000 to support calls on multiple packet-based bearer networks are as follows.

- Check the following OPARM settings (changing them if necessary) :
  - **NETWORK_ACTIVE** (see procedure Provisioning the NETWORK_ACTIVE Office Parameter for more information)
  - **NETWORK_ACTIVE**
  - **MULTINET_DISPLAY_ACTIVE** (see procedure "Provision the MULTINET_DISPLAY_ACTIVE office parameter" (page 431) for more information)
  - **MULTINET_DISPLAY_ACTIVE**
  - **OSS_PROV_VERSION**
- Specify the bearer networks, and the fabric type of each network. For information, see procedure "Specify the bearer networks served by the call server" (page 440).
- Specify the bearer networks, and the fabric type of each network. For information, see procedure Provision BEARNETS.
- Specify the bearer network associated with each peripheral device. (Depending on the solution, the peripheral devices may be GWCs and/or MG 15000sMG 4000s and/or IW SPM ATMs and/or IW SPM IPs.) For information, see the configuration management documents pertaining to the peripheral devices that are connected to the CS 2000MSC Server 1000.
- Specify the bearer network associated with each dynamic packet trunk (DPT) group. For information, see the procedures covering trunk provisioning in this document.
- Provision the bridge pools used by the CS 2000MSC Server 1000. Each bridge pool is composed of IW SPM bridges. The bridges support communication from one bearer network to another. This module covers the provisioning of the bridge pools.

ATTENTION

This provisioning activity creates bridge pools that have no members. Subsequently, you must provision the IW SPMs that are the members of the bridge pools. You provision an IW SPM and designate it as a member of one or more bridge pools by entering datafill into table MNNODE. For instructions for provisioning IW-SPMs, refer to *IW SPM Configuration Management* (NN10100-511) or *IW SPM ATM Configuration Management* (NN10099-511).

- Specify the connectivity rules that govern network-to-network communication. The rules state which network-to-network connections are allowed, and which bridge pools are to be used. For information,

see procedure "Provisioning the connectivity rules for multiple bearer networks" (page 454).

Interval

Perform this procedure as required.

Prerequisites

The prerequisites are as follows.

- The NETWORK_ACTIVE office parameter must be set to EXTENET.
- The networks that the CS 2000MSC Server 1000 will serve must have been specified in table BEARNETS.
- The bridge pools that the CS 2000MSC Server 1000 will use must have been provisioned in table NETBRDGE.
- For each bearer network that the CS 2000MSC Server 1000 is going to serve, you must know the following things:
  - the connecting networks, that is, the other bearer networks to which it will be able to connect
  - which of those connecting networks are on different network fabrics
  - for each connecting network that is on a different network fabric, the path that the CS 2000MSC Server 1000 will use to make connections

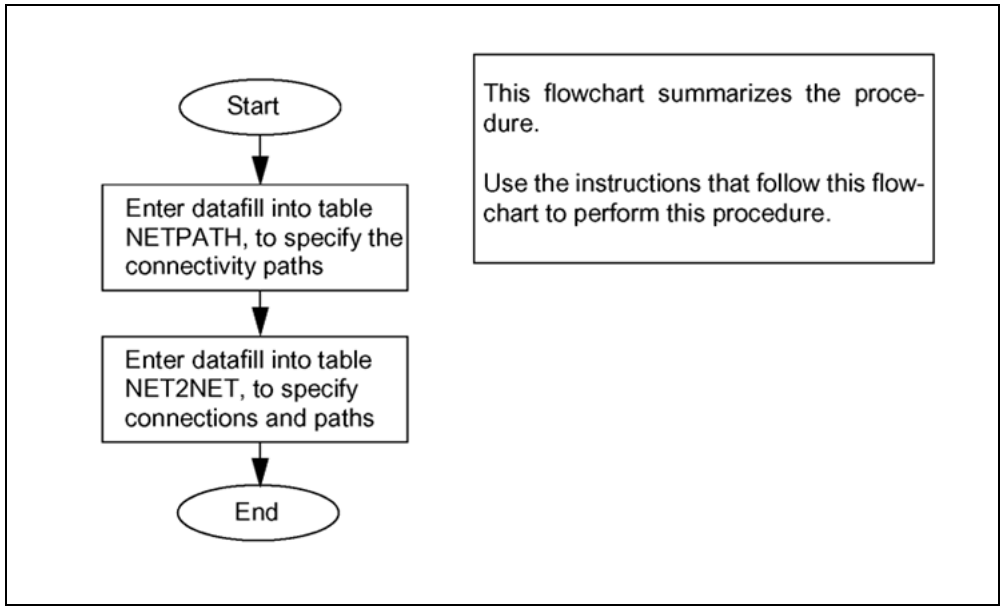
Common procedures

This procedure does not refer to any common procedures.

Action

The following flowchart summarizes this procedure.

Provisioning the connectivity rules for multiple bearer networks



Provisioning the connectivity rules for multiple bearer networks

Step	Action

At the MAP terminal

1 Start the table editor to edit table NETPATH. At the user interface prompt on any MAP screen type.

```
>TABLE NETPATH
```

and press the Enter key.

Example of system response:

```
TABLE: NETPATH
```

2 Indicate that you intend to add an entry. Type

`>ADD <pathidx>`

and press the Enter key

where

`<pathidx>` is the unique index value of the path, an integer in the range 0 to 255

For example, type

```
>ADD  1
```

and press the Enter key.

Example of system response:

```
NETBRDGE:
```

3 In this step and in the following steps (step 4, step 5, step 6, and step 7), you specify a path. You specify a path by specifying a bridge pool, or by specifying a sequence of bridge pools (to a maximum of two). The specification means that when the CS 2000MSC Server 1000 needs a path of the type you are specifying, it will obtain one bridge from the first pool in the path, and one bridge from each subsequent pool in the path.

Specify the first bridge pool in the path. Type

> <brdgclli>

and press the Enter key

where

<brdgclli> is the clli name of a bridge pool, as specified in table CLLI

For example, type

>ENET_TO_IP

and press the Enter key.

Example of system response:

```
NETBRGE:
```

4 Select the next step as follows:

If the path	Do
will contain an additional bridge pool	step 5
will not contain an additional bridge pool	step 6

5 Specify the next bridge pool in the path. Type

> <brdgclli>

and press the Enter key

where

<brdgclli> is the clli name of a bridge pool, as specified in table CLLI

For example, type

>ENET_TO_IP

and press the Enter key.

Example of system response:

```
NETBRGE:
```

6 Indicate that there are no additional bridge pools in the path. Type

>$

and press the Enter key.

Example of system response, if you specified two bridge pools:

```
TUPLE TO BE ADDED:
1 (ENET_TO_IP), (ENET_TO_IP)
ENTER Y TO CONFIRM, N TO REJECT OR E TO EDIT.
```

ATTENTION

The maximum number of bridge pools in a path is two. Two bridge pools are required in a path between a bearer network on an ATM fabric and a bearer network on an IP fabric. The connection goes as follows: one packet-based fabric (ATM or IP) to ENET, then ENET to the other packet-based fabric.

The first value in the tuple is the path index ("1" in the example). The path will be identified by its path index.

The first entry in table NETPATH is a tuple with path index 0. This tuple is created automatically. It contains only a dollar sign, which indicates the "nil path". The nil path indicates that two networks can be directly connected without the use of bridging resources. Such direct connections are possible for two networks that are on the same network fabric.

7 Confirm the addition. Type

>Y

and press the Enter key.

Example of system response:

```
TUPLE ADDED.
```

8 Select the next step as follows:

If	Do
you want to provision an another path	step 2
you do not want to provision another path	step 9

9 Exit from the table editor. Type

>QUIT

and press the Enter key.

10 Start the table editor to edit table NET2NET. At the user interface prompt on any MAP screen type.

>TABLE NET2NET

and press the Enter key.

Example of system response:

```
TABLE: NET2NET
```

11 Use the POS command to move to the tuple for a bearer network. Type

>POS <from-bnetname>

and press the Enter key

where

<from-bnetname> is the name of a bearer network, as specified in table BEARNETS. This is the "from" network. In the rest of this tuple, you are going to specify the "to" networks, that is, the other bearer networks that the "from" network can connect to, and the paths to be used for the connections.

ATTENTION

The use of the terms "from" and "to" in the preceding paragraph does not imply anything about the direction of a connection.

Table NET2NET contains one tuple for each bearer network. When you specified the bearer networks in table BEARNETS, the system automatically added tuples for those bearer network to table NET2NET.

For example, type

>POS TDM_ENET

and press the Enter Key.

Example of system response:

```
TDM_ENET $:
```

12 Indicate that you intend to change the tuple. Type

>CHA

and press the Enter key.

Example of system response:

```
CONNNETS:
```

13 Specify a connection, which is composed of a "to" network, that is, a network that the "from" network will be able to connect to, and a path. Type

> <to-bnetname> <path>

and press the Enter key

where

<to-bnetname> is the name of a bearer network, as specified in table BEARNETS. This is the "to" network.
<path> is an index value that points to a tuple in table NETPATH. The pointed-to tuple specifies the path.

For example, type

```
>NET_IP  1
```

and press the Enter key.

ATTENTION

The **<to-bnetname>** should not be the same as the **<from-bnetname>**.

The sequence in which you specify the "to" networks determines the sequence in which the system tries to establish a connection if a trunk member is not available on the originating agent's network. For details, see section "Network preference order for trunk member selection" (page 459) in this module.

If the "to" network is on the same network fabric as the "from" network, you must specify 0 as the <path> value. The value 0 points to the NETPATH tuple that defines the "nil path".

Example of system response:

```
CONNNETS:
```

14 Select next step as follows:

If	Do
you want to provision an additional "to" network	step 13
you do not want to provision any additional "to" networks	step 15

15 Indicate that you do not want to provision additional connections for this "from" network. Type

```
>$
```

and press the Enter key.

Example of system response:

```
TUPLE TO BE CHANGED:
TDM_ENET (NET_IP 1) (NET_IP 2)
ENTER Y TO CONFIRM, N TO REJECT OR E TO EDIT.
```

16 Confirm the change. Type

```
>Y
```

and press the Enter key.

Example of system response:

```
TUPLE CHANGED.
```

17 Select next step as follows:

If	Do
you want to provision connections for another bearer network	step 11
you do not want to provision connections for any additional bearer networks	step 18

18 Exit from the table editor. Type

```
>QUIT
```

and press the Enter key.

—End—

Network preference order for trunk member selection

If the CS 2000MSC Server 1000 receives a call request from an originating agent in a trunk group, the CS 2000MSC Server 1000 knows that the originating member of the trunk group is associated with a certain bearer network. To complete the call, the CS 2000MSC Server 1000 tries to make a connection to another trunk member on the same bearer network. The CS 2000MSC Server 1000 looks in the idle trunk queue for that bearer network, looking for an available trunk member. If it finds such an available trunk member, it connects to it. Because the connection is within a single bearer network, bridges are not used.

If the CS 2000MSC Server 1000 cannot find an available trunk member on the same bearer network, it then searches the idle trunk queues of other bearer networks, looking for an available trunk member. The CS 2000MSC Server 1000 searches the idle trunk queues of the "to" networks specified in the tuple for the originating agent's bearer network in table NET2NET. It does not search in other idle trunk queues. The sequence in which it searches the other networks' idle trunk queues is determined by the sequence in which the "to" networks are specified in the tuple in table NET2NET. When the CS 2000MSC Server 1000 finds an available member in one of the idle trunk queues, it makes the connection, using the suitable path, as specified in table NET2NET. If the CS 2000MSC Server 1000 searches the idle trunk queues for all the "to" networks specified in the tuple,

and if it fails to find an available trunk member, then it continues stepping through the route list that applies to the call, and route the call according to the instructions in the route list.

Interworking with CHS agents

The information in this section ("Interworking with CHS agents" (page 460)) does not apply to packet-based, wireless networks.

From release (I)SN08 onwards, H.323 endpoints interwork with legacy agents via the interworking Spectrum Peripheral Module (IW-SPM).

The following limitations exist in this configuration.

- A call from an H.323 agent to an MG 9000 AAL1 native line will be represented as two calls in the CS 2000, and each call will generate its own billing record.
- Announcements cannot be played to the H.323 agent. Any CS 2000 services will not be able to use announcements. Any treatments will have to be configured to release with cause, and the announcement will have to be provided by the enterprise bearer network.
- Conference services cannot be supported for the H.323 agent.
- Trunk tests cannot be supported to the H.323 gateway.

Provisioning Language and Currency Specifications for Intelligent Network Announcements

This procedure is relevant only in the International market.

This procedure contains instructions for provisioning the language and currency unit to be used by a MS2000/UASUniversal Audio Server (deployed in a PG-MSC based international network) for intelligent network announcements. You can provision the announcement language, or announcement currency-unit, or both.

ATTENTION

MTX12P introduced the so-called Packet Gateway MSC (PG-MSC) network. This is the only Packet MSC network type that uses the Universal Audio Server (UAS); all other Packet MSC networks, including the gateway configuration of the Packet MSC network, use the Media Server 2000 Series audio server.

You can upgrade MTX12P PG-MSC networks to MTX14.

You can specify the language and/or currency only for IN announcements. IN announcements are listed in table AINANNS.

ATTENTION

For information on table AINANNS, see *DMS-100 MMP Customer Data Schema Reference Manual* (297-9051-351 Vol. 1).

You can specify the language and/or currency only for IN announcements. IN announcements are listed in table AINANNS.

ATTENTION

Refer to *Base/Telecom Customer Data Schema Reference Manual* (411-3001-451 Vol. 1) for information on table AINANNS,

You provision the language and currency unit by entering datafill in the announcement's tuple in table DRMUSERS (digital recorded announcement machine users). This procedure shows how to add language and currency-unit specifications to an already existing tuple.

ATTENTION

For information on table DRMUSERS in wireline networks, see *DMS-100 MMP Customer Data Schema Reference Manual* (297-9051-351 Vol. 4).

You provision the language and currency unit by entering the appropriate datafill in the announcements tuple in the Digital Recorded Announcement Machine Users (DRMUSERS) data schema table. This procedure shows how to add language and currency-unit specifications to a tuple that already exists.

ATTENTION

Refer to *Base/Telecom Customer Data Schema Reference Manual* (411-3001-451 Vol. 2) and *CDMA/TDMA Customer Data Schema Reference Manual* (411-2131-451 Vol. 2) for information on table DRMUSERS.

Interval

Perform this procedure as required.

Prerequisite

A prerequisite for provisioning language and currency-unit specifications is that the announcements must already be provisioned in table AINANNS.

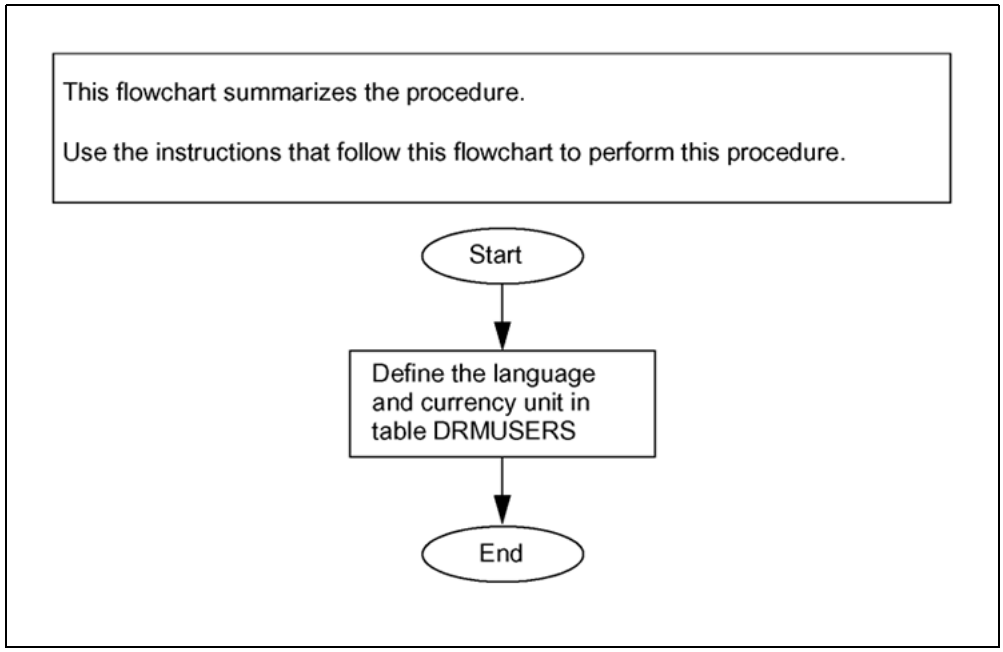
Common procedures

This procedure does not refer to any common procedures.

Action

The following flowchart summarizes this procedure.

Provisioning language and currency specs for IN announcements



Provisioning language and currency specs for IN announcements

Step	Action

At the MAP terminal

1 Start the table editor. Type

>TABLE DRMUSERS

and press the Enter key

Example of system response:

TABLE: DRMUSERS

2 Use the POS command to move to the tuple that you want to edit. Type

>POS <key-value>

and press the Enter key

where

<key-value> is the key value identifying the tuple

The key value identifies an announcement. It is composed of the CLLI of the announcement group, followed by the announcement number that identifies the announcement within group. For example, if the announcement is in group IN_VAR_ANNC, and is number 6 in that group, you type

>POS IN_VAR_ANNC 6

and press the Enter key

Example of system response, continuing the example:

```
IN_VAR_ANNC 6
```

3 Indicate that you intend to change the tuple. Type

>CHA

and press the Enter key

Example of system response:

```
PHRASES:
```

4 Specify the language. Type

>(LANG_ <language-code>)

and press the Enter key

where

<language-code> is one of the language codes supported by CS 2000MSC Server 1000, as listed in the "Language codes" (page 466) section, following these instructions.

For example, to specify French you would type

>(LANG_FRE)

and press the Enter key

Example of system response

PHRASES:

5 Specify the currency unit. Type

>(CURR_ <currency-code>)

and press the Enter key

where

<currency-code> is one of the currency-unit codes supported by CS 2000MSC Server 1000, as listed in the "Currency-unit codes" (page 467) section, following these instructions.

For example, to specify Euros as the currency unit, you would type

>(CURR_EUR)

and press the Enter key

Example of system response

PHRASES:

6 Specify the phrase that represents the variable part of the announcement. Type

>(IN_VAR)

and press the Enter key

ATTENTION

If you specify the language (as in Step 4), the (IN_VAR) phrase must come after the language phrase.

Example of system response

PHRASES:

7 Select the next step as follows.

If	Do
you want to provision another language-and-currency-unit combination for this announcement	Step 4
you do not want to provision any more language-and-currency-unit combinations for this announcement	Step 8

ATTENTION

You can specify multiple language-and-currency-unit combinations in a single tuple in table DRMUSERS. The limiting factor is that there can be a maximum of 32 phrases in a tuple. If you specify fewer than 32 phrases, you enter a dollar sign (as in Step 8) to indicate that you have finished specifying phrases.

8 Indicate that you have finished specifying phrases. Type

>$

and press the Enter key

Example of system response:

```
TUPLE TO BE CHANGED:
IN_VAR_ANNC 6 (LANG_FRE) (CURR_EUR) (IN_VAR) $
ENTER Y TO CONFIRM, N TO REJECT OR E TO EDIT.
```

9 Confirm the change. Type

>Y

and press the Enter key

Example of system response:

```
TUPLE CHANGED:
WRITTEN TO JOURNAL FILE AS JF NUMBER 123
```

10 Exit from the table editor. Type

>QUIT

and press the Enter key

11 You have completed the procedure. If applicable, return to the higher level task flow or procedure that directed you to this procedure.

—End—

Language codes

The following table lists the language codes that can be specified in table DRMUSERS.

Language codes usable in DRMUSERS

Language	Language Code	Supported by CS 2000MSC Server 1000
Belgium Dutch	BDU	No
Catalan	CAT	No
Czech	CES	No
Cantonese	CNT	No
German	DEU	Yes
Greek	ELL	No
English	ENG	Yes
Euskera / Basque	EUS	No
French	FRA	Yes
Gallego / Gallician	GLG	No
Hebrew	HEB	No
Italian	ITA	Yes
Japanese	JPN	Yes
Korean	KOR	No
Malay	MAY	No
Netherlands Dutch	NLD	No
Portuguese	POR	Yes
Spanish	SPA	Yes
Tagalog	TGL	No
Thai	THA	No
Turkish	TUR	No
Vietnamese	VIE	No
Chinese / Mandarin	ZHO	No

Currency-unit codes

The following table lists the currency-unit codes that can be specified in table DRMUSERS.

Currency-unit codes usable in DRMUSERS

Country	Currency unit	Curncy-unit code
Czech Republic	Czech Rep. Koruna	CZK
Greece	Greek Drachma	GRD
Vietnam	Vietnamese Dong	VND
Austria	Schilling	ATS
Australia	Australian Dollar	AUD
Belgium	Belgian Franc	BEF
Brazil	Brazilian Real	BRL
Canada	Canadian Dollar	CAD
Chile	Chilean Peso	CLP
China	Yuan Renminbi	CNY
Germany	Deutsche Mark	DEM
Spain	Spanish Peseta	ESP
European Monetary Union	Euro	EUR
France	French Franc	FRF
United Kingdom	British Pound	GBP
Guyana	Guyana Dollar	GYD
Hong Kong	Hong Kong Dollar	HKD
Haiti	Haitian Gourde	HTG
Hungary	Hungarian Forint	HUF
Ireland	Irish Pound	IEP
Israel	Israeli Sheque	ILS
Italy	Italian Lira	ITL
Japan	Japanese Yen	JPY
Korea	Korean Won	KRW
Morocco	Moroccan Dirham	MAD
Mexico	Mexican Peso	MXN
Mexico MTX	Mexican Peso	MXN
Malaysia	Malaysian Ringgit	MYR
Netherlands	Netherlands Gilder	NLG

Country	Currency unit	Curncy-unit code
Peru	Nuevo Sol	PEN
Philippines	Philippines Peso	PHP
Poland	Polish Zloty	PLN
Portugal	Portuguese Escudo	PTE
CIS	Russian Ruble	RUL
Thailand	Thai Baht	THB
Turkey	Turkish Lira	TRL
North America	US Dollar	USD
Caribbean Exp. Proj.	East Caribbean Dollar	XCD

Provisioning call-forward prevention on trunk groups and lines

This procedure is relevant only in the international market.

This procedure explains how to provision call-forward prevention at the trunk-group level and at the line level.

Call-forward prevention is intended to prevent the following type of fraud. An unauthorized person taps into a subscriber's line, calls the telephone company and subscribes to the programmable type of call forwarding, and then programs a billable number into the forwarding memory. An accomplice then dials the subscriber's number and is forwarded to the billable number. The subscriber remains unaware of the situation unless someone complains that the line is frequently busy, or until the next phone bill arrives.

Trunk-group level

At the trunk-group level, you prevent call forwarding by specifying an option for the trunk group in table TRKOPTS. This prevents the forwarding of calls that arrive on the incoming trunks. If someone programs call forwarding on a line carried by an incoming trunk for which call-forward prevention is in effect, the forwarded call is routed to the negative-acknowledgement treatment.

You can apply trunk-group level call-forward prevention to ETSI ISUP trunk groups and to IBN7 ISUP trunk groups.

Line level

At the line level, you can prevent the subscriber from programming call-forwarding to certain "barred numbers". A barred number is a set of digits. You specify barred numbers by entering datafill into table LNCFPBAR. If you specify a set of digits as a barred number, then subscribers cannot program numbers beginning with those digits as forward-to numbers. The numbers are barred on an office-wide basis.

The line-level restriction applies only to subscriber-programmable call forwarding. The restriction prevents the subscriber from programming barred numbers as forward-to numbers. (In subscriber-programmable call forwarding, the subscriber dials a "feature access" code, and then proceeds to program the forward-to number.)

Note 1: The line-level restriction does not apply to call-forwarding features that are controlled by the operator.

Note 2: The line-level restriction does not apply retroactively. For example, suppose that table LNCFPBAR is empty, and that a subscriber

programs a number beginning 822 as a forward-to number. If you subsequently update table LNCFPBAR to specify 822 as a barred number, calls to that subscriber's number will continue to be forwarded to the programmed forward-to number.

Note 3: You have the option of selectively overriding the line-level restriction. For example, you can prevent the programming of call-forwarding to numbers beginning with the digits 822, and then you can create exceptions so that certain subscribers are allowed to program numbers beginning with 822 as forward-to numbers. For more information, see "Overriding line-level call-forward prevention".

This feature applies to all types of programmable call forwarding for POTS, RES, and CENTREX line agents.

Interval

Perform this procedure as required.

Prerequisite

If you are going to specify call-forward prevention at the trunk-group level, you must know the clli names of the trunk groups, as specified in table TRKGRP.

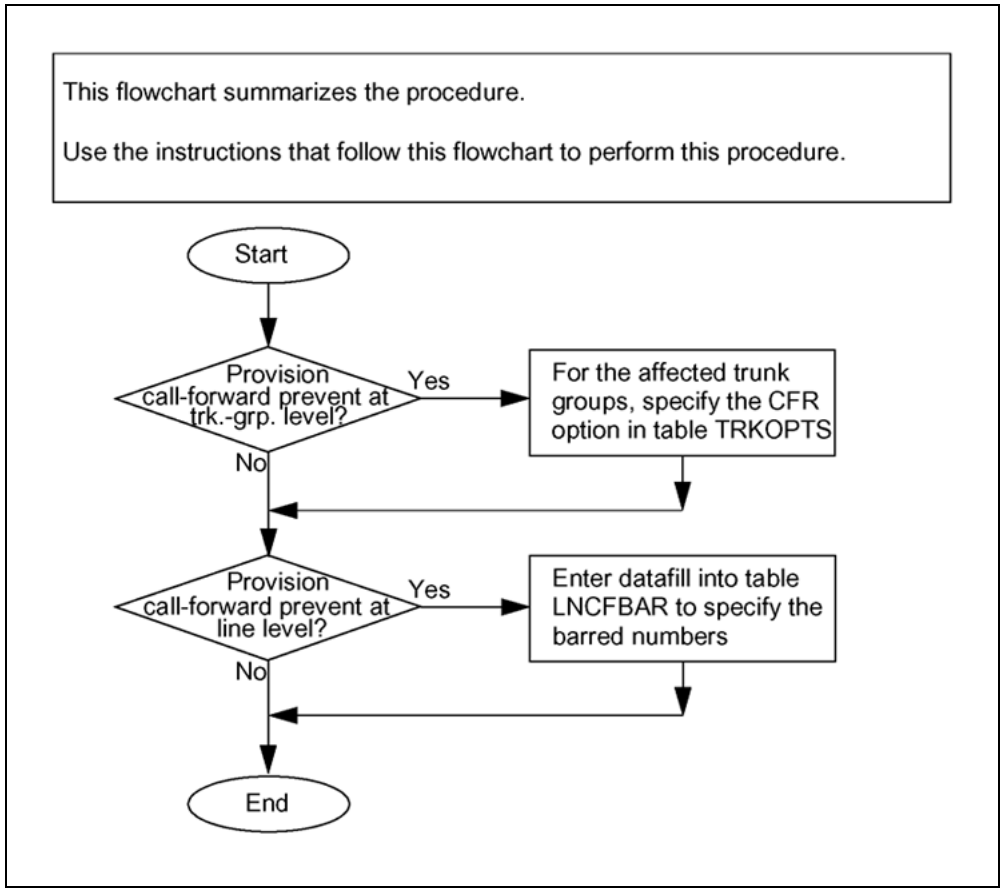
Common procedures

This procedure does not refer to any common procedures.

Action

The following flowchart summarizes this procedure.

Provisioning call-forward prevention on trunk groups and lines



Provisioning call-forward prevention on trunk groups and lines

Step	Action

At the MAP terminal

1 Select the next step as follows.

If	Do
you want to specify call-forward prevention at the trunk-group level	step 2
you do not want to specify call-forward prevention at the trunk-group level	step 3

2 Call-forward prevention at the trunk-group level prevents calls on incoming trunks from being forwarded. You specify trunk-group call-forward prevention by entering datafill in table TRKOPTS.

Proceed as follows.

a. Start the table editor. Type

>TABLE TRKOPTS

and press the Enter key.

Example of system response:

```
TABLE: TRKOPTS
```

b. Indicate that you intend to add a tuple. Type

>ADD <clli> CFP

and press the Enter key

where

<clli> is the clli name of the trunk group, as specified in table TRKGRP

For example, type

>ADD MMP_E2ISUP1 CFR

Example of system response:

```
OPTION:
```

c. Specify the CFR option. Type

>CFR

and press the Enter key

Example of system response:

```
TUPLE TO BE ADDED:
MMP_E2ISUP1 CFR CFR
ENTER Y TO CONFIRM, N TO REJECT OR E TO EDIT.
```

d. Confirm the addition. Type

>Y

and press the Enter key.

Example of system response:

```
TUPLE ADDED.
```

e. Select the next step as follows.

If	Do
you want to specify call-forward prevention for another trunk group	go to step 2b
you do not want to specify call-forward prevention for any other trunk groups	go to step 2f

f. Exit from the table editor. Type

```
>QUIT
```

and press the Enter key.

3 Select the next step as follows

If	Do
you want to specify call-forward prevention at the line level	step 4
you do not want to specify call-forward prevention at the line level	step 5

4 Call-forward prevention at the line level prevents subscribers from programming certain numbers as forward-to numbers. You specify the barred numbers by entering datafill into table LNCFPBAR.

Proceed as follows.

a. Start the table editor. Type

```
>TABLE LNCFPBAR
```

and press the Enter key.

Example of system response:

```
TABLE: LNCFPBAR
```

b. Indicate that you intend to add a tuple. Type

>ADD <barred-number>

and press the Enter key

where

<barred-number> is a string of one or more digits, representing the leading digits of barred numbers. The **<barred-number>** value can be in the range 0 to 9999, or in the range 00 to 09, or in the range 001 to 009.

For example, type

```
>ADD 1357
```

Note: This has the effect of preventing the programming of numbers that begin 1357 as forward-to numbers.

Example of system response:

```
TUPLE TO BE ADDED:
1357
ENTER Y TO CONFIRM, N TO REJECT OR E TO EDIT.
```

c. Confirm the addition. Type

```
>Y
```

and press the Enter key.

Example of system response:

```
TUPLE ADDED.
```

d. Select the next step as follows.

If	Do
you want to specify another barred number	go to step 4b
you do not want to specify any more barred numbers	go to step 4e

e. Exit from the table editor. Type

```
>QUIT
```

and press the Enter key.

5 You have completed the procedure.

—End—

Overriding line-level call-forward prevention

This procedure is relevant only in the international market.

This procedure explains how to selectively override line-level call-forward prevention.

For information on the purpose of call-forward prevention, and for instructions for provisioning call-forward prevention, see "Provisioning call-forward prevention on trunk groups and lines".

If call-forward prevention is in effect, it applies on an office-wide basis. All line agents are prevented from programming barred numbers as forward-to numbers. (Barred numbers are specified in table LNCFPBAR.)

You can override line-level call-forward prevention. You override it by creating an exception for a calling number. You create the exception by specifying the CFPOVR line option for a calling number. The CFPOVR line option specifies

- permitted numbers. Permitted numbers are sets of digits. The subscriber is permitted to program a number as a forward-to number if the number begins with a set of digits specified in the CFPOVR line option (even if table LNCFPBAR specifies that the number is a barred number).
- the frequency. The frequency is the maximum number of times during the surveillance interval that the calling number's forward-to number can be reprogrammed to one of the permitted numbers.

  Note: The surveillance interval is controlled by the CFP_CONTROL office parameter, which we describe in the following paragraphs.

The CFP_CONTROL office parameter in table OFCENG controls the default settings that govern the overrides of line-level call-forward prevention. The office parameter is composed of four fields, as listed in the following table.

Fields composing the CFP_CONTROL office parameter

Field name	Description	Min.	Max.	Default
DEFAULT_LIMIT	Number of times during a surveillance period that the calling number's "forward-to" number can be reprogrammed to a different permitted number. (A permitted number is one that is listed in table LNCFPBAR, but which has been permitted by the CFPOVR line option.) If zero is specified, there is no limit on the number or reprogramming events. The default	0	30	0

Field name	Description	Min.	Max.	Default
	limit applies only if you do not supply a calling-number-specific limit when you specify the CFPOVR line option.			
TIME_PERIOD	The length (in minutes) of the surveillance period. During each surveillance period, the switch counts the attempts to reprogram each calling number's forward-to number.	30	240	60
DENIED_LOG	Boolean value (Y or N) that controls whether log CFP600 is generated. If set to Y, the log is generated for each barred-number violation. This violation occurs when an attempt is made to reprogram a forward-to number, but the attempt fails because the forward-to number is barred.)			Y
EXCEEDED_LOG	Boolean value (Y or N) that controls whether log CFP601 is generated. If set to Y, the log is generated for each over-limit violation. This violation occurs when an attempt is made to reprogram a forward-to number iden- tified by a CFPOVR line option, but the attempt fails because the number of reprogramming attempts in this surveillance period exceeds the limit.			Y

Interval

Perform this procedure as required.

Prerequisites

If you are going to specify overrides, you must know the calling numbers for which you intend to specify overrides. Also, for each such calling number, you must know the barred-number specifications (from table LNCFPBAR) that you intend to override.

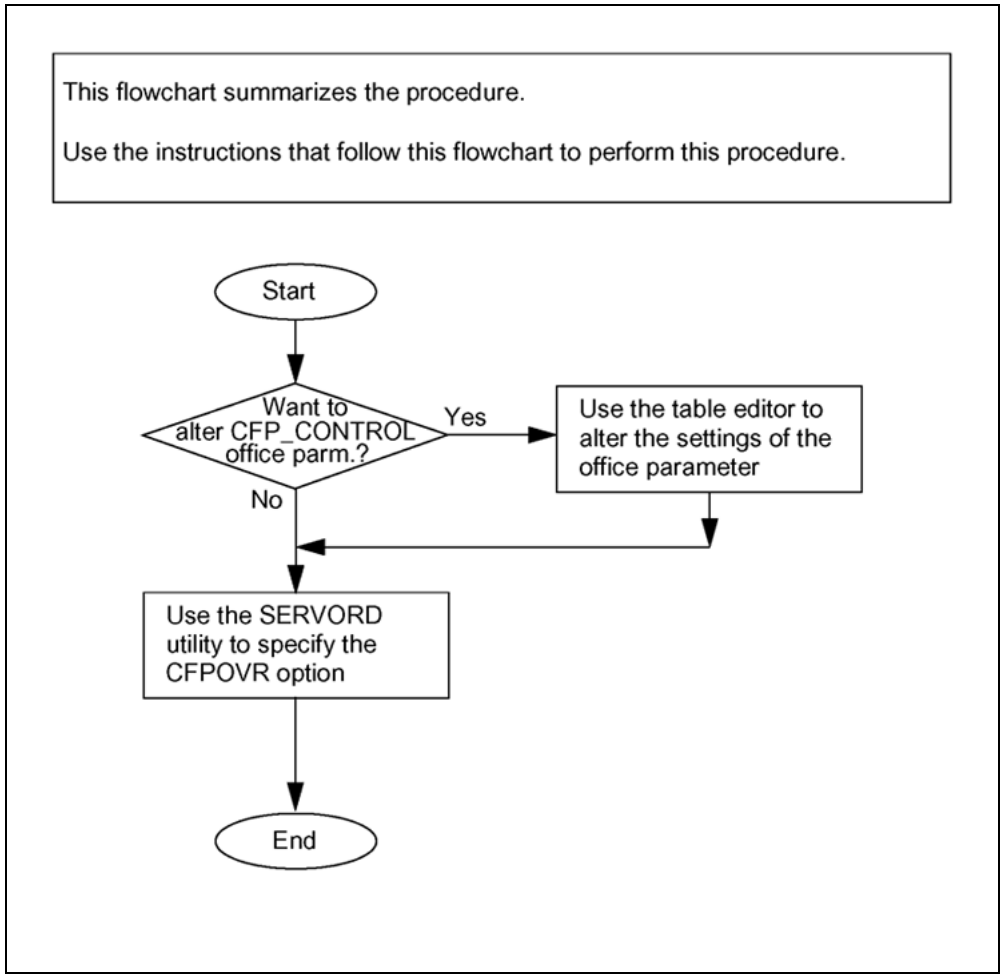
Common procedures

This procedure does not refer to any common procedures.

Action

The following flowchart summarizes this procedure.

Overriding line-level call-forward prevention



Overriding line-level call-forward prevention

Step	Action

At the MAP terminal

1 Select the next step as follows.

If	Do
you want to alter the value of the CFP_CONTROL office parameter	step 2
you do not want to alter the value of the CFP_CONTROL office parameter	step 11

2 Start the table editor to edit the OFCENG table. At the user interface prompt on any MAP screen type.

```
>TABLE OGCENG
```

and press the Enter key.

Example of system response:

```
TABLE: OFCENG
```

3 Use the POS command to display the tuple for the CFP_CONTROL office parameter. Type

```
>POS CFP_CONTROL
```

and press the Enter key.

Example of system response:

```
CFP_CONTROL 0 60 Y Y
```

Note: The default values are shown.

4 Use the CHA command to indicate that you want to change the value of the tuple. Type

```
>CHA
```

and press the Enter key.

Example of system response:

```
DEFAULT_LIMIT: 0
```

5 If you do not want to change the default limit, just press the Enter key. Alternatively, if you want to change the default limit, type a value in the range 0 to 30 and press the Enter key.

For example, type

```
>20
```

and press the Enter key.

Note: If the value is set to zero, there is no default limit.

Example of system response:

```
TIME_PERIOD: 60
```

6 If you do not want to change the time period, just press the Enter key. Alternatively, if you want to change the time period, type a value in the range 30 to 240 and press the Enter key.

For example, type

```
>90
```

and press the Enter key.

Example of system response:

```
DENIED_LOG: Y
```

7 If you do not want to change the value of this field, just press the Enter key. Alternatively, if you want to change value, type Y or N and press the Enter key.

For example, type

```
>N
```

and press the Enter key.

Example of system response:

```
EXCEEDED_LOG: Y
```

8 If you do not want to change the value of this field, just press the Enter key. Alternatively, if you want to change value, type Y or N and press the Enter key.

For example, type

>N

and press the Enter key.

Example of system response:

```
TUPLE TO BE CHANGED:
CFP_CONTROL 20 90 N N
ENTER Y TO CONFIRM, N TO REJECT OR E TO EDIT.
```

9 Confirm the change. Type

>Y

and press the Enter key.

Example of system response:

```
TUPLE CHANGED:
```

10 Exit from the table editor. Type

>QUIT

and press the Enter key.

11 You specify an override by specifying the CFPOVR line option for a calling line. The CFPOVR line option lists up to ten sets of digits. The subscriber will be able to program a number as a forward-to number if the number begins with a set of digits specified in the CFPOVR line option.

Proceed as follows.

a. Start the SERVORD utility. On any MAP screen type

>SERVORD

and press the ENTER key.

Example of system response:

```
SO:
```

b. Indicate that you intend to add an option. Type

>ADO $ <calling-number>

and press the Enter key.

For example, type

>ADO $ 1106101

and press the Enter key.

Example of system response:

```
OPTION:
```

c. Indicate that you intend to specify the CFPOVR option. Type

>CFPOVR

and press the Enter key.

Example of system response:

```
BARNUM:
```

d. Specify the permitted number. Type

><permitted-number>

and press the Enter key

where

<permitted-number> is a string composed of one or more digits. The subscriber will be permitted to program a number as the forward-to number if that number begins with the specified digits. The value can be in any of the following ranges:

- 0 to 9999
- 00 to 09
- 001 to 009

For example, type

>41

and press the Enter key.

Note: You do not need to specify the leading numbers with the same degree of precision as found in table LNCFPBAR. For example, if table LNCFPBAR contains tuples listing 412, 415, and 419 as barred numbers, you can override all three

of these barred numbers by specifying 41 in the CFPPVR option.

Example of system response:

```
BARNUM:
```

e. Select the next step as follows.

If	Do
you want to specify another permitted number in this CFPOVR option	step 11d
you do not want to specify another permitted number in this CFPOVR option	step 11f

Note: You can specify up to ten permitted numbers in a single CFPOVR option.

f. Indicate that you have finished specifying permitted numbers. Type

>$

and press the Enter key.

Example of system response:

```
LIMIT: OFFICE_DEFAULT
```

g. Indicate the limit value, that is, the maximum number of times in each surveillance period that the calling number's forward-to number can be reprogrammed. If you want the limit value to be the value specified in the DEFAULT_LIMIT field of the CFP_CONTROL office parameter, just press the Enter key. Alternatively, if you want to specify a limit number that will be specific to this CFPOVR option, type

> <limit-value>

and press the Enter key

where

<limit-value> is an integer in the range 0 to 30

Note: If you specify a limit value of zero, then there is no limit on the number of times that this calling number's forward-to number can be reprogrammed to one of the permitted numbers.

For example, type

>15

and press the Enter key.

Example of system response:

```
OPTION:
```

h. Indicate that you have finished specifying line options. Type

>$

and press the Enter key

Example of system response:

```
COMMAND AS ENTERED:
ADO NOW 0 3 8 PM 1106101 (CFPOVR 41 $ 15) $
ENTER Y TO CONFIRM, N TO REJECT, OR E TO EDIT.
```

i. Confirm the change. Type

>Y

and press the Enter key.

j. Select the next step as follows.

If	Do
you want to specify an override for another calling number	step 11b
you do not want to specify overrides for any other calling numbers	step 11k

k. Exit from the SERVORD utility. Type

>QUIT

and press the Enter key.

12 You have completed the procedure.

—End—

Provisioning the intercept service

This procedure describes how to enter datafill into the core data schema tables to support the Automatic Intercept System (AIS), also known as Changed Number Intercept (CNI). The feature provides the intercept service using the Media Server 2000 (MS 2000) or Universal Audio Server (UAS) platform for subscribers who dial directory numbers (DN) that are no longer in service.

Currently, the DMS-100 switch supports AIS via a trunk interface to an external machine that provides all the necessary announcements and functionality. This feature provides the same functionality via an on-switch application using the MS 2000/UAS as the announcement platform.

Callers reaching an intercepted number receive from the MS 2000/UAS a customized announcement which includes the number that has been dialed (base DN) and the new directory number (reference DN) of the subscriber they attempted to call. The reference DN is associated with the base DN through datafill in the DMS-100 switch.

This procedure is applicable to the CS 2000 and CS 2000-Compact, with an MS 2000 or UAS.

Note 1: This feature supports the AIS announcement on the MS 2000/UAS platform only. Therefore you must not define AIS announcement members on a Maintenance Trunk Module (MTM) as this is not supported.

Note 2: If the AIS announcement cannot be terminated upon during call processing (that is, due to a problem in the MS 2000/UAS), the originator is routed to GNCT treatment.

Note 3: If a problem is encountered providing the AIS announcement, the originator is routed to BLDN treatment.

Interval

Perform this procedure if you require AIS support in your network.

Prerequisites

This procedure has no prerequisites.

Common procedures

This procedure does not refer to any common procedures.

Action

The procedure has two main parts:

- assigning the old number to OPRT treatment
- datafilling various tables for the AIS announcement

The following sections give details and examples.

Routing a DN to intercept service

When a subscriber requests a DN change, you must assign the old number to OPRT treatment via SERVORD. You can use any of the following SERVORD commands: CDN, CHDN, DEL, CICP_OUT, or EXBEST. If you require generic notification only (number change notification without informing of the new number), you must route the DN to BLDN treatment instead of OPRT treatment. The OPRT tuples in table TMTCNTL are modified to route to the CLLI corresponding to the AIS announcement. You can accomplish this by changing the individual instances (that is, OPRT in subtable LNT for line terminations) or by deleting the OPRT tuple from each TMTCNTL subtable and modifying the entry in table OFFTREAT. (The entry in OFFTREAT applies to the entire office, but is overridden by entries in the other TMTCNTL tuples).

The following figure shows an example of the TMTCNTL datafill needed to route the old number to OPRT treatment.

```
TABLE: TMTCNTL

EXTTMTNM  TREAT
----------
OFFTREAT (234)

>SUB;POS OPRT

TREATMT LOG       FSTRTE
----------------------
 OPRT  Y S     AIS_ANN
```

For software or virtual DNs (numbers not associated with physical circuits), you can specify the intercept service by routing to OPRT treatment via table DNROUTE. The following figure shows an example of the DNROUTE datafill needed.

```
AREACODE OFCCODE   STNCODE     DNRESULT
-------------------------------------------------------
  919   991    6100                    D OPRT
```

You can obtain a list of all DNs routed to OPRT treatment using the QDNSU command of SERVORD. This command generates a numeric count of all numbers routed to OPRT or a listing of all individual DNs. The following figure shows an example of the QDNSU command.

```
>qdnsu
DIRECTORY_NUMBER_RANGE: ALL
>
TREATMENT: UNDT
>oprt
SUMMARY OR DETAIL: S
>d
COMMAND AS ENTERED
QDNSU ALL  OPRT D
ENTER Y TO CONFIRM, N TO REJECT OR E TO EDIT
>y
WARNING : Queries of all DNs or a large range of DNs
      may run for 30 minutes or more before producing any output
Please confirm ("YES", "Y", "NO", or "N"):
>y
 REPORT ON UNASSIGNED DN
TREATMENT:OPRT
   9199911004 OPRT
   9199916100 OPRT
TOTAL COUNT OF UNASSIGNED DN:       2
TREATMENT:OPRT
```

A DN that has been sent to OPRT treatment can be reused at any time using the NEW command of SERVORD.

Datafill for AIS announcement

Table CLLI

Define the Common Language Location Identifier (CLLI) or name for the AIS announcement in table CLLI. In field TRKGRSIZ specify the number of individual members in this announcement group.

Table ANNS

Enter datafill for the AIS announcement in table ANNS as follows:

- field ANTYP - value AIS; only one entry is permitted
- field MAXCON - value 1
- field CYTIME - value 0; the length of each individual announcement is variable and is determined internally
- field MAXCYC - value 1; the AIS announcement is a custom type announcement that ignores this field and is played only once

The following figure shows an example of the datafill for the AIS announcement in table ANNS.

```
TABLE: ANNS

      CLLI ANNARCH TRAFSNO  CYTIME MAXCYC            DATA
-------------------------------------------------------------------------------
 AIS_ANN  NETWK    5    0   1    AIS   1
```

Table ANNMEMS

Enter datafill for table ANNMEMS to specify all members of the AIS announcement, as follows:

- field HDWTYPE - value UAS (for MS 2000 or UAS)
- field CARD - value AUD.
- to provide the AIS announcement simultaneously to more than one user, repeat the above fields for all the additional members

The following figure shows an example of the datafill for the AIS announcement in table ANNMEMS with two members defined.

```
TABLE: ANNMEMS

      ANNMEM
          HDWTYPE       CARD
                                MEMINFO
-------------------------------------------------------
   AIS_ANN  0
            UAS         AUD  1    AUD  0
   AIS_ANN  1
            UAS         AUD  1    AUD  0
```

Table ANNPHLST

Table ANNPHLST is used to create the AIS announcement from individual phrases. This feature introduces two new external phrase names as valid entries for field PHSLIST: AISBASEDN and AISREFDN. The phrase AISBASEDN represents the digits of the subscriber's old directory number (base DN). The phrase AISREFDN represents the digits of the subscriber's new directory number (reference DN). The following figure shows an example of the datafill for the AIS announcement in table ANNPHLST.

```
TABLE: ANNPHLST

     ANNPHKEY
                                   PHSLIST
-------------------------------------------------------------
    AIS_ANN  1
(    AUD_2014) (    AISBASEDN) (    AUD_2015) (    AISREFDN)$
```

All the phrases present in the phraselist must be assigned or recorded on the MS 2000/UAS. Exceptions to this are the phrases AISBASEDN and AISREFDN, which are manipulated internally to produce a phraselist composed of digits. In the above example, AUD_2014 and AUD_2015 are simple text phrases recorded by the operating company. For example, AUD_2014 might be “The number you have called” and AUD_2015 might continue “has been changed. The new number is”. The result of the entire tuple in ANNPHLST would then be “The number you have called, <OLDNUMBER>, has been changed. The new number is <NEWNUMBER>.”.

If multiple cycles of this announcement are required, repeat the ANNPHLST datafill. In the above example, the tuple would be (AUD_2014) (AISBASEDN) (AUD_2015) (AISREFDN) (AUD_2014) (AISBASEDN) (AUD_2015) (AISREFDN).

If a tone or treatment is required after the AIS announcement completes, add to the end of the phraselist the phrase associated with the desired treatment. In the above example, assuming AUD_2016 is T120 tone, a fifth phrase is added to the phraselist to provide T120 tone after the AIS announcement: (AUD_2014) (AISBASEDN) (AUD_2015) (AISREFDN) (AUD_2016).

AIS data organization

There are three tables associated with AIS that were introduced by an earlier feature: tables PAUSPATT, ISCASSGN, and AISDBS. The following sections give brief descriptions of these tables and details of the datafill needed for AIS. The other fields of these tables are not relevant to this feature.

Table PAUSPATT

Table PAUSPATT defines the location of pauses during the speaking of the AIS base and reference DNs. This functionality is required for the DRAM platform, but is not relevant to the MS 2000/UAS, which has its own pause formatting scheme. However, the key of table PAUSPATT is a required field in table AISDBS. Enter datafill for table PAUSPATT as shown in the following figure.

```
TABLE: PAUSPATT

    PAUSKEY PAUS1 PAUS2 PAUS3 PAUS4
 ------------------------------------------------
    UAS       NP  NP  NP  NP
```

Table ISCASSGN

Table ISCASSGN introduces the Intercept Status Code (ISC), which is an organizational concept intended to simplify the association of an announcement and a number on intercept. For example, a seven-digit number may be routed to a different announcement than a ten-digit number, so this table would have two entries (c7 and c10) and the appropriate announcements would be associated here. The key c7 or c10 would then be referenced in table AISDBS as a quick way to route to the required announcement. However, this feature does not use the ISC concept. The only field of interest in table ISCASSGN is AISMSG, which is used to define the announcement CLLI and index. The entry for field AISMSG must correspond to a valid entry in table ANNPHLST for the required AIS announcement. The following figure shows an example of the datafill for table ISCASSGN.

```
TABLE: ISCASSGN

    ISCKEY       AISMSG       OVFLCHK
      TMOUTCHK
 ------------------------------------------------
    C7  AIS_TEST  1         NONE
       NONE
```

Fields OVFLCHK and TMOUTCHK dictate routes for overflow and time-out conditions and are not used in this feature. The overflow condition can be addressed by adding additional members for the AIS announcement or by using a T-selector in TMTCNTL to specify a routelist. The time-out condition can be addressed by adding the required treatment to the end of the announcement in table ANNPHLST (see Table ANNPHLST on page 358).

Table AISDBS

Table AISDBS allows the operating company to associate a reference DN with the base DN. This table also uses the key fields from tables PAUSPATT and ISCASSGN. The following figure shows an example of the datafill for table AISDBS.

```
TABLE: AISDBS

     AISKEY AISPATT ISC   YR  MT  DY LOCAL
            REFREQ
 ----------------------------------------
   9199911004   UAS C7  2003   6   3   Y
DN       9199915555 UAS
```

The operating company can use the date field to identify how long the number has been or should be on intercept treatment. However, it does not provide any functionality in this feature. The MS 2000/UAS does not need the pause information in fields AISPATT and PAUSREF since it does its own audio formatting. The field ISC provides an association to the phraselist index in table ANNPHLST for the AIS announcement. Field LOCAL is not used by this feature. Field REFREQ must be set to DN.

The index into table AISDBS is derived from the originator's dialed digits. Any prefix digits dialed are removed and the resulting digits are used as the index into table AISDBS. This may result in the need to datafill multiple entries of a subscriber's old DN in table AISDBS to address varied originator dialing plans (for example, a North American dialing plan might need a seven-digit instance of the base DN for line terminations and a ten-digit instance of the base DN for trunk terminations).

Interactions

For ISUP and PRI terminations into the switch providing the AIS service, the OPRT treatment must be mapped as local via table TMTMAP for the AIS announcement to be provided. If OPRT is mapped remotely, the remote office provides whatever treatment is datafilled there for OPRT treatment.

A flash attempt is denied from a line connected to the AIS announcement. The flash capability and operation of a trunk terminating to the AIS announcement is dictated by the switch associated with the trunk. Also, since flashing is denied, features that require flash for activation (such as CWT) is denied when an agent is connected to an AIS announcement.

Call forwarding from a line to a number on AIS intercept is not supported. In the case of CFU, an attempt to forward to a number on AIS intercept results in BLDN treatment given to the originator. In the case of CFB, the originator receives BUSY treatment. In the case of CFD, the forward is not attempted and the originator continues to ring the base station. Call forwarding to a number on AIS intercept via trunk functions like a trunk termination to the AIS announcement. That is, the originator receives the AIS announcement

stating the old and new numbers associated with the forward-to number once the forwarding trigger is reached (i.e. busy condition for CFB or timer expiration for CFD).

No billing or AIS specific OM pegging is performed upon termination to the AIS announcement. The generic OMs associated with announcements are supported.

If the caller does not exit after the completion of the AIS announcement, the call is routed to DISC (disconnect) treatment.

This feature supports the Primary and Secondary languages associated with the MS 2000/UAS through the assignment of the external pharseIDs LANGUAGE1 or LANGUAGE2 in table ANNPHLST. Specifying LANGUAGE1 notifies the MS 2000/UAS to play the announcement in its primary language and LANGUAGE2 notifies the MS 2000/UAS to play the announcement in it's secondary language. The SL (Secondary Language) line option is not supported nor is the ability to specify a language directly via ANNPHLST datafill.

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