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DMS-100 Family

ISDN SERVORD

ISDN SERVORD Reference Manual

CCM14 and up Standard 24.01 September 2000

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Publication history

September 2000

CCM14 Standard, release 24.01

- added option On-demand B-channel (ODB)
- added information on feature 59013267, On-demand B-channel X.25 Packet Mode Data—Provisioning, Data Distribution Manager, and XLIU, and display examples for option ODB to the following SERVORD query commands:
 - QBB
 - QDN
 - QLT
 - QPHF
 - QSCONN
- added information on using NEW command to establish ODB DNs
- added notes showing error message displays to the following SERVORD commands indicating that they can not be used with ODB
 - ADD
 - ADO
 - ADDPH
 - CHF
 - DEO

— EST

— SETPH

- added SERVORD examples for ODB to “Appendix A Examples of complete procedures”
- added ODB to Table 2, “Line service options”
- added information on using SLT ATT command with ODB LTIDs
- added ODB to “List of terms”
- added parameter logical channel number (LCN) to the QCOUNTS command
- added examples of MAP displays for QCOUNTS command used with LCN parameter

October 1999

CCM12 Standard, release 23.02

- added examples of the MAP displays for the QPHF command when used with the DN, LTID, and XSG parameters for the Echo Station feature
- added example of the display for the QLT command when used with an Echo Station LTID
- added information for the following SERVORD commands including the error message display indicating that the command cannot be used with echo station LTIDs or DNs supported by feature 59006435, Echo Station X.25 Loopback Testing:

— ADD

— ADDPH

— CHG

— CHAPH

— DELPH

— EST

— NEW

— OUT

— RES

— SETPH

— SLT ATT

— SLT DET

— SUS

- added option SUPPRND—Redirecting Number Privacy for ISDN CFW
- added note that both RES and ISDN lines can be in the same MADN SCA group to option MDN due to an enhancement added by feature 50121905, RES Members in a Multiple Directory Number Selective Call Appearance

March 1999

CCM11, Standard 22.01

- added options CFRA, NDNAP, and RND
- added information on feature AF7685, Remote Access to ISDN Call Forwarding, to option CFXDNCT
- added information on the DN Call Appearance Key Feature, AF7485 to the CHF, NEW, and QLT command descriptions
- added example of the MAP display when using the QLT command with MADN CACH for feature AF7684, MADN CACH for ACBAR Interworking
- added information on feature AF7585, PRI with Semipermanent Packet—Provisioning and Query Tools, to the QPHF and QLT and commands information

October 1998

CCM10 Standard, release 21.02

- added options AMMSG, AMMSGDENY, ICSDEACT, MSGDEACT, SDS, and SDSDENY for feature AJ5115, RES Service Offering Decoupling of SDS
- added SNPA span restriction for HUNT and SDN DNs to ADD, ADO, EST, and NEW commands for SR90039464

August 1998

CCM10 Standard, release 21.01

- added information for feature AF7328, DN Sharing CALLP Data Enhancements to the following SERVORD commands:
 - ADD
 - ADO
 - CHF
 - DEO
 - EST
 - OUT
 - SUS

- added information for feature AF7455, Single DN for EKTS and CMD, to the following SERVORD commands:
 - ADO
 - CDN
 - CHF
 - DEO
 - NEW
 - OUT
 - PLP
 - RES
 - SUS

- added commands CHL, DSP, PLP, and RES in support of feature AF7328, DN Sharing CALLP Data Enhancements

- added options ACR and DPCAR for feature AF7454, CNIS Billing without Intra/Inter BBG Segregation

-
- added option BBGI in support of feature AF7503, Uniform Usage Measurements for BBG
 - added information on enhancements to the COT option for feature AF7453, COT Enhancements (IBN)
 - added information to the CIDSDLV and CIDSSUP options in support of feature AF7511, Duplicate NXX SERVORD Commands

March 1998

CCM09 Standard, release 20.01

- added an error message to the SLT and NEW commands
- added the AGA option display to the QDN and QLT commands
- updated the SLT command to increase the number of AGs allowed
- added description of NOTICE prompt and options STD, MWL, and MWL_STD for MWT to commands ADO, CHF, and NEW for ISDN sets
- added the CRBL option to the CHF command
- updated the AGA option to increase the number of AGs allowed on an interface
- added TSPID to the display for the QLT command
- added TSPID prompt to the SLT ADD and SLT CHA commands
- added options ACRJ, DCC, and SLBRI
- added prompt SLBRI_LATTR to the ADD, EST, and NEW commands
- added prompt SLBRI and associated examples to the SLT command
- added SLBRI_LATTR and ACRJ information to the OUT command
- added ACRJ information and examples to the CHF and DEO commands
- added SLBRI and SLBRI_LATTR information and examples to the QDN, QIT, and QLT query commands
- updated the CDN command to note that the command supports packet DNs, shared DN configurations, and single DN configurations

- updated the CHG command to note that the command supports shared DN and single DN configurations
- added an error message to the CDN command and the CUG and PVC packet options
- added a Default Service error message to the ABNN, ADD, ADDPH, ADO, CHAPH, CHF, CHG, DEL, DELPH, DEO, EST, NEW, OUT, SUS, and SWLT commands
- updated the QLEN command to display AG information
- added the prompt LIMIT to the TERML option
- added valid entry of D_Dyn at the PS prompt of the SLT command
- updated the QLT command with an example of a query display for packet-only NIT with a dynamic TEI
- added Default Service information and examples to the QDN, QDNSU, and QDNWRK query commands
- updated the ADD, CHG, EST, and NEW commands to note that all call types associated with a shared DN configuration must be in the same customer group

February 1998

CCM08 Standard, release 19.04

- added MADN CACH information to option MDN

October 1997

CCM08 Standard, release 19.03

- made minor editorial changes

August 1997

CCM08 Standard, release 19.02

- made minor editorial changes

August 1997

CCM08 Standard, release 19.01

- added options: ACB, AGA, AR, TRANSFER, PMD, and DFDN
- added information to options: ACOU, AFC, CMD, EKTS, FC, MDN, NUMC, PVC, VI, and XFER
- added command CAPSORD
- added information to commands: ADD, ADO, CHF, DEO, NEW, OUT, and SLT
- added information to options, commands, and prompts tables
- added information to query commands: QDCH, QDN, QLEN, QGRP, QPHF, and QLT
- added information on ISDN packet shared directory numbers
- added information on ISDN packet single directory numbers

May 1997

CCM07 Standard, release 18.03

- added information on new DMS PH parameters
- updated tables to reflect DMS PH and DPN parameters relationship

- added SERVORD Packet Flowthrough Provisioning information that changed commands CHAPH, ADDPH, DELPH, and SETPH
- added information to tables 2-6, 2-7, and 2-20

March 1997

CCM07 Standard, release 18.02

- made minor editorial changes

March 1997

CCM07 Standard, release 18.01

- added VI and CMD options
- added information to the SLT ATT, CHAPH, SETPH, and ADDPH commands for feature SOC Activity for NI-2 BRI Functional Group

August 1996

CCM05 Standard, release 17.03

- added DEFLTERM option as described in feature AR0268 to basic service order information
- corrected the List of Terms for Northern Telecom Publication
- added DEFLTERM option to ADO and SLT commands
- added DEFLTERM to the “Service order options” chapter

March 1996

CCM05 Standard, release 17.02

- added SETPH command information to the DELPH command description

December 1995

CCM05 Standard, release 17.01

- added service order options: MDNNAME, MEMDISP, and MREL

August 1995

CCM04 Standard, release 16.02

- made technical changes to basic service order information
- made technical changes to parameter CUGINDEX

-
- made corrections to the DNA parameter cross-reference Table 2-12
 - made technical changes to the description of SERVORD command SETPH

June 1995

CCM04 Standard, release 16.01

- released due to new DRU numbering scheme

September 1994

LET002, CDN002, LEC002 Standard, release 15.02

- re-released due to technical problem in front cover page

September 1994

LET002, CDN002, LEC002 Standard, release 15.01

- added information to the SLT ATT and the SLT DET commands
- added information to the MDN option
- revised the QCOUNTS command
- added the QX75 command

December 1993

BCS36 and up Standard, release 14.01

- made technical changes in the document

September 1993

BCS36 and up Preliminary, release 14.01

- added information from the *DMS Packet Handler Provisioning Guide*, 297-2431-320
- made technical changes to the document

March 1993

BCS35 and up Standard, release 13.01

- modified book structure to comply with the *SERVORD Service Order and Query System Reference*, 297-2101-808
- made technical changes to the document

July 1992

BCS34 and up Standard, release 12.01

- made technical changes to the document

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8 List of terms

About this document

When to use this document

This document describes the service order and the query subsystems on DMS-100 equipment used for basic rate interface (BRI) to the integrated services digital network (ISDN). This document is intended for administration personnel.

How to check the version and issue of this document

The version and issue of the document are indicated by numbers, for example, 01.01.

The first two digits indicate the version. The version number increases each time the document is updated to support a new software release. For example, the first release of a document is 01.01. In the *next* software release cycle, the first release of the same document is 02.01.

The second two digits indicate the issue. The issue number increases each time the document is revised but rereleased in the *same* software release cycle. For example, the second release of a document in the same software release cycle is 01.02.

To determine which version of this document applies to the software in your office and how documentation for your product is organized, check the release information in *DMS-100 Family Guide to Northern Telecom Publications*, 297-1001-001.

References in this document

The following documents are referred to in this document:

- *Basic Translations Tools Guide*, 297-1001-360
- *Customer Data Change (CDC) End User Guide*, 297-2061-900
- *DMS-100 Family Commands Reference Manual*, 297-1001-822
- *DMS-100 Family Guide to Northern Telecom Publications*, 297-1001-001
- *Input/Output System Reference Manual*, 297-1001-129

- *SERVORD Reference Manual*
- *Translations Guide*

How commands, parameters, and responses are represented

Commands, parameters, and responses in this document conform to the following conventions.

Input prompt (>)

An input prompt (>) indicates that the information that follows is a command:

```
>BSY
```

Commands and fixed parameters

Commands and fixed parameters that are entered at a MAP terminal are shown in uppercase letters:

```
>BSY CTRL
```

Variables

Variables are shown in lowercase letters:

```
>BSY CTRL ctrl_no
```

The letters or numbers that the variable represents must be entered. Each variable is explained in a list that follows the command string.

Responses

Responses correspond to the MAP display and are shown in a different type:

```
FP 3 Busy CTRL 0: Command request has been submitted.
```

```
FP 3 Busy CTRL 0: Command passed.
```

The following excerpt from a procedure shows the command syntax used in this document:

1. Manually busy the CTRL on the inactive plane by typing

```
>BSY CTRL ctrl_no
```

and pressing the Enter key.

where

ctrl_no

is the number of the CTRL (0 or 1)

Example of a MAP response:

```
FP 3 Busy CTRL 0: Command request has been submitted.FP 3  
Busy CTRL 0: Command passed.
```

1 Basic service order information

Introduction

This chapter provides an introduction to the DMS-100 Service Order System (SERVORD) and query command system used for the integrated services digital network (ISDN).

Query commands

Query commands are used by operating companies in the input and output system of the DMS to find out the characteristics of telephone lines. Query commands allow users to determine the status (working or unassigned) of directory numbers (DN) or line equipment numbers (LEN) associated with lines.

This information can be helpful in preparing service orders. For example, a user can enter the query command QDN (query directory number) and the directory number to get information about the hardware and software associated with the DN of a line.

Query commands are covered in the "Query commands" section of this manual.

Service order commands

After entering SERVORD, you can input service orders by executing SERVORD commands, which determine the type of service order activity.

Users control a DMS switch by entering service orders into an input/output device (IOD). The SERVORD system is used to change, add, or delete options and services to subscribers' lines. A general description of IODs is given in the "Input and output devices" section.

Change ISDN service group (CISG) is an example of a service order command. When the command CISG (along with appropriate parameters) is entered into an IOD online to a DMS switch, the DMS moves the specified ISDN line to another ISG. Refer to the "Service order tables" section of this manual for a list of service order commands,

ISDN services

ISDN provides a variety of circuit-switched and packet-switched features to the customer. Many ISDN-compatible computers, data terminals, and telephone sets can access these advanced features through a single modular connector at the customer premises.

An ISDN switch offers customers two methods of accessing the voice and data networks: basic rate interface (BRI) for line service and primary rate interface (PRI) for trunk service.

Service orders are used to provide service to terminals on a BRI. They are not used on a PRI. These terminals must be datafilled through customer data tables.

Basic rate interface

BRI allows a variety of computers, data terminals, and telephone sets to be connected to an S/T-bus. The S/T-bus is connected over the U-loop to the ISDN switch, which provides the circuit-switched and packet-switched services needed to

- set up outgoing and receive incoming voice and data calls
- transmit and receive voice information
- transmit and receive data using high-speed and low-speed connections

BRI provides two 64-kbit/s bidirectional data channels known as B-channels and one 16-kbit/s signaling channel known as the D-channel. This signaling method is referred to as 2B+D signaling. An additional 16-kbit/s channel is provided for maintenance purposes. The following figure, basic rate interface configuration illustrates a typical BRI configuration.

BRI provides access to

- circuit-switched voice and data services on the 64-kbit/s B-channels
- high-speed packet data services on a provisioned B-channel connection
- low-speed packet data services on the 16-kbit/s D-channel

BRI works with a number of existing telephony agents, including

- BRI functional terminals
- Integrated Business Network (Meridian Digital Centrex) lines
- Meridian business sets

BRI also provides access to supplementary services based on standard Bellcore and Meridian Digital Centrex (MDC) features, and on X.25 facilities

offered by Northern Telecom's ISDN packet handler and packet-switched network.

For a more detailed description of ISDN, refer to the *Translations Guide*.

Physical and logical ISDN terminals

Traditionally, the DMS-100 supported only one terminal per loop or per line equipment number (LEN). The LEN was sufficient to identify the loop, the terminal, its directory number, and related data.

BRI terminates on a single line card and thus has one LEN associated with it. However, BRI supports up to eight ISDN terminals on one LEN, so the LEN is not sufficient to identify the terminals.

The key to identifying multiple terminals on a loop is the concept of a logical terminal. This concept allows an arbitrary user-defined name, a logical terminal identifier (LTID), to identify a logical terminal. There are then three distinct entities: the loop that can be identified by the LEN, the physical terminals, and the logical terminals that can be identified by the LTID.

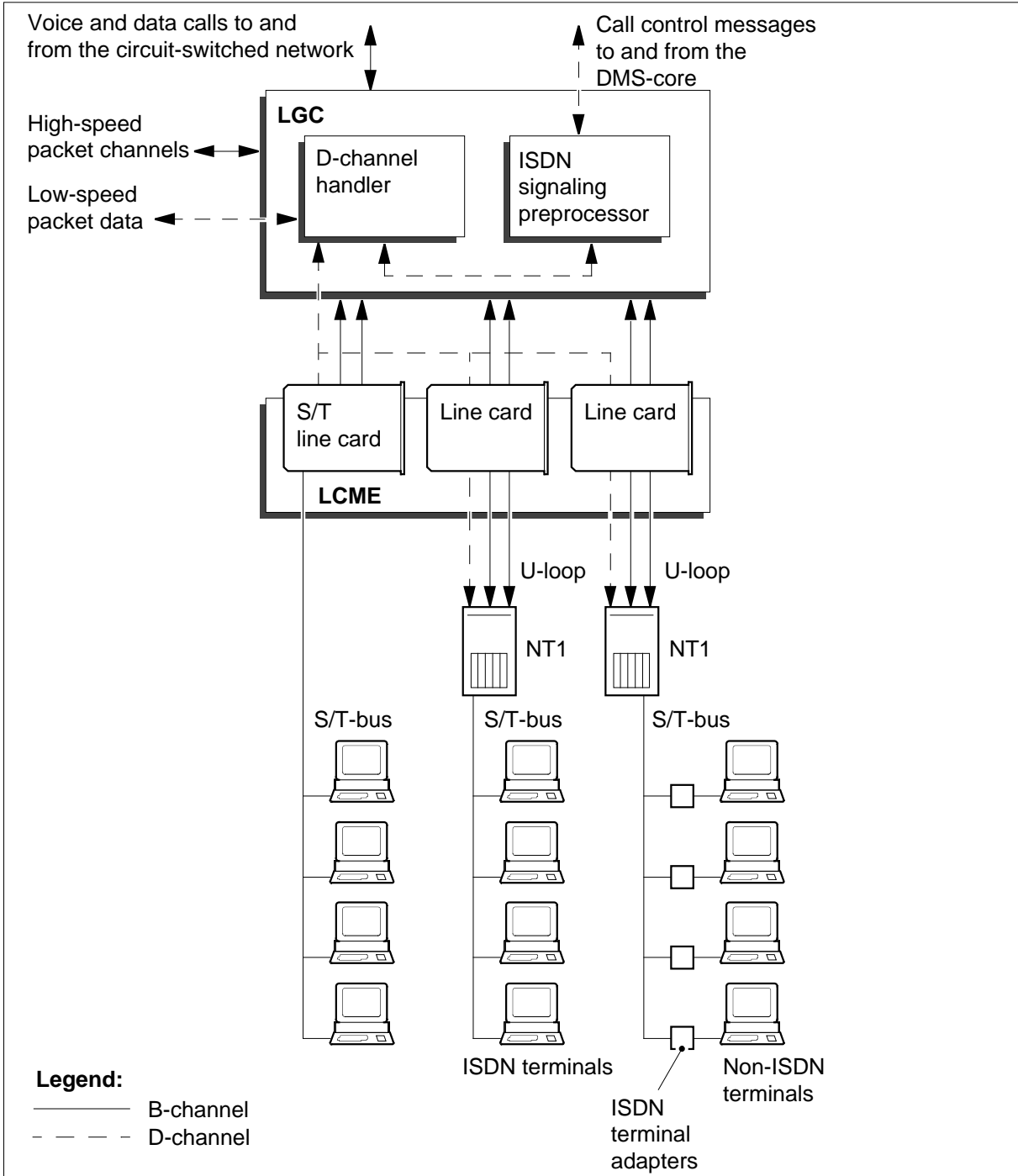
Note: SERVORD commands and queries are not always specific to ISDN. When a command or query is entered, the switch sometimes prompts the user to specify the LEN; users enter the LTID unless this manual specifies otherwise.

A physical ISDN terminal usually communicates with an ISDN switch over a single ISDN connection. To the ISDN switch, this type of physical terminal appears as a single logical terminal (LT).

Some physical ISDN terminals can maintain two independent ISDN connections to an ISDN switch. An ISDN terminal adapter with two RS-232C ports for connecting asynchronous terminals is an example. To the ISDN switch, this type of physical terminal appears as two separate LTs.

DMS-100 ISDN supports two signaling methods to communicate between the subscriber's terminal and the switch: functional (National ISDN-1) and stimulus Meridian feature transparency (MFT).

Figure 1-1 xxBasic rate interface configuration



What is functional signaling?

Functional signaling is based on a peer-to-peer exchange of information between an intelligent terminal and the network. This signaling method allows users to access new network features and services, and ISDN standardization

is simplified. Functional signaling is used for National ISDN-1 implementation, which conforms to Bellcore standards.

Note: A functional terminal has its own internally defined release key for ending a call. Therefore, the RELKEY need not be datafilled as part of the service profile. However, the release key can also cancel feature programming. For example, if you are programming speed call numbers on the set, you can cancel the session by pressing the release key. If the release key is used in this way, the RELKEY option must be datafilled.

What is stimulus MFT signaling?

Stimulus signaling provides a master and slave relationship between the network and the user terminal. The terminal reports feature key activation to the network, and the network interprets the report and returns prompts (such as audible tones and indicator lamp states) to the user terminal.

Meridian feature transparency for BRI is an extended stimulus signaling protocol supported by the M5317T, M5317TX, and M5317TDX sets. This protocol allows the M5317TX and M5317TDX sets to support all MDC features currently available on non-ISDN Meridian business sets.

Packet-switched services

The DMS packet handler (PH) supports ISDN access to X.25 packet service on both BRI D-channel or provisioned B-channels. Protocols supported are link access procedure balanced (LAPB) and link access procedure on the D-channel (LAPD), that are in full accordance with the Consultative Committee on International Telephony and Telegraphy (CCITT) X.25 protocol standard. In addition, the DMS PH supports the CCITT X.75 and X.75' trunk protocols that allow individual nodes to be connected to a network.

The DMS PH is also compliant with the Bellcore National ISDN 1 standards and was specifically developed to support this service offering. Thus, inter-exchange carrier topologies are also supported.

Optional services supported

All DMS PH access services are offered with the following options that may be subscribed at the time of provisioning:

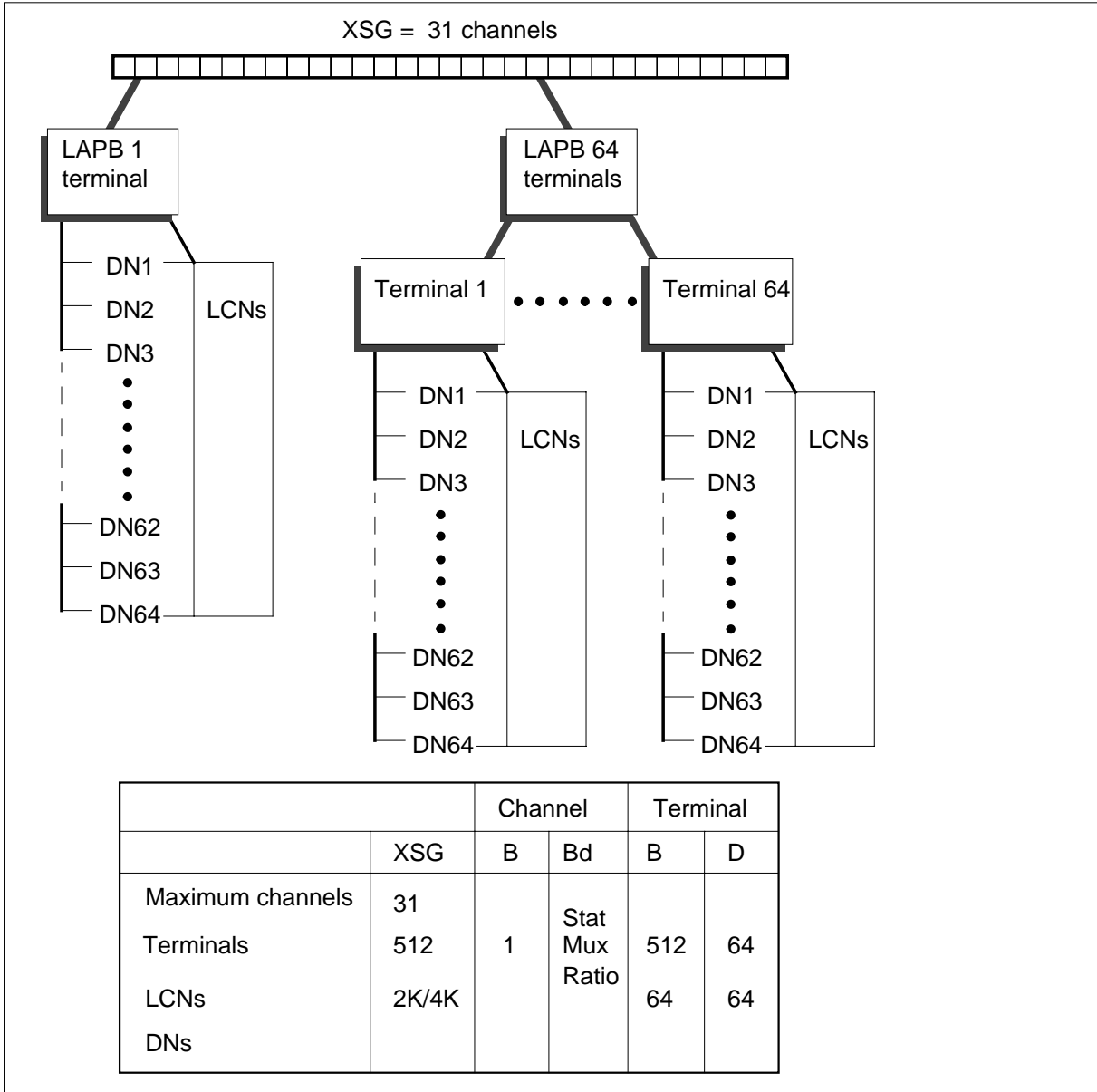
- closed user groups (CUG)
- permanent virtual circuits (PVC)
- hunt groups (HG)

Terminology and configuration

Each X.25/X.75 link interface unit (XLIU) in a link peripheral processor (LPP) has 31 data channels, each of which accepts a maximum throughput of 64 kbit/s. Directory numbers (DN) are assigned to a channel on the XLIU against

a logical channel or XLIU service group (XSG) as illustrated in the following figure. Each XSG supports a maximum of 512 terminals, subject to LAPB and LAPD restrictions.

Figure 1-2 Relationship between XLIUs, DN, and logical channel numbers



LAPB-channels

Each XSG channel on an XLIU can support one LAPB terminal. Depending on the terminal being used, the terminal could accept more than one call at any one time. Therefore, it is possible to define up to 511 logical channel numbers (LCN) for each terminal.

LAPD-channels

Each XSG channel on an XLIU can have up to 64 LAPD terminals assigned to it, up to a maximum of 512 D-channel terminals per XLIU. It is possible to assign up to 64 LCNs to each terminal.

Logical channel numbers

The LCNs on each terminal can be assigned for switched service, or some can be reserved for PVCs. For normal switched service, the switch determines the LCNs that are in use and those that are reserved. The switch then assigns the switched service to a particular LCN.

If a PVC is configured, the operating company personnel determines the LCNs that have been assigned and selects the next available LCN.

ISDN packet mode data subscribers are identified by a logical terminal identifier (LTID) with an access privilege of either PB (provisioned B- channel access to DMS PH) or D (D-channel access to DMS PH). This information is entered into tables LTGRP and LTDEF with the SERVORD SLT command.

LTIDs that have an access privilege of BD (integrated voice and data access) are not supported by DMS PH call processing.

X.75 trunks

An X.75 trunk is identified by a common language location identifier (CLLI) that is entered in the CLLI table. The CLLI serves as the key to the TRKGRP table and as part of the key to tables TRKSGRP, X75INFO, and TRKMEM.

Table TRKGRP defines the type of trunk, in this case X.75, and its characteristics. Trunk characteristics include the name of the pre-translator and the serving translation scheme.

Table TRKSGRP defines additional characteristics such as card code, signaling data, and whether the trunk is X.75 or X.75 ϕ .

The X.75 service data for each member of an X.75 trunk group is entered through table X75INFO. The key to table X75INFO consists of the CLLI and a member. Service parameters entered into table X75INFO for each link include the logical channel assignment and packet level sequencing.

Organization of ISDN X.25 parameters

ISDN parameters are provisioned against the following:

- DN/Call type (CT)
- primary directory number (PDN)/channel type
- PVC

Call type refers to circuit-mode, packet-mode, or voice-band bearer services. Parameters provisioned against these call types are called circuit-mode data (CMD), packet-mode data (PMD), or voice-band information (VI).

For the PMD call type, service is available on type the B- or D-channel for a particular DN. However, one DN cannot have PMD on both a B- and D-channel.

Each logical terminal can have several DNs associated with it. The first DN associated with the logical terminal is called the primary DN (PDN). The other DNs associated with the same logical terminal are called secondary DNs (SDN).

A PDN has a channel and call type profile while SDNs have only an associated call type profile. The call type profile contains call option parameters associated with each DN. These call option parameters are provisioned in relation to the DN/call type and are stored in table DNCTINFO. The call type profile specifies the characteristic of each call and is allowed to be changed while the DN is in service.

The channel profile contains terminal parameters associated with each logical terminal. Therefore, there is only one set of terminal parameters for each logical terminal. These terminal parameters are provisioned in relation to the DN/channel, and are stored in table DNCHNL. The channel profile specifies the configuration of a logical terminal and cannot be changed while the logical terminal is in service.

The terminal parameters apply only to the packet mode call type.

ISDN packet subscribers are identified by an LTID defined in tables LTDEF and LTGRP. The LTID is the key to tables KSETINV and KSETLINE, which define the characteristics of the user's terminal and associate DNs with the LTID. These DNs are the keys to tables DNCTINFO and DNCHNL.

Terminal provisioning

The following rules apply to the provisioning of terminals on ISDN lines:

- A maximum of eight terminals, logical or physical, are permitted on an ISDN line.
- A maximum of two logical terminals can be assigned circuit-switched service on the B-channel for each ISDN line. If two terminals on a line are assigned circuit-switched service, all other terminals on the same line can only be assigned packet-switched service on the D-channel.
- The number of terminals on an ISDN line that may be assigned circuit-switched service must be reduced by one for each terminal that is assigned B-channel packet service. For example, if one terminal on an

ISDN line is assigned B-channel packet service, then only one terminal is permitted circuit-switched service. If two terminals are assigned B-channel packet service, no terminal can be assigned circuit-switched service.

- A total of 32 704 logical terminals can be created for all ISDN lines in a DMS office. The number of physical ISDN terminals provisioned in each office depends on the local service requirements (such as the number of terminals provisioned for D-packet service, the number of terminals provisioned for B-packet service, the number of non-ISDN lines and local traffic levels). For more information, refer to the *Translations Guide*.

Five arrangements are possible for circuit-switching logical terminals on an ISDN line:

- a single logical terminal with a single DN
- a single logical terminal with multiple DNs
- multiple logical terminals with the same DN
- multiple logical terminals with multiple DNs, but the DNs are the same on each logical terminal
- multiple logical terminals with multiple DNs, but the DNs are different on each logical terminal

All provisioning of ISDN packet services on the DMS PH can be carried out using the standard DMS-100 service order commands. The DMS PH accepts these commands with a minimum of changes. This document describes the changes that have been made to the standard SERVORD commands so that the ISDN services can be offered on the integrated DMS PH.

Although this document contains information primarily on SERVORD commands for provisioning lines, in some cases it discusses information on X.75 and X.75 ϕ trunk provisioning commands that are not performed through SERVORD.

Identification elements used in the ISDN switch

Before a call of any kind can be set up between an ISDN terminal and ISDN switch, a logical terminal identifier (LTID) and associated terminal service profile must be created in the ISDN switch. The profile supplies the parameters for one terminal to circuit-switch ISDN connection.

The following elements are used to identify each logical terminal and its associated terminal service profile:

- logical terminal identifier (LTID)
- logical terminal class (LTCLASS)

- protocol version control (PVC)
- line equipment number (LEN)
- terminal endpoint identifier (TEI)
- service profile identifier (SPID)—prime DN + suffix
- D-channel handler (DCH) channel

Logical terminal identifier

Each logical terminal connected to an ISDN switch is allocated a unique alphanumeric identifier. This LTID is the key to the terminal service profile associated with each logical terminal.

Logical terminal class

LTCLASS classifies each ISDN terminal based on the type of messaging exchanged between the terminal and circuit switch part of the ISDN switch. The logical terminal class has one of three values: BRAKS for stimulus terminals, BRAMFT for MFT terminals, or BRAFS for functional terminals.

Protocol version control

PVC identifies terminal protocols BRAKS, BRAMFT, and BRAFS in the network using datafill. Within a specific version, different issue numbers identify variations of the same protocol. Terminals can query the datafilled information using the defined Q.931 message exchange.

PVC and subscription parameters

If an ISDN M5317T terminal has a protocol version and issue of FUNCTIONAL 1, subscription parameters for the following can be provided in the Q.931 SETUP message for originations and terminations:

- calling party subaddress (CGS)
- called party subaddress (CDS)
- low-layer compatibility (LLC)
- high-layer compatibility (HLC)

If subscription parameters are provided, for both calling and called parties, they enable the transfer of information for both parties. Examples include calling party number to the called party, or the selection of protocols to be used by far-end equipment to communicate over the provided bearer service.

Before the call proceeds, the following checks are made:

- call type: only circuit-mode is allowed with possible values of VBINFO (voiceband) or CMDATA (circuit-mode data)
- number of channels in use for the called party

- calling and called party parameter list
- contention for incoming calls by multiple user terminals is allowed for the called party and call type

Alternatively, if an enhanced service provider does not subscribe to the delivery of the calling or called number information elements, they can be blocked by setting the BLOCKCGN or BLOCKCDN line options. A third option, CHG, allows the charge number to be provided for the calling party number if the latter is unavailable.

Line equipment number

LEN identifies the physical equipment (and therefore, the line) to which an ISDN terminal is connected.

Terminal endpoint identifier

Once a logical terminal service record has been defined under a unique LTID, it can be associated with a LEN.

A TEI is required to identify each logical terminal connected to the same line. The combined LEN and TEI are associated with the LTID, linking the terminal to the service profile stored on the ISDN switch.

Note: Although TEIs are unique on an ISDN line, they can be duplicated on different lines.

There are four types of TEI numbers: static TEI (STEI), dynamic TEI (DTEI), user-assigned TEI (UATEI), and user- or network-assigned TEI (UNATEI). TEI will be UNATEI automatically when option DEFLTERM = Y. Static TEIs are assigned numbers from 0 to 63 and are manually programmed into terminals, telephone sets, and DMS tables. Dynamic TEIs use numbers from 64 to 126 and are assigned by the DMS when a call is made to or from a circuit-switched device that has been datafilled for dynamic TEI selection. User-assigned TEI selection, which is allowed only for service access point identifier (SAPI) 0 devices, permits the user to assign TEI numbers from 0 to 63 at the terminal equipment. User- or network-assigned TEI selection allows terminals using dynamic TEIs or requiring user-assigned TEIs to be connected to the same interface.

Service profile identifier (includes SPID suffix)

SPID links a terminal with the correct terminal service profile in a way that is independent of the LEN.

The SPID consists of a ten-digit primary DN and an optional eight-character SPID suffix. The primary DN is the DN recorded against function key 1. The SPID suffix is recorded as part of the logical terminal service record.

Note: A suffix is required only when the same primary DN is served by more than one terminal as, for example, when the DN is part of a hunt group or multiple-appearance directory number (MADN) group.

A SPID uniquely identifies a terminal to an ISDN switch, while a TEI identifies a logical terminal only on one line. When quoted by the terminal, the SPID is used by the ISDN switch to access the correct terminal service profile.

D-channel handler

ISDN call-control information and low-speed packet data are carried on the D-channel. The D-channel handler (DCH) component in the access termination part routes this information between the terminal and the ISDN switch.

The DCH has 32 channels (numbered 0 to 31). Special guidelines apply when provisioning DCH channels to carry call-control information (BRI connections) or packet data (Bd connections). For more information, refer to the *Translations Guide*.

Entering and exiting the SERVORD environment

After logging on to a valid service order IOD, type "SERVORD" at an input prompt. After you press ENTER, the DMS should respond with the "SO:" message. You can now enter the desired service order command at the input prompt.

To exit the SERVORD environment, type "QUIT" or "LEAVE" and then press ENTER at the input prompt. These actions produce the response "CI:" from the DMS. If you are looking at a datafill table when you try to exit, "QUIT" brings you back to the "SO:" level (where a second "QUIT" takes you to the "CI:" level). To exit directly back to "CI:" after looking at a table under SERVORD, type in "QUIT ALL" and press ENTER.

How commands are presented in this manual

Information on service order commands is found in the "Service order commands" section of this manual. For each service order command, the following information is presented:

Description This section briefly describes the purpose of the command and how it is used.

Applicability This section lists hunt groups, customer groups, and lines that the command can affect.

Example This section shows an example of the command as it is used in SERVORD, in prompt and no-prompt modes. The redisplay of the service order provided by the DMS after the last prompt is entered is not shown.

Prompts This section provides a description of and valid inputs for each prompt associated with the command.

Notes This section contains extra information about the command that might be helpful to the user.

How options are presented in this manual

Information on options that can be added to a line using SERVORD is found in the "Service order options" section of this manual. For each option, the following information is presented:

Description This section briefly describes the purpose of the option.

Example This section contains an example of the option added to a line, in prompt and no-prompt modes. The redisplay of the service order provided by the DMS after the last prompt is entered is not shown.

Prompts This section provides the required information and the valid inputs for each prompt associated with the option.

Assignability This section describes whether the option is assignable to a Meridian business set as a DN, Key, Set, or Subset feature. For more information on these classifications, refer to the section "Line service options and features" in this chapter.

Option prerequisites This section describes what the option requires before it can be added to a line.

Notes This section contains extra information about the option that might be helpful to the user.

Feature identification This section presents the option's feature number and feature package number.

Parameters

Commands are followed by parameters, which define what effect the command has. Parameters can be entered in the prompt mode or the no-prompt mode.

Line class codes

A line class code (LCC) is an alphanumeric code that identifies the class of service assigned to a line. ISDN lines have an ISDNKSET class of service.

Line class code and options compatibility

Not all line service options are compatible with lines that have a line class code of ISDNKSET. ISDNKSET supports logical MFT and functional ISDN terminals. Each terminal type supports a subset of line service options. Line service options supported on a BRAMFT set are listed in the PSET tuple in table LCCOPT. Refer to the "Service order tables" section of this manual for a list of the line service options compatible with each terminal type.

Some options are incompatible with other options. For example, the answer emergency message key (AEMK) option is incompatible with the uniform call distribution (UCD) option. Refer to the "Service order tables" section of this manual for a list of incompatible options.

When the lines are datafilled by service orders, tables LCCOPT and OPTOPT are cross-referenced to ensure compatibility between LCCs and options. These tables also ensure that incompatible options are not added to the same line. Note that during bulk datafilling the line tables LCCOPT and OPTOPT are not cross-referenced.

Table control does not always perform option error checking when a table is datafilled directly using the table editor; therefore, service orders are the recommended method for assigning line options.

Refer to the data schema section of the *Translations Guide* for more information about tables OPTOPT and LCCOPT.

Line service options and features

Line service options and features are used to add services to a line. An example of an optional service is three-way calling (3WC), which allows a telephone subscriber to talk to a third party without operator assistance. Refer to the "Service order tables" section of this manual for a list of line service options.

SERVORD options and features are referred to uniformly as "options" throughout this book.

Options

Options are entered by typing in the option name at the appropriate prompt. A "\$" informs the system that you are finished with the option. The following example shows how to add the reverse coin disposal (RCD) option.

```
/nse/I2F_Ileaf.cab/SERVORD.drw/29SER_8.fdr/29SER_8_B.fdr
```

Features

Features are added in the same way as options are entered but require additional information to define their parameters. After the option is entered, the system presents the next prompt. This prompt and entry sequence is repeated until all required parameters are entered. For example, to add the Call Forwarding (CFW) feature to a line, you must also define the type of call forwarding that the subscriber wants, the type of screening desired, and the number of calls that can be forwarded simultaneously. Once again, a "\$" informs the system that you are finished with the feature.

```
/nse/I2F_Ileaf.cab/SERVORD.drw/29SER_8.fdr/29SER_8_B.fdr
```

Set, subset, key, and DN features

Each feature must be defined as one of four types:

- SET features are associated with all the directory number (DN) appearances on the set.
- SUBSET features are associated with a subset of the DN appearances on the set. This subset is specified by the DN keylist when the feature is assigned to a line by the SERVORD system.
- KEY features are unique and should be totally independent of the other keys on the set.
- DN features do not require a separate key on the set and are associated with individual DN appearances. These features are assigned to the key of the appropriate DN appearance.

For more information about individual features and their associated service orders, refer to the appropriate planning guide and translations manual for that feature.

Prompts

After entering a SERVORD command at an IOD, the DMS software prompts the user for each required parameter. Invalid parameters are not accepted, and the prompt recurs.

Do not be alarmed if the prompts you see onscreen are not exactly like those presented in this document. System prompts tend to differ from feature to feature. Prompt differences can be caused by feature packages, office options, enhanced software versions, and BCS loads.

The following table is an example of how prompts can vary according to the information entered. When adding the OBS option to a line, the OBSTYPE parameter branches the prompts in one of three ways (BASIC, EXTENDED, or FOBS), depending on your selection:

Figure 1-3 Example of the OBS feature in prompt mode

```

>ADO
SONUMBER:      NOW  92  3  23  PM
>(CR)
DN_OR_LEN:
>6211234
OPTKEY:
>4
OPTION:
>OBS
OBSTYPE:
>BASIC          >EXTENDED          >FOBS
ACDGROUP:      OPTKEY:          FOBS_ACDGROUP:
>ACDGRP4      >$          >ACDGRP1
OPTKEY:          FOBSTYPE:
>$          >SUBGROUP
          FOBS_SUBGROUP:
          >2
          OPTKEY:
          >$

```

Input and output devices

Users control a DMS-100 Family system by entering service orders or query commands through an IOD. The *Input/Output System Reference Manual*, 297-1001-129, describes IODs used with DMS-100 Family systems. Each IOD has a prime function and only accepts commands that are appropriate to its prime function. IODs can be modified by operating companies to accept different commands.

Service order entry rules

A service order command consists of a command name followed by a series of parameters. Each service order has a unique name. For example, the New Directory Number command is called NEWDN. The parameters that follow the command may be entered in either the prompt mode or the no-prompt mode.

A user controls the DMS switch by entering a command at an IOD. The DMS software responds by prompting the user to enter the first parameter. If the user enters a valid parameter, the DMS prompts for the next parameter, until all required parameters have been entered. If the user enters an invalid parameter, the DMS prompts the user to try again.

Sample service order in prompt mode

The service order command NEWDN is used to add directory numbers to an office line. In the following example, a block of consecutive DNs from 2265400 to 2265999 is assigned to route 12.

/nse/I2F_Ileaf.cab/SERVORD.drw/29SER_8.fdr/29SER_8_B.fdr

Sample service order in no-prompt mode

A user can also enter a command without waiting for each of the individual parameter prompts. To accomplish this, the user must enter a command and then all of its parameters (in the correct order, with spaces separating the items) on the same line.

The NEWDN command example above appears as follows when entered in no-prompt mode:

Figure 1-4 Example of the NEWDN command in no-prompt mode

```
>NEWDN $ 613 YES 2265400 999 RTE OFRT 12
```

If the user enters an invalid parameter, the DMS switch reverts to the prompt mode. The prompting begins immediately after the last valid parameter in the sequence.

Processing service orders

Service orders can be processed in three different ways:

- Immediate
- Pending
- Bulk

Immediate activation

Service orders entered with the current date as its SO number receive immediate activation. The current date is the default value for the SO number, as shown in the example below, and is accepted by pressing ENTER.

Figure 1-5 Example of default SONUMBER

```
>NEWDN
SONUMBER: NOW 92 4 17 AM
>
```

Pending

Service orders entered with a valid number and a future due date are pending service orders. When the DMS switch receives a pending service order from an IOD, it processes the service order on the date specified.

The procedure for creating pending service orders is identical to creating service orders for immediate activation, except that a future time and date are

entered. Pending service orders are stored in the pending order subsystem of the DMS switch.

For more information concerning the use of the pending order subsystem, refer to the *Basic Translations Tools Guide*, 297-1001-360.

Bulk

Service orders entered in groups with valid numbers and an assigned date for activation are known as bulk service orders. Each group is known as a batch. On the specified date, the DMS switch begins processing the service orders. Batch service orders can be entered on a local or remote IOD.

Bulk service orders can also be created in the store file system, and the system file can be copied to a magnetic tape or disk drive device. Files on the tape or disk can be transferred to the DMS at a later time.

The procedure for creating bulk service orders is identical to that used for creating pending service orders, although for bulk service orders a batch is entered instead of a single order.

Option incompatibility

Refer to the "Service order tables" section of this manual for a list of incompatible line service options.

Using the edit function

When entry of a service order is complete, the entire service order or query command is displayed for verification purposes. The DMS switch then prompts for a Y (CONFIRM), an N (REJECT), or an E (EDIT).

Enter Y if the data displayed appears to be correct. Enter N if the service order is incorrect and must be aborted. Enter E to redisplay the entire service order or query command in the prompt mode. Each prompt is displayed with the data as entered. If no change is required, enter a carriage return. However, if you are editing a \$ sign entry you must enter a \$ or option. To change the data, the user must enter new information.

If Y is entered, the DMS switch verifies the service order. If the DMS switch detects an error (for example, incompatibility between line service options), the service order is rejected by the DMS and the reason for the rejection is displayed or printed.

Journal files

The day-to-day changes made to the DMS-100 system's database is recorded on a storage device called a journal file. When the journal file is active, service orders set for immediate activation are recorded. Service orders in a batch or

in pending mode are recorded on the day they are activated. The journal file can be used to re-enter your service order if a switch failure occurs.

```
/nse/I2F_Ileaf.cab/SERVORD.drw/29SER_8.fdr/29SER_8_B.fdr
```

If you enter a valid service order and the journal file is active, you receive a message similar to the following:

If the journal file is inactive, you receive a message similar to the following:

Figure 1-6 Example of inactive journal file

```
JOURNAL FILE IS INACTIVE, SERVICE ORDERS NOT ALLOWED  
SHOULD ORDER BE ALLOWED ANYWAY? (Y or N)
```

If you receive the preceding message, notify switch personnel before entering the service order. If a switch failure occurs before the results of your service orders are recorded to an image, you risk losing this data.

Aborting a service order

If you want to end a service order in mid-entry, you may type ABORT at the cursor and press ENTER. Your previous input for that service order or command sequence is then disregarded.

Error messages

The DMS switch provides error messages while you are entering a service order sequence and when you are confirming a service order.

Error messages in a service order sequence

When using the prompt mode, you receive an error message if your response is not a valid parameter. Additional information on the prompt is provided, and the system waits for your input. If you enter a second invalid response, you receive even more information on the prompt.

The following example shows the result of entering a value (321) for the ALTLSC prompt that is outside of its acceptable range. The second incorrect attempt (268) produces an error message that supplies the range of recognized responses (0 to 255).

Figure 1-7 Example of an invalid parameter

```
ALTLSC:
321

*** ERROR ***

TYPE OF ALTLSC IS LSC_FLAG_COMBINATION_NUMBER
PLEASE ENTER:
ALTLSC:
268

*** ERROR ***

TYPE OF ALTLSC IS LSC_FLAG_COMBINATION_NUMBER
TYPE IS LSC_FLAG_COMBINATION_NUMBER {0 TO 255}
PLEASE ENTER:
ALTLSC:
```

Error messages when confirming a service order

When attempting to confirm a service order with the Edit function you may receive an error message. You may also encounter error messages that do not offer you the option of rejecting or editing the service order. If you get such a message, query the data associated with that set and examine it closely. Usually all or part of your service order has not been accepted, and you must press N to abort it.

Correcting errors

If you make a keying error and your cursor is still on the same line, simply backspace to the error and type in the remaining characters in the entry. Then press ENTER.

Service orders for ISDN

The ISDN service order (SERVORD) subsystem is used to

- define a logical terminal and specify one of the following types of service:
 - circuit-switched voice or data service on a B-channel
 - nailed-up packet switched service on a B-channel
 - packet-switched service on the D-channel
 - combined circuit-switched service and (D-channel) packet-switched service (this type of service is assigned to integrated voice and data terminals)
- assign a DN to the logical terminal and define optional services

- attach the logical terminal to an ISDN line, and establish a nailed-up B-channel connection if required
- detach a logical terminal from an ISDN line
- remove from service a DN associated with a logical terminal
- remove a logical terminal from the network
- modify service to an existing terminal

Service order commands allow provisioning of packet services on the DPN packet handler (PH) that some administrations use to provide ISDN service. These same commands are used to add, change, or delete services on the DMS PH. Some modifications have been carried out on these commands so that the DMS PH and the DPN PH can co-exist in the same office.

Note: The DMS PH can coexist with a DPN PH in the same office; however, a terminal provisioned on DMS PH cannot be provisioned on DPN PH. When packet terminals are provisioned on the DPN PH, table PHINFO is updated using SERVORD; when packet terminals are provisioned on the DMS PH, tables DNCTINFO, DNCHNL, PVCINFO, and CUGINFO are datafilled through SERVORD. In release NA007, a set of DMS PH commands was introduced with a naming convention that reflects that of the parameters in tables DNCHNL and DNCTINFO.

The following table identifies which SERVORD commands define, detach, remove, or modify a logical terminal. The commands in this table are valid for circuit-switched service and packet-switched service with the DMS PH.

Table 1-1 Service order commands (Sheet 1 of 2)

Step	Action
To define a logical terminal	Use the SLT command with the ADD function to define a logical terminal.
To assign a DN to a logical terminal and define optional services	Use the NEW command to add a call appearance (CAP) for each directory number (DN) serviced by the terminal. Use the EST command to assign a DN to hunt group pilots. For circuit switched logical terminals, use the NEW command to define a calling option for each feature that can be activated by a function key.
To attach a logical terminal	Use the SLT command with the ATT function to attach a logical terminal to an ISDN line, and, for B-channel packet terminals, provision the B-channel connection.
To detach a logical terminal	Use the SLT command with the DET function to detach a logical terminal from an ISDN line.

Table 1-1 Service order commands (Sheet 2 of 2)

Step	Action
To remove a DN from service	Use the OUT command to remove a DN associated with a logical terminal.
To remove a logical terminal	Use the SLT command with the REM function to remove a logical terminal from the network.
To modify a logical terminal	Use the service order commands listed in the "Service order tables" section of this manual.

Provisioning packet terminals on the DPN-100 packet handler

This information about the DPN-100 PH is included here to contrast with information about the DMS PH. The sequence of SERVORD commands for provisioning packet terminals on the DPN-100 PH differs in that the ADDPH command is used instead of the NEW command. Therefore, the sequence of commands for a DPN-100 PH is as follows:

1. Use the SLT command with the ADD function to define a logical terminal.
2. Use the ADDPH command to assign a DN to a logical terminal.
3. Use the SLT command with the ATT function to attach a logical terminal to an ISDN line, and, for B-channel packet terminals, provision the B-channel connection.

This sequence puts the packet terminal in service with the default values assigned in the provisioning tables for the DPN-100 packet handler. You can still modify the terminal to its specific needs by using the other packet handler commands (for example, CHAPH).

Service order echo

Feature BC0597 (Service Order Echo) is available only in offices equipped with BCS12 or later software and NT feature package NTX901AA (Local Features I). (This feature also appears in package NTXZ02AA, ACD Support Software 3 [EQ911]). This feature allows a user to send a summary of the data resulting from the entry of a valid service order to an IOD which is online with the DMS switch.

The user must login at an IOD to activate the Service Order Echo feature. The IOD must be assigned in the terminal device (TERMDEV) system data table, which is described in the data schema section of the *Translations Guide*.

Getting help from SERVORD

The HELP command can be used to find information on the SERVORD and PENDING commands. From the SERVORD subsystem, you can obtain a listing of input commands that can be researched by using the HELP

command. Do not attempt to use HELP in the middle of a service order or command sequence. (For information on obtaining help when presented with an error, refer to the *Customer Data Change (CDC) End User Guide*, 297-2061-900.)

You can access HELP by simply typing HELP at the cursor, as shown below, and then pressing ENTER.

Figure 1-8 Example of HELP

```
SO:
HELP
HELP IS AVAILABLE FOR THE COMMANDS:
ABNN, ADA, ADD, ADDPH, ADO, BULK, CDN, CHAPH, CHDN, CHF,
CHG, CHL, CICP, CISG, CKLN, CLN, CLTG, DBNN, DEA, DEL,
DELCF, DELPH, DEO, DSP, EST, HELP, NEW, NEWACD, NEWDN,
OUT, OUTDN, PLP, RES, RESGRP, SADO, SDEO, SDNA, SETPH,
SLT, SUS, SUSGRP, SWAP, SWLT
TYPE HELP CMDNAME FULL FOR SYNTAX
TYPE HELP CMDNAME fieldname FOR SYNTAX OF A FIELD
```

To research a specific service order command, at the input prompt type HELP, and the command, then press ENTER. You receive a definition of the command. For example, entering the SUSGRP command produces the following display:

Figure 1-9 Example of command HELP

```
SO:
HELP SUSGRP
SUSGRP: SUSPEND SERVICE OF A GROUP OF LINES
THE TYPE OF GROUPINGS ARE:
NCOS:CUSTOMER GROUP AND NETWORK CLASS OF SERVICE
```

To receive syntax information, type HELP, the command name, FULL, and press ENTER:

Figure 1-10 Example of full command HELP

```
SO:
HELP SUSGRP FULL

SUSGRP: SUSPEND SERVICE OF A GROUP OF LINES
THE TYPE OF GROUPINGS ARE:
  NCOS: CUSTOMER GROUP AND NETWORK CLASS OF SERVICE
FOR COMMAND SUSGRP ENTER:

SONUMBER          NEW_SO_DUE
GROUPDATA
GROUPTYPE         {NCOS} :
{NCOS}           MULTIPLE WITH
CUSTGRP          CUSTOMER_GROUP
NCOS             {0 TO 255}
```

For syntax information on a field, type HELP, the command name, the fieldname, and press ENTER:

Figure 1-11 Example of field HELP

```
SO:
HELP SUSGRP GROUPDATA
GROUPDATA
GROUPTYPE         {NCOS} :
{NCOS}           MULTIPLE WITH
CUSTGRP          CUSTOMER_GROUP
NCOS             {0 TO 255}
```

Query commands

To receive query command information, type the following syntax:

Figure 1-12 Example of HELP query commands

```
CI:
Q QLT
COMMAND: Query Logical Terminal
Parms:<LTGRP> STRING
      <LTNUM> {1 TO 1022}

Q QDN
COMMAND QDN : QUERY DIRECTORY NUMBER
COMMAND FORMAT : QDN <DIRECTORY NUMBER>

Q QLEN
COMMAND QLEN : QUERY LINE EQUIPMENT NUMBER
COMMAND FORMAT :
QLEN <DN_LEN_TYPE>
```


2 Service order tables

This chapter contains tables which list and describe the commands, options, prompts, and parameters associated with ISDN line services. These tables can help the user prepare and input service orders.

Service order commands

The following table lists the service order commands that require special attention for ISDN. For a description of the other service order commands, refer to the *SERVORD Reference Manual*.

Table 2-1 Service order commands (Sheet 1 of 4)

Command	Use	Application
ABNN	Add bridged night number(s).	hunt group members
ADD	Add line(s) to an existing hunt group.	hunt group members
ADDPH	Add or change packet handler options and parameters.	ISDN packet terminals
ADO	Add options to lines or add existing lines to a directory number hunt (DNH) group.	individual lines DNH group members
	Add options to hunt group lines specified by LEN.	pilots of hunt groups
	Add proprietary business set (P-phone) and data unit options to business set keys.	multiline hunt (MLH) and distributed line hunt (DLH) group members business sets and data units
CDN	Change directory number.	all DNs of a hunt group except the pilot DN permitted on PDNs, not SDNs
CHAPH	Change parameters associated with packet handler options.	ISDN packet terminals

2-2 Service order tables

Table 2-1 Service order commands (Sheet 2 of 4)

Command	Use	Application
CHF	Change option information for option that already exists on a line.	individual lines teen service DNH group members pilots of hunt groups MLH/DLH group members WATS options of ESDNs integrated voice data (IVD) sets business sets and data units
CHG	Change translation/routing information. Change OUTWATS zone. Change LCC. Note: When changing LCC, the number of assigned options or the number of assigned keys must not exceed 30 and 24, respectively.	offices with IBN authcodes, lines, trunks, and virtual facility groups (VFG) business set, RES, and POTS lines unavailable to lines with ESDN option
CICP	Change intercept.	all unassigned DNs
CISG	Change the ISDN service group (ISG) of an ISDN line on the LCME.	LCME ISDN loops
DBNN	Delete bridged night number(s).	hunt group members
DEL	Delete line(s) from a hunt group.	hunt group members except pilot
DELPH	Remove packet handler options.	ISDN packet terminals
DEO	Delete options from lines. Delete options from hunt group lines specified by LEN. Delete options from electronic business set (EBS) keys. Note: When used to delete the EXT option from an EBS, all the ADDONs associated with that LEN will be deleted.	individual lines DNH group members pilots of hunt groups MLH/DLH group members business sets and data units

Table 2-1 Service order commands (Sheet 3 of 4)

Command	Use	Application
DSP	Display translation/routing information. Display OUTWATS zone. Display LCC assigned to a business set.	offices with IBN authcodes, lines, trunks, and VFGs business sets
EST	Establish a hunt group. Establish a call pickup group.	hunt groups with members having common options 2WW service business sets with DNH group data units existing lines
NEW	Establish service.	individual (non-hunt) lines and party lines
NEWDN	Assign a block of DNs not associated with line equipment. OR Assign a station not associated with a LEN as the remote station to which calls are forwarded.	DNs associated with an office route
OUT	Remove service.	individual lines pilots of hunt groups business sets and data units lines with ESDN option must have all options removed before this command can be used
OUTDN	Delete the assignment of a block of DNs. OR Delete assignment of a remote station to which calls are forwarded.	DNs associated with an office route
RES	Restore services from suspension or plug-up. Restore service to an RCF DN (feature package NTX733AD).	individual lines pilots (to restore hunt group) RCF

Table 2-1 Service order commands (Sheet 4 of 4)

Command	Use	Application
SETPH	Change the values of LAPB or LAPD service parameters. If NI000050 is set to IDLE, the terminal must be detached from its LEN before SETPH is allowed. If NI000050 is set to ON, there is no requirement to detach the terminal from the LEN.	ISDN packet terminals
SLT		ISDN lines
- ADD	Define a new logical terminal and its service parameters.	
- ATT	Attach a logical terminal to a LEN and a TEI.	
- CHA	Change the attributes of an existing logical terminal.	
- DET	Detach a logical terminal from the LEN and the TEI.	
- REM	Remove a logical terminal.	
SUS	Suspend service (feature package NTX733AD).	individual lines pilots (to suspend hunt group) RCF

Line class codes

For ISDN, the only valid line class code is ISDNKSET.

Line service options

Line service options compatible with line class code ISDNKSET are listed in the following table. Only the options specific to ISDN or options requiring special attention for ISDN are discussed in this book. The table also includes references to table Options incompatibility in this section of this manual, which lists incompatible options for each ISDNKSET option. A page number is listed in the table when the options are described in the chapter, “Service order options;” otherwise, the appropriate NTP is referenced.

To obtain a list of options compatible with the line class code ISDNKSET, enter the following commands at an input/output device (IOD):

```
>TABLE LCCOPT
```

>POS ISDNKSET

Table 2-2 Line service options (Sheet 1 of 8)

Option	Name	Functional group ordering code
3WC	Three-way calling	NTX106AA
AAB	Automatic answer back	NTX106AA
ACB	Automatic call back	NI000051
ACOU	Additional call offering-unrestricted	NTX755AB, NTX755AC
ACR	Aggregate CND recording	NI000052
ACRJ	Anonymous caller rejection	NI000060
AFC	Additional functional calls	NTX753AA, NTX755AB
AGA	Associated group assignment	NI000051
AMATEST	Automatic message accounting test call capability	NTX159AA
AR	Automatic recall	NI000051
ARR	Aggregate redirecting number delivery (RND) recording	NI000052
ATC	Automatic time and charges	NTX049AE
AUD	Automatic dial	NTX106AA
AUL	Automatic line	NTX106AA, NTX250AA
BBGI	Basic business group ISDN	NI000052
BC	Bearer capability	NTX750AB, NTX750AC, NTX750AD
BCLID	Bulk calling line identification	NTXF55AA
BLOCKCDN	Block called party number	NTX796AA
BLOCKCGN	Block calling party number	NTX796AA
BNN	Bridged night number	NTX007AA, NTX007AB, NTX804AA
CACH	Call appearance call handling	NTX754AB

Table 2-2 Line service options (Sheet 2 of 8)

Option	Name	Functional group ordering code
CBE	Deny external calls forwarded by call forward busy	NTX119AA
CBI	Exclude intragroup calls from CFB	NTX413AA, NTX413AB
CBU	Call forwarding busy unrestricted	NTX106AA
CDC	Customer data change	NTX412BA
CDE	Deny external calls forwarded by call forward no answer	NTX119AA
CDI	Exclude intragroup calls from CFB	NTX413AB
CDU	Call forwarding do not answer unrestricted	NTX106AA
CFB	Call forward busy	NTX106AA
CFD	Call forward don't answer	NTX106AA
CFDVT	Call forward don't answer variable timer	NTX415AA
CFF	Call forward fixed	NTX106AA
CFI	Call forward intragroup	NTX100AA
CFMDN	Call forward MADN	NTXA72AA
CFRA	Call forward remote access	NTXA43AA, NI000052
CFU	Call forward universal	NTX100AA
CFXDNCT	Call forwarding per DN per call type	NI000051
CFXVAL	Call forwarding validation	NI000051
CHG	Provide charge number for calling number	NTX796AA
CIDSDLV	Caller ID delivery and suppression-delivery	NI000051
CIDSSUP	Caller ID delivery and suppression-suppression	NI000051
CIR	Circular hunt	NTX100AB, NTX007AB, NTX250AA

Table 2-2 Line service options (Sheet 3 of 8)

Option	Name	Functional group ordering code
CLI	Calling line identification	NTX801AA
CMD	Circuit mode data	NA000050
CMCF	Control multiple call forwarding	NTXR80AA
CNAMD	Calling name delivery	NI000051
CND	Calling number delivery	NI000051
CNDBO	Calling number delivery blocking override	NTXK55AA
CNF	Station controlled conference	NTX111AA
COT	Customer originated trace	NTXA02AA
CPU	Call pickup	NTX100AA, NTXZ00AA, NTXF88AB
CRBL	Call reference busy limit	NI000051
CTD	Carrier toll denied	NTXA24AA
CWI	Call waiting intragroup - IBN	NTX106AA
CWT	Call waiting	NTX106AA, NTX020AC
CXR	Call transfer	NTX808AA, NTX820AA
DBC	Default bearer capability	NI000051
DCBI	Directed call pickup barge-in	NTX435AA
DCBX	Directed call pickup barge-in exempt	NTX435AA
DCF	Denied call forwarding	NTX413AA, NTX413AB
DCPK	Directed call park	NTX414AA
DCPU	Directed call pickup nonbarge-in	NTX435AA
DCPX	Directed call pickup exempt	NTX435AA
DEFLTERM	Default logical terminal	NINIT
DFDN	Default directory number	NI000051
DIN	Denied incoming calls - IBN	NTXJ84AA

Table 2-2 Line service options (Sheet 4 of 8)

Option	Name	Functional group ordering code
DLH	Distributed line hunt	NTX100AA
DND	Do not disturb	NTX106AA
DNH	Directory number hunt	NTX100AA
DOR	Denied origination	NTX901AA
DPCAR	Detailed privacy change allowed recording	NI000052
DRING	Distinctive ringing	NTX101AA
DROP	Drop last add-on member	NTX755AA, NTX755AB, NTX755AC
DTM	Denied termination	NTX901AA
EBO	Executive busy override (originator's option)	NTX101AA, NTX106AA
EBX	Executive busy override, exempted (terminator's option)	NTX101AA
ECM	Extended call management	NTXP96AA
EHLD	EKTS hold (MDN option)	NTX754AA, NTX754AB
EKTS	Electronic key telephone service	NTX754AB
FC	Flexible calling	NTX755AA, NTX755AB, NTX755AC
FNT	Free number terminating	NTX901AA
FTRGRP	Feature group	NTXF87AA
FTRKEYS	Feature keys	NTXF87AA
GIC	Group intercom	NTX106AA
HLD	Call hold	NTX100AA
ICM	Intercom (business set)	NTX106AA
IECFB	Internal external call forward busy	NTXE39AA
IECFD	Internal external call forward don't answer	NTXE39AA

Table 2-2 Line service options (Sheet 5 of 8)

Option	Name	Functional group ordering code
ILB	Inhibit line busy	NTXJ84AB
IMB	Inhibit make busy	NTXJ84AB
IRR	Inhibit ring reminder	NTXJ84AA
ISDNAMA	ISDN service recording AMA	NTX159AA
KSH	Key short hunt (business set)	NTX106AA
LCDR	Local call detail recording	NTX043AA
LNR	Last number redial	NTX101AA
LNRA	Last number redial associated with set	NTX878AC
LOD	Line hunt overflow to a DN	NTX100AA, NTX107AB, NTX250AA
LOR	Line hunt overflow to a route	NTX100AA, NTX107AB, NTX250AA
LPIC	Intra-LATA PIC	NTX901AA, NTXF69AA
LVM	Leave message	NTXE47AA
MBK	Make busy key	NTXJ84AA
MCH	Malicious call hold	NTX106AA
MDN	Multiple appearance directory number	NTX106AA
MLH	Multiline hunt	NTX100AA
MRF	MADN ring forward	NTXA33AA
MRFM	MADN ring forward manual	NTXA33AA
MSB	Make set busy	NTX435AA
MSBI	Make set busy intragroup	NTX435AA
MWT	Message waiting	NTX119AA
NAME	Name displayed	NTXA82AA
NDC	No double connect	NTX250AA

Table 2-2 Line service options (Sheet 6 of 8)

Option	Name	Functional group ordering code
NDNAP	Number of DN appearances	NI000052
NLT	No line insulation test	NTX195AA
NOH	No receiver off-hook tone	NTXA64AA
NRS	Network resource selector	NTX251AA
NUMC	Number of calls allowed	NTX753AA, NTX753AB
ODB	On-demand B-channel	NI000052
ONI	Operator number identification	NTX901AA
PCACIDS	Privacy change allowed CIDS	NI000051
PBL	Private business line	NTX106AA
PIC	Primary inter-LATA carrier	NTX734AA
PLP	Plug-up (trouble intercept)	NTXA64AA
PMD	Packet mode data	NI000051
PPL	PVN priority line	NTX983AB
PRK	Call park	NTX106AA
PRL	Privacy release	NTX106AA
PROVCDS	Called party subaddress	NTX753AA, NTX753AB
PROVCGS	Calling party subaddress	NTX753AA, NTX753AB
PROVHLC	High-layer compatibility	NTX753AA, NTX753AB
PROVLLC	Lower-layer compatibility	NTX753AA, NTX753AB
PRV	Privacy (MDN option)	NTX106AA
PVC	Protocol version control	NTX753AB
RAG	Ring again	NTX100AA
REASDSP	Reason display	NTXE40AA
RLS	Call release (see the note following this table)	NTX750AB, NTX750AC, NTX750AD
RMB	Random make busy	NTXA64AA

Table 2-2 Line service options (Sheet 7 of 8)

Option	Name	Functional group ordering code
RND	Redirecting number delivery	NI000052
RSP	Restricted sent paid	NTSA64AA
RSUS	Requested suspension	NTXA64AA
SCA	Selective call acceptance	NTXA45AA
SCF	Selective call forwarding	NTXA95AA
SCL	Speed calling long list - IBN	NTX100AA, NTX106AA, NTX250AA
SCMP	Series completion	NTXJ82AA
SCRJ	Selective call rejection	NTXA96AA
SCS	Speed calling short list - IBN	NTX100AA, NTX106AA, NTX250AA
SCU	Speed calling user - IBN	NTX100AA, NTX106AA, NTX250AA
SDY	Line study	NTXA64AA
SEC	Security	NTX414AA
SHU	Stop hunt	NTX100AA, NTX007AB
SL	Secondary language	NTXA64AA
SLBRI	Single-line BRI	NI000060
SLU	Subscriber line usage	NTX106AA, NTXA64AA
SMDR	Station message detail recording	NTX102AA
SPB	Special billing	NTXA64AA
SSAC	Station specific authorization codes	NTX103BA
SUPPRESS	Suppress line identification information	NTXA40AA
SUS	Suspended service	NTX901AA
SVCGRP	Service group	NTXR83AA
TBO	Terminating billing option	NTXE43AA

Table 2-2 Line service options (Sheet 8 of 8)

Option	Name	Functional group ordering code
TERML	Terminal limit	NI000051
TES	Toll essential	NTXA64AA
TFO	Terminating fault option	NTXJ84AA
TRANSFER	Conference and call-to-call transfers	NI000051
TSPID	Terminal service profile identifier	NI000060
VI	Voiceband information	NA000050
WML	Warm line	NTX127AA, NTXJ38AA
XFER	Transfer a conference call	NTX755AA, NTX755AB, NTX755AC
XXTRG	*XX trigger for advanced intelligent networking	NTXP01AA

Note: The option RLS is added with the SLT ADD command and changed with the SLT CHA command. On stimulus terminals, the system prompts for RELKEY and you enter the key number associated with this option. On functional terminals, the system does not prompt for RELKEY; it is an option you must request.

Hardkey and softkey assignments for the M5317TX telephone

The following table lists the options that can be assigned to hardkeys and softkeys on an M5317TX phone. Refer to the chapter “Service order options” to learn how to assign options.

Note: Other features can be impaired if the User's Guide for the phone is not followed and features are assigned improperly.

Table 2-3 Option key assignments for the ISDN M5317TX telephone (Sheet 1 of 3)

Option	M5317TXFunctional(B RAFS)	M5317TXMeridian FeatureTransparency(BRAMFT)
3WC		H
AAB		H
Note: H = hardkey assignment; S = softkey assignment		

Table 2-3 Option key assignments for the ISDN M5317TX telephone (Sheet 2 of 3)

Option	M5317TXFunctional(B RAFS)	M5317TXMeridian FeatureTransparency(BRAMFT)
ACB	S	
ACRJ	H	
AR	H	
AUD	S H	H
AUL	H	H
CND	S	
CFD	S	H
CND	S	H
CNF	S	H
CPU	S	H
CWT		H
CXR		H
EBX	S	H
ICM	H	H
GIC	H	H
LNR	H	H
MSB	S	H
MWT	H	H
PRV	S	H
PRK	S	H
PRL	S	H
QBS		H
QDT		H

Note: H = hardkey assignment; S = softkey assignment

Table 2-3 Option key assignments for the ISDN M5317TX telephone (Sheet 3 of 3)

Option	M5317TXFunctional(B RAFS)	M5317TXMeridian FeatureTransparency(BRAMFT)
RAG	S	H
SCU	H	H
Note: H = hardkey assignment; S = softkey assignment		

Line class codes and compatible options

For ISDN, the only valid line class code is ISDNKSET.

Options and compatible line class codes

For ISDN, the only valid line class code is ISDNKSET.

Options incompatibility

The following table lists the line service options that cannot be assigned to the same line. To obtain a listing of options and options incompatibility from the DMS-100 switch, log on at an IOD and enter the following commands:

- > TABLE OPTOPT
- > LIST ALL

Table 2-4 Options incompatibility (Sheet 1 of 9)

Option	Incompatible options
3WC	BC, CSDO, FIG, LDTPSAP, MAN, MPB, NDC, NOH
AAB	EHLN, MDN, MLAMP, MREL
ACB	AUL, AVT, BNN, CCSA, DOR, DTM, FTS, MDN, PREMTBL, RAG
	Note: ISDN ACB is incompatible with the following MDN variants: CACH (call appearance call handling), EXB (extension bridging), and MCA (multiple call arrangement). ISDN ACB is compatible with MDN SCA (single call arrangement).
ACOU	DNH, SCMP, MLH, DLH, MDN
ACR	Compatible with all line options
ACRJ	ACD, AVT, CCSA, GIC, LDTPSAP, LNPTST, SLQ, UCD
AFC	DBC, CRBL, NUMC
AMATEST	ARDDN, ONI

Table 2-4 Options incompatibility (Sheet 2 of 9)

Option	Incompatible options
AR	AUL, AVT, BNN, CCSA, DOR, DTM, FTS, MDN, PREMTBL, RAG Note: ISDN AR is incompatible with the following MDN variants: CACH (call appearance call handling), EXB (extension bridging), and MCA (multiple call arrangement). ISDN AR is compatible with MDN SCA (single call arrangement).
ARR	Compatible with all line options
ATC	LDTPSAP, SCF
AUD	Compatible with all line options
AUL	ACB, ACD, AR, ARDDN, CALLOG, CFBL, CFDA, CFGD, CFGDA, CFW, CNAB, CNDB, COT, CPR, CTD, CUSD, CWD, DCBI, DCPU, DOR, HOT, LINEPSAP, LNR, MAN, MPB, MPH, NFA, ONI, PBL, RCHD, SC1, SC2, SC3, SCL, SCS, SCU, SLVP, SMDI, TDN, TDV, UCD, UCDS, WML
BBDI	Compatible with all line options
BC	ACD, CNF, CWD, CWI, CWO, CWT, DCBI, EBO, EMW, FXR, ICM, MBSCAMP, MPH, MWIDC, MWQRY, MWT, 3WC, 3WCPUB, UCD, UCDS
BCLID	DTM
BLOCKCDN	Compatible with all line options
BLOCK CGN	CND
BNN	ACB, ACD, AR, ARDDN, CALLOG, CBE, CBI, CBU, CDE, CDI, CDU, CFB, CFBL, CFD, CFDA, CFDVT, CFF, CFI, CFK, CFRA, CFS, CFU, CFW, CMCF, CND, CNAMD, CPU, CSDO, CUSD, CWX, DIN, DRCW, ECM, EHL, IECFB, IECFD, LDTPSAP, LINEPSAP, MDN, MLAMP, MPB, MREL, PBL, PLP, RAG, RCHD, RSUS, SC1, SC2, SC3, SCA, SCF, SCL, SCMP, SCRJ, SCS, SCU, SDN, SLVP, SMDI, SOR, SORC, SPB, UCD, UCDS, WUCR
CACH	Compatible with all line options
CBE	BNN, CBI, DLH, DNH, DTM, FNT, HOT, IECFB, MLH, PRH, TBO, TRMBOPT
CBI	BNN, CBE, DLH, DNH, DTM, FNT, HOT, IECFB, MLH, PRH, TBO, TRMBOPT
CBU	BNN, DLH, DNH, DTM, FNT, HOT, MLH, PRH, TBO, TRMBOPT
CDC	LDTPSAP
CDE	BNN, CDI, DLH, DTM, FNT, HOT, IECFD, MLH, PRH, TBO, TRMBOPT
CDI	BNN, CDE, DLH, DTM, FNT, HOT, IECFD, MLH, PRH, TBO, TRMBOPT

Table 2-4 Options incompatibility (Sheet 3 of 9)

Option	Incompatible options
CDU	BNN, DLH, DTM, FNT, HOT, MLH, PRH, TBO, TRMBOPT
CFB	BNN, DLH, DNH, DOR, DTM, FNT, HOT, MLH, MPH, NRS, PRH, TBO, TRMBOPT
CFD	BNN, DLH, DOR, DTM, FNT, HOT, MLH, MPH, NRS, PRH, TBO, TRMBOPT
CFDVT	BNN, DLH, DTM, FNT, HOT, MLH, PRH, TBO, TRMBOPT
CFF	BNN, CFI, CFK, CFU, CSDO, DOR, DTM, FNT, HOT, LDTPSAP, ONI, PLP, TBO, TRMBOPT
CFI	BNN, CFF, CFK, CFU, CSDO, DOR, DTM, FNT, HOT, LDTPSAP, NRS, ONI, PLP, TBO, TRMBOPT
CFMDN	DRCW, PRL, SCF, SCRJ
CFRA	BNN, FNT, HOT, ONI, TBO
CFU	BNN, CFF, CFI, CFK, CSDO, DOR, DTM, FNT, HOT, LDTPSAP, NRS, ONI, PLP, TBO, TRMBOPT
CFXDNCT	BNN, CBE, CBI, CBU, CDE, CDI, CDU, CFB, CFD, CFF, CFI, CFK, CFMDN, CFTB, CFTD, CFU, CMCF, CSDO, DLH, DNH, FNT, HOT, IECFB, IECFD, IRR, LDTPSAP, MLH, NRS, ONI, PMD, PRH, TBO, TRMBOPT
CFXVAL	Compatible with all line options
CHG	Compatible with all line options
CIDSDLV	Compatible with all line options
CIDSSUP	Compatible with all line options
CIR	CWX, DLH, MPB, RCHD, SCMP, SDN, SLVP, WUCR
CLI	PBL
CLIP	Compatible with all line options
CMCF	LDTPSAP, TBO
CMD	MDN
CND	AUL, BLOCKCGN, BNN, DOR
CNAMD	AUL, BLOCKCGN, BNN, DOR
CNDBO	Compatible with all line options

Table 2-4 Options incompatibility (Sheet 4 of 9)

Option	Incompatible options
CNF	BC, DOR, FIG, LDTPSAP, NDC, PLP
COT	3WCPUB, AUL, CCSA, DOR, DTM, LDTPSAP, PCWT
CPU	BNN, DOR, DTM, HOT, LDTPSAP
CRBL	AFC, MDN, NUMC
CTD	AUL, CSDO, LDTPSAP, TDN, TDV
CWI	BC, CWX, DLH, DTM, FIG, HOT, MPH, NDC
CWT	BC, DLH, DTM, FIG, LDTPSAP, MPB, NDC, RPA
	Note: Options CWT and DNH are compatible when feature package NTX007AB is included in the software load.
CXR	FIG, NDC, NOH
DBC	AFC, MDN, NUMC
DCBI	AUL, BC, DCPU, DOR, LDTPSAP
DCBX	DCPX, DTM, LDTPSAP, NDC
DCF	LDTPSAP
DCPK	DOR, DTM, FIG, LDTPSAP
DCPU	AUL, DCBI, DOR, LDTPSAP
DCPX	DCBX, DTM, LDTPSAP
DEFLTERM	EKTS, CACH, SPIDSFX
DFDN	Compatible with packet service (PS) line options on ISDN terminals only.
DIN	BNN, CALLOG, DRCW, DTM, HOT, LDTPSAP, LINEPSAP, PBL, SCA, SCF, SCRJ
DLH	ACD, CBE, CBI, CBU, CDE, CDI, CDU, CFB, CFBL, CFD, CFDA, CFDVT, CIR, CWI, CWT, CWX, DMCT, DNH, ECM, EHL, IECFB, IECFD, INT, MDN, MLAMP, MLH, MPB, MREL, NSDN, PCWT, PRH, RAG, RCHD, RSUS, SCMP, SDN, SHU, SLVP, SOR, SORC, UCD, UCDS, WUCR
DND	DTM, EHL, LDTPSAP, LINEPSAP, MDN, MLAMP, MREL, PBL

Table 2-4 Options incompatibility (Sheet 5 of 9)

Option	Incompatible options
DNH	<p>ACD, ACOU, CBE, CBI, CBU, CFB, CWX, DLH, DMCT, ECM, IECFB, LDTPSAP, MDN, MLAMP, MLH, MPB, MPH, MREL, NSDN, RCHD, RSUS, SCMP, SDN, SLVP, UCD, UCDS, WUCR</p> <p>Note: Options CWT and DNH are compatible when feature package NTX007AB is included in the software load.</p>
DOR	<p>AAK, ACB, ACD, AEMK, AR, ARDDN, AUL, CAG, CALLOG, CFB, CFD, CFF, CFI, CFK, CFRA, CFU, CHD, CLSUP, CNAB, CNDB, CNF, COT, CPU, CWD, CWO, DCBI, DCPK, DCPU, DMCT, EHL, EMW, HLD, LNR, MBSCAMP, MLAMP, MREL, MSB, MSBI, MWIDC, MWQRY, MWT, PRK, RAG, RCHD, SACB, SCS, SLVP, SMDR</p>
DPCAR	<p>Compatible with all line options</p>
DRING	<p>Compatible with all line options</p>
DROP	<p>Compatible with all line options</p>
DTM	<p>AAK, ACB, ACD, AEMK, AR, ARDDN, BCLID, CAG, CALLOG, CBE, CBI, CBU, CDE, CDI, CDU, CFB, CFD, CFDVT, CFF, CFI, CFK, CFRA, CFS, CFU, CHD, CLSUP, CMCF, CNAMD, CND, COT, CWI, CWT, CWX, DCBX, DCND, DCPK, DCPX, DDN, DIN, DND, DRCW, DSCWID, EBX, EHL, EMW, HLD, IECFB, IECFD, LDTPSAP, MLAMP, MPH, MREL, MSB, MSBI, MWIDC, MWQRY, MWT, PCWT, PRK, RAG, SCA, SCF, SCRJ, SDN, SLVP, SMDI, TBO, TRMBOPT, UCD, UCDS</p>
EBO	<p>BC, FIG, LDTPSAP</p>
EBX	<p>DTM, LDTPSAP</p>
ECM	<p>ACD, BNN, CHD, DLH, DNH, MDN, MDNNAME, MEMDISP, MLH, PRL, PRV, UCD</p>
EHL	<p>AAB, AAK, ACD, BNN, CALLOG, DLH, DND, DNH, ECM, GIC, LDTPSAP, MLH, MPH, PBL, PRH, RMB, SDN, SHU, SLVP, SMDI, SOR, SORC, UCD, UCDS, WUCR</p>
EKTS	<p>AFC, DLH, DNH, GIC, MLH, MPH, NONINIT, UCD</p>
FC	<p>Compatible with all line options</p>
FNT	<p>CBE, CBI, CBU, CDE, CDI, CDU, CD0, CD1, CD2, CD3, CD4, CD5, CD6, CD7, CD8, CD9, CFB, CFBL, CFD, CFDA, CFDVT, CFF, CFGD, CFGDA, CFI, CFK, CFRA, CFS, CFU, CFW, CMCF, CUSD, DMCT, IECFB, IECFD, MCH, SCF</p>
FTRGRP	<p>Compatible with all line options</p>
FTRKEYS	<p>Compatible with all line options</p>

Table 2-4 Options incompatibility (Sheet 6 of 9)

Option	Incompatible options
GIC	ACD, ACRJ, EHLD, LDTPSAP, MDN, MLAMP, MREL, PLP, TBO, WML
HLD	DOR, DTM, FIG, LDTPSAP, LINEPSAP, NDC
ICM	BC
IECFB	BNN, CBE, CBI, DLH, DNH, DTM, FNT, HOT, MLH, PRH, TBO, TRMBOPT
IECFD	BNN, CDE, CDI, DLH, DTM, FNT, HOT, MLH, PRH, TBO, TRMBOPT
ILB	IMB
IMB	ILB
IRR	Compatible with all line options
ISDNAMA	Compatible with all line options
KSH	SMDI, UCD, UCDS
LCDR	CCSA, CSDO, MAN, ONI
LNR	AUL, CPR, DOR, LDTPSAP, LNRA
LNRA	LNR
LOD	CWX, LOR, MPB, RCHD, SCMP, SDN, SLVP
LOR	CWX, LOD, MPB, RCHD, SCMP, SDN, SLVP
LPIC	LDTPSAP
LVM	Compatible with all line options
MBK	RMB
MBSCAMP	BC, CWD, CWO, DOR, LDTPSAP
MCH	FGA, FNT
MDN	AAB, AAK, ACB, ACD, AINDN, AR, BNN, CALLOG, CRBL, DBC, DCND, DLH, DMCT, DND, DNH, ECM, GIC, LDTPSAP, MLH, MPH, PBL, PRH, RMB, SDN, SHU, SLVP, SMDI, SOR, SORC, UCD, UCDS, WUCR
	Note: ISDN ACB and AR are incompatible with the following MDN variants: CACH (call appearance call handling), EXB (extension bridging), and MCA (multiple call arrangement). ISDN ACB and AR are compatible with MDN SCA (single call arrangement).

Table 2-4 Options incompatibility (Sheet 7 of 9)

Option	Incompatible options
MLH	ACD, CBE, CBI, CBU, CCW, CDE, CDI, CDU, CFB, CFBL, CFD, CFDA, CFDVT, CSDO, CWX, DLH, DMCT, DNH, ECM, EHL, IECFB, IECFD, INT, MDN, MLAMP, MPB, MREL, NSDN, PCWT, PRH, RAG, RCHD, RSUS, SCMP, SDN, SLVP, SOR, SORC, UCD, UCDS, WUCR
MRF	LDTPSAP
MRFM	Compatible with all line options
MSB	DOR, DTM, LDTPSAP, MSBI
MSBI	DOR, DTM, LDTPSAP, MSB
MWT	BC, CALLOG, DOR, DTM, EMW, FIG, LDTPSAP
NAME	GIC, LDTPSAP, ONI
NDC	3WC, 3WCPUB, CHD, CNF, CWI, CWT, CWX, CXR, DCBX, FXR, HLD, MPB, PCWT, PRK
NDNAP	AFC, NUMC, MDN
NLT	LDTPSAP
NOH	3WC, CXR, FXR, LINEPSAP
NONINIT	EKTS, SCAI, DTEI, UNATEI
NRS	CFB, CFD, CFGD, CFI, CFU
NUMC	AFC, DBC, CRBL
ONI	AMATEST, AUL, CCSA, CFBL, CFDA, CFF, CFGD, CFGDA, CFI, CFK, CFRA, CFU, CFW, CSDO, CUSD, FGA, Lcdr, NAME, RSP, SCF, SDY, SPB
PBL	AUL, BNN, CLI, DIN, DND, EHL, MDN, MLAMP, MREL, RMB, RSUS, SDY, SEC, SHU, SLU, SPB
PCACIDS	Compatible with all line options
PIC	LDTPSAP
PLP	BNN, CFK, CLF, CNF, GIC, PRK
PMD	Compatible with packet services (PS) line options on ISDN terminals only. Note: PMD cannot be assigned to key one on ISDN terminal. Only voice can be assigned to key one. To assign a primary number to PMD see DFDN.
PPL	Compatible with all line options

Table 2-4 Options incompatibility (Sheet 8 of 9)

Option	Incompatible options
PRH	ACD, CBE, CBI, CBU, CDE, CDI, CDU, CFB, CFD, CFDVT, CWX, DLH, DMCT, EHL, IECFB, IECFD, LDTPSAP, MDN, MLAMP, MLH, MPB, MREL, NSDN, SDN, SMDI, SMDICND, UCD, UCDS
PRK	DOR, DTM, FIG, LDTPSAP, NDC, PLP
PRL	DRCW, DSCWID, ECM, LDTPSAP, SCA, SCF, SCRJ; incompatible with PRV on the same BRAFS terminal
PROVCD	Compatible with all line options
PROVCG	Compatible with all line options
PROVHLC	Compatible with all line options
PROVLLC	Compatible with all line options
PRV	Incompatible with PRL on the same BRAFS terminal
RAG	ACB, AR, ARDDN, BNN, CPR, DLH, DOR, DTM, FIG, MLH, MPH
REASD	Compatible with all line options
RLS	Compatible with all line options
RMB	ACD, CWX, EHL, FGA, MBK, MDN, MLAMP, MPH, MREL, PBL, SDN, SMDI, UCD, UCDS
RND	AVT, BLOCKCGN, BNN, CCSA, DCND, LDTPSAP, PCWT, PREMTBL, 3WCPUB
RSP	CSDO, ESL, FGA, HOT, MAN, ONI, TDN, TDV
RSUS	BNN, DLH, DNH, MLH, PBL
SCA	3WCPUB, BNN, CCSA, CFMDN, DCND, DIN, DMCT, DTM, EHL, LDTPSAP, PCWT, PRL
SCF	3WCPUB, ATC, BNN, CCSA, CFMDN, CSDO, DIN, DTM, EHL, FNT, HOT, LDTPSAP, ONI, PCWT, PLP, PRL, TRMBOPT
SCL	AUL, BNN, CPR, SC1, SC2, SC3, SCU
SCMP	ACD, ACOU, BNN, CFGD, CIR, DLH, DNH, ESL, INT, LDTPSAP, LINEPSAP, LOD, LOR, MLH, MPB, MPH, OFR, OFS, PILOT, RCVD, SL, SMDI, TERM, TFO, TRMBOPT, UCD, UCDS
SCRJ	3WCPUB, BNN, CCSA, CFMDN, DIN, DMCT, DTM, EHL, LDTPSAP, PCWT, PRL

Table 2-4 Options incompatibility (Sheet 9 of 9)

Option	Incompatible options
SCS	AUL, BNN, CPR, DOR, SC1, SC2, SC3
SCU	AUL, BNN, CPR, HOT, SC2, SC3, SCL
SDY	ONI, PBL
SEC	LDTPSAP, PBL
SHU	ACD, CWX, DLH, EHLD, MDN, MLAMP, MPB, MPH, MREL, PBL, SDN, SMDI, UCD, UCDS
SL	SCMP
SLU	PBL
SMDR	DOR, LDTPSAP
SPB	BNN, MAN, ONI, PBL
SSAC	LDTPSAP
SUPPRESS	LDTPSAP
SUS	Compatible with all line options
SVCGRP	Compatible with all line options
TBO	ACD, CBE, CBI, CBU, CDE, CDI, CDU, CFB, CFBL, CFD, CFDA, CFDVT, CFF, CFGD, CFGDA, CFI, CFK, CFRA, CFS, CFU, CFW, CMCF, CUSD, DTM, GIC, IECFB, IECFD, SDN, TRMBOPT, UCD, UCDS
TERML	Compatible with all line options
TES	LDTPSAP, TDN, TDV
TFO	RCHD, SCMP, SDN, SLVP
WML	AUL, GIC, MAN, MPB
XFER	Not found
XXTRG	Compatible with all line options

3 Service order commands

Introduction

This chapter describes the service order commands that apply to ISDN line services. The commands are presented in alphabetical order. For information on service order query commands, refer to the chapter "Service order query commands."

The following commands are described in this chapter.

Table 3-1 Service order commands (Sheet 1 of 2)

Command type	Command name	Description
Add	ABNN	Add a bridged night number (BNN)
	ADD	Add a line to an existing hunt group
	ADDPH	Add or change packet handler options and parameters
	ADO	Add an option to a line
	SLT	Set up logical terminal. Refinements of this command are as follows: <ul style="list-style-type: none"> • SLT ADD - Create a new logical terminal • SLT REM - Remove a logical terminal • SLT ATT - Attach a logical terminal to a line equipment number (LEN) and a terminal endpoint identifier (TEI) • SLT DET - Detach a logical terminal from a LEN and a TEI • SLT CHA - Change the attributes of a logical terminal
Change	CHAPH	Change parameters associated with packet handler options

Table 3-1 Service order commands (Sheet 2 of 2)

Command type	Command name	Description
	CHF	Change feature information for pre-existing feature
	CHG	Change translation/routing information
	CISG	Change the ISDN service group (ISG) of an ISDN line on the enhanced line concentrating module (LCME)
	SETPH	Change the values of the ISDN LAPB or LAPD X.25 service parameters
	SWLT	Swaps two logical terminals by detaching and then reattaching them to each other's LEN.
Delete	DEL	Delete line from a hunt group
	DELPH	Remove packet handler options CUG and PVC
	DEO	Delete option from a call appearance
	OUT	Remove a DN from service
	SUS	Suspend service
New	EST	Establish a hunt or call pickup group
	NEW	Establish a new line service

ABNN - Add bridged night number

Description

The ABNN command adds a bridged night number (BNN) to the following types of hunt groups without forming a BNN hunt group:

- directory number hunt (DNH)
- distributed line hunt (DLH)
- call pickup (CPU)
- multiline hunt (MLH)

Applicability

Hunt group members

Example

The following example shows the ABNN command used to add BNN 722-5000 to a line that is a member of an MLH group and terminates on logical terminal identifier (LTID) FUNC 5.

Example of the ABNN command in prompt mode

```
> ABNN
SONUMBER: NOW 92 12 4 PM
> (CR)
HOST_HUNT_TYPE:
> MLH
LINK_LEN:
> FUNC 5
KEY:
> 1
BNN:
> 7225000
```

Example of the ABNN command in no-prompt mode

```
> ABNN $ MLH FUNC 5 1 7225000
```

The following example shows a duplicate NXX condition when the switch contains the same office code in two different SNPAs (Serving Numbering Plan Area). This example uses SNPA 919 to define the selected DN.

ABNN - Add bridged night number (continued)

Example of the ABNN command in prompt mode, duplicate NXX DNs

```
>ABNN
SONUMBER: NOW 91 12 7 PM
> (CR)
HOST_HUNT_TYPE:
>MLH
LINK_LEN:
>FUNC 5
KEY:
> 1
BNN:
> 7225000
This Local DN is not Unique.
Please Use the Full National DN.
7225000
*** Error ***
|
TYPE OF BNN IS SO_DR
PLEASE ENTER:
BNN:
>9197225000
```

Example of the ABNN command in no-prompt mode, duplicate NXX DNs

```
>ABNN $ MLH FUNC 5 1 7225000
This Local DN is not Unique.
Please Use the Full National DN.
7225000
*** Error ***
|
TYPE OF BNN IS SO_DR
PLEASE ENTER:
BNN:
>9197225000
```

ABNN - Add bridged night number (continued)

Prompts

The following table lists the input prompts for the ABNN command.

Input prompts for the ABNN command

Prompt	Valid input	Explanation
BNN	Refer to DN in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	Bridged night number; the alternate directory number (DN) assigned to a hunt line for Night Service.
DN	Refer to DN in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	The DN of an existing DNH group to which new members are linked.
HOST_HUNT_T YPE	BNN = bridged night number CPU = call pickup DLH = distributed line hunt DNH = directory number hunt MLH = multiline hunt UA = no hunt	The type of hunt group on which a BNN hunt group is established.
KEY	1 to 69	The number associated with the physical key set to which the DN is assigned.
LINK_LEN or LINKLEN	Refer to LTID in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	The LTID of the member in an existing DLH/CPU/MLH group to which new members are linked.
SONUMBER	Refer to SONUMBER in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	The unique number of the service order to be entered.

Notes

In the NA009 release, the Provisioning Support for Default Service feature prevents the entry of a ten-digit Default Service DN at the BNN and DN prompts. The following error message displays, where "<nnnnnnnnnn>" is the Default Service DN:

```
Default Service DN: Invalid input<nnnnnnnnnn>
```

ABNN - Add bridged night number (end)

The following exception exists. Assume that

- A switch has multiple numbering plan areas (NPA) and duplicate exchange codes (NXX).
- Translations restricts some DNs—for example, forwarding or hunt group overflow DNs—to seven digits.

The following condition allows entry of part of a Default Service DN at a SERVORD prompt.

The operating company attempts to enter a Default Service DN under one NPA. Under a different NPA, a forwarding or overflow DN shares the NXX and station code of the Default Service DN. That is, the seven digits of the forwarding or overflow DN are identical to those of the Default Service DN. In this event, SERVORD accepts the entry of the Default Service DN.

This behavior is in line with existing SERVORD behavior with normal DNs. SERVORD always accepts the entry of ambiguous DNs; if DN rejection occurs, the rejection is based on later, feature-specific checks.

ADD - Add line to an existing hunt group

Description

Use the ADD command to add the following items:

- unassigned single-line and multiline telephone set directory numbers (DN) to directory number hunt (DNH) and bridged night number (BNN) groups
- unassigned single-line set LENs and multiline telephone set keys to distributed line hunt (DLH) and multiline hunt (MLH) groups
- assigned single-line and multiline telephone set DNs to call pickup groups

For the DMS packet handler, use the ADD command to add members to hunt groups for packet terminals. Duplicate hunt members are not allowed. The line class code (ISDNKSET) must be the same for all members in the hunt group.

Note: Before using the ADD command to add a packet DN to a hunt group, you must first define the DN parameters using the NEW command. You cannot add a blank (unassigned) packet DN to a hunt group.

Single DN and shared DN configurations

In the NA008 release, the ISDN Packet Single DN feature introduced *single DN configurations*. A single DN configuration uses the same DN for packet mode data (PMD) or voiceband information/circuit mode data (VI/CMD) call appearances. The single DN appears on two different keys of the same logical terminal identifier (LTID).

Also in the NA008 release, the ISDN Packet Shared DN feature introduced *shared DN configurations*. A shared DN configuration uses the same DN for both VI/CMD and PMD call types on different LTIDs. All call types associated with a shared DN configuration must be in the same customer group.

The ADD command supports both single DN and shared DN configurations.

DN sharing with different circuit-mode call types

A DN shared between different LTIDs and circuit-mode voice and data call types also supports hunt groups. To add a DNH hunt member that is shared with PMD, do the following. Use the ADD command to assign the DN to a key on the first LTID with call type PMD. Use the ADD command to assign the DN to a key on the second LTID, with the circuit call type (VI or CMD) as a DNH member. You can also use the reverse order: add a DN as a hunt member first and then add the same DN to the second LTID as a PMD appearance.

You can also add an MLH hunt member that is shared with PMD.

ADD - Add line to an existing hunt group (continued)

The circuit-mode call type appearances must belong to the same hunt group. You cannot split the VI and the CMD appearances of a shared DN across different hunt groups.

Applicability

This command is applicable to

- hunt group members
- call pickup groups

Examples

The following command examples show the use of the ADD command and applicable parameters. With the introduction of portable DNs, duplicate DNs can appear on a switch. The following example shows the responses for offices with and without duplicate DNs.

Add a member to a DNH group

The following example shows the ADD command used to add a DNH hunt member with DN 722-4321 and ISDN 8 on key 1.

Example of the ADD command in prompt mode, unique 7-digit DNs

```
SO:
> ADD
SONUMBER: NOW 98 2 7 PM
> (CR)
GROUPTYPE:
> DNH
LINK_DN:
> 7221234
DN_LEN:
> 7224321 ISDN 8
KEY:
> 1
DN_LEN:
> $
OPTION:
> $
GROUPSIZE:
> 10
```

Example of the ADD command in no-prompt mode, unique 7-digit DNs

```
> ADD $ DNH 7221234 7224321 ISDN 8 1 $ $ 10
```

ADD - Add line to an existing hunt group (continued)

Example of the ADD command in prompt mode, 10-digit DNs

```
SO:  
> ADD  
SONUMBER: NOW 98 2 7 PM  
> (CR)  
GROUPTYPE:  
> DNH  
LINK_DN:  
> 9197221234  
DN_LEN:  
> 7224321 ISDN 8  
KEY:  
> 1  
DN_LEN:  
> $  
OPTION:  
> $  
GROUPSIZE:  
> 10
```

Example of the ADD command in no-prompt mode, 10-digit DNs

```
> ADD $ DNH 9197221234 7224321 ISDN 8 1 $ $ 10
```

ADD - Add line to an existing hunt group (continued)

Example of the ADD command in prompt mode, duplicate 7-digit DNs

```
SO:
> ADD
SONUMBER: NOW 98 2 7 PM
> (CR)
GROUPTYPE:
> DNH
LINK_DN:
> 7221234
This Local DN is not Unique.
Please use the Full National DN.
7221234
*** Error ***

TYPE OF LINK_DN IS SO_DR
PLEASE ENTER LINK_DN:
LINK_DN:
> 9197221234
DN_LEN:
> 7224321 ISDN 8
KEY:
> 1
DN_LEN:
> $
OPTION:
> $
GROUPSIZE:
> 10
```

Example of the ADD command in no-prompt mode, duplicate 7-digit DNs

```
> ADD $ DNH 7221234 7224321 ISDN 8 1 $ $ 10
This Local DN is not Unique.
Please use the Full National DN.
7221234
*** Error ***
```

Add a member to an MLH group

The following example shows the ADD command used to add MLH hunt member ISDN 10 on key 1. This member is added to the ISDN 9 pilot.

ADD - Add line to an existing hunt group (continued)

Example of the ADD command in prompt mode

```
SO:
> ADD
SONUMBER: NOW 85 7 8 PM
> (CR)
GROUPTYPE:
> MLH
LINK_LEN:
> ISDN 9
KEY:
> 3
MEM_LEN:
> ISDN 10
KEY:
> 1
MEM_LEN:
> $
OPTION:
> $
GROUPSIZE:
> 10
```

Example of the ADD command in no-prompt mode

```
> ADD $ MLH ISDN 9 3 ISDN 10 1 $ $ 10
```

Add a member to a DLH group

The following example shows the ADD command used to add DLH hunt member ISDN 2 on key 18. This member is added to the ISDN 4 pilot.

ADD - Add line to an existing hunt group (continued)

Example of the ADD command in prompt mode

```
SO:  
> ADD  
SONUMBER: NOW 90 12 19 PM  
> (CR)  
GROUPTYPE:  
> DLH  
LINK_LEN:  
> ISDN 4  
KEY:  
> 3  
MEM_LEN:  
> ISDN 2  
KEY:  
> 18  
MEM_LEN:  
> $  
OPTION:  
> $  
GROUPSIZE:  
> 10
```

Example of the ADD command in no-prompt mode

```
> ADD $ DLH ISDN 4 3 ISDN 2 18 $ $ 10
```

ADD - Add line to an existing hunt group (continued)

Prompts

The following table lists the input prompts for the ADD command in alphabetical order.

Input prompts for the ADD command (Sheet 1 of 3)

Prompt	Valid input	Explanation
CPULEN or CPU_LEN	Refer to LTID in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	The logical terminal identifier (LTID) of the member added to a CPU group.
DN_BNN	Refer to DN in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	The DN of the member added to a BNN group and its associated BNN number.
DN_LEN	Refer to DN and LTID in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	The DN of the member added to a DNH group and its associated LTID.
GROUPSIZE	0 to 1024	The expected maximum size of the hunt group. The group size specified must be large enough to accommodate the group's expected membership.
GROUPTYPE	BNN = bridged night number CPU = call pickup DLH = distributed line hunt DNH = directory number hunt MLH = multiline hunt UA = no hunt	The type of hunt group to be established.

ADD - Add line to an existing hunt group (continued)**Input prompts for the ADD command (Sheet 2 of 3)**

Prompt	Valid input	Explanation
HOST_HUNT_TYPE	BNN = bridged night number CPU = call pickup DLH = distributed line hunt DNH = directory number hunt MLH = multiline hunt UA = no hunt	The type of hunt group on which a BNN hunt group is established.
KEY	1 to 69	The number associated with the physical key set to which the DN is assigned.
KEYLIST	1 to 69	The list of keys available on the terminal. Up to 24 keys can be specified.
LINK_DN	Refer to DN in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	The DN of an existing DNH or BNN group to which new members are linked.
LINK_LEN or LINKLEN	Refer to LTID in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	The LTID of the member in an existing DLH/CPU/MLH group to which new members are linked.
MEM_LEN	Refer to LTID in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	The LTID of the member added to a DLH or MLH group.

ADD - Add line to an existing hunt group (continued)

Input prompts for the ADD command (Sheet 3 of 3)

Prompt	Valid input	Explanation
OPTION	Refer to table Prompts in the "Service order tables" section of this manual for a list of valid inputs.	Option(s) associated with a service to be established, modified, or deleted. Office parameter SO_MAX_OPTIONS_ALLOWED permits a maximum of 30 or 60 options in a single command.
SLBRI_LATTR	0 to 31999 or \$	Line attribute index for SLBRI DNs.
SONUMBER	Refer to SONUMBER in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	The unique number of the service order to be entered.

Notes

The following notes apply to the ADD command:

- Use the ADO command and the pilot line to add group options to a hunt group. The ADO command can add line options to individual members. For more information on line and group options, refer to the EST command description in this chapter.
- You can specify a maximum of 20 hunt group members in a single ADD command.
- If two input orders derive from the same service order, a common SONUMBER may be used, provided that an optional alphabetic suffix is added to SONUMBER to distinguish between individual inputs. Without the suffix, each new entry overwrites the previous one.
- In the NA009 release, the Provisioning Support for Default Service feature prevents the entry of a ten-digit Default Service DN at the DN_BNN,

ADD - Add line to an existing hunt group (continued)

DN_LEN, and LINK_DN prompts. The following error message displays, where “<nnnnnnnnnn>” is the Default Service DN:

```
Default Service DN: Invalid input
<nnnnnnnnnn>
```

The following exception exists. Assume that

- A switch has multiple numbering plan areas (NPA) and duplicate exchange codes (NXX).
- Translations restricts some DN—for example, forwarding or hunt group overflow DN—to seven digits.

The following condition allows entry of part of a Default Service DN at a SERVORD prompt.

The operating company attempts to enter a Default Service DN under one NPA. Under a different NPA, a forwarding or overflow DN shares the NXX and station code of the Default Service DN. That is, the seven digits of the forwarding or overflow DN are identical to those of the Default Service DN. In this event, SERVORD accepts the entry of the Default Service DN.

This behavior is in line with existing SERVORD behavior with normal DN. SERVORD always accepts the entry of ambiguous DN; if DN rejection occurs, the rejection is based on later, feature-specific checks.

- All call types associated with a shared DN configuration must be in the same customer group.
- If you enter the LSPAO option, the system prompts for CONTEXT and PROVIDER entries.
- The SLBRI_LATTR prompt displays when you create a new DN on an LTID with the SLBRI (single-line BRI) option. The NA009 BRI in RES feature introduced this functionality.

The SLBRI_LATTR prompt does not display if

- The LTID entered at the DN_LEN prompt does not have the SLBRI option assigned.
- You enter a LEN at the DN_LEN prompt.

- HUNT and SDN DN cannot span SNPAs.
- In the NA012 release, the ADD command does not support echo station LTIDs or DN. If you use this command with feature 59006435, Echo Station X.25 Loopback Testing, the following error message displays:

```
ADD command cannot be used for Echo station LTID/DN.
```

- In the NA014 release, feature 59013267, On-demand B-channel X.25 Packet Mode—Provisioning, Data Distribution Manager, and XLIU, does

ADD - Add line to an existing hunt group (end)

not support the use of the ADD command to add ODB (On-demand B-channel) DN's as members of hunt groups. If you attempt to use the ADD command to add an ODB DN as a member of a hunt group, the following error message displays:

```
ODB does not support HUNT GROUPS
```

ADDPH - Add or change packet handler options

Description

The ADDPH command is used to add or change closed user group (CUG) and permanent virtual circuit (PVC) options and their parameters associated with a logical terminal on the DMS packet handler (PH). The data network address (DNA) option is not applicable since directory number (DN) entries cannot be added with the ADDPH command.

The ADDPH command accepts both DPN and DMS packet handler parameter names for PVC and CUG options. The user can specify the following for CUG and PVC:

- the CUG parameter names used in tables CUGINFO and DNCTINFO
- the PVC parameter names used in table PVCINFO

When setting up a new service, enter only those parameters that have values different from the default value and those fields that do not have default values.

If more than one PH option is added to a logical terminal by one ADDPH command, the table on the exchange termination is updated with the parameters in the same order as they are sent in the service order. Care must be taken to ensure that the options are added in the correct order when there are dependencies between the options.

Error messages are generated when incompatible DPN and DMS PH parameter naming conventions are mixed.

Applicability

ISDN packet terminals

Example

The following example shows the ADDPH command used to add CUGs. In this example, two CUGs (CUG 5678 and CUG 2345) are added to the DN 6136211234. CUG 2345 is the preferred CUG for this DN.

ADDPH - Add or change packet handler options (continued)

Example of the ADDPH command in prompt mode

```
SO:
> ADDPH
SONUMBER: NOW 93 4 7 PM
> (CR)
LTID:
> ISDN
LTNUM:
> 50
ADD_OPTION:
> CUG
CUGNUM:
> 2345
CUGINDEX:
> 0
DNASPEC:
> 6136211234
CUG_PARM:
> CUGTYP
CUGTYP:
> I
CUGDNIC:
> 3333
CUG_PARM:
> PCUG
PCUG:
> Y
CUG_PARM:
> $
ADD_OPTION:
> CUG
CUGNUM:
> 5678
CUGINDEX:
> 2
DNASPEC:
> 6136211234
CUG_PARM:
> CUGTYP
CUGTYP:
> I
CUGDNIC:
> 3333
CUG_PARM:
> $
ADD_OPTION:
> $
```

ADDPH - Add or change packet handler options (continued)

Example of the ADDPH command in no-prompt mode

```
> ADDPH $ ISDN 50 CUG 2345 0 6136211234 CUGTYP I 3333 PCUG Y $  
CUG 5678 2 6136211234 CUGTYP I 3333 $ $
```

The following examples show the ADDPH command used to add CUG service when the NI000050_SOC option is set to ON or IDLE. The first example is adding CUG service with the NI000050_SOC option set to ON. In the second example, the NI000050_SOC option is set to IDLE. When the NI000050_SOC option is set to IDLE, an error message informs the user that this option must be turned to the ON state to add CUG service.

Example of the ADDPH command in prompt mode (adding CUG service, NI000050_SOC = ON)

```
SO :  
> ADDPH  
SONUMBER: NOW 96 9 16 PM  
> $  
LTID :  
> PKT  
LTNUM :  
> 401  
ADD_OPTION :  
> CUG  
CUGNUM :  
> 2000  
CUGINDEX :  
> 1  
DNASPEC :  
> 6137428401  
CUG_PARM :  
> DNIC  
DNIC :  
> I234  
CUG_PARM :  
> CUGFSEL  
CUGFSEL :  
> CUGOIA  
CUG_PARM :  
> $  
ADD_OPTION :  
> $
```

ADDPH - Add or change packet handler options (continued)

Example of the ADDPH command in no-prompt mode (adding CUG service, NI000050_SOC = ON)

```
> ADDPH $ PKT 401 CUG 2000 1 6137428401 DNC 1234 CUGFSEL
CUGOAIA $ $
```

Example of the ADDPH command in prompt mode (adding CUG service, NI000050_SOC = IDLE)

```
SO:
> ADDPH
SONUMBER: NOW 96 9 16 PM
> $
LTID:
> PKT
LTNUM:
> 401
ADD_OPTION:
> CUG
CUGNUM:
> 2000
CUGINDEX:
> 1
DNASPEC:
> 6137428401
CUG_PARM:
> DNIC
DNIC:
> 1234
CUG_PARM:
> CUGFSEL
CUGFSEL:
> CUGOAIA
CUG_PARM:
> $
ADD_OPTION:
> $
COMMAND AS ENTERED:
ADDPH NOW 96 16 PM PKT 401 CUG 2000 1 6137428401
DNIC 1234 CUGFSEL CUGOAIA $ $
ENTER Y TO CONFIRM, N TO REJECT OR E TO EDIT
> Y
ERROR: To use DMS PH naming conventions,
Option NI000050 must be turned ON.
```

ADDPH - Add or change packet handler options (continued)

Example of the ADDPH command in no-prompt mode (adding CUG service, NI000050_SOC = IDLE)

```
> ADDPH $ PKT 401 CUG 2000 1 6137428401 DNC 1234 CUGFSEL  
CUGOAIA $ $
```

The following examples show the ADDPH command used to add PVC service when the NI000050_SOC option is set to ON or IDLE. The first example is adding PVC service with the NI000050_SOC option set to ON. In the second example, the NI000050_SOC option is set to IDLE. When the NI000050_SOC option is set to IDLE, an error message informs the user that this option must be turned to the ON state to add PVC service.

ADDPH - Add or change packet handler options (continued)

Example of the ADDPH command in prompt mode (adding PVC service, NI000050_SOC = ON)

```

SO:
> ADDPH
SONUMBER: NOW 96 9 16 PM
> $
LTID:
> PKT
LTNUM:
> 401
ADD_OPTION:
> PVC
ORIGDNA:
> 6137428401
ORIGLCN
> 1
RESPDNA:
> 6137428402
RESPLCN:
> 1
PVC_PARM:
> RECVTC
RECVTC:
> 75
PVC_PARM:
> BILLING
ENABLE:
> Y
BILLSEL:
> NORMAL
PVC_PARM:
> $
ADD_OPTION:
> $

```

Example of the ADDPH command in no-prompt mode (adding PVC service, NI000050_SOC = ON)

```

> ADDPH $ PKT 401 PVC 6137428401 1 6137428402 1 RECVTC 75
BILLING Y NORMAL $ $

```

ADDPH - Add or change packet handler options (continued)

Example of the ADDPH command in prompt mode (adding PVC service, NI000050_SOC = IDLE)

```
> ADDPH
SONUMBER: NOW 96 9 16 PM
> $
LTID:
> PKT
LTNUM:
> 401
ADD_OPTION:
> PVC
ORIGDNA:
> 6137428401
ORIGLCN
> 1
RESPDNA:
> 6137428402
RESPLCN:
> 1
PVC_PARM:
> RECVTC
RECVTC:
> 75
PVC_PARM:
> BILLING
ENABLE:
> Y
BILLSEL:
> NORMAL
PVC_PARM:
> $
ADD_OPTION:
> $
COMMAND AS ENTERED:
ADDPH NOW 96 16 PM PKT 401 PVC 6137428401 1 1
6137428402 1 RECVTC 75 BILLING Y NORMAL $
ENTER Y TO CONFIRM, N TO REJECT OR E TO EDIT
> Y
ERROR: To use DMS PH naming conventions, Option
NI000050 must be turned ON.
```

Example of the ADDPH command in no-prompt mode (adding PVC service, NI000050_SOC = IDLE)

```
> ADDPH $ PKT 401 PVC 6137428401 1 6137428402 1 RECVTC 75
BILLING Y NORMAL $ $
```

ADDPH - Add or change packet handler options (continued)

Example of the ADDPH command in prompt mode (incompatible parameter naming conventions entered while adding CUG option)

```

> ADDPH
SONUMBER: NOW 96 9 16 PM
> $
LTID:
> PKT
LTNUM:
> 401
ADD_OPTION:
> CUG
CUGNUM:
> 2000
CUGINDEX
> 1
DNASPEC:
> 6137428401
CUG_PARM:
> DNIC
DNIC:
> 1234
CUG_PARM:
> OUTCALLS
OUTCALLS:
> Y
CUG_PARM:
> $
ADD_OPTION:
> $
COMMAND AS ENTERED:
ADDPH NOW 96 16 PM PKT 401 CUG 6137428401 1 DNIC
1234 OUTCALLS Y $ $
ENTER Y TO CONFIRM, N TO REJECT OR E TO EDIT
> Y
ERROR: Cannot mix DPN and DMS PH parameter naming
conventions. OUTCALLS is not compatible with the DMS
PH names.
      CUGINDEX: 1
      DNASPEC: 6137428401
*** ERROR - INCONSISTENT DATA ***

```

ADDPH - Add or change packet handler options (continued)

Example of the ADDPH command in no-prompt mode (incompatible parameter naming conventions entered while adding CUG option)

```
> ADDPH $ PKT 401 CUG 2000 1 6137428401 DNIC 1234 OUTCALLS Y $
$
ERROR: Cannot mix DPN and DMS PH parameter naming
conventions. OUTCALLS is not compatible with the DMS PH
names.
      CUGINDEX: 1
      DNASPEC: 6137428401
*** ERROR - INCONSISTENT DATA ***
```

Prompts

The following table lists the input prompts for the ADDPH command in alphabetical order. The prompts you encounter depend on whether you enter the PVC or CUG option.

Input prompts for the ADDPH command (Sheet 1 of 2)

Prompt	Valid input	Explanation
ADD_OPTION	PVC or CUG	Option(s) associated with a service to be established or modified.
CUGINDEX	0 to 255	The index number associated with this CUG on this DN. Updates CUGIDX field in table CUGINFO.
CUGNUM	0 to 65535	The number of the closed user group. Part of the key for table CUGINFO (ITLK field).
CUG_PARM	Refer to table Closed user group parameters in the "Service order tables" section of this manual for information on valid inputs.	The CUG parameters to be changed. Enter the parameter name and, when prompted with that name, enter the value.
DNASPEC	1 to 15 digits	The data network address with which this CUG is being associated. Part of the key for table CUGINFO (DN field).

ADDPH - Add or change packet handler options (continued)

Input prompts for the ADDPH command (Sheet 2 of 2)

Prompt	Valid input	Explanation
LTID	Refer to LTID in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	The logical terminal identifier.
ORIGDNA	DN, or CLLI and member for X.75 endpoint.	Specifies the originating endpoint This is the location that is billed if the endpoint is ISDN.
PVC_PARM	Refer to table Permanent virtual circuit parameters in the "Service order tables" section of this manual for information on valid inputs.	The PVC parameters you wish to change. Enter the parameter name and, when prompted with that name, enter the value.
RESPDNA	DN, or CLLI and member for X.75 endpoint.	Specifies the responding endpoint. The originating and responding endpoints cannot be the same. This endpoint is the slave of the PVC and is the location that is not billed.
SONUMBER	Refer to SONUMBER in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	The unique number of the service order to be entered.

Notes

The following notes apply to the ADDPH command:

- DN entries cannot be added with the ADDPH command. Use the NEW command.
- If NI000050 is set to IDLE, the LTID must be detached from the LEN before PVC parameters can be changed. If NI000050 is set to ON, only the master endpoint needs to be force released (FRLS) at the MAP LTPISDN level.
- In the NA009 release, the Provisioning Support for Default Service feature prevents the entry of a ten-digit Default Service DN at the ORIGDNA and RESPDNA prompts. The following error message displays, where "<nnnnnnnnnn>" is the Default Service DN:

ADDPH - Add or change packet handler options (end)

```
Default Service DN: Invalid input
<nnnnnnnnnn>
```

The following exception exists. Assume that

- A switch has multiple numbering plan areas (NPA) and duplicate exchange codes (NXX).
- Translations restricts some DNs—for example, forwarding or hunt group overflow DNs—to seven digits.

The following condition allows entry of part of a Default Service DN at a SERVORD prompt.

The operating company attempts to enter a Default Service DN under one NPA. Under a different NPA, a forwarding or overflow DN shares the NXX and station code of the Default Service DN. That is, the seven digits of the forwarding or overflow DN are identical to those of the Default Service DN. In this event, SERVORD accepts the entry of the Default Service DN.

This behavior is in line with existing SERVORD behavior with normal DNs. SERVORD always accepts the entry of ambiguous DNs; if DN rejection occurs, the rejection is based on later, feature-specific checks.

- In the NA012 release, the ADDPH command does not support echo station LTIDs or DNs. If you use this command with feature 59006435, Echo Station X.25 Loopback Testing, the following error message displays:

```
ADDPH command can not be used with Echo station LTID/DN.
```

- In the NA014 release, feature 59013267, On-demand B-channel X.25 Packet Mode—Provisioning, Data Distribution Manager, and XLIU, does not support the use of the ADDPH command to add an On-demand B-channel (ODB) DN to a permanent virtual circuit (PVC) or a closed user group (CUG).

If you attempt to use the ADDPH command to add an ODB DN to a PVC, the following error message displays:

```
ODB DN cannot be a part of PVC
```

If you attempt to use the ADDPH command to add an ODB DN to a CUG, the following error message displays:

```
ODB DN cannot be a part of CUG
```

ADO - Add option

Description

Use the ADO command to

- add options to assigned single-line and multiline telephone sets
- add options to hunt group lines specified by the logical terminal identifier (LTID)
- add proprietary business set and data unit options to business keys
- add the multiple appearance directory number (MADN) option with a MADN call type of call appearance call handling (CACH) to an existing non-MADN directory number (DN)

During the assignment of Message Waiting (MWT) to an ISDNKSET_LCC line type, a prompt for the ADO command requests the notification type. The prompt occurs after the MWT option is designated and offers the following notification types for assignment:

- MWL (message waiting lamp)
- STD (stuttered dial tone)
- MWL_STD (combination of MWL and STD simultaneously)

Applicability

This command is applicable to

- individual lines
- directory number hunt (DNH), distributed line hunt (DLH), or multiline hunt (MLH) group members
- pilot DN of hunt groups
- business sets and data units

Examples

The following SERVORD examples show the ADO command sequence to add the specified option to a logical terminal identifier (LTID).

Ring again

The following examples show the ADO command adding the ring again (RAG) option to an ISDN terminal. The examples show the responses to the ADO command in an office with and without duplicate DNs. In these examples, the user adds the option to key 9.

ADO - Add option (continued)

Example of the ADO command in prompt mode, unique 7-digit DN

```
>ADO
SONUMBER:  NOW 98 2 7 AM
>(CR)
DN_OR_LEN:
>2345432
OPTKEY:
>9
OPTION:
>RAG
OPTKEY:
>$
```

Example of the ADO command in no-prompt mode, unique 7-digit DN

```
>ADO $ 2345432 9 RAG $
```

Example of the ADO command in prompt mode, 10-digit DN

```
>ADO
SONUMBER:  NOW 98 2 7 AM
>(CR)
DN_OR_LEN:
>9192345432
OPTKEY:
>9
OPTION:
>RAG
OPTKEY:
>$
```

Example of the ADO command in no-prompt mode, 10-digit DN

```
>ADO $ 9192345432 9 RAG $
```

ADO - Add option (continued)**Example of the ADO command in prompt mode, duplicate 7-digit DN**

```

>ADO
SONUMBER:  NOW 98 2 7 AM
>(CR)
DN_OR_LEN:
>2345432
This Local DN is not Unique.
Please Use the Full national DN.
2345432
*** Error ***
|
TYPE OF DN_OR_LEN IS DR_LEN_TYPE
PLEASE ENTER:
DN_OR_LEN:
>9192345432
OPTKEY:
>9
OPTION:
>RAG
OPTKEY:
>$

```

Example of the ADO command in no-prompt mode, duplicate 7-digit DN

```

>ADO $ 2345432 9 RAG $
This Local DN is not Unique.
Please Use the Full national DN.
2345432
*** Error ***
|
TYPE OF DN_OR_LEN IS DR_LEN_TYPE
PLEASE ENTER:
DN_OR_LEN
>ADO $ 919 2345432 9 RAG $

```

MADN CACH

The following examples show the ADO command used to assign the MADN CACH option to an existing non-MADN DN.

ADO - Add option (continued)

Example of the ADO command in prompt mode—primary member to an existing CA (existing MADN group)

```
>ADO
SONUMBER:  NOW 86 07 08 AM
>(CR)
DN_OR_LEN:
>2345432
OPTKEY:
>9
OPTION:
>MDN
MDNTYPE:
>CACH
PRIMARY:
>Y
NEWCA:
>N
CA_NUM:
>3
DIR_NUMBER:8675309
>8675920
OPTKEY:
>$
```

Example of the ADO command in no-prompt mode—primary member to an existing CA (existing MADN group)

```
>ADO $ 2345432 9 MDN CACH Y N 3 8675920 $
```


ADO - Add option (continued)

Example of the ADO command in prompt mode—secondary member to a new CA (existing MADN group) and CARES_TYPE DTM

```

>ADO
SONUMBER:  NOW 86 07 08 AM
>(CR)
DN_OR_LEN:
>2345432
OPTKEY:
>9
OPTION:
>MDN
MDNTYPE:
>CACH
PRIMARY:
>N
NEWCA:
>Y
CARES_TYPE:  NULL
>DTM
DIR_NUMBER: 8675309
>8675920
OPTKEY:
>$

```

Example of the ADO command in no-prompt mode—secondary member to a new CA (existing MADN group)

```
>ADO $ 2345432 9 MDN CACH N Y DTM 3 8675920 $
```

ADO - Add option (continued)

Example of the ADO command in prompt mode—secondary member to an existing CA (existing MADN group)

```

>ADO
SONUMBER:  NOW 86 07 08 AM
>(CR)
DN_OR_LEN:
>2345432
OPTKEY:
>9
OPTION:
>MDN
MDNTYPE:
>CACH
PRIMARY:
>N
NEWCA:
>N
CA_NUM:
>3
DIR_NUMBER:8675309
>8675920
OPTKEY:
>$

```

Example of the ADO command in no-prompt mode—secondary member to an existing CA (existing MADN group)

```
>ADO $ 2345432 9 MDN CACH N N 3 8675920 $
```

If the ADO command is changing an existing non-MADN DN to a MADN CACH DN (with NEWCA=N) and an invalid CA number is entered, SERVORD displays the valid CA numbers and prompts (VALID_CA_NUM) for the user to enter one of these numbers. Refer to the following examples for this scenario.

ADO - Add option (continued)

Example of the ADO command in prompt mode—invalid call appearance entered

```

>ADO
SONUMBER:  NOW 86 07 08 AM
>(CR)
DN_OR_LEN:
>2345432
OPTKEY:
>9
OPTION:
>MDN
MDNTYPE:
>CACH
PRIMARY:
>N
NEWCA:
>N
CA_NUM:
> 13
DIR_NUMBER:8675309
>8675920
VALID CAs are: 1 3 5 2 4
VALID_CA_NUM:
> 4
OPTKEY:
>$

```

Example of the ADO command in no-prompt mode—invalid call appearance entered

```

>ADO $ 2345432 9 MDN CACH N N 13 8675920 4 $

```

The following examples show assigning MWT to an ISDNKSET_LCC line type using the ADO command.

ADO - Add option (continued)

Example of the ADO command in prompt mode

```
>ADO
SONUMBER:      NOW  97  8 18 PM
>
DN_OR_LEN:
>ISDN 6
OPTKEY:
>7
OPTION:
>MWT
NOTICE:
>STD
CAR:
>Y
CRRCFW:
>ALL
CRX:
>N
OPTKEY:
>$
```

Example of the ADO command in no-prompt mode

```
ADO ISDN 6 7 MWT STD Y ALL N $
```

Shared DN with different circuit-mode call types

The following example shows the ADO command sequence to add an option to a shared DN. If you do not specify the LTID of a shared DN at the DN_OR_LEN prompt, the LEN prompt appears. Specify an LTID to add options to a shared DN that is already assigned to another LTID of a different call type.

ADO - Add option (continued)

Example of the ADO command in prompt mode

```
>ADO
SONUMBER:      NOW  97  8 18 PM
>
DN_OR_LEN:
>7235001
LEN:
> ISDN 1
OPTKEY:
>1
OPTION:
>CNAMD
BILLING OPTION: NOAMA
>$
OPTKEY:
>$
```

Example of the ADO command in no-prompt mode

```
>ADO $ 7235001 ISDN 1 1 CNAMD $ $
```

Single DN configuration

The ADO command is used to create a single DN configurations. The following is an example of modifying ISDN 101 for single DN configuration.

The following example shows the result of a QLT command for LTID ISDN 101 before modification to a single DN configuration.

ADO - Add option (continued)**Example of QLT command output for ISDN 101 before being modified to a single DN configuration**

```

LTID: ISDN 101
SNPA: 613
DIRECTORY NUMBER 7238888
LT GROUP NO: 0
LTCLASS: BRAFS DEFAULT LOGICAL TERMINAL: N
EKTS: Y CACH: Y
SLBRI: N
CS: NI2 PS: N TEI: DYNAMIC
ELN: N
VERSION: FUNCTIONAL ISSUE: 2
TSPID: 101
CUSTGRP: BNR SUBGRP: 0 NCOS: 0 RING N
LINE CLASS CODE: ISDNKSET
MAXKEYS: 32
OPTIONS:
SFC CMD BOTH $ $ N
CRBL 0 1
  KEY      DN          CALLTYPE
  ---      --          -
  1        DN 7238888  CMD
  2        DN 7238887  VI

  KEY      FEATURE
  ---      -
  1        CRBL 0 1
  1        DCB DCB_64K
  2        CRBL 1 0
  2        DBC DCB_SP

```

The following figure is an example of creating a single DN configuration for ISDN 101.

ADO - Add option (continued)

Example of ADO command modifying ISDN 101 to a single DN configuration

```

> ADO
SONUMBER: NOW 98 5 26 AM
> $
DN_OR_LEN:
> ISDN 101
OPTKEY
> 2
OPTION:
> MDN
MDNTYPE:
> CACH
PRIMARY:
> Y
NEWCA:
> Y
CARES_TYPE: NULL
>
DIR_NUMBER 6137238889
> 7238888
INTERCEPT_NAME:
> BLDN
DENIAL_TRMT:
> SILENCE
BRIDGING:
> N
OPTKEY:
> $

```

Example of ADO command modifying ISDN 101 to a single DN configuration

```

>ADO $ ISDN 101 2 MDN CACH Y Y 7238888 BLDN SILENCE N $

```

ADO - Add option (continued)

Prompts

The following table lists the input prompts for the ADO command in alphabetical order.

Input prompts for the ADO command (Sheet 1 of 2)

Prompt	Valid input	Explanation
CA_NUM	1-16	The number associated with a particular call appearance
CARES_TYPE	NULL, DTM, DOR, DTMEPI	<p>The following are the four CARES types:</p> <ul style="list-style-type: none"> • NULL: unassigned • DTM: originating only • DOR: terminating only • DTMEPI: originating and priority incoming only <p>The CARES_TYPE field is prompted only if the NEWCA field is set to Y. The CARES type is associated with the call appearance, not the primary member of the CA.</p>
DN_OR_LEN	Refer to DN and LTID in the Prompts table in the "Service order tables" section of this manual for information on valid inputs.	<p>Enter the line's DN or LTID. For a multiple appearance directory number (MDN) line or MLH/DLH members, if a DN is specified the user is prompted for the LTID. If the LTID is entered, the user is not prompted for the DN.</p> <p>For shared DNs with different circuit-mode call types, enter the DN or the LTID. If you do not enter the LTID, the LEN prompt appears.</p>

ADO - Add option (continued)**Input prompts for the ADO command (Sheet 2 of 2)**

Prompt	Valid input	Explanation
KEYLIST	1 to 69	The list of keys available on the terminal. Up to 24 keys can be specified.
LEN	Refer to DN and LTID in the Prompts table in the "Service order tables" section of this manual for information on valid inputs.	For shared DNs with different circuit-mode call types, enter the LTID of the shared DN to which the option will be added.
MDNTYPE	SCA, MCA, EXB, CACH	Indicates the MADN call appearance type.
NEWCA	Y, N	If Y is entered, it indicates the creation of a new call appearance group. An N entered indicates the user does not want to create a new call appearance group.
NOTICE	MWL, STD, MWL_STD	Allows multiple notification type assignments for MWT.
OPTION	Refer to the Line service options table in the "Service order tables" section of this manual for a list of valid inputs.	Option(s) associated with a service to be established, modified, or deleted. A maximum of 20 options can be specified in a single command.
OPTKEY	1 to 69	Key associated with the option.
SONUMBER	Refer to SONUMBER in table Prompts in the "Service order tables" section of the manual for information on valid inputs.	The unique number of the service order to be entered.
VALID_CA_NUM	Valid CA (1-16)	Indicates an invalid CA number has been entered. Enter a valid CA number.

ADO - Add option (continued)

Error messages

The following error messages may result from the ADO command.

MADN/EKTS CACH feature

The following table describes the error messages you may encounter when using the ADO command for the MADN/EKTS CACH feature.

Error messages for MADN/EKTS CACH

Message	Description
The CA_NUM does not equal the total number of CAs datafilled.	The CA_NUM must equal the total number of CAs for the MADN/EKTS CACH group.
The maximum number of 16 call appearances has been exceeded.	SERVORD prevents the assignment of more than 16 CAs for each MADN/EKTS CACH group.
Invalid CA number.	The value of the CA number is not datafilled.
This terminal type does not support Multiple MADN CACH Call Appearances.	To have more than one call appearance for each terminal, the terminal type must be a BRAFS ISDN EKTSI CACH terminal.
The MADN/EKTS CACH group does not exist. Please specify NEWCA as Y.	If the MADN/EKTS CACH group has not been created (non-MADN DN), the SERVORD user must specify NEWCA as Y.
Existing Servord error: ATTEMPT TO EXCEED MAXIMUM GROUP SIZE LIMIT OF 32. FAILED TO CREATE KSETLINE	The SERVORD user has exceeded the maximum number of 32 members to a CA.
Existing Servord error: A primary member already exists on MDN group. Please specify primary as N.	The SERVORD user tries to associate a primary member to an existing CA that already has a primary member.

Notes

The following notes apply to the ADO command:

- If two ADO orders derive from the same service order, a common SONUMBER may be used. An optional alphabetic suffix must be added to SONUMBER. (Refer to the Prompts table in the “Service order tables”

ADO - Add option (continued)

section of this manual for more information.) This suffix distinguishes between individual ADO inputs. Without the suffix, each new ADO entry overwrites the previous one.

- When adding options to members of a hunt group, a separate ADO order is required for each hunt group member.
- In offices with NA008 or greater loads, the SERVORD ISDN Terminal Type Based Feature Screening feature is applied to command ADO. On every use of the ADO command, a compatibility check occurs between the option or feature entered in the service order and the terminal to which it is being applied. If the screening process detects an incompatibility, the service order is rejected and an error message displays. The error message states the feature and the terminal are not compatible.
- The SERVORD ISDN Terminal Type Based Feature Screening functionality applies to ISDN BRI service orders for NA008 and up.
- Seven-digit DN ambiguity exists if the DMS-100 switch serves more than one NPA and the same 7-digit DN is used in multiple NPAs. SOC option SERV0003 resolves this issue by prompting for the full 10-digit DN when ambiguity exists. If the full 10-digit DN is initially entered, ambiguity will not exist.

The following is an example of the error message displayed when the screening process detects an incompatibility between the feature and the assigned terminal. The message includes the feature and the terminal type. The display is command specific so that the feature and terminal type listed will vary depending upon command entry.

```
*****
This Feature/Terminal-Type combination is NOT supported:
TRANSFER is the Line Option.
NI1 Initializing Terminal is the Terminal Type.
*****
```

The compatibility screening between feature and terminal type applies to the following terminal types:

- basic rate access (BRA) stimulus terminal
- BRA MFT terminal
- NI-1 initializing terminal
- 2B initializing terminal
- 2B non-initializing terminal (2B-NIT)
- NI-2 initializing terminal
- NI-2 non-initializing terminal

ADO - Add option (continued)

- The SERVORD ISDN Terminal Type Based Feature Screening feature does not currently apply to primary rate access (PRA) nor signaling system 7 (SS7) functional terminals.
- If you enter the LSPA0 option, the system prompts for CONTEXT and PROVIDER entries.
- For NA009 and up, the Provisioning Support for Default Service feature prevents the entry of a 10-digit Default Service DN at the DN_OR_LEN prompt. The following error message displays, where <nnnnnnnnnn> is the default service DN:

```
Default Service DN: Invalid input
<nnnnnnnnnn>
```

The following exception exists. Assume that

- A switch has multiple numbering plan areas (NPA) and duplicate exchange codes (NXX).
- Translations restricts some DNs—for example, forwarding or hunt group overflow DNs—to seven digits.

The following condition allows entry of part of a Default Service DN at a SERVORD prompt.

The operating company attempts to enter a Default Service DN under one NPA. Under a different NPA, a forwarding or overflow DN shares the NXX and station code of the Default Service DN. That is, the seven digits of the forwarding or overflow DN are identical to those of the Default Service DN. In this event, SERVORD accepts the entry of the Default Service DN.

This behavior is in line with existing SERVORD behavior for normal DNs. SERVORD always accepts the entry of ambiguous DNs. If DN rejection occurs, the rejection is based on later, feature-specific checks.

- The NA010 and up feature DN Sharing With Different Circuit-Mode Call Types changes the ADO command to require the LTID, if you specify a shared DN at the DN_OR_LEN prompt. Specify the LTID to identify either the CMD or the VI appearance of the shared DN to which the option will be added.
- The Single DN for EKTS and CMD feature allows an NI-2 LTID to have options MADN and CMD on the same DN. Only one ISDN NI-2 member of a MADN EKTS group can have CMD appearances using the same DN. MADN SCA groups require only one ISDN NI-2 member if the group uses CMD.
- If you enable office parameter SO_ALLOW_REDUNDANT_FEATURE in table OFCVAR, SERVORD accepts attempts to add an option or feature to a DN when the DN already has the option or feature. Instead of rejecting

ADO - Add option (end)

the ADO command with an error message, SERVORD accepts the command entry and displays a message that verifies acceptance. The exact wording of the messages can vary according to the option or feature you are adding.

- HUNT and SDN DNs cannot span SNPAs.
- In the NA014 release, feature 59013267, On-demand B-channel X.25 Packet Mode Data—Provisioning, Data Distribution Manager, and XLIU, does not support the use of the ADO command to add the On-demand B-channel (ODB) option to a DN.

If you attempt to use the ADO command to assign the ODB option to a non-ODB DN, the following error message displays:

```
PMD/DFDN/ODB can not be manipulated using ADO/DEO/CHF  
PMD/DFDN/ODB can be added only using NEW
```

If you attempt to use the ADO command to add any other options on a key along with the ODB option, the following error message displays:

```
Cannot assign any options on the key along with ODB
```

CAPSORD - Call appearance selection order

Description

The call appearance selection order (CAPSORD) command is used to change the order that terminating call appearances are selected. The user is able to view the current selection order through SERVORD prompt mode while making the change. The CAPSORD command prompts for 16 consecutive call appearance selection (CAPS) fields. However, the SERVORD user can stop the prompting by entering a dollar sign (\$).

SERVORD does not display the current CAPS order in the no-prompt mode.

Applicability

This feature is used to change the call appearance selection order for Multiple Appearance Directory Number Call Appearance Call Handling (MADN CACH) service.

Example

The following are examples of the CAPSORD command.

Example of the CAPSORD command used to change the existing CAPS order

```
> CAPSORD
SONUMBER:    NOW 97 8 5 PM
> $
DN:
> 8675309
CURRENT CAPS ORDER: 5 4 1 2 3
CAPS:
> 3
CAPS:
> 2
CAPS:
>1
CAPS:
> 5
CAPS:
> 4
CAPS:
> $
```

Example of the CAPSORD command in no-prompt mode

```
>CAPSORD $ 8675309 3 2 1 5 4 $
```

CAPSORD - Call appearance selection order (continued)

Example of the CAPSORD command-changing from the current CAPS order to the default CAPS order

```

> CAPSORD
SONUMBER:    NOW 97 8 5 PM
> $
DN:
> 8675309
CURRENT CAPS ORDER: 5 4 1 2 3
CAPS:
> 0
CAPS:
> $

```

Example of the CAPSORD command in no-prompt mode-using the default sequential CAPS

```
>CAPSORD $ 8675309 0 $
```

Example of the CAPSORD command-changing the default CAPS order

```

> CAPSORD
SONUMBER:    NOW 97 8 5 PM
> $
DN:
> 8675309
CURRENT CAPS ORDER: 0
CAPS:
> 4
CAPS:
> 2
CAPS:
> 1
CAPS:
> 3
CAPS:
> $

```

Example of the CAPSORD command in no-prompt mode-changing the default CAPS order

```
>CAPSORD $ 8675309 4 2 1 3 $
```

CAPSORD - Call appearance selection order (end)

Prompts

The system prompts for the CAPSORD command are shown in the following table.

Input prompts for the CAPSORD command

Prompt	Valid input	Explanation
DN	Seven digits entered with no spaces or hyphens	Directory number associated with the selection order to be changed.
CAPS	0-16, \$	Call appearance selection Enter the desired selection order number

CAPSORD command MADN/EKTS CACH SERVORD error messages

The following table lists the errors that may be generated by SERVORD when working with MADN/EKTS CACH service.

CAPSORD command error messages for MADN/EKTS CACH service

Error output	Error description
The CA_NUM does not equal the total number of CAs datafilled.	The CA_NUM must equal the total number of CAs for the MADN/EKTS CACH group
The maximum number of 16 call appearances has been exceeded.	SERVORD prevents the assignment of more than 16 CAs for each MAADN/EKTS CACH group.
Invalid CA number.	The value of the CA number is not datafilled.

Notes

There are no notes for this command.

CDN - Change DN

Description

The CDN command changes directory numbers (DN).

Applicability

The CDN command is used on

- an individual line
- a Meridian business set
- an Integrated Services Digital Network (ISDN) set
- all DNs of a hunt group except the pilot DN
- a remote call forwarding
- teen service primary DNs (PDN), but not teen service secondary DNs (SDN)
- Multiple Appearance DN (MADN) service DNs

Note: Global lines commands support only individual lines.

Example

The following are examples of the CDN command in an office with and without duplicate DNs. This example changes the DN associated with an existing individual line from 621-5123 to 621-4040.

Example of the CDN command in prompt mode, unique 7-digit DN

```
> CDN
SONUMBER:  NOW 98 2 7 PM
> $
OLD_DN:
> 6215123
NEW_DN:
> 6214040
INTERCEPT_NAME:
> OPRT
COMMAND AS ENTERED:
CDN NOW 98 2 7 PM 62151223 6214040 OPRT
ENTER Y TO CONFIRM, N TO REJECT, OR E TO EDIT
>Y
```

CDN - Change DN (continued)

Example of the CDN command in no-prompt mode, unique 7-digit DN

```
> CDN $ 6215123 6214040 OPRT
COMMAND AS ENTERED:
CDN NOW 98 2 7 PM 62151223 6214040 OPRT
ENTER Y TO CONFIRM, N TO REJECT, OR E TO EDIT
>Y
```

Example of the CDN command in prompt mode, 10-digit DN

```
> CDN
SONUMBER: NOW 98 2 7 PM
> $
OLD_DN:
> 9196215123
NEW_DN:
> 6214040
INTERCEPT_NAME:
> OPRT
COMMAND AS ENTERED:
CDN NOW 98 2 7 PM 91962151223 6214040 OPRT
ENTER Y TO CONFIRM, N TO REJECT, OR E TO EDIT
>Y
```

Example of the CDN command in no-prompt mode, 10-digit DN

```
> CDN $ 9196215123 6214040 OPRT
COMMAND AS ENTERED:
CDN NOW 98 2 7 PM 91962151223 6214040 OPRT
ENTER Y TO CONFIRM, N TO REJECT, OR E TO EDIT
>Y
```

CDN - Change DN (continued)

Example of the CDN command in prompt mode, duplicate 7-digit digit DNs

```

>CDN
SONUMBER: NOW 98 2 7 PM
>
OLD_DN:
>6215123
This DN is not Unique.
Please use the Full National DN
6215123
*** Error ***
TYPE OF MEM_DN IS SO_DR
PLEASE ENTER:
OLD_DN
>9196215123
NEW_DN:
>6214040
INTERCEPT_NAME:
>OPRT
COMMAND AS ENTERED:
CDN NOW 98 2 7 PM 91962151223 6214040 OPRT
ENTER Y TO CONFIRM, N TO REJECT, OR E TO EDIT
>Y

```

Example of the CDN command in no-prompt mode, duplicate 7-digit DNs

```

>CDN $ 6215123 6214040 OPRT
Tis local DN is not Unique.
Please use the Full National DN
6215123
*** Error ***
OLD_DN
9196215123

```

Single DN configuration

The following examples show the CDN command used to change the DN of a MADN configuration. These are CACH examples. The functionality is the same for other MADN configuration types. The first example shows the result of entering the QLT command for LTID ISDN 101. The second figure shows SERVORD input for changing the DN from 7238888 to 7238887.

CDN - Change DN (continued)

Example of QLT command output for ISDN 101 before being modified using the CDN command

```

LTID: ISDN 101
SNPA: 613
DIRECTORY NUMBER 7238888
LT GROUP NO: 0
LTCLASS: BRAFS DEFAULT LOGICAL TERMINAL: N
EKTS: Y CACH: Y
SLBRI: N
CS: NI2 PS: N TEI: DYNAMIC
ELN: N
VERSION: FUNCTIONAL ISSUE: 2
TSPID: 101
CUSTGRP: BNR SUBGRP: 0 NCOS: 0 RING Y
LINE CLASS CODE: ISDNKSET
MAXKEYS: 32
OPTIONS:
SFC CMD BOTH $ $ N
CRBL 0 1
  KEY      DN          CALLTYPE
  1      DN  6137238888  CMD
  2      MDN 6137238888  VI CACH CA NULL CONTROLLER
  KEY      FEATURE
  1      CRBL 0 1
  1      DCB DCB_64K

```

Example of using the CDN command to change the DN of a MADN CACH configuration

```

> CDN
SONUMBER: NOW 98 5 26 AM
> $
OLD_DN:
> 7238888
NEW_DN:
> 7238887
INTERCEPT_NAME:
> BLDN

```

CDN - Change DN (continued)

Example of the CDN command in the no-prompt mode used to change the DN of a MADN CACH configuration

```
> CDN $ 7238888 7238887 BLDN
```

Prompts

The system prompts for the CDN command are shown in the following table.

Input prompts for the CDN command

Prompt	Valid input	Explanation
SONUMBER	Refer to SONUMBER in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	The unique number of the service order to be entered.
OLD_DN	7 or 10 digits (Note)	The DN that is to be replaced by a new DN in a CDN service order.
NEW_DN	7 or 10 digits (Note)	The DN that replaces the DN changed by a CDN service order.
INTERCEPT_NAME	AINT = attendant intercept (IBN lines only) ANCT = machine intercept BLDN = blank DN CANN = customer announcement (IBN lines only) OPRT = operator intercept UNDN = undefined DN	The type of intercept desired.
<p>Note: If functionality group SERV0002 is present, OLD_DN and NEW_DN must be 10 digits long. This is to avoid ambiguity between DNs when the DMS-100E is being used to serve more than one numbering plan area (NPA).</p>		

CDN - Change DN (continued)

Notes

You cannot use the CDN command to do the following:

- add or delete options, change a line equipment number (LEN), line class code (LCC), or line treatment group (LTG), or change the ringing code
- change the pilot DN of a hunt group

Note: To change the pilot of a hunt group, first remove the hunt group using the DEL (delete line from a hunt group) and OUT (remove service) commands.

- change an unassigned DN to another unassigned DN, or change an assigned DN to another assigned DN
- change a DN with the SLBRI (single-line BRI) option assigned

Attempts to do this result in the following error:

```
ERROR: Cannot change DN of SLBRI lines with CDN.  
OUT the DN and recreate with the new DN using NEW.
```

If the operating company enters a seven-digit DN and the office code exists in multiple SNPAs, the system displays an error message. A prompt displays again.

The last seven digits of the new DN must not be the same as the last seven digits of the old DN. An error message is displayed if they are the same.

Seven-digit DN ambiguity exists if the DMS-100 switch serves more than one NPA and the same 7-digit DN is used in multiple NPAs. SOC option SERV0003 resolves this issue by prompting for the full 10-digit DN when ambiguity exists. If the full 10-digit DN is initially entered ambiguity will not exist.

ISDN PKT SERVORD Support for CDN feature

In the NA009 release, the ISDN PKT SERVORD Support for CDN feature enhances the CDN command to support the following:

- packet DNs
- shared DN configurations
- single DN configurations

In a shared DN configuration, two different logical terminal identifiers (LTID) share the same DN. Each DN appearance must have a different call type: voiceband information/circuit mode data (VI/CMD) or packet mode data (PMD).

CDN - Change DN (continued)

In a single DN configuration, the same DN appears on two different keys of the same LTID. Each DN appearance must have a different call type.

Note: The enhanced CDN command supports VI/CMD and PMD call types on any key of a shared DN. In a single DN configuration, the VI/CMD call type must appear on key 1. The PMD call type must appear on a key other than key 1.

The enhanced CDN command allows the user to do the following:

- change a DN with packet call type to an unassigned DN
- change a shared DN to an unassigned DN
- change a single DN to an unassigned DN

The user cannot use the CDN command to do the following:

- change a packet DN that is the pilot DN or a member of a hunt group

An attempt to do this results in the following error:

```
CDN Command Not Allowed for Packet DNH or BNN Hunt Groups
```

- change a packet DN that is in a call processing busy (CPB) state

An attempt to do this results in the following error:

```
ISDN TERMINAL IS CALL PROCESSING BUSY.TRY AGAIN LATER.COULD NOT WRITE TO KSETLINE TABLE
```

- change a DN on a nailed-up B-channel packet terminal (access privilege of PB)

An attempt to do this results in the following error:

```
CDN Command Not Allowed for Nailed Up B Channel Packet Terminals
```

- change a DN that has either the CUG (closed user groups) or PVC (permanent virtual circuits) option assigned

An attempt to do this results in the following error, where <option> is either CUG or PVC:

```
DN currently has <option> definedRemove <option> with DELPH command before using CDN command.
```

- With NA010 and up, the CDN command is no longer blocked by SERVORD for MADN CACH. KSETLINE table control performs the

CDN - Change DN (end)

changes for a MADN CACH group and the underlying data for all members of the CACH group.

- change a DN that has the prevent deletion option (PDO) assigned

An attempt to do this results in the following error message:

```
ERROR: Protected Service. Verify Action.  
PDO Option Assigned.
```

CHAPH - Change packet handler parameters

Description

The CHAPH command modifies the parameter values of existing packet handler options associated with particular logical terminals. These options include data network addresses (DNA), closed user groups (CUG), and permanent virtual circuits (PVC). All DMS PH parameters can be changed by this one command.

Each CHAPH command can change up to 20 parameters on each option (DNA, CUG, or PVC). If more than 20 parameter changes are needed, a second CHAPH command is required.

A user can change a parameter without using SLT DET to unmap the LTID from the LEN. Both DPN and DMS PH parameter names are accepted for DNA, PVC, and CUG options.

SERVORD accepts DMS PH names for SETPH parameters that are valid for DMS PH.

If more than one packet handler option is being changed on a logical terminal by one CHAPH command, the table on the exchange termination is updated with the parameters in the same order as they are sent in the service order. Care must be taken to ensure that the options are added in the correct order when there are dependencies between the options.

Error messages are generated when incompatible DPN and DMS PH naming conventions are entered.

Applicability

ISDN packet terminals

Example

The following example shows the use of the CHAPH command to change the field RECVTPT to 6 for DN 6136217777.

CHAPH - Change packet handler parameters (continued)

Example of the CHAPH command in prompt mode

```
>CHAPH
SONUMBER: NOW 91 12 7 PM
>(CR)
LTID:
>ISDN 50
CHA_OPTION:
>DNA
DNASPEC:
>6136217777
NPI:
>E164
DNA_PARM:
>RECVTPT
RECVTPT:
> 6
DNA_PARM:
> $
CHA_OPTION:
> $
```

Example of the CHAPH command in no-prompt mode

```
>CHAPH $ ISDN 50 DNA 6136217777 E164 RECVTPT 6 $ $
```

An error message is generated when an attempt is made to modify parameters in functional group NI2 BRI, order code NI000050 while the option is in the IDLE state. The following examples show the use of the CHAPH command to modify the DNA parameter when the NI000050_SOC=ON and when the NI000050_SOC=IDLE.

CHAPH - Change packet handler parameters (continued)

Example of the CHAPH command in prompt mode-NI000050=ON

```
>CHAPH
SONUMBER: NOW 91 12 7 PM
> $
LTID:
>PKT 401
CHA_OPTION:
>DNA
DNASPEC:
>6137428401
NPI:
>E164
DNA_PARM:
>PLSQ
PLSQ:
> MOD128
DNA_PARM:
>$
WARNING: Proceeding with service request will currently
bring down 2 active call(s), 1 active PVC call(s).
           or
WARNING: Unable to obtain call status.
           or
WARNING: The link is currently not inservice.
FRLS:
>Y
CHA_OPTION:
>$
```

Example of the CHAPH command in no-prompt mode-NI000050=ON

```
>CHAPH $ PKT 401 DNA 6137428401 E164 PLSQ MOD128 $ Y $
```

CHAPH - Change packet handler parameters (continued)

Example of the CHAPH command in prompt mode-NI000050=IDLE

```
>CHAPH
SONUMBER: NOW 91 12 7 PM
> $
LTID:
>PKT 401
CHA_OPTION:
>DNA
DNASPEC:
>6137428401
NPI:
>E164
DNA_PARM:
>PLSQ
PLSQ:
> MOD128
DNA_PARM:
>$
WARNING: Proceeding with service request will currently
bring down 2 active call(s), 1 active PVC call(s).
FRLS:
>Y
CHA_OPTION:
>$
COMMAND AS ENTERED:
CHAPH NOW 96 9 16 PM PKT 401 (DNA 6137428401 E164 (PLSQ
MOD128) $)$
ENTER Y TO CONFIRM, N TO REJECT OR E TO EDIT
>Y
ERROR: To use DMS PH naming conventions, Option NI000050
must be turned ON.
```

Example of the CHAPH command in no-prompt mode-NI000050=IDLE

```
>CHAPH $ PKT 401DNA 6137428401 E164 PLSQ MOD128 $ Y $
```

CHAPH - Change packet handler parameters (continued)

Example of the CHAPH command in prompt mode—line in-service and FRLS option = N

```

>CHAPH
SONUMBER: NOW 91 12 7 PM
> $
LTID:
>PKT 401
CHA_OPTION:
>DNA
DNASPEC:
>6137428401
NPI:
>E164
DNA_PARM:
>PLSQ
PLSQ:
> MOD128
DNA_PARM:
>$
WARNING: Proceeding with service request will currently
bring down 2 active call(s), 1 active PVC call(s).
FRLS:
>N
CHA_OPTION:
>$
COMMAND AS ENTERED:
CHAPH NOW 96 9 16 PM PKT 401 (DNA 6137428401 E164 (PLSQ
MOD128) $)$
ENTER Y TO CONFIRM, N TO REJECT OR E TO EDIT
>Y
ERROR: Link is in-service, rejecting changes. Please
force release link using 'Y' at FRLS prompt.

```

Example of the CHAPH command in no-prompt mode—line in-service and FRLS option = N

```
>CHAPH $ PKT 401DNA 6137428401 E164 PLSQ MOD128 $ N $
```

CHAPH - Change packet handler parameters (continued)

Prompts

The following table lists the input prompts for the CHAPH command in alphabetical order.

Input prompts for the CHAPH command (Sheet 1 of 2)

Prompt	Valid input	Explanation
CHA_OPTION	DNA, PVC, CUG, DC	Option(s) associated with a service to be modified.
CUGINDEX	0 to 255	The index number associated with this CUG on this DN. Updates CUGIDX field in table CUGINFO.
CUG_PARM	Refer to table Closed user group parameters in the "Service order tables" section of this manual for information on valid inputs.	The CUG parameters you wish to change. Enter the parameter name and, when prompted with that name, enter the value.
DNA_PARM	Refer to table Data network address parameters in the "Service order tables" section of this manual for information on valid inputs.	The DNA parameters you wish to change. Enter the parameter name and, when prompted with that name, enter the value.
DNA_SPEC	1 to 15 digits Valid digits 0-9	The data network address with which an option is being associated.
LTID	Refer to LTID in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	The logical terminal identifier.
NPI	X121 or E164	Numbering plan indicator. Specifies the numbering plan to which the DNASPEC belongs.
ORIGDNA	DN, or CLLI and member for X.75 endpoint.	Specifies the originating endpoint This is the location that is billed if the endpoint is ISDN.

CHAPH - Change packet handler parameters (continued)

Input prompts for the CHAPH command (Sheet 2 of 2)

Prompt	Valid input	Explanation
ORIGLCN	1 to 1024	Specifies the logical channel number of the originating service.
ORIGNPI	X121 or E164	The NPI of the originating service.
PVC_PARM	Refer to table Data network address parameters in the "Service order tables" section of this manual for information on valid inputs.	The PVC parameters you wish to change. Enter the parameter name and when prompted with that name, enter the value.
RESPDNA	DN, or CLLI and member for X.75 endpoint.	Specifies the responding endpoint. The originating and responding endpoints cannot be the same. This endpoint is the slave of the PVC and is the location that is not billed.
RESPLCN	1 to 1024	Specifies the logical channel number of the responding device.
RESPNPI	X121 or E164	The NPI of the responding service.
SONUMBER	Refer to SONUMBER in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	The unique number of the service order to be entered.

Notes

The following notes apply to the CHAPH command:

- If NI00050 is set to IDLE, changes are allowed *only* when a PVC call is not established and when the originated endpoint is not mapped in table

CHAPH - Change packet handler parameters (continued)

LTMAP or TRKMEM. If NI000050 is set to ON, changes are allowed without these restrictions.

- If NI000050 is set to IDLE, the master endpoint must be detached before modifying the following PVC parameters. If NI000050 is set to ON, only a forced release (FRLS) of the master endpoint is required.

- MRECVPKT
- MRECVTPT
- MRECVWDW
- MSENDPKT
- MSENDTPT
- MSENDWDW

- If NI000050 is set to IDLE, the LTID must be detached before modifying the following DNA parameters:

- DTCA, IDTCA, ODTCA: RECVTPT and SENDTPT parameters
- NDPS, IMPS, OMPS: RECVPKT and SENDPKT parameters
- NDWS, IPLWS, OPLWS: RXWDW and TXWDW parameters

- In the NA009 release, the Provisioning Support for Default Service feature prevents the entry of a ten-digit Default Service DN at the ORIGDNA and RESPDNA prompts. The following error message displays, where "<nnnnnnnnnn>" is the Default Service DN:

```
Default Service DN: Invalid input
<nnnnnnnnnn>
```

The following exception exists. Assume that

- A switch has multiple numbering plan areas (NPA) and duplicate exchange codes (NXX).
- Translations restricts some DNs—for example, forwarding or hunt group overflow DNs—to seven digits.

The following condition allows entry of part of a Default Service DN at a SERVORD prompt.

The operating company attempts to enter a Default Service DN under one NPA. Under a different NPA, a forwarding or overflow DN shares the NXX and station code of the Default Service DN. That is, the seven digits of the forwarding or overflow DN are identical to those of the Default

CHAPH - Change packet handler parameters (end)

Service DN. In this event, SERVORD accepts the entry of the Default Service DN.

This behavior is in line with existing SERVORD behavior with normal DNs. SERVORD always accepts the entry of ambiguous DNs; if DN rejection occurs, the rejection is based on later, feature-specific checks.

If NI00050 is set to IDLE, changes are allowed *only* when a PVC call is not established and when the originated endpoint is not mapped in table LTMAP or TRKMEM. If NI000050 is set to ON, changes are allowed without these restrictions.

- In NA012 release, the CHAPH command does not support echo station LTIDs or DNs. If you use this command with feature 59006435, Echo Station X.25 Loopback Testing, the following error message displays:

```
CHAPH command can not be used with Echo station LTID/DN.
```

CHF - Change feature information for pre-existing feature

Description

The CHF command is used to change secondary feature data on features assigned to single line and multiline telephone sets. The CHF command can be used for most features that require additional information or parameters. CHF does not affect options that do not require additional information.

Applicability

This command is applies to

- separate lines
- teen service directory number hunt (DNH) group members
- pilots of hunt groups
- distributed line hunt (DLH) or multiline hunt (MLH) group members
- wide area telephone service (WATS)
- options of enhanced secondary directory numbers (ESDN) (all options must be deleted to change an ESDN to an SDN)
- integrated voice data (IVD) sets
- business sets and data units

The ABNN command is used to add a bridged night number (BNN) to a DNH, DLH, call pickup (CPU), or MLH group member without forming a BNN hunt group.

The ability to change Multiple Call Arrangement (MCA), Extension Bridging (EXB) to Call Appearance Call Handling (CACH) is blocked. In addition, the ability to change the CACH Call Arrangement to either MCA or EXB is blocked. The following lists the CHF command CACH Call Arrangements that are blocked:

- changing from CACH to MCA
- changing from CACH to EXB
- changing from MCA to CACH
- changing from EXB to CACH

The CHF command does not allow the SERVORD user to change the EKTS/Multiple Appearance Directory Number (MADN) CACH member's CA number.

CHF - Change feature information for pre-existing feature (continued)

The CHF command cannot change the Call Appearance Reservation Service (CARES) NULL value of the primary CA. However, the CHF command can change the CARES value of the secondary CA.

During the assignment of Message Waiting (MWT) to an ISDNKSET_LCC line type, the CHF command prompt requests the notification type. The prompt occurs after the MWT option is designated and offers the following notification types for assignment:

- MWL (Message Waiting Lamp)
- STD (Stuttered Dialtone)
- MWL_STD (Combination of MWL and STD simultaneously)

Examples

The following are examples of the CHF command.

Change the number of calls allowed for a DN

This example shows the CHF command when it is used to change the number of calls allowed for a functional DN. In this example, the number of calls allowed on the DN of functional set ISDN 99 has been changed to five.

Example of the CHF command in prompt mode

```
> CHF
SONUMBER:  NOW 86 07 08 AM
> (CR)
DN_OR_LEN:
> ISDN 99
OPTION:
> NUMC
NUMCALLS:
> 5
OPTION:
> $
```

Example of the CHF command in no-prompt mode

```
> CHF $ ISDN 99 NUMC 5 $
```

Change the number of call types allowed for a DN or LTID

This example shows the CHF command when it is used to change the number of voice interface (VI) or circuit mode data (CMD) call types allowed for an

CHF - Change feature information for pre-existing feature (continued)

ISDN DN or LTID. In this example, the number of CMD calls allowed on the DN of a functional set has been changed to five. The examples show the responses to the CHF command in offices with and without duplicate DNs.

Note 1: If the Call Reference Busy Limit (CRBL) VI value is a number other than 0, all DBC values default to DBC_SP.

Note 2: If the CRBL VI value is 0 and the DBC value in table DNATTRS is BC_64KDATA, all DBC values default to DBC_64K.

The following example shows additional parameters added to option CRBL with the CHF command.

Example of the CHF command in prompt mode, unique 7-digit DN

```
> CHF
SONUMBER:  NOW 98 2 7 PM
> $
DN_OR_LEN:
> 7235102
OPTKEY:
> 1
OPTION:
> CRBL
VI:
> 2
CMD:
> 5
OPTKEY:
> $
```

Example of the CHF command in no-prompt mode, unique 7-digit DN

```
> CHF $ 7235102 1 CRBL 2 5 $
```

CHF - Change feature information for pre-existing feature (continued)

Example of the CHF command in prompt mode, 10-digit DN

```
> CHF
SONUMBER: NOW 98 2 7 PM
> $
DN_OR_LEN:
> 9197235102
OPTKEY:
> 1
OPTION:
> CRBL
VI:
> 2
CMD:
> 5
OPTKEY:
> $
```

Example of the CHF command in no-prompt mode, 10-digit DN

```
> CHF $ 9197235102 1 CRBL 2 5 $
```

CHF - Change feature information for pre-existing feature (continued)

Example of the CHF command in prompt mode, duplicate 7-digit DN

```

> CHF
SONUMBER:  NOW 98 2 7 PM
> $
DN_OR_LEN:
>7235102
This Local DN is not Unique.
Please Use the Full National DN.
*** Error ***

TYPE OF DN_OR_LEN IS DR_LEN_TYPE
PLEASE ENTER:
DN_OR_LEN:
>9197235102
OPTKEY:
> 1
OPTION:
> CRBL
VI:
> 2
CMD:
> 5
OPTKEY:
> $

```

Example of the CHF command in no-prompt mode, duplicate 7-digit DN

```

> CHF $ 7235102 1 CRBL 2 5 $
This Local DN is not Unique.
Please Use the Full National DN.
*** Error ***

```

Change the number of DN key appearances

The following example shows the CHF command sequence to change the number of DN appearances on a National ISDN-2 (NI-2) set. By default, this number is equal to the total of the CRBL VI and CMD values. The NA011 DN Call Appearance Key Independence feature makes it possible to assign a number of DN key appearances that is lower than or equal to the CRBL total. The subscriber can continue to place the number of calls up to the limits set by the CRBL values.

Option NDNAP defines the number of key appearances allocated to a DN on an NI-2 set. DNs on NI-2 sets must have a number of key appearances assigned

CHF - Change feature information for pre-existing feature (continued)

that is less than or equal to the CRBL total. The number of key appearances must be at least 1. This example shows the commands to change the number of DN appearances on the NI-2 set to 3.

Example of the CHF command in prompt mode

```
> CHF
SONUMBER:  NOW 98 2 7 PM
>
DN_OR_LEN:
> NI2 1
OPTKEY:
> 1
OPTION:
> NDNAP
NDNAP:
> 3
OPTKEY:
> $
```

Example of the CHF command in no-prompt mode

```
> CHF $ NI2 1 NDNAP 3 $
```

Change the MADN

The following example shows the CHF command when it is used to change the CARES type (MADN). The current CARES type is already set during the initial provisioning stage by using the NEW or ADO command. This value is displayed with the CARESTYPE prompt. In this example, the value is DTM.

CHF - Change feature information for pre-existing feature (continued)

Example of the CHF command in prompt mode

```
> CHF
SONUMBER:  NOW 86 07 08 AM
> (CR)
DN_OR_LEN:
> ISDN 99
OPTION:
> MDN
MDNTYPE:
> CACH
PRIMARY:
> Y
CARE_STYPE:  NULL
> DTMEPI
DIR_NUMBER:  8675309
> (CR)
DENIAL TREATMENT:
> SILENCE
BRIDGING:
> Y
CONF_SIZE:
> 3
BRIDGE_TONE:
> Y
INIT_STAT:
> NONPRIVATE
OPTKEY:
> $
```

Example of the CHF command in no-prompt mode

```
>CHF $ ISDN 99 MDN CACH Y DTMEPI SILENCE Y 3 Y NONPRIVATE $
```

Change Message Waiting options

The following example shows the CHF command when it is used to assign MWT to an ISDNKSET_LCC line type.

CHF - Change feature information for pre-existing feature (continued)

Example of the CHF command in prompt mode

```

> CHF
SONUMBER:      NOW  97  8  7 AM
> (CR)
DN_OR_LEN:
> ISDN 6
OPTKEY:
> 7
OPTION:
> MWT
NOTICE:
> MWL_STD
CAR:
> Y
CRRCFW:
> ALL
CRX:
> N
OPTKEY:
> $

```

Example of the CHF command in no-prompt mode

```
> CHF $ ISDN 6 7 MWT MWL_STD Y ALL N $
```

Change Anonymous Caller Rejection options

The following example shows the CHF command used to change the status and keylist for the ACRJ option. The NA009 BRI in RES feature makes this option available to ISDN BRI lines.

CHF - Change feature information for pre-existing feature (continued)

Example of the CHF command in prompt mode

```
> CHF
SONUMBER:  NOW 98 01 31 PM
> (CR)
DN_OR_LEN:
> ISDN 40
OPTKEY:
> 1
OPTION:
> ACRJ
STATUS:  INACT
> ACT
KEYLIST:$
> 1
KEYLIST:
> $
OPTKEY:
> $
```

Example of the CHF command in no-prompt mode

```
> CHF $ ISDN 40 1 ACRJ ACT 1 $ $
```

Change options on a shared DN with different circuit-mode call types

The following example shows the CHF command sequence to change options on a shared DN. If you do not specify the LTID and a shared DN at the DN_OR_LEN prompt, the LEN prompt appears. You must specify the LTID to change options on a shared DN that is already assigned to another LTID of a different call type.

CHF - Change feature information for pre-existing feature (continued)

Example of the CHF command in prompt mode

```
>CHF
SONUMBER:      NOW  97  8 18 PM
>
DN_OR_LEN:
>7235001
LEN:
> ISDN 1
OPTKEY:
>1
OPTION:
>CNAMD
BILLING OPTION: NOAMA
>AMA
OPTKEY:
>$
```

Example of the CHF command in no-prompt mode

```
>CHF $ 7235001 ISDN 1 1 CNAMD AMA $
```

Changing the MDNTYPE from CACH to SCA

The CHF command can be used to change a MADN CACH configuration to a MADN SCA configuration. The following is an example of modifying LTID ISDN 101.

The following example shows the result of a QLT command for LTID ISDN 101 before changing MADN CACH to MADN SCA.

CHF - Change feature information for pre-existing feature (continued)

Example of QLT command output for ISDN 101 before being modified to a single DN configuration

```
LTID: ISDN 101
SNPA: 613
DIRECTORY NUMBER 7238887
LT GROUP NO: 0
LTCLASS: BRAFS DEFAULT LOGICAL TERMINAL: N
EKTS: Y CACH: Y
SLBRI: N
CS: NI2 PS: N TEI: DYNAMIC
ELN: N
VERSION: FUNCTIONAL ISSUE: 2
TSPID: 101
CUSTGRP: BNR SUBGRP: 0 NCOS: 0 RING Y
LINE CLASS CODE: ISDNKSET
MAXKEYS: 64
OPTIONS:
SFC CMD MWL_STD $ $ N
CRBL 0 1
  KEY      DN          CALLTYPE
  1        DN 6137238887  CMD
  2        MDN 6137238887  VI CACH CA NULL CONTROLLER

  KEY      FEATURE
  1        CRBL 0 1
  1        DCB DCB_64K
```

The following figure shows the CHF command used to change a MADN CACH configuration to a MADN SCA configuration.

CHF - Change feature information for pre-existing feature (continued)

Example of CHF command used to change a MADN CACH configuration to a MADN SCA configuration

```
> CHF
SONUMBER: NOW 98 5 26 AM
> $
DN_OR LEN
>ISDN 101
OPTKEY:
>2
OPTION:
>MDN
MDNTYPE:
>SCA
PRIMARY:
>Y
DIR_NUMBER: 6137238887
>
DENIAL_TRMT:
>SILENCE
BRIDGING:
>N
OPTKEY:
>$
```

Example of CHF command used to change a MADN CACH configuration to a MADN SCA configuration-in no-prompt mode

```
>CHF $ ISDN 1 01 2 MDN SCA Y SILENCE N $
```

CHF - Change feature information for pre-existing feature (continued)

Prompts

The following table lists the input prompts for the CHF command in alphabetical order.

Input prompts for the CHF command (Sheet 1 of 3)

Prompt	Valid input	Explanation
BRIDGE_TONE	Y, N	<p>Bridging tone. This parameter specifies whether a tone is heard by the external party and by all active MDN members when a new member bridges into the call.</p> <p>Note: This prompt appears if Y is entered for the BRIDGING prompt.</p>
BRIDGING	Y, N	<p>This parameter specifies whether bridging is allowed.</p> <p>Note: This prompt appears if the MDN group is SCA.</p>
CA_NUM	1-16	<p>This field is prompted only if the NEWCA is set to N. The user is associating a MADN/EKTS CACH member with an existing call appearance.</p>

CHF - Change feature information for pre-existing feature (continued)

Input prompts for the CHF command (Sheet 2 of 3)

Prompt	Valid input	Explanation
CARES_TYPE	NULL, DTM, DOR, DTMEPI	<p>The following are the four CARES types:</p> <ul style="list-style-type: none"> • NULL: unassigned • DTM: originating only • DOR: terminating only • DTMEPI: originating and priority incoming only <p>The CARES type is associated with the call appearance, not the primary member of the CA.</p>
CONF_SIZE	3-30	The maximum number of calls supported on a conference call.
DENIAL_TRMT	SILENCE, TONE	Denial treatment. This parameter specifies whether a tone is heard by a member not allowed to bridge into a call.
DIR_NUMBER	Refer to DN in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	The DN assigned to a MADN line.
DN_OR_LEN	Refer to DN and LTID in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	Enter the line's DN or logical terminal identifier (LTID). For a MADN line or MLH/DLH members, if a DN is specified, the user is prompted for the LTID. If the LTID is entered, the user is not prompted for the DN.
INIT_STAT	PRIVATE, NONPRIVATE	Initial privacy status. This parameter specifies whether a call is initially private or nonprivate.

CHF - Change feature information for pre-existing feature (continued)**Input prompts for the CHF command (Sheet 3 of 3)**

Prompt	Valid input	Explanation
KEYLIST	1 to 69	The list of keys available on the terminal. Up to 24 keys can be specified.
LEN	Refer to DN and LTID in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	For shared DNs with different circuit-mode call types, enter the LTID of the shared DN to which the CHF command applies.
MDNTYPE	SCA, MCA, EXB, CACH	Indicates the MADN call appearance type.
NDNAP	1 to 32	The number of key appearances that the NI-2 DN occupies on the ISDN set.
NOTICE	MWL, STD, MWL_STD	Allows multiple notification type assignments for MWT.
NUMCALLS	0 to 1024	The number of calls allowed.
OPTION	Refer to table Line service options in the "Service order tables" section of this manual for a list of valid inputs.	Option associated with a service to be established, modified, or deleted. A maximum of 20 options can be specified in a single command.
OPTKEY	1 to 69	Key associated with the option.
PRIMARY	Y, N	Specifies whether this is the primary member of this MADN group.
SONUMBER	Refer to SONUMBER in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	The unique number of the service order to be entered.
STATUS	ACT, INACT	Status of the option.

CHF - Change feature information for pre-existing feature (continued)

Error messages

The following error messages may result from the CHF command.

MADN/EKTS CACH feature

The following table describes the error messages you may encounter when using the CHF command for the MADN/EKTS CACH feature.

CHF command MADN/EKTS CACH SERVORD error messages

Message	Description
Cannot change from MADN CACH to another MADN call arrangement.	The conversion of a MADN call arrangement to a MADN CACH call arrangement is not supported. <i>Note:</i> In release NA010, MADN CACH can be changed to MADN SCA and MADN SCA to MADN CACH.

Notes

The following notes apply to the CHF command:

- The CHF command does not apply to packet terminals, because features cannot be assigned to them.
- In the NA009 release, the Provisioning Support for Default Service feature prevents the entry of a 10-digit Default Service DN at the DN_OR_LEN prompt. The following error message displays, where <nnnnnnnnnn> is the Default Service DN:

```
Default Service DN: Invalid input
<nnnnnnnnnn>
```

The following exception exists. Assume that

- A switch has multiple numbering plan areas (NPA) and duplicate exchange codes (NXX).
- Translations restricts some DNs to seven digits, for example, forwarding or hunt group overflow DNs.

The following condition allows entry of part of a Default Service DN at a SERVORD prompt.

The operating company attempts to enter a Default Service DN under one NPA. Under a different NPA, a forwarding or overflow DN shares the NXX and station code of the Default Service DN. That is, the seven digits of the forwarding or overflow DN are identical to those of the Default Service DN. In this event, SERVORD accepts the entry of the Default Service DN.

CHF - Change feature information for pre-existing feature (end)

This acceptance is in line with existing SERVORD treatment of normal DNs. SERVORD always accepts the entry of ambiguous DNs; if DN rejection occurs, the rejection is based on later, feature-specific checks.

- Use the CHF command to change the status and keylist for the ACRJ option. The NA009 BRI in RES feature makes this option available to ISDN BRI lines.
- Seven-digit DN ambiguity exists if the DMS-100 switch serves more than one NPA and the same 7-digit DN is used in multiple NPAs. SOC option SERV0003 resolves this issue by prompting for the full 10-digit DN when ambiguity exists. If the full 10-digit DN is entered initially, ambiguity will not exist.
- The NA010 and up feature DN Sharing with Different Circuit-Mode Call Types changes the CHF command to require the LTID if you specify a shared DN at the DN_OR_LEN prompt. Specify the LTID to identify either the CMD or the VI appearance of the shared DN to which the CHF command applies.
- Group type can be changed from SCA to CACH if the SCA group meets the datafill restrictions for the CACH arrangement type as follows:
 - The SCA group must have at least one ISDN terminal.
 - The SCA group's primary number (if one exists) must be ISDN.
 - When you assign a CARES value, you must assign cares_none (NULL) to the primary call appearance (PCA). All supported CARES values are correct for all other appearances.
 - There can be only one member of the SCA group on any terminal.
 - You cannot assign any features to the SCA members that are not compatible with option CACH.
 - Assign MRF, MREL, EHL, OR MLAMP before you continue to process the change.
- You can change CACH to SCA in groups with one call appearance for the DN and features that are compatible with SCA assigned to the CACH members. You can only change CACH to SCA.
- In the NA014 release, feature 59013267, On-demand B-channel X.25 Packet Mode Data— Provisioning, Data Distribution Manager, and XLIU, does not support the use of the CHF command with option ODB (On-demand B-channel). If you attempt to use the CHF command with option ODB, the following error message displays:

```
PMD/DFDN/ODB cannot be manipulated using ADO/DEO/CHF
PMD/DFDN/ODB cannot be changed using any SO command
```

CHG - Change translation/routing information

Description

The CHG command changes translation attributes for

- common language location identifier (CLLI)
 - network class of service (NCOS)
 - line screening code (LSC)
 - alternate line screening code (ALSC)
 - customer group (CUST)
 - subgroup (SUBGRP)
- authorization code
 - NCOS
- controller line equipment number (LEN) for speed calling user (SCU) option
- station or directory number (DN)
 - zone of an outward wide area telephone service (OUTWATS) line
 - line class code
 - NCOS
 - terminating restriction code (TRC)
 - alternate terminating restriction code (ATRC)
 - CUST
 - RING option
 - SUBGRP
- time of day routing
- virtual facility group (VFG)
 - NCOS
 - LSC
 - ALSC
 - CUST
 - SUBGRP

CHG - Change translation/routing information (continued)

Applicability

This command applies to

- single-line and multiline telephone sets
- offices with Integrated Business Network (IBN) authorization codes, lines, trunks, and VFGs
- business set, Residential Enhanced Services (RES), and POTS lines

This command is not available for Enhanced Secondary Directory Number (ESDN) lines.

Example

The following examples show the use of the CHG command and the parameters that apply to the CHG command.

Changing CLLI information

The following example shows use of the CHG command to change CLLI information. The example extends across three columns to show the different prompt sequences.

Example of the CHG command in prompt mode

```

> CHG
SONUMBER: NOW 91 12 7 PM
> (CR)
WHAT:
> CLLI
CLLI:
> BRAMESN0
TRK_INFO:
Refer to the "Prompts" section for a complete list of valid inputs.

> NCOS           > LSC           > ALSC
NCOS:           LSC:           ALTLSC:
> 3             > 2             > 3

```

Example of the CHG command in no-prompt mode

```
> CHG $ CLLI BRAMESN0 NCOS 3
```

CHG - Change translation/routing information (continued)

Changing authorization information

The following example shows use of the CHG command to change authorization code partition information.

Example of the CHG command in prompt mode

```

> CHG
SONUMBER: NOW 91 12 7 PM
> (CR)
WHAT:
> AUTH
AUTHPART:
> COMKODAK
AUTHCODE:
> 23
NCOS_OR_TOBE:
> NCOS
NCOS:
> 0

```

Example of the CHG command in no-prompt mode

```
> CHG $ AUTH COMKODAK 23 NCOS 0
```

Changing LEN information on an SCL line

The following example shows use of the CHG command to change the LEN of a line. The host LEN must have the speed calling long (SCL) option.

Example of the CHG command in prompt mode

```

> CHG
SONUMBER: NOW 91 12 7 PM
> (CR)
WHAT:
> CONTLEN
CURRENT_LEN:
> ISDN 100
NEW_LEN:
> ISDN 105

```

CHG - Change translation/routing information (continued)

Example of the CHG command in no-prompt mode

```
> CHG $ CONTLEN ISDN 100 ISDN 105
```

Changing line information

The following examples show the responses to the CHG command in offices with and without duplicate DNs. The first example shows a change in line information. The example extends across two columns to show the different prompt sequences.

Example of the CHG command in prompt mode, unique 7-digit DN

```
> CHG
SONUMBER: NOW 98 2 7 PM
> (CR)
WHAT:
> LINE
DN_OR_LEN:
> 7225000
OPTKEY:
> 2
LINE_INFO:
Refer to the "Prompts" section for a complete list of valid inputs.

> ZONE                > TRC
ZONE:                 TRC:
> 3                   > 234
COMMAND AS ENTERED:
CHG NOW 98 2 7 PM LINE 7225000 2
ZONE 3
ENTER Y TO CONFIRM, N TO REJECT, OR
E TO EDIT
>Y
```

Example of the CHG command in no-prompt mode, unique 7-digit DN

```
> CHG $ LINE 7225000 2 ZONE 3
COMMAND AS ENTERED:
CHG NOW 98 2 7 PM LINE 7225000 2 ZONE 3
ENTER Y TO CONFIRM, N TO REJECT, OR E TO EDIT
>Y
```

CHG - Change translation/routing information (continued)

Example of the CHG command in prompt mode, 10-digit DN

```

> CHG
SONUMBER: NOW 98 2 7 PM
> (CR)
WHAT:
> LINE
DN_OR_LEN:
> 9197225000
OPTKEY:
> 2
LINE_INFO:
Refer to the "Prompts" section for a complete list of valid inputs.

> ZONE                > TRC
ZONE:                  TRC:
> 3                    > 234
COMMAND AS ENTERED:
CHG NOW 98 2 7 PM LINE 9197225000 2
ZONE 3
ENTER Y TO CONFIRM, N TO REJECT, OR
E TO EDIT
>Y

```

Example of the CHG command in no-prompt mode, 10-digit DN

```

> CHG $ LINE 9197225000 2 ZONE 3
COMMAND AS ENTERED:
CHG NOW 98 2 7 PM LINE 9197225000 2 ZONE 3
ENTER Y TO CONFIRM, N TO REJECT, OR E TO EDIT
>Y

```

CHG - Change translation/routing information (continued)

Example of the CHG command in prompt mode, duplicate 7-digit DN

```

> CHG
SONUMBER: NOW 98 2 7 PM
> (CR)
WHAT:
> LINE
DN_OR_LEN:
> 7225000
This Local DN is not Unique.
Please Use the Full National DN.
7225000
*** Error ***
DN_OR_LEN
>9197225000
OPTKEY:
> 2
LINE_INFO:
Refer to the "Prompts" section for a complete list of valid inputs.

> ZONE                > TRC
ZONE:                  TRC:
> 3                    > 234
COMMAND AS ENTERED:
CHG NOW 98 2 7 PM LINE 9197225000 2
ZONE 3
ENTER Y TO CONFIRM, N TO REJECT, OR
E TO EDIT
>Y

```

Example of the CHG command in no-prompt mode, unique 7-digit DN

```

> CHG $ LINE 7225000 2 ZONE 3
This Local DN is not Unique.
Please use the Full National DN.
7225000
** Error ***

```

ISDN PKT SERVORD CHG Shared/Single DN feature

In the NA009 release, the ISDN PKT SERVORD CHG Shared/Single DN feature enhances the CHG command to support shared DN and single DN configurations. The modifications to the CHG command apply only to line information.

Note 1: Line information includes the customer group (CUST), network class of service (NCOS), and ring option (RING) attributes. Refer to the

CHG - Change translation/routing information (continued)

LINE_INFO prompt in the "Prompts" section for a complete list of line attributes.

Note 2: The ISDN PKT SERVORD CHG Shared/Single DN feature modifies the CHG command only for ISDN lines. This feature does not modify the CHG command for lines that are not in a shared DN or single DN configuration.

In a shared DN configuration, two different logical terminal identifiers (LTID) share the same DN. Each DN appearance must have a different call type: voiceband information (VI) or packet mode data (PMD).

In a single DN configuration, the same DN appears on two different keys of the same LTID. Each DN appearance must have a different call type.

Assume that the user specifies a shared or single DN at the DN_OR_LEN prompt of the CHG command. This DN cannot identify which line attribute to change. In this event, the CHG command prompts the user to enter a LEN.

For all line attributes except CUST, each call type associated with a shared or single DN can have a different value. For example, the VI call type associated with a shared or single DN can have a RING value of Y. The PMD call type associated with the same DN can have a RING value of N.

The CUST line attribute must be the same for both call types associated with a shared or single DN. If the user changes the CUST attribute for a shared or single DN, the change applies to both associated call types.

The following is an example of using the CHG command to change the RING attribute for shared DN 621-5922. The example assumes that DN 621-5922 appears on key 1 of LTID ISDN 1 with VI call type. The same DN appears on key 1 of LTID PKT 1 with PMD call type.

In this example, the user enters the shared DN 621-5922 at the DN_OR_LEN prompt. The CHG command prompts the user to enter a LEN.

CHG - Change translation/routing information (continued)

Example of the CHG command in prompt mode

```
> CHG
SONUMBER: NOW 97 10 15 PM
> $
WHAT:
> LINE
DN_OR_LEN:
> 6215922
LEN:
> ISDN 1
OPTKEY:
> 1
LINE_INFO:
> RING
RING:
> N
```

Example of the CHG command in no-prompt mode

```
> CHG $ LINE 6215922 ISDN 1 1 RING N
```

Changing VFG information

The following example shows use of the CHG command to change virtual facility group (VFG) information. The example extends across two columns to show the different prompt sequences.

CHG - Change translation/routing information (continued)

Example of the CHG command in prompt mode

```

> CHG
SONUMBER: NOW 91 12 7 PM
> (CR)
WHAT:
> VFG
VIRTGRP:
> VFG1
TYPE_DIRECTION:

> IBNVI
INCOM_INFO:
Refer to the "Prompts"
section for a complete list
of valid inputs.
> CUST
CUSTGRP:
> COMKODAK

> IBNVO
OUTGO_INFO:
Refer to the "Prompts"
section for a complete list
of valid inputs.
> ALSC
ALTLSC: 127
> 100

```

Example of the CHG command in no-prompt mode

```
> CHG $ VFG VFG1 IBNVI CUST COMKODAK
```

Prompts

The system prompts for the CHG command are shown in the following table.

Input prompts for the CHG command (Sheet 1 of 5)

Prompt	Valid input	Explanation
ALTLSC	0 to 255	Alternate line screening code. This parameter is associated with an entry in table VIRTGRPS. See LSC for more information.
ATRC	A serial list of one to eight digits (0 to 7), entered in a continuous numerical sequence, or a \$	Alternate terminating restriction code. See TRC for more information.
AUTHCODE	2 to 12 digits	The authorization code for the customer group. This authcode must contain the same number of digits as defined in field LENGTH of table AUTHPART.

CHG - Change translation/routing information (continued)**Input prompts for the CHG command (Sheet 2 of 5)**

Prompt	Valid input	Explanation
AUTHPART	1 to 16 alphanumeric characters	The authorization partition name assigned to the customer group. This name can be found in field PARTNM of table AUTHPART. This prompt appears only if there is more than one authcode partition.
AUTO_MAN	AUTO = automated MAN = manual	Specifies whether the time of day routing is automated or manual.
CLLI	1 to 8 alphanumeric characters	Common language location identifier.
CURRENT_LEN	Refer to LTID in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	The LTID for the controller of the SCU group. This parameter appears when the Group Number Feature Control (GNFC) feature is ON.
CURRENT_LEN_GRPNUM	The controller's LTID or the group number (1 to 32768)	The group number of the controller of the SCU group. This parameter appears when the Group Number Feature Control (GNFC) feature is ON.
CUSTGRP	Alphanumeric	Customer group, a group of lines identified by a common language name.
DN_OR_LEN	Refer to DN and LTID in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	Enter the line's DN or LTID. For a multiple appearance directory number (MDN) line or MLH/DLH hunt members, if a DN is specified the user is prompted for the LTID. If the LTID is entered, the user is not prompted for the DN. If the user enters a shared DN or single DN, the user is then prompted to enter an LTID.
INCOM_INFO	NCOS = network class of service CUST = customer group SUBGRP = subgroup option	This parameter appears when IBNVI is entered for the TYPE_DIRECTION prompt and allows change of NCOS or CUST information for an incoming VFG.

CHG - Change translation/routing information (continued)**Input prompts for the CHG command (Sheet 3 of 5)**

Prompt	Valid input	Explanation
LEN	Refer to LTID in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	The LEN of the shared or single DN. This prompt appears if the user specifies a shared or single DN at the DN_OR_LEN prompt.
LINE_INFO	ATRC = alternate terminating restriction code CUST = customer group LCC = line class code NCOS = network class of service RING = ring option SUBGRP = subgroup option TRC = terminating restriction code ZONE = OUTWATS zone ID number	Line information to be changed or displayed.
LSC	0 to 255	Line screening code, defines which outgoing or outgoing side of two-way trunk IBN trunk groups the NCOS number has access to. This parameter is associated with an entry in tables LINEATTR, NCOS, and LSCFLAG.
NCOS	0 to 255	Network class of service for IBN lines, trunks, or attendant consoles, defines a set of capabilities or restrictions that allows or denies calls.
NCOS_OR_TOBE	NCOS = network class of service TOBE = authcode	Specifies whether the NCOS or the authcode is to be changed.
NEW_LCC	ISDNKSET	The LCC that replaces the current LCC.
NEW_LEN	Refer to LTID in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	The LTID that replaces an LTID changed by a CHG service order.
NEW_LEN_GRPNUM	Refer to LTID in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	The new LTID group number of the SCU group.
OPTKEY	1 to 69	Key associated with the option.

CHG - Change translation/routing information (continued)**Input prompts for the CHG command (Sheet 4 of 5)**

Prompt	Valid input	Explanation
OUTGO_INFO	ALSC = alternate line screening code CUST = customer group LSC = line screening code	This parameter appears when IBNVO is entered for the TYPE_DIRECTION prompt and allows the user to change line screening code (LSC), alternate line screening code (ALSC), or customer group (CUST) information for an outgoing VFG.
RING	Y or N for packet terminals	Specifies whether a ring from a telephone speaker is required in addition to the call-waiting tone heard from the handset.
SONUMBER	Refer to SONUMBER in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	The unique number of the service order to be entered.
SUBGRP	0 to 7	Subgroup of a customer group to which a station or DN belongs.
TO_AUTH	2 to 12 digits	Specifies a new authcode to be entered.
TODNAME	1 to 8 characters	Only appears if there is more than one name. Specifies the name assigned to the entry in table TIMEODAY to which the translation has to route.
TOD_ROUTE_PL AN	Valid route plan number	Specifies a TOD route plan number.
TRC	A serial list of from one to eight digits (0 to 7), entered in a continuous numerical sequence, or a \$	Terminating restriction code; indicates the classes of incoming calls allowed on a trunk.
TRK_INFO	NCOS = network class of service LSC = line screening code ALSC = alternate line screening code CUST = customer group SUBGRP = subgroup number	Trunk information to be changed or displayed.

CHG - Change translation/routing information (continued)

Input prompts for the CHG command (Sheet 5 of 5)

Prompt	Valid input	Explanation
TYPE_DIRECTION	IBNVI = incoming IBNVO = outgoing	The type and direction of the virtual facility group.
VIRTGRP	1 to 6 alphanumeric characters	Virtual facility group name.
WHAT	AUTH = authorization code CLLI = common language location identifier CONTLEN = controller LEN for SCU option HUNTGRP = hunt group members LINE = station or DN TDR = time of day routing VFG = Virtual facility group Note: The HUNTGRP parameter is found in feature package NTXJ93AA01 under feature number NC0077. This feature is activated when office parameter HUNT_SO_SIMPLIFICATION is turned on.	Indicates the aspect of the line to be changed.
ZONE	In Canada, 1 to 6 In USA, 0 to 9, A, B, C Note: The actual value is determined by the operating company according to the type of service provided.	OUTWATS zone identification number.

Notes

The following notes apply to the CHG command:

- With the introduction of the DMS packet handler, the CHG command cannot modify the RING field. This field is a no/yes (N/Y) field and must be always set to N for packet terminals. Similarly, the CHG command is modified to prevent the line class code (LCC) from being changed—it must be set to ISDNKSET for packet terminals.
- All call types associated with a shared DN configuration must be in the same customer group.

CHG - Change translation/routing information (end)

- Seven-digit DN ambiguity exists if the DMS-100 switch serves more than one NPA and the same 7-digit DN is used in multiple NPAs. SOC option SERV0003 resolves this issue by prompting for the full 10-digit DN when ambiguity exists. If the full 10-digit DN is initially entered ambiguity will not exist.
- In NA009 release, the Provisioning Support for Default Service feature prevents the entry of a ten-digit Default Service DN at the DN_OR_LEN prompt. The following error message displays, where "<nnnnnnnnnn>" is the Default Service DN:

```
Default Service DN: Invalid input<nnnnnnnnnn>
```

The following exception exists. Assume that

- A switch has multiple numbering plan areas (NPA) and duplicate exchange codes (NXX).
- Translations restricts some DN—for example, forwarding or hunt group overflow DN—to seven digits.

The following condition allows entry of part of a Default Service DN at a SERVORD prompt.

The operating company attempts to enter a Default Service DN under one NPA. Under a different NPA, a forwarding or overflow DN shares the NXX and station code of the Default Service DN. That is, the seven digits of the forwarding or overflow DN are identical to those of the Default Service DN. In this event, SERVORD accepts the entry of the Default Service DN.

This behavior is in line with existing SERVORD behavior with normal DN. SERVORD always accepts the entry of ambiguous DN; if DN rejection occurs, the rejection is based on later, feature-specific checks.

- In NA012 release, the CHG command does not support echo station LTIDs or DN. If you use this command with feature 59006435, Echo Station X.25 Loopback Testing, the following error message displays:

```
CHG command can not be used for Echo station LTID/DN.
```

- The prevent deletion option (PDO) prevents the use of the CHG command. You must delete the PDO before using the CHG command, or the following error message displays:

```
ERROR: Protected Service. Verify Action.  
PDO Option Assigned.
```

CHL - Change list

Description

The CHL command modifies the change feature (CHF) command so that CHF does not control a screening list of the Screening List Editing (SLE) feature. The CHL allows the user to add more than four directory numbers (DN) to a screening list.

The CHL command is different in the following ways from the CHF command:

- CHL allows the addition of a maximum of 20 DNs at a time instead of 4 to an SLE screening list.
- CHL allows the user to add to, delete from, or change DNs in the SLE screening list.
- CHL provides the ability to add DNs only to SLE screening lists. CHL does not apply to features that are not SLE features.

The CHL command functions in the same method as the CHF command.

Applicability

This command is applicable to

- individual lines
- teen service directory number hunt (DNH) group member
- pilot of hunt group
- multiline hunt (MLH)/distributed line hunt (DLH) group member
- wide area telephone service (WATS)
- options of Enhanced Secondary Directory Numbers (ESDN) (delete all options to change an ESDN to an SDN)
- integrated voice data set (IVD)
- business set and data unit

Examples

The following examples show the uses of the CHL command and applicable parameters.

Duplicate DNs

The following examples show the CHL command in offices with and without duplicate DNs. The CHL command adds, changes, and deletes the DN of a screening list.

CHL - Change list (continued)

Example of the CHL command in prompt mode, unique 7-digit DNs

```

>CHL
SONUMBER: NOW 98 2 7 PM
>
DN_OR_LEN:
>6211233
OPTKEY:
> 1
OPTION:
>SCRJ
BILLING_OPTION:
>NOAMA
STATUS:
>ACT
ADD_DELETE_CHANGE:
Adding a DN                Deleting a DN                Changing a DN
>A                          >D                          >C
DNS:                        DNS:                        OLD_DN:
>6136215002                >6136215002                >6136215001
VBCOUNT:                    DNS:                        NEW_DN:
>7                          >$                          >6136212011
DNS:                        VBCOUNT:                    VBCOUNT:
>$                          >7                          >7
                                OLD_DN:                    OLD_DN:
                                >$                          >$

```

Example of the CHL command in no-prompt mode, unique 7-digit DNs

```
>CHL $ 6211233 1 SCRJ $ $ A 6136215002 7 $
```

CHL - Change list (continued)**Example of the CHL command in prompt mode, 10-digit DNs**

```

>CHL
SONUMBER: NOW 98 2 7 PM
>
DN_OR_LEN:
>6136211233
OPTKEY:
> 1
OPTION:
>SCRJ
BILLING_OPTION:
>NOAMA
STATUS:
>ACT
ADD_DELETE_CHANGE:
Adding a DN                Deleting a DN                Changing a DN
>A                          >D                          >C
DNS:                        DNS:                        OLD_DN:
>6136215002                >6136215002                >6136215001
VBCOUNT:                    DNS:                        NEW_DN:
>7                          >$                          >6136212011
DNS:                        VBCOUNT:                    VBCOUNT:
>$                          >7                          >7
                                OLD_DN:                    OLD_DN:
                                >$                          >$

```

Example of the CHL command in no-prompt mode, 10-digit DNs

```
>CHL $ 6136211233 1 SCRJ $ $ A 6136215002 7 $
```

CHL - Change list (continued)

Example of the CHL command in prompt mode, duplicate 7-digit DNs

```

>CHL
SONUMBER: NOW 98  2 7 PM
>
DN_OR_LEN:
>6211233
The Local DN is not Unique
Please Use the Full National DN
6211233
*** Error ***

DN_OR_LEN:
>6136211233
OPTKEY:
> 1
OPTION:           Deleting a DN           Changing a DN
>SCRJ             >D                       >C
BILLING_OPTION:   DNS:                       OLD_DN:
>NOAMA            >6136215002                   >6136215001
STATUS:           DNS:                       NEW_DN:
>ACT              >$                       >6136212011
ADD_DELETE_CHANGE:
Adding a DN           VBCOUNT:
>A                >7
DNS:              OLD_DN:
>6136215002      >$
VBCOUNT:
>7
DNS:
>$

```

Example of the CHL command in no-prompt mode, duplicate 7-digit DNs

```

>CHL $ 6211233 1 SCRJ $ $ A 6215002 7 $
The Local DN is not Unique
Please Use the Full National DN
6211233
*** Error ***
>CHL $ 6136211233 1 SCRJ $ $ A 6136215002 7 $

```

Shared DN with different circuit-mode call types

The following example shows the CHL command sequence to change an SLE option from a shared DN. If you do not specify the LTID at the DN_OR_LEN

CHL - Change list (continued)

prompt and enter a shared DN, the LEN prompt appears. Specify the LTID to change SLE options on a shared DN that is already assigned to another LTID of a different call type.

Example of the CHL command in prompt mode

```
>CHL
SONUMBER:      NOW  97  8 18 PM
>
DN_OR_LEN:
>7235001
LEN:
> ISDN 1
OPTKEY:
>1
OPTION:
>SCRJ
BILLING OPTION: NOAMA
>
STATUS:
>INACT
ADD_DELETE_CHANGE:
>A
DN_TO_ADD_OR_DELETE:
> 6137236000
VBCOUNT:
> 2
DN_TO_ADD_OR_DELETE:
> $
```

Example of the CHL command in no-prompt mode

```
>CHL $ 7235001 ISDN 1 SCRJ INACT A 6137236000 2 $
```

CHL - Change list (continued)**Prompts**

The system prompts for the CHL command appear in the following table.

Input prompts for the CHL command (Sheet 1 of 2)

Prompt	Valid input	Explanation
ADD_DELETE_ CHANGE	A,D,C	A (add) indicates the user wants to add DNs to an SLE screening list. D (delete) indicates the user wants to delete DNs from an SLE screening list. C (change) indicates the user wants to change current list entries (for instance, replace them with new entries).
BILLING_ OPTION	NOAMA, AMA	NOAMA indicates the feature is billed based on subscription. AMA indicates the feature is billed based on usage. The system generates an AMA billing record for each SLE session.
DN_OR_LEN	Refer to DN and LTID in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	Enter the valid directory number, line equipment number (LEN), or logical terminal identifier (LTID).
DNS	10-digit directory number	Indicates the DN the user adds or deletes from (based on the previous command) the feature screening list of the SLE.
DN_TO_ADD_ OR_DELETE	10-digit directory number	Indicates the DN that replaces the current DN when the user enters the A command.
NEW_DN	10-digit directory number	Indicates the DN that replaces the current DN when the user enters the C command.

CHL - Change list (continued)**Input prompts for the CHL command (Sheet 2 of 2)**

Prompt	Valid input	Explanation
OLD_DN	10-digit directory number	Indicates the old DN the user replaces with the C command.
OPTION	SCA, SCRJ, DRCW, SCF	This field indicates the screening list, billing option, and status of the SLE feature.
OPTKEY	1	Defines the DN key of the data unit.
STATUS	INACT, ACT	INACT indicates the feature is not on (inactive). ACT indicates the feature is on (active).
VBCOUNT	0-10	Indicates the number of digits to voice back in SLE list review. If the user enters 0, the entry becomes private. The entry does not voice back.

Notes

The following notes apply to the CHL command:

- The CHL command affects the four SLE features. The SLE features are Selective Call Acceptance (SCA), Selective Call Rejection (SCRJ), Selective Call Forwarding (SCF), and Distinctive Ringing/Call Waiting (DRCW).
- Table RESOFC sets the maximum number of DNs the system allows on the screening list of an SLE feature. The operating company personnel set the maximum number. The maximum number of DNs entered can be more than 20. If the number of DNs entered is more than 20, the user can enter the CHL command to execute multiple times. This condition depends on the number of current entries that are on the original list.
- The user must enter the CHL command for each change made to every screening list. For example, a user must enter the command twice to add DNs to a list and change other DNs. To change the screening list of more than one SLE feature on the same subscriber line, the user must enter the command more than once.

CHL - Change list (end)

- The user receives an error message when the user
 - adds DN's to a list that is full
 - deletes DN's from a list that is empty
 - changes a DN that is not present on a screening list
- The BILLING_OPTION prompt displays if SUSP is datafilled in table AMAOPTS.
- If SUSP is datafilled in table AMAOPTS, the current value of STATUS and BILLING_OPTION displays. The user can accept these values and press the Return or Enter key, or enter new values.
- The CHL command is available in feature package NTX901AA under feature NC0313.
- The NA010 and up feature DN Sharing with Different Circuit-Mode Call Types changes the CHL command to require the LTID, if you specify a shared DN for the DN_OR_LEN prompt. Specify the LTID to identify either the CMD or the VI appearance of the shared DN to which the CHL command applies.

CISG - Change ISDN service group

Description

The CISG command is used to move an LCME ISDN loop from its current ISDN service group (ISG) to another ISG or to a specific channel on another ISG.

Applicability

LCME ISDN loops

Example

The following examples show the uses of the CISG command and applicable parameters.

Moving an LCME ISDN loop to another ISG

The following example shows the CISG command when it is used to move loop HOST 55 1 6 2 from ISG 5 to ISG 8.

Example of the CISG command in prompt mode

```
>CISG
SONUMBER: NOW 89 01 01 AM
> (CR)
LEN:
>HOST 55 1 6 2
FROM_ISG:
>5
TO_ISG:
>8
TO_CHNL: 0
>$
```

Example of the CISG command in no-prompt mode

```
>CISG $ HOST 55 1 6 2 5 8 $
```

Moving an LCME ISDN loop to a specific channel on another ISG

In the following example, the loop HOST 55 1 6 2, currently on ISG 5, is moved to channel 20 on ISG 8.

CISG - Change ISDN service group (continued)

Example of the CISG command in prompt mode

```

>CISG
SONUMBER: NOW 89 01 01 AM
> (CR)
LEN:
>HOST 55 1 6 2
FROM_ISG:
>5
TO_ISG:
>8
TO_CHNL: 0
> 20

```

Example of the CISG command in no-prompt mode

```
>CISG $ HOST 55 1 6 2 5 8 20
```

Prompts

The following table lists the input prompts for the CISG command.

Input prompts for the CISG command

Prompt	Valid input	Explanation
LEN	Refer to LEN in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	The line equipment number of the 2B1Q U-loop or S/T loop to be moved. The loop must be located on an LCME.
SONUMBER	Refer to SONUMBER in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	The unique number of the service order to be entered.
TO_CHNL	0 to 31 Default value is 0	The channel of the ISG to which the loop is being moved.
TO_ISG	0 to 255	The ISG to which the loop is to be moved.

CISG - Change ISDN service group (end)

Notes

The following notes apply to the CISG command:

- The CISG command can be used to redistribute LCME ISDN traffic among ISGs.
- The CISG command can only be used on loops in one of the following states: IDL, LO, MB, DMB, INB, or LMB. The loop is seized before the ISG service is changed.
- The CISG command can only be used if one of the following requirements is met:
 - Free TDM groups are associated with the physical drawer in which the LEN is located.
 - Free slots in a TDM group are associated with the physical drawer of the LEN, on the target ISG.
- If LTIDs are mapped to the loop, they must be unmapped before the CISG command is used, and then remapped afterwards. The unmapping and remapping of the LTIDs is done using the service order commands SLT DET and SLT ATT.
- If the TO_CHNL parameter is zero, the system selects the channel to which the LEN is moved. By default, the TO_CHNL parameter is zero.
- The CISG command affects packet data service.

DELPH - Delete packet handler options

Description

The DELPH command removes options PVC and CUG from particular logical terminals on the DMS packet handler. The direct call (DC) option is not allowed on the DMS packet handler, and the DNA option is not applicable since DN entries cannot be deleted with the DELPH command.

Deletions of PVC service are allowed without the need to first detach the master endpoint. There is no need to alter the values of the parameters of a particular option before deleting that option.

Following the DELPH command for a line-to-line PVC, the SETPH command is used to change the values of the X.25 parameters NUMLCN and NUMPVC as required. The sum of NUMPVC, NUMOVC, and NUMIVC cannot exceed the value NUMLCN.

Applicability

ISDN packet terminals

Example

The following shows an example of the DELPH command used to remove options PVC and CUG from the logical terminal identified as LTID ISDN 50.

- DN 6136213333
- PVC with originating DN and LCN of 6136215555 and 5, and the responding DN and LCN of 6136217777 and 8 is to be removed
- CUG (CUGINDEX 4) on DN 61362188888 on this LTID is to be removed

DELPH - Delete packet handler options (continued)

Example of the DELPH command in prompt mode

```

SO:
>DELPH
SONUMBER:  NOW 91  1  1 PM
> $
LTID:
>ISDN 50
DEL_OPTION:
>PVC
ORIGDNA:
>6136215555
ORIGNPI:
>E164
ORIGLCN:
> 5
RESPDNA:
>6136217777
RESPNPI:
>E164
RESPLCN:
> 8
DEL_OPTION:
>CUG
CUGINDEX:
> 4
DNASPEC:
>6136218888
NPI:
>E164
DEL_OPTION:
> $

```

Example of the DELPH command in no-prompt mode

```

>DELPH $ ISDN 50 PVC 6136215555 E164 5 6136217777 E164 8
CUG 4 6136218888 E164 $

```

DELPH - Delete packet handler options (continued)**Prompts**

The following table lists the input prompts for the DELPH command in alphabetical order.

Input prompts for the DELPH command (Sheet 1 of 2)

Prompt	Valid input	Explanation
CUGINDEX	0 to 99	The index number associated with this CUG on this DN. Updates CUGIDX field in table CUGINFO.
DEL_OPTION	PVC or CUG	Option(s) associated with a service to be deleted.
DNASPEC	1 to 15 digits	The data network address with which this CUG is being associated. Part of the key for table CUGINFO (DN field).
LTID	Refer to LTID in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	The logical terminal identifier.
NPI	E164	The numbering plan to which the DNASPEC belongs.
ORIGDNA	DN, or CLLI and member for X.75 endpoint.	Specifies the originating DN. This is the location that is billed.
ORIGLCN	1 to 1024	Specifies the logical channel number of the originating service.
ORIGNPI	X121 or E164	The NPI of the originating service.
RESPDNA	DN, or CLLI and member for X.75 endpoint.	Specifies the responding DN. The originating and responding DNs cannot be the same. This DN is the slave of the PVC and is the location that is not billed.

DELPH - Delete packet handler options (continued)

Input prompts for the DELPH command (Sheet 2 of 2)

Prompt	Valid input	Explanation
RESPLCN	1 to 1024	Specifies the logical channel number of the responding device.
RESPNPI	X121 or E164	The NPI of the responding service.
SONUMBER	Refer to SONUMBER in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	The unique number of the service order to be entered.

Notes

The following notes apply to the DELPH command:

- PVC service deletions are allowed without the need to first detach the master endpoint when option NI000050 = ON.
- PVC service deletions are not allowed without the need to first detach the master endpoint when option NI000050 = IDLE. The following error message is received: To delete when the Master Endpoint is attached in Table LTMAP/TRKMEM, Option NI000050 must be turned ON.
- The deletion of CUGs is always allowed using SERVORD. When deleting CUG with CUGIDX = 0 in CUGINFO, the parameter Preferential CUG should be set to N (no) first.
- Deleting DNs must be done with the OUT command.
- In the NA009 release, the Provisioning Support for Default Service feature prevents the entry of a ten-digit Default Service DN at the ORIGDNA and RESPDNA prompts. The following error message displays, where "<nnnnnnnnnn>" is the Default Service DN:

```
Default Service DN: Invalid input
<nnnnnnnnnn>
```

The following exception exists. Assume that

- A switch has multiple numbering plan areas (NPA) and duplicate exchange codes (NXX).
- Translations restricts some DNs—for example, forwarding or hunt group overflow DNs—to seven digits.

The following condition allows entry of part of a Default Service DN at a SERVORD prompt.

DELPH - Delete packet handler options (end)

The operating company attempts to enter a Default Service DN under one NPA. Under a different NPA, a forwarding or overflow DN shares the NXX and station code of the Default Service DN. That is, the seven digits of the forwarding or overflow DN are identical to those of the Default Service DN. In this event, SERVORD accepts the entry of the Default Service DN.

This behavior is in line with existing SERVORD behavior with normal DNs. SERVORD always accepts the entry of ambiguous DNs; if DN rejection occurs, the rejection is based on later, feature-specific checks.

- In NA012 release, the DELPH command does not support echo station LTIDs or DNs. If you use this command with feature 59006435, Echo Station X.25 Loopback Testing, the following error message displays:

```
DELPH command can not be used for Echo station LTID/DN.
```

DEO - Delete option

Description

The DEO command is used to delete options from single-line and multiline telephone sets, and hunt group lines.

Applicability

This command is applicable to

- individual lines
- directory number hunt (DNH), distributed line hunt (DLH), or multiline hunt (MLH) group members
- pilots of DNH groups
- business sets and data units

This command unprovisions the Multiple Appearance Directory Number (MADN) Call Appearance Call Handling (CACH) option. This command deletes the MADN CACH option from the CACH controller. You can delete the option only if all MADN/EKTS CACH secondary members have been removed and you do not enter a non-MADN DN to replace the MADN/EKTS CACH DN. If a non-MADN DN replaces the MADN/EKTS CACH DN, the same restrictions in the OUT command are applicable to the DEO command. These restrictions follow:

- You cannot remove or delete the CACH controller unless there is another ISDN secondary member that can become the primary member for this call appearance (CA) and the CACH controller.
- The ISDN secondary member must be in the same CA as the CACH controller.
- You cannot remove the primary CA (CA 1) until you remove all secondary CAs.

Examples

The following examples show the uses of the DEO command and applicable parameters.

Ring Again

The following examples show how the DEO command deletes the ring again (RAG) option from DN 234-5432. The examples show the responses to the DEO command in offices with and without duplicate DNs.

DEO - Delete option (continued)

Example of the DEO command in prompt mode, unique 7-digit DN

```
> DEO
SONUMBER:  NOW 98 2 7 PM AM
> (CR)
DN_OR_LEN:
> 2345432
OPTKEY:
> 9
OPTION:
> RAG
OPTKEY:
> $
```

Example of the DEO command in no-prompt mode, unique 7-digit DN

```
> DEO $ 2345432 9 RAG $
```

Example of the DEO command in prompt mode, 10-digit DN

```
> DEO
SONUMBER:  NOW 98 2 7 PM
> (CR)
DN_OR_LEN:
> 2345432
OPTKEY:
> 9
OPTION:
> RAG
OPTKEY:
> $
```

Example of the DEO command in no-prompt mode, 10-digit DN

```
> DEO $ 2345432 9 RAG $
```

DEO - Delete option (continued)

Example of the DEO command in prompt mode, duplicate 7-digit DN

```

> DEO
SONUMBER:  NOW 98 2 7 PM
> (CR)
DN_OR_LEN:
> 2345432
This Local DN is not Unique.
Please Use the Full National DN.
2345432
*** Error ***

TYPE OF DN_OR_LEN IS DR_LEN_TYPE
PLEASE ENTER:
DN_OR_LEN:
>9192345432
OPTKEY:
> 9
OPTION:
> RAG
OPTKEY:
> $

```

Example of the DEO command in no-prompt mode, duplicate 7-digit DN

```

> DEO $ 2345432 9 RAG $
This Local DN is not Unique.
Please Use the Full National DN.
2345432
*** Error ***

```

PROVLLC option

The following examples show the DEO command used to delete the low-layer compatibility (PROVLLC) option from DN 722-5040.

DEO - Delete option (continued)

Example of the DEO command in prompt mode

```
> DEO
SONUMBER:  NOW 90 06 21 AM
> (CR)
DN_OR_LEN:
> 7225040
OPTKEY:
> 1
OPTION:
> PROVLLC
OPTKEY:
> $
```

Example of the DEO command in no-prompt mode

```
> DEO $ 7225040 1 PROVLLC $
```

Example of the DEO command in prompt mode—used to unprovision the MADN/EKTS CACH option

```
> DEO
SONUMBER:  NOW 90 06 21 AM
> (CR)
DN_OR_LEN:
> ISDN 2 0
OPTKEY:
> 1
OPTION:
> MDN
DIR_NUMBER: 8675309
> CR
OPTKEY:
> $
```

Example of the DEO command in no-prompt mode—used to unprovision the MADN/EKTS CACH option

```
> DEO $ ISDN 20 1 MDN $
```

DEO - Delete option (continued)

ACRJ option

The following example shows the DEO command used to delete the ACRJ option from an ISDN BRI line.

Example of the DEO command in prompt mode

```
> DEO
SONUMBER:  NOW 90 06 21 AM
> (CR)
DN_OR_LEN:
> ISDN 20
OPTKEY:
> 1
OPTION:
> ACRJ
OPTKEY:
> $
```

Example of the DEO command in no-prompt mode

```
> DEO $ ISDN 20 1 ACRJ $
```

Shared DN with different circuit-mode call types

The following example shows the DEO command sequence to delete an option from a shared DN. If you do not specify the logical terminal identifier (LTID) at the DN_OR_LEN prompt and specify a shared DN, the LEN prompt appears. Specify the LTID to delete options from a shared DN that is already assigned to another LTID of a different call type.

DEO - Delete option (continued)

Example of the DEO command in prompt mode

```
>DEO
SONUMBER:      NOW  97  8 18 PM
>(CR)
DN_OR_LEN:
>7235001
LEN:
> ISDN  1
OPTKEY:
>1
OPTION:
>CNAMD
BILLING OPTION: NOAMA
>$
OPTKEY:
>$
```

Example of the DEO command in no-prompt mode

```
>DEO $ 7235001 ISDN 1 1 CNAMD $ $
```

The following example shows the DEO command used to delete MADN from one LTID (for example ISDN 102) and assign VI

DEO - Delete option (continued)

Example of the DEO command in prompt mode deleting option MDN and allowing a DN already assigned to become shared

```

>DEO
SONUMBER:      NOW  98  8 18 PM
> $
DN_OR_LEN:
>ISDN 101
OPTKEY:
> 2
OPTION:
>MDN
DIR_NUMBER: 6137238889
>7238888
INTERCEPT_NAME:
> BLDN
OPTKEY:
>$

```

Example of the DEO command in no-prompt mode deleting option MDN

```
>DEO $ ISDN 101 2 MDN 7238888 BLDN $
```

Prompts

The system prompts for the DEO command to appear in the following table.

Input prompts for the DEO command (Sheet 1 of 2)

Prompt	Valid input	Explanation
DIR_NUMBER	Refer to DN in the Prompts table in the "Service order tables" section of this manual for information on valid inputs.	Enter the DN assigned to a MADN line.
DN_OR_LEN	Refer to DN and LTID in the Prompts table in the "Service order tables" section of this manual for information on valid inputs.	Enter the line's DN or LTID. For a MADN line or MLH/DLH members, if a DN is specified, the user is prompted for the LTID. If the LTID is entered, the user is not prompted for the DN.

DEO - Delete option (continued)**Input prompts for the DEO command (Sheet 2 of 2)**

Prompt	Valid input	Explanation
LEN	Refer to DN and LTID in the Prompts table in the "Service order tables" section of this manual for information on valid inputs.	For shared DNs with different circuit-mode call types, enter the LTID of the shared DN from which the option will be deleted.
OPTION	Refer to the Line service options table in the "Service order tables" section of this manual for a list of valid inputs.	Option(s) associated with a service to be established, modified, or deleted. A maximum of 128 options can be specified in any DEO command.
OPTKEY	1 to 69	Key associated with the option.

Error messages

The following error messages may result from the DEO command.

MADN/EKTS CACH feature

The following table describes the error messages you may encounter when using the DEO command for the MADN/EKTS CACH feature.

Error messages for MADN/EKTS CACH SERVORD

Message	Description
The Primary CA cannot be removed until all secondary CAs are removed.	All secondary CAs must be removed before the primary CA can be removed.
The CACH Controller can be removed only if there is a BRAFS ISDN EKTS Secondary Member.	The SERVORD user attempts to remove the CACH controller without an existing BRAFS ISDN EKTS CACH secondary member in the primary CA.

DEO - Delete option (continued)

Call Forwarding feature

The following error messages occur if you try to delete call forwarding features during call processing busy and programming states:

- Call Forwarding cannot be deleted when it is being programmed.
- Call Forwarding Busy Programmable cannot be deleted while set is call processing busy.
- Call Forwarding Busy Fixed cannot be deleted while set is call processing busy.
- Call Forwarding Don't Answer Programmable cannot be deleted while set is call processing busy.
- Call Forwarding Don't Answer Fixed cannot be deleted while set is call processing busy.
- Call Forwarding cannot be deleted while set is call processing busy.
- Call forwarding cannot be deleted when the line is a MADN appearance in the ringing state.

Notes

The following notes apply to the DEO command:

- For NA009 and up, the Provisioning Support for Default Service feature prevents the entry of a 10-digit Default Service DN at the DN_OR_LEN prompt. The following error message displays, where <nnnnnnnnnn> is the Default Service DN:

```
Default Service DN: Invalid input<nnnnnnnnnn>
```

The following exception exists. Assume that

- A switch has multiple numbering plan areas (NPA) and duplicate exchange codes (NXX).
- Translations restricts some DNs—for example, forwarding or hunt group overflow DNs—to seven digits.

The following condition allows entry of part of a Default Service DN at a SERVORD prompt.

The operating company attempts to enter a Default Service DN under one NPA. Under a different NPA, a forwarding or overflow DN shares the NXX and station code of the Default Service DN. That is, the seven digits of the forwarding or overflow DN are identical to those of the Default Service DN. In this event, SERVORD accepts the entry of the Default Service DN.

DEO - Delete option (end)

This behavior is in line with SERVORD behavior with normal DNs. SERVORD always accepts ambiguous DNs. If DN rejection occurs, the rejection is based on later, feature-specific checks.

- Use the DEO command to delete the ACRJ option from an ISDN BRI line. The NA009 BRI in RES feature makes ACRJ available to ISDN BRI lines.
- Seven-digit DN ambiguity exists if the DMS-100 switch serves more than one NPA and the same 7-digit DN is used in multiple NPAs. SOC option SERV0003 resolves this issue by prompting for the full 10-digit DN when ambiguity exists. If the full 10-digit DN is initially entered, ambiguity will not exist.
- The NA010 and up feature DN Sharing with Different Circuit-Mode Call Types changes the DEO command to require the LTID (logical terminal identifier), if you specify a shared DN for the DN_OR_LEN prompt. Specify the LTID to identify either the CMD or the VI appearance of the shared DN from which the option will be deleted.
- The NA010 and up feature Single DN for EKTS and CMD ensures that if option MADN is deleted from an ISDN LTID and the DN is shared with CMD, the MADN group still has an NI-2 member. If option MADN is deleted from an ISDN LTID and changed to a DN that is provisioned as CMD or PMD, a shared DN is created if the call types meet the shared DN requirements.

Note: The DN of a single DN configuration that has MADN deleted must be changed.

- If you enable office parameter SO_ALLOW_REDUNDANT_FEATURE in table OFCVAR, SERVORD accepts attempts to delete from a DN an option or feature that was not assigned to the DN. Instead of rejecting the DEO command with an error message, SERVORD accepts the command entry and displays a message that verifies acceptance. The exact wording of the messages can vary according to the option or feature you are adding.
- In the NA014 release, feature 59013267, On-demand X.25 B-channel X.25 Packet Mode Data—Provisioning, Data Distribution Manager, and XLIU, does not support the use of the DEO command to remove the On-demand B-channel (ODB) option from a DN. If you attempt to use the DEO command to remove the ODB option from a DN, the following error message displays:

```
PMD/DFDN/ODB cannot be manipulated using ADO/DEO/CHF
PMD/DFDN/ODB can be deleted only using OUT
```

DSP - Display translation/routing information

Description

The DSP command displays information about features on single line and multiline telephone sets. These features include the network class of service (NCOS), customer group, subgroup, ring option, and line class code (LCC) of directory numbers (DN). The parameters and prompts available with the DSP command are the same as those for the CHG command.

Applicability

The DSP command applies to the following:

- offices with IBN authcodes, lines, trunks, and virtual facility groups (VFG)
- business sets

Examples

The following are examples of the DSP command.

Display authorization information

The following examples show the DSP command in offices with and without duplicate DNs. This example displays the authcode and the NCOS.

Example of the DSP command in prompt mode

```

>DSP
WHAT:
>AUTH
AUTHPART:
>CFRAPART
AUTHCODE:
>23
NCOS_OR_TO:
  Display the NCOS      Display a range of authcodes
>NCOS                  >TO
                        TO_AUTH:
                        >55
  
```

Example of the DSP command in no-prompt mode

```

>DSP AUTH CFRAPART 23 NCOS
  
```

DSP - Display translation/routing information (continued)

Display LEN information on an SCL line

This example displays the line equipment number (LEN) of a line. The host LEN must have the SCL option.

Example of the DSP command in prompt mode

```
>DSP
WHAT:
>CONTLEN
CURRENT_LEN:
>0 0 10 3
```

Example of the DSP command in no-prompt mode

```
>DSP CONTLEN 0 0 10 3
```

Note: Prompts can change if the Group Number Feature Control (GNFC) is ON. Refer to table Prompts in this manual for a list of valid inputs.

Display CLLI information

This example displays the CLLI information of a line. The information appears across several columns in this example. The columns accommodate the different prompts that associate with the DSP command.

Example of the DSP command in prompt mode

```
>DSP
WHAT:
>CLLI
CLLI:
>DLSE
TRK_INFO:
>NCOS                >LSC                >ALSC
```

Example of the DSP command in no-prompt mode

```
>DSP CLLI DLSE NCOS LSC ALSC
```

Note: Refer to table Prompts in this manual for a list of valid inputs.

DSP - Display translation/routing information (continued)

Display line information

The following examples show the DSP command in offices with and without duplicate DNs. This example displays the line information for a multiline set. The information appears across several columns in this example. The columns accommodate the different prompts that associate with the DSP command.

Example of the DSP command in prompt mode, unique 7-digit DNs

```
>DSP
WHAT :
>LINE
DN_OR_LEN :
>6210000
OPTKEY :
>1
LINE_INFO :
>ZONE                >LCC                >TRC
```

Example of the DSP command in no-prompt mode, unique 7-digit DNs

```
>DSP LINE 6210000 1 ZONE
```

Example of the DSP command in prompt mode, 10-digit DNs

```
>DSP
WHAT :
>LINE
DN_OR_LEN :
>9196210000
OPTKEY :
>1
LINE_INFO :
>ZONE                >LCC                >TRC
```

Example of the DSP command in no-prompt mode, 10-digit DNs

```
>DSP LINE 9196210000 1 ZONE
```

DSP - Display translation/routing information (continued)

Example of the DSP command in prompt mode, duplicate 7-digit DNs

```
>DSP
WHAT:
>LINE
DN_OR_LEN:
>6210000
This Local DN is not Unique
Please Use the Full National DN
6210000
*** Error ***

DN_OR_LEN:           >LCC           >TRC
>9196210000
>1
LINE_INFO:
>ZONE
```

Example of the DSP command in no-prompt mode, duplicate 7-digit DNs

```
>DSP LINE 6210000 1 ZONE
This Local DN is not Unique
Please Use the Full National DN
6210000
*** Error ***
>DSP LINE 9196210000 1 ZONE
```

Note: Refer to table Prompts in this manual for a complete list of valid inputs.

Display VFG information

This example displays the virtual facility group information. The data appears across several columns. The columns accommodate the different prompts that associate with the DSP command.

DSP - Display translation/routing information (continued)

Example of the DSP command in prompt mode

```
>DSP
WHAT :
>VFG
VIRTGRP :
>NILVFG
TYPE_DIRECTION :
>IBNVI                                >IBNVO
INCOM_INFO :                          OUTGO_INFO :
>CUST                                  >ALSC
```

Example of the DSP command in no-prompt mode

```
>DSP VFG NILVFG IBNVI CUST
```

Note: Refer to table Prompts in this manual for a complete list of valid inputs.

Display translations attributes of a shared DN with different circuit-mode call types

The following example shows the DSP command sequence to display translation-related attributes of a shared DN. If you do not specify the LTID and a shared DN at the DN_OR_LEN prompt, the LEN prompt appears. Specify the LTID to display translation attributes of a shared DN that is already assigned to another LTID of a different call type.

DSP - Display translation/routing information (continued)

Example of the DSP command in prompt mode

```
>DSP
SONUMBER:      NOW  97  8 18 PM
>
WHAT:
>LINE
DN_OR_LEN:
> 7235001
LEN:
>ISDN 1
OPTKEY:
>1
LINE_INFO:
>NCOS
COMMAND AS ENTERED:
DSP NOW 97 8 18 PM LINE 7235001 ISDN 1 1 NCOS
ENTER Y TO CONFIRM, N TO REJECT OR E TO EDIT
>Y
NCOS=0
```

Example of the DSP command in no-prompt mode

```
>DSP LINE 7235001 ISDN1 1 NCOS Y
```

DSP - Display translation/routing information (continued)

Prompts

The system prompts for the DSP command appear in the following table.

Input prompts for the DSP command (Sheet 1 of 5)

Prompt	Valid input	Explanation
AUTHCODE	2-12 digits	Indicates the authorization code for the customer group. This authcode must have the same number of digits as defined in field LENGTH of table AUTHPART.
AUTHPART	1-16 alphanumeric characters	Indicates the authorization partition name assigned to the customer group. The name is in field PARTNM of table AUTHPART. This prompt appears if more than one authcode partition is present.
CLLI	Up to eight alphanumeric characters	Common language location identifier.
CURRENT_LEN	Refer to LEN_OR_LTID in table Prompts in this manual for information on valid inputs.	Identifies the controller of the SCU group. This prompt appears when the Group Number Feature Control (GNFC) feature is OFF.
CURRENT_LEN_GRPNUM	The group number (1-32768) or the LEN of the controller	Identifies the controller of the SCU group. This prompt appears when the Group Number GNFC feature is ON.
DN_OR_LEN	Refer to DN and LEN_OR_LTID in table Prompts in this manual for information on valid inputs.	DN or LEN. In the occurrence of an MDN line or MLH/DLH members, a specified DN causes the system to prompt the LEN. A specified LEN suffices.

DSP - Display translation/routing information (continued)

Input prompts for the DSP command (Sheet 2 of 5)

Prompt	Valid input	Explanation
INCOM_INFO	ALL, NCOS, CUST, SUBGRP	<p>The system displays this prompt when the user enters IBNVI for the TYPE_DIRECTION prompt. This prompt allows the user to display NCOS, CUST, or SUBGRP information for an incoming VFG. You also can display all three of these information categories.</p> <p>ALL means display all information. NCOS means network class of service. CUST means customer group. SUBGRP means subgroup number.</p>
LEN	Refer to DN and LTID in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	For shared DNs with different circuit-mode call types, enter the LTID of the shared DN to which the DSP command applies.

DSP - Display translation/routing information (continued)

Input prompts for the DSP command (Sheet 3 of 5)

Prompt	Valid input	Explanation
LINE_INFO	ALL, ATRC, CUST, LCC, NCOS, RING, SUBGRP, TRC, ZONE	<p>Indicates line information to be changed or displayed.</p> <p>ALL = display all information</p> <p>ATRC = alternate terminating restriction code</p> <p>CUST = customer group</p> <p>LCC = line class</p> <p>NCOS = network class of service</p> <p>RING = ring option</p> <p>SUBGRP = subgroup number</p> <p>TRC = terminating restriction code</p> <p>ZONE = outwatts zone ID number</p>
NCOS_OR_TO	NCOS, TO	<p>Specifies if the system must display the NCOS or the authcode.</p> <p>NCOS = network class of service</p> <p>TO = to display a range of authcodes</p>
OPTKEY	1 to 69	Key associated with the shared DN.

DSP - Display translation/routing information (continued)**Input prompts for the DSP command (Sheet 4 of 5)**

Prompt	Valid input	Explanation
OUTGO_INFO	ALL, ALSC, CUST, LSC	<p>Appears when the user enters IBNVO for the TYPE_DIRECTION prompt. Allows the user to display given categories for an outgoing VFG. These categories include LSC, ALSC, CUST, and ALL. The user can display one or all of these categories.</p> <p>ALL = display all information</p> <p>ALSC = alternate line screening code</p> <p>CUST = customer group</p> <p>LSC = line screening code</p>
TO_AUTH	2-12 digits	<p>Appears when the user enters the TO at the NCOS_OR_TO prompt. Specifies the upper range of authcodes that the system must display.</p>
TODNAME	1-8 characters	<p>Appears when the user uses the DSP command to display Time of Day Routing. This prompt only appears if more than one name is present. Enter the name assigned to the entry in table TIMEODAY. The translation must route to this name.</p>

DSP - Display translation/routing information (continued)

Input prompts for the DSP command (Sheet 5 of 5)

Prompt	Valid input	Explanation
TRK_INFO	ALL, ALSC, CUST, LSC, NCOS, SUBGROUP	<p>Indicates trunk information to be changed or displayed.</p> <p>ALL = display all information</p> <p>ALSC = alternate line screening code</p> <p>CUST = customer group</p> <p>LSC = line screening code</p> <p>NCOS = network class of service</p> <p>SUBGROUP = subgroup number</p>
TYPE_DIRECTION	IBNVI, IBNVO	<p>Identifies the type and direction of the virtual facility group.</p> <p>IBNVI = incoming</p> <p>IIBNVO = outgoing</p>
VIRTGRP	1-6 alphanumeric characters	Indicates the virtual facility group name.
WHAT	AUTH, CLLI, CONTLEN, LINE, VFG	<p>Indicates the aspect of the line that the system must display.</p> <p>AUTH = authorization code</p> <p>CLLI = common language location identifier</p> <p>CONTLEN = controller LEN for SCU option</p> <p>LINE = station or DN</p> <p>VFG = virtual facility group</p>

DSP - Display translation/routing information (end)

Notes

The following notes apply to the DSP command:

- The system cannot display prompt AUTHPART if exactly one authcode partition name that belongs to the OWNER_ID is present. If the OWNER_ID owns more than one name, the system prompts for these fields. The user must specify the desired AUTHPART.
- Seven-digit DN ambiguity exists if the DMS-100 switch serves more than one numbering plan area (NPA) and the same 7-digit DN is used in multiple NPAs. SOC option SERV0003 resolves this issue by prompting for the full 10-digit DN when ambiguity exists.
- The NA010 and up feature DN Sharing with Different Circuit-Mode Call Types changes the DSP command to require the LTID, if you specify a shared DN at the DN_OR_LEN prompt. Specify the LTID to identify the CMD, VI, or PMD appearance of the shared DN to which the DSP command applies.

EST - Establish a hunt or call pickup group

Description

The EST command is used to establish unassigned single-line and multiline telephone set directory numbers (DN) as bridged night number (BNN), directory number hunt (DNH), distributed line hunt (DLH), or multiline hunt (MLH) pilots with or without members, and to establish call pickup (CPU) groups on assigned single-line and multiline telephone sets.

For terminals on the DMS packet handler, there are two types of hunt groups: DLH and MLH. Hunt groups can be established for packet terminals. No options are allowed when using the EST command for packet terminals. Also, duplicate hunt members are not allowed. The line class code (LCC) must be ISDNKSET for all members in the hunt group.

Single DN and shared DN configurations

In the NA008 release, the ISDN Packet Single DN feature introduced *single DN configurations*. A single DN configuration uses the same DN for packet mode data (PMD) or voiceband information/circuit mode data (VI/CMD) call appearances. The single DN appears on two different keys of the same logical terminal identifier (LTID).

Also in the NA008 release, the ISDN Packet Shared DN feature introduced *shared DN configurations*. A shared DN configuration uses the same DN for both VI/CMD and PMD call types on different LTIDs. All call types associated with a shared DN configuration must be in the same customer group.

The EST command supports both single DN and shared DN configurations.

DN sharing between different circuit-mode call types

A DN shared between different LTIDs and circuit-mode voice and data call types also supports hunt groups. To establish a DNH pilot that is shared with PMD, use the NEW command to assign the DN to a key on the first LTID with call type PMD. Use the EST command to assign the DN to a key on the second LTID, with the CMD call type as the DNH pilot. You can also use the reverse order: add a DN as a circuit pilot DN first and then add the same DN to the second LTID with PMD.

You can also establish an MLH pilot that is shared with PMD.

For shared DNs, there are two types of hunt groups: circuit (VI and CMD) and packet. See the “Error messages” section of this command description for messages that may result from the misuse of the EST command.

EST - Establish a hunt or call pickup group (continued)

Applicability

This command is applicable to

- hunt groups
- business sets with DNH group
- data units
- existing lines

Examples

The following examples show the use of the EST command and applicable parameters.

Establishing a DNH group for ISDN terminals

The following example shows the EST command when it is used to establish a DNH group with pilot DN 722-1234 and LTID ISDN 7.

EST - Establish a hunt or call pickup group (continued)

Example of the EST command in prompt mode

```
SO:
> EST
SONUMBER: NOW 85 7 8 PM
> (CR)
GROUPTYPE:
> DNH
PILOT_DN:
> 7221234
LCC:
> ISDNKSET
GROUP:
> COMKODAK
SUBGRP:
> 0
NCOS:
> 0
SNPA:
> 613
KEY:
> 3
RINGING:
> N
LATANAME:
> NILLATA
LTG: 0
> 75
PILOT_LEN:
> ISDN 7
DN_LEN:
> $
OPTION:
> CRBL
VI:
> 0
CMD:
> 1
OPTION:
> $
GROUPSIZE:
> 10
```

EST - Establish a hunt or call pickup group (continued)

Example of the EST command in no-prompt mode

```
> EST $ DNH 7221234 ISDNKSET COMKODAK 0 0 613 3 N NILLATA 75  
ISDN 7 CRBL 0 1 $ 10
```

Establishing an MLH group for ISDN terminals

The following example shows the EST command when it is used to establish an MLH group with pilot DN 722-4260 and pilot LTID ISDN 9.

Example of the EST command in no-prompt mode

```
> EST $ MLH 7224260 ISDNKSET COMKODAK 0 0 613 3 N NILLATA  
ISDN 9 $ $ 10
```

Establishing a DLH group for ISDN terminals

The following example shows the EST command when it is used to establish a DLH group with pilot LEN ISDN 4, pilot DN 621-5907 and LTID ISDN 4.

EST - Establish a hunt or call pickup group (continued)

Example of the EST command in prompt mode

```

SO:
> EST
SONUMBER: NOW 90 12 19 PM
> (CR)
GROUPTYPE:
> DLH
PILOT_DN:
> 6215907
LCC:
> ISDNKSET
GROUP:
> IBNTST
SUBGRP:
> 0
NCOS:
> 0
SNPA:
> 613
KEY:
> 18
RINGING:
> Y
LATANAME:
> NILLATA
PILOT_LEN:
> ISDN 4
MEM_LEN:
> $
OPTION:
> $
GROUPSIZE:
> 10

```

Example of the EST command in no-prompt mode

```
> EST $ DLH 6215907 ISDNKSET IBNTST 0 0 613 18 Y ISDN 4 $ $ 10
```

Provisioning the SLBRI_LATTR option on a DNH group pilot

The following example shows the EST command when it is used to provision the SLBRI_LATTR option on a DNH group pilot. The examples show the responses for the command EST for offices with and without duplicate DNs.

EST - Establish a hunt or call pickup group (continued)

Example of the EST command in prompt mode, unique 7-digit DNs

```
> EST
SONUMBER: NOW 98 2 7 PM
> (CR)
GROUPTYPE:
> DNH
PILOT_DN:
> 7235159
LCC:
> ISDNKSET
GROUP:
> RESGRP
SUBGRP:
> 0
NCOS:
> 0
SNPA:
> 613
KEY:
> 1
RINGING:
> Y
LATANAME:
> NILLATA
LTG: 0
> (CR)
PILOT_LEN:
> ISDN 210
SLBRI_LATTR:
> 10
DN_LEN:
> $
OPTION:
> $
GROUPSIZE:
> 3
```

Example of the EST command in no-prompt mode, unique 7-digit DNs

```
> EST $ DNH 7235159 ISDNKSET RESGRP 0 0 613 1 Y NILLATA $ ISDN
210 10 $ $ 3
```

EST - Establish a hunt or call pickup group (continued)

Example of the EST command in prompt mode, 10-digit DN

```

> EST
SONUMBER: NOW 98 2 7 PM
> (CR)
GROUPTYPE:
> DNH
PILOT_DN:
> 9197235159
LCC:
> ISDNKSET
GROUP:
> RESGRP
SUBGRP:
> 0
NCOS:
> 0
SNPA:
> 613
KEY:
> 1
RINGING:
> Y
LATANAME:
> NILLATA
LTG: 0
> (CR)
PILOT_LEN:
> ISDN 210
SLBRI_LATTR:
> 10
DN_LEN:
> $
OPTION:
> $
GROUPSIZE:
> 3

```

Example of the EST command in no-prompt mode, 10-digit DN

```

> EST $ DNH 9197235159 ISDNKSET RESGRP 0 0 613 1 Y NILLATA $
ISDN 210 10 $ $ 3

```

EST - Establish a hunt or call pickup group (continued)

Example of the EST command in prompt mode, duplicate 7-digit DN

```
> EST
SONUMBER: NOW 98 2 7 PM
> (CR)
GROUPTYPE:
> DNH
PILOT_DN:
> 7235159
This Local DN is not Unique.
Please use the Full National DN
7235159
*** Error ***
TYPE DN_OR_LEN IS DR_LEN_TYPE
PLEASE ENTER:
DN_OR_LEN
>9197235159
LCC:
> ISDNKSET
GROUP:
> RESGRP
SUBGRP:
> 0
NCOS:
> 0
SNPA:
> 613
KEY:
> 1
RINGING:
> Y
LATANAME:
> NILLATA
```

EST - Establish a hunt or call pickup group (continued)**Example of the EST command in prompt mode, duplicate 7-digit DN (continued)**

```

LTG: 0
> (CR)
PILOT_LEN:
> ISDN 210
SLBRI_ATTR:
> 10
DN_LEN:
> $
OPTION:
> $
GROUPSIZE:
> 3

```

Example of the EST command in no-prompt mode, duplicate 7-digit DN

```

> EST $ DNH 7235159 ISDNKSET RESGRP 0 0 613 1 Y NILLATA $ ISDN
210 10 $ $ 3
This Local DN is not Unique.
Please use the Full National DN
7235159
*** Error ***

```

Prompts

The following table lists the input prompts for the EST command in alphabetical order.

Input prompts for the EST command (Sheet 1 of 4)

Prompt	Valid input	Explanation
CPULEN or CPU_LEN	Refer to LTID in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	The LTID of the member added to a CPU group.
DN_LEN	Refer to DN and LTID in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	The DN of the member added to a DNH group and its associated LTID.
GROUP	1 to 16 alphanumeric characters	The name of an IBN customer group.

EST - Establish a hunt or call pickup group (continued)**Input prompts for the EST command (Sheet 2 of 4)**

Prompt	Valid input	Explanation
GROUPSIZE	0 to 1024	The expected maximum size of the hunt group. The group size specified must be large enough to accommodate the group's expected membership.
GROUPTYPE	BNN = bridged night number CPU = call pickup DLH = distributed line hunt DNH = directory number hunt MLH = multiline hunt UA = no hunt	The type of hunt group to be established, modified, or deleted.
HOST_HUNT_TYPE	BNN = bridged night number CPU = call pickup DLH = distributed line hunt DNH = directory number hunt MLH = multiline hunt UA = no hunt	The type of hunt group on which a BNN hunt group is established.
HOST_LEN	Refer to LTID and KEY in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	The LTID of the MLH/DLH group associated with the pilot of a BNN hunt group and the terminal's physical key.
KEY	1 to 69	The number associated with the physical key set to which the DN is assigned.
KEYLIST	1 to 69	The list of keys available on the terminal. Up to 24 keys can be specified.
LATANAME	Alphanumeric	The calling local access and transport area (LATA) name associated with the originator of the call.

EST - Establish a hunt or call pickup group (continued)

Input prompts for the EST command (Sheet 3 of 4)

Prompt	Valid input	Explanation
LCC	ISDNKSET	The line class code for the service to be established.
LEN_BNN	Valid input format: LTID KEY BNN Where: LTID = refer to LTID in table Prompts in the "Service order tables" section of this manual for more information on valid inputs KEY = refer to KEY in table Prompts in the "Service order tables" section of this manual for more information on valid inputs BNN = refer to DN in table Prompts in the "Service order tables" section of this manual for more information on valid inputs	The LTID of a member of a host DLH/MLH group, the terminal's physical key, and the DN of its associated BNN hunt group member.
MEM_LEN	Refer to LTID in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	The LTID of the member added to a DLH or MLH group.
NCOS	0 to 255	Network class of service for IBN lines, trunks, or attendant consoles; defines a set of capabilities or restrictions that allows or denies calls.

EST - Establish a hunt or call pickup group (continued)**Input prompts for the EST command (Sheet 4 of 4)**

Prompt	Valid input	Explanation
OPTION	Refer to table Line service options in the "Service order tables" section of this manual for a list of valid inputs.	Option(s) associated with a service to be established, modified, or deleted. Office parameter SO_MAX_OPTIONS_ALLOWED permits a maximum of 30 or 60 options in a single command.
PILOT_DN	Refer to DN in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	The DN of a BNN/DNH group pilot or the DN associated with a DLH/MLH group.
PILOT_LEN	Refer to LTID in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	The LTID of a hunt group pilot.
RINGING	Y, N	Specifies whether a ring from a telephone speaker is required in addition to the call-waiting tone heard from the handset.
SLBRI_LATTR	0 to 31999 or \$	Line attribute index for SLBRI DNs.
SNPA	3-digit number	Service numbering plan area (area code).
SONUMBER	Refer to SONUMBER in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	The unique number of the service order to be entered.
SUBGRP	0 to 7	Subgroup of a customer group to which a station or DN belongs.

EST - Establish a hunt or call pickup group (continued)

Error messages

The following error messages may result from the EST command.

Error messages

Message	Explanation
ERROR: DN SHARING IS NOT ALLOWED. PILOT DN NOT FREEADD TO TABLE HUNTGRP FAILED COULD NOT CREATE HUNT GROUP	You tried to establish a DNH pilot that is shared with a VI call type DN that is not a hunt group member. Both shared DNs must be in the same hunt group.
DN IS INVALID is not compatible to share DNs with a DNH pilot DN <nxxxxxxx> IS ALREADY ASSIGNED OR INVALID	You tried to establish a DNH pilot that is shared with a VI call type DN that is in a different DNH group. Both shared DNs must be in the same hunt group.
DN_CT CANNOT BE ADDED TO DNH GROUP BECAUSE THE OTHER CALLTYPE IS NOT A MEMBER OF THIS DNH GROUP.	After assigning a shared DN to different LTIDs with different CMD call types, you attempted to establish the shared DN as a DNH pilot on the second LTID only. Both call appearances of the shared DN must be in the same hunt group.
THIS DN CALLTYPE CANNOT BE A MEMBER OF ANOTHER HUNT GROUP	You attempted to add the second shared DN circuit-mode call appearance as a different DNH pilot than the first. Shared DN circuit-mode call type call appearances must be in the same hunt group.

Notes

The following notes apply to the EST command:

- A maximum of 20 hunt group members can be specified in a single EST command. Use the ADD command to add additional members to the hunt group.
- When the hunt group is established, all its members must have the same attributes. To add lines with different attributes, use either the ADD or the ADO command.
- ISDN LTIDs can be in the same MADN or hunt group as IBN or business set lines.
- If you define an MLH or DLH pilot on the PDN of a set with dynamic TEI but no SPID_SUFFIX, an error message displays.

EST - Establish a hunt or call pickup group (continued)

- Hunt group options, such as CIR, LOD, and LOR, must be specified when the group is established or added to the pilot. An option added to the pilot applies to all lines in the group.
 - With CIR assigned, the DNs are linked and hunted in the order in which they are entered. If the last tried member is busy, hunting cycles back to the pilot.
 - If the CIR option is not specified, sequential hunt is used as a default.
 - A DNH group with different options on the lines can also be created by first establishing the lines and then adding options individually to lines.
 - Options and features that can be added during an EST command fall into the following two categories, group options and line options:
 - Group options such as CIR and TBO are found in table HUNTGRP. SERVORD commands EST and ADO add group options to the hunt group's pilot. These options apply to each member of the hunt group, even those that are added to the group later using the ADD command.
 - Line options such as COT are typically found in tables ending in LINE or FEAT, such as IBNLINES, KSETLINE, KSETFEAT. The SERVORD commands EST, ADD, and ADO add these options to individual members of the hunt group. If a line option is added to the hunt group pilot, that option applies only to the pilot and not to any other members of the hunt group.
- Since line options do not apply to the hunt group as a whole, they are not automatically applied to new members of the group added using the ADD command. To add a line option to a new member, the option must be specified in the ADD command or in a separate ADO command.
- All call types associated with a shared DN configuration must be in the same customer group.
 - Seven-digit DN ambiguity exists if the DMS-100 switch serves more than one NPA and the same 7-digit DN is used in multiple NPAs. SOC option SERV0003 resolves this issue by prompting for the full 10-digit DN when ambiguity exists. If the full 10-digit DN is initially entered ambiguity will not exist.
 - In the NA009 release, the Provisioning Support for Default Service feature prevents the entry of a ten-digit Default Service DN at the DN_LEN and PILOT_DN prompts. The following error message displays, where “<nnnnnnnnnn>” is the Default Service DN:

```
Default Service DN: Invalid input
<nnnnnnnnnn>
```

EST - Establish a hunt or call pickup group (continued)

The following exception exists. Assume that

- A switch has multiple numbering plan areas (NPA) and duplicate exchange codes (NXX).
- Translations restricts some DNs—for example, forwarding or hunt group overflow DNs—to seven digits.

The following condition allows entry of part of a Default Service DN at a SERVORD prompt.

The operating company attempts to enter a Default Service DN under one NPA. Under a different NPA, a forwarding or overflow DN shares the NXX and station code of the Default Service DN. That is, the seven digits of the forwarding or overflow DN are identical to those of the Default Service DN. In this event, SERVORD accepts the entry of the Default Service DN.

This behavior is in line with existing SERVORD behavior with normal DNs. SERVORD always accepts the entry of ambiguous DNs; if DN rejection occurs, the rejection is based on later, feature-specific checks.

- If you enter the LSPAO option, the system prompts for CONTEXT and PROVIDER entries.
- The SLBRI_LATTR prompt displays when you create a new DN on an LTID with the SLBRI (single-line BRI) option. The NA009 BRI in RES feature introduced this functionality.

The SLBRI_LATTR prompt does not display if

- The LTID entered at the PILOT_LEN prompt does not have the SLBRI option assigned.
- You enter a LEN at the PILOT_LEN prompt.
- For shared DNs, there are two types of hunt groups allowed: PMD and circuit.
- HUNT and SDN DNs cannot span SNPAs.
- In the NA012 release, the EST command does not support echo station LTIDs or DNs. If you attempt to use this command with feature 59006435, Echo Station X.25 Loopback Testing, the following error message displays:

EST command can not be used for Echo station LTID/DN

- In the NA014 release, feature 59013267, On-demand B-channel X.25 Packet Mode Data—Provisioning, Data Distribution Manager, and XLIU, does not support the use of the EST command to provision ODB (On-demand B-channel) DNs as either the pilot or a member of a hunt group. If you attempt to use the EST command to assign an ODB DN as

EST - Establish a hunt or call pickup group (end)

either the pilot or as a member of a hunt group, the following error message displays:

ODB does not support HUNT GROUPS

NEW - Establish service

Description

The NEW command assigns directory numbers (DN) to integrated services digital network (ISDN) logical terminals and allows options to be added to the DNs. This command establishes service for unassigned single-line and multiline telephone sets, and packet terminals for the DMS switch packet handler. Pilots and members of bridged night number (BNN), directory number hunt (DNH), distributed line hunt (DLH), or multiline hunt (MLH) groups cannot be established with this command except for single-line set DNH pilots and members.

The NEW command does *not* change the status of an ISDN line equipment number (LEN) from hardware assigned, software unassigned (HASU) to working in table LNINV.

For packet service to the DMS switch packet handler, the NEW command datafills table KSETLINE with the DN information, and tables DNCTINFO and DNCHNL with the default parameters for the DN. You cannot directly modify the default values assigned by the NEW command. No options are allowed when using the NEW command for packet terminals.

MADN/EKTS CACH feature

Use the NEW command to create a new Multiple Appearance Directory Number (MADN) Electronic Key Telephone Service (EKTS) Call Appearance Call Handling (CACH) group. This command also assigns an existing MADN CACH member to either a new call appearance or an existing call appearance. The assignment of a MADN CACH member to a call appearance can be either as a primary or secondary member.

Basic Rate Interface in Residential Enhanced Services feature

Use the NEW command for the BRI in RES feature as follows:

- to assign an SLBRI_LATTR (line attribute index) for a new DN on an SLBRI LTID
- to assign the ACRJ (anonymous caller rejection) option

Message Waiting feature

During the assignment of Message Waiting (MWT) to an ISDNKSET_LCC line type, the prompting for the NEW command requests the notification type.

NEW - Establish service (continued)

The prompting occurs after the MWT option is designated and offers the following notification types for assignment:

- MWL (message waiting lamp)
- STD (stuttered dial tone)
- MWL_STD (combination of MWL and STD simultaneously)

ISDN Packet Single DN feature

In the NA008 release, the ISDN Packet Single DN feature introduced *single DN configurations*. A single DN configuration uses the same DN for packet mode data (PMD) or voiceband information/circuit mode data (VI/CMD) call appearances. The single DN appears on two different keys of the same LTID.

ISDN Packet Shared DN feature

Also in the NA008 release, the ISDN Packet Shared DN feature introduced *shared DN configurations*. A shared DN configuration uses the same DN for both VI/CMD and PMD call types on different LTIDs. All call types associated with a shared DN configuration must be in the same customer group.

With the NEW command, users can establish PMD and VI/CMD calls independently and simultaneously from or to the same DN on an integrated terminal (IT). This capability is datafilled as two B-channel and one D-channel (2BD) provisioning.

DN Sharing with Different Circuit-Mode Call Types feature

The NA010 and up shared DN functionality allows sharing of circuit-mode call type DN appearances on two LTIDs on the same interface. The NEW command supports this feature. Both LTIDs must have the logical terminal class of BRAFS. This command rejects an attempt to assign a second CMD DN appearance if the first appearance belongs to a hunt group. Two SERVORD NEW commands automatically update table KSETLINE with two tuples. One tuple holds the VI appearance of the DN. The other tuple holds the CMD appearance of the DN.

Single DN for EKTS and CMD feature

The Single DN for EKTS and CMD feature allows a DN assigned MADN for voice information (VI) calls to also support circuit mode data (CMD) to that DN on one National ISDN-2 (NI-2) terminal. Up to 16 CMD call appearances can be supported on the same terminal. The CMD call appearances are only allowed on one NI-2 member of a MADN EKTS group. Multiple members of the MADN EKTS group cannot have CMD appearances.

NEW - Establish service (continued)

DN Call Appearance Key Independence feature

In the NA011 release, the DN Call Appearance Key Independence feature introduced option NDNAP (number of DN appearances). DNs assigned to NI-2 sets can have a number of key appearances that is lower than the Call Reference Busy Limit (CRBL) total.

A subscriber can continue to place the number of calls up to the limits set by the total of the CRBL values. The call limit does not change if the number of key appearances (NDNAP) is smaller than the CRBL total. For example, the subscriber can have a CRBL VI = 2, CRBL CMD = 2, yet have only two keys provisioned on the set. The subscriber can continue to place four active calls (the CRBL total).

On-demand B-channel Packet Mode Data feature

In the NA014 release, the On-demand X.25 B-channel Packet Mode Data (PMD)—Provisioning, Data Distribution, and XLIU feature introduced option ODB (On-demand B-channel). DNs assigned to NI-2 2BD terminals can have option ODB assigned using the following guidelines:

- Provisioning of DNs with the ODB option requires an unmapped LTID.
- Provisioning only allows two DNs with the ODB option to be assigned to an LTID.
- Provisioning does not allow the assignment of DNs with the ODB option on an LTID that is already mapped to a LEN.
- Provisioning does not allow the assignment of a D packet DN on an LTID provisioned with ODB DNs that is attached to a LEN. Adding a D packet DN requires detaching the LTID from the LEN to which it is attached. Provisioning requires the detaching of the LTID from the LEN each time a new D packet DN is provisioned on the LTID.
- Provisioning allows the sharing of an ODB DNs with DN appearances having call types other than PMD in both single and shared DN configurations as follows:
 - Single DN configuration—an ODB DN can be shared with a DN appearance having call type VI, CMD, or VI-CMD. An ODB DN cannot be shared with a DN appearance having call type PMD. A call type of PMD includes DNs with D packet service on the D-channel or an ODB DN.
 - Shared DN configuration—an ODN DN can be shared with a DN appearance having call type VI, CMD, or VI-CMD on different LTIDs. An ODB DN cannot be shared with a DN having call type PMD. A call type of PMD includes DNs with D packet service on the D-channel or a ODB DN.

NEW - Establish service (continued)

Applicability

This command is applicable to

- individual (non-hunt) lines and party lines
- business set and data unit service

Examples

Assign a DN to a voice terminal

The following examples show the NEW command when it is used to define a new call appearance (CA) with DN 722-1000 and LTID ISDN 10. The line is associated with key 1 and the option NUMCALLS is added.

NEW - Establish service (continued)**Example of the NEW command in prompt mode**

```

SO:
> NEW
SONUMBER:  NOW 86 07 08
> (CR)
DN:
> 7221000
LCC_ACC:
> ISDNKSET
GROUP:
> COMKODAK
SUBGRP:
> 4
NCOS
> 10
SNPA:
> 613
KEY:
> 1
RINGING:
> Y
LATANAME:
> NILLATA
LTG: 0
> (CR)
LEN_OR_LTID:
> ISDN 10
OPTKEY:
> 1
OPTION:
> NUMC
NUMCALLS:
> 3
OPTKEY:
> $

```

Example of the NEW command in no-prompt mode

```

> NEW $ 7221000 ISDNKSET COMKODAK 4 10 613 1 Y NILLATA 0 ISDN
10 1 NUMC 3 $

```

Assign a DN to a packet terminal

The following examples show the NEW command when it is used to define a new CA. Since no options are allowed for packet terminals, you must enter \$

NEW - Establish service (continued)

in response to the OPTKEY prompt to indicate that options are not being added.

Example of the NEW command in prompt mode

```
SO:
> NEW
SONUMBER:  NOW 91  1  1 PM
> (CR)
DN:
> 6211234
LCC_ACC:
> ISDNKSET
GROUP:
> ISDNTST
SUBGRP:
> 0
NCOS:
> 0
SNPA:
> 613
KEY:
> 1
RINGING:
> N
LATANAME:
> LATA1
LTG: 0
> (CR)
LEN_OR_LTID:
> ISDN 50
OPTKEY:
> $
```

Example of the NEW command in no-prompt mode

```
> NEW $ 6211234 ISDNKSET IISDNTST 0 0 613 1 N LATA1 0 ISDN 50 $
```

Assign MADN CACH members to new or existing CAs

The following example shows the NEW command used to assign a primary member to an existing CA (existing MADN DN).

NEW - Establish service (continued)**Example of the NEW command in prompt mode**

```

SO:
> NEW
SONUMBER:  NOW 91  1  1  PM
> (CR)
DN:
> 6211234
LCC_ACC:
> ISDNKSET
GROUP:
> ISDNTST
SUBGRP:
> 0
NCOS
> 0
SNPA:
> 613
KEY:
> 2
RINGING:
> Y
LATANAME:
> NILLATA
LTG: 0
> (CR)
LEN_OR_LTID:
> ISDN 50
OPTKEY:
> 2
OPTION:
> MDN
MDNTYPE:
> CACH
PRIMARY:
> Y
NEWCA:
> N
CA_NUM:
> 3
OPTKEY:
> $

```

Example of the NEW command in no-prompt mode

```

> NEW $ 6211234 ISDNKSET ISDNTST 0 0 613 2 Y NILLATA 0 ISDN 50 2 MDN CACH Y N 3 $

```

NEW - Establish service (continued)

The following example shows the NEW command used to assign a secondary member to a new CA (existing MADN group) and CARES_TYPE NULL.

Example of the NEW command in prompt mode

```
SO:
> NEW
SONUMBER:  NOW 91  1  1  PM
> (CR)
DN:
> 6211234
LCC_ACC:
> ISDNKSET
GROUP:
> ISDNTST
SUBGRP:
> 0
NCOS
> 0
SNPA:
> 613
KEY:
> 2
RINGING:
> Y
LATANAME:
> NILLATA
LTG: 0
> (CR)
LEN_OR_LTID:
> ISDN 50
OPTKEY:
> 2
OPTION:
> MDN
MDNTYPE:
> CACH
PRIMARY:
> N
NEWCA:
> Y
CARES_TYPE: NULL
> DTM
OPTKEY:
> $
```

NEW - Establish service (continued)

Example of the NEW command in no-prompt mode

```
> NEW $ 6211234 ISDNKSET ISDNTST 0 0 613 2 Y NILLATA 0 ISDN 50 2  
MDN CACH N Y DTM
```

The following example shows the NEW command used to assign a secondary member to an existing CA (existing MADN group).

NEW - Establish service (continued)

Example of the NEW command in prompt mode

```
SO:
> NEW
SONUMBER:  NOW 91  1  1 PM
> (CR)
DN:
> 6211234
LCC_ACC:
> ISDNKSET
GROUP:
> ISDNTST
SUBGRP:
> 0
NCOS
> 0
SNPA:
> 613
KEY:
> 2
RINGING:
> Y
LATANAME:
> NILLATA
LTG: 0
> (CR)
LEN_OR_LTID:
> ISDN 50
OPTKEY:
> 2
OPTION:
> MDN
MDNTYPE:
> CACH
PRIMARY:
> N
NEWCA:
> N
CA_NUM
> 5
OPTKEY:
> $
```

NEW - Establish service (continued)

Example of the NEW command in no-prompt mode

```
> NEW $ 6211234 ISDNKSET ISDNTST 0 0 613 2 Y NILLATA 0 ISDN 50 2  
MDN CACH N N 5 $
```

Assign MWT to an ISDNKSET_LCC line type

The following example shows the NEW command when it is used to assign MWT to an ISDNKSET_LCC line type.

NEW - Establish service (continued)

Example of the NEW command in prompt mode

```
>NEW
SONUMBER:      NOW  97  8  7  AM
>
DN:
>7230000
LCC_ACC:
>ISDNKSET
GROUP:
>BNR
SUBGRP:
>0
NCOS:
>4
SNPA:
>613
KEY:
>1
RINGING:
>Y
LATANAME:
>LATA1
LTG:      0
>
LEN_OR_LTID:
>ISDN 6
OPTKEY:
>6
OPTION:
>MWT
NOTICE:
>MWL
CAR:
>Y
CRRCFW:
>ALL
CRX:
>N
OPTKEY:
>$
```

Example of the NEW command in no-prompt mode

```
NEW NOW 97 8 7 AM 7230000 ISDNKSET BNR 0 4 613 1 Y LATA1 0 ISDN 6
( 6 MWT MWL Y ALL N ) $
```

NEW - Establish service (continued)**Assign an SLBRI_LATTR value**

The following example shows the NEW command used to create a DN on an SLBRI LTID and assign it an SLBRI_LATTR (line attribute index) value of 2. Introduced by the NA009 BRI in RES feature, the SLBRI_LATTR is used for public translations for SLBRI DNs.

Example of the NEW command in prompt mode

```

> NEW
SONUMBER:  NOW 98 02 01 PM
> (CR)
DN:
> 6755000
LCC_ACC:
> ISDNKSET
GROUP:
> ISDNGRP
SUBGRP:
> 0
NCOS:
> 0
SNPA:
> 619
KEY:
> 1
RINGING:
> Y
LATANAME:
> LATA1
LTG: 0
> (CR)
LEN_OR_LTID:
> ISDN 20
SLBRI_LATTR:
> 2
OPTKEY:
> $

```

Example of the NEW command in no-prompt mode

```

> NEW $ 6755000 ISDNKSET ISDNGRP 0 0 619 1 Y LATA1 $ ISDN 20 2 $

```

NEW - Establish service (continued)

Assign ACRJ option

The following example shows the NEW command used to assign the ACRJ option to an ISDN BRI line. The NA009 BRI in RES feature makes ACRJ available to ISDN BRI lines.

Example of the NEW command in prompt mode

```
> NEW
SONUMBER:  NOW 96  10  31 PM
> (CR)
DN:
> 6755000
LCC:
> ISDNKSET
GROUP:
> ISDNGRP
SUBGRP:
> 0
NCOS:
> 0
SNPA:
> 613
KEY:
> 1
RINGING:
> Y
LATANAME:
> LATA1
LTG: 0
> (CR)
LEN_OR_LTID:
> ISDN 20
OPTKEY:
> 1
OPTION:
> ACRJ
STATUS:
> ACT
KEYLIST:
> $
OPTKEY:
> $
```

NEW - Establish service (continued)

Example of the NEW command in no-prompt mode

```
> NEW $ 6755000 ISDNKSET ISDNGRP 0 0 613 1 Y LATA1 $ ISDN 20 1
ACRJ ACT $ $
```

Assign LSPAO option

The LSPAO option assigns the local service provider (LSP) account owner (AO) to the DN.

Example of the NEW command in prompt mode used to assign the LSPAO option

```
SO:
> NEW
SONUMBER: NOW 97 4 23 AM
> (CR)
DN:
> 6216009
LCC_ACC:
> IBN
GROUP:
> COMKODAK
SUBGRP:
> 0
NCOS:
> 0
SNPA:
> 613
LATANAME:
> NILLATA
LTG: 0
> (CR)
LEN_OR_LTID:
> 0 1 19 23
OPTION:
> LSPAO
PROVIDER:
> CLEC2
CONTEXT:
> R
OPTION:
> $
```

NEW - Establish service (continued)

Example of the NEW command in no-prompt mode used to assign the LSPA0 option

```
> NEW $ 6216009 IBN COMKODAK 0 0 613 NILLATA 0 HOST 00 1 19 23  
LSPA0 CLEC2 R $
```

Create a new MADN/EKTS CACH group

The NEW command can be used to create a new MADN/EKTS CACH group and to assign an existing MADN CACH member to either a new CA) or an existing CA. When prompted for the MADNTYPE, the user is able to select one of the following MADN CA types: SCA, MCA, EXB, or CACH. The selection of CACH as the MADNTYPE and selecting Y in response to the NEWCA prompt causes the creation of a new CA.

The CA numbering assignment is a sequential order of 1-16. For example, if CAs 1-4 have already been assigned, the next available sequential CA number is 5. If any holes exist in the sequential order, the holes are filled before going to a higher number. For example, if CA numbers 1-5 have been assigned and CA 2 is deleted, the remaining assigned numbers are 1, 3, 4, and 5. The CA number 2 is assigned to the next CA that is created.

Create a single DN configuration

The NEW command is used to create single DN configurations. The following is an example of modifying ISDN 101 for single DN configuration.

The following example shows the result of a QLT command for LTID ISDN 101 before modification to a single DN configuration.

NEW - Establish service (continued)

Example of QLT command output for ISDN 101 before being modified to a single DN configuration

```
LTID: ISDN 101
SNPA: 613
DIRECTORY NUMBER 7238888
LT GROUP NO: 0
LTCLASS: BRAFS DEFAULT LOGICAL TERMINAL: N
EKTS: Y CACH: Y
SLBRI: N
CS: NI2 PS: N TEI: DYNAMIC
ELN: N
VERSION: FUNCTIONAL ISSUE: 2
TSPID: 101
CUSTGRP: BNR SUBGRP: 0 NCOS: 0 RING Y
LINE CLASS CODE: ISDNKSET
MAXKEYS: 32
OPTIONS:
SFC CMD BOTH $ $ N
CRBL 0 1
  KEY      DN          CALLTYPE
  1        DN 6137238888  CMD

  KEY      FEATURE
  1        CRBL 0 1
  1        DCB DCB_64K
```

NEW - Establish service (continued)

Example of NEW command modifying ISDN 101 to a single DN configuration

```
> NEW
SONUMBER: NOW 98 5 26 AM
> $
DN:
>7238888
LCC_ACC:
>ISDNKSET
GROUP:
>BNR
SUBGRP:
>0
NCOS:
>0
SNPA:
>613
KEY:
>2
RINGING:
>Y
LATANAME:
>NILLATA
LTG: 0
>
LEN_OR_LTID:
> ISDN 101
OPTKEY:
> 2
OPTION:
> MDN
MDNTYPE:
> CACH
PRIMARY:
> Y
NEWCA:
> Y
CARES_TYPE: NULL
>
DENIAL_TRMT:
> SILENCE
BRIDGING
> N
OPTKEY:
> $
```

NEW - Establish service (continued)

Example of the NEW command in the no-prompt mode-used to make a single DN configuration

```
> NEW $ 7238888 ISDNKSET BNR 0 0 613 2 Y NILLATA ISDN 101 2 MDN  
CACH Y Y SILENCE N $
```

Assign an NDNAP value

The following example shows the NEW command used to create a DN on an NI-2 LTID and assign it an NDNAP (number of DN appearances) value of 3. Introduced by the NA011 DN Call Appearance Key Independence feature, option NDNAP defines the number of key appearances allocated to a DN on an NI-2 set.

NEW - Establish service (continued)

Example of the NEW command in prompt mode

```
> NEW $
DN:
> 7231500
LCC_ACC:
> ISDNKSET
GROUP:
> BNR
SUBGRP:
> 0
NCOS:
> 0
SNPA:
> 613
KEY:
> 1
RINGING:
> Y
LATANAME:
> NILLATA
LTG: 0
> 0
LEN_OR_LTID:
> ISDN 200
OPTKEY:
> 1
OPTION:
> CRBL
VI:
> 3
CMD:
> 2
OPTKEY:
> 1
OPTION:
> NDNAP
NDNAP:
> 3
OPTKEY:
> $
```

Example of the NEW command in no-prompt mode

```
> NEW $ 7231500 ISDNKSET BNR 0 0 613 1 Y NILLATA 0 ISDN 200 1
CRBL 3 2 1 NDNAP 3 $
```

NEW - Establish service (continued)**Assign an ODB DN to an unmapped NI-2 2BD LTID**

The following example shows the NEW command used to assign a DN with option ODB to an unmapped NI-2 2BD LTID. Introduced by the NA014 On-demand B-channel X.25 Packet Mode Data—Provisioning, Data Distribution Manager, and XLIU feature, option ODB allows the user to initiate an on-demand B-channel connection to the packet handler.

Example of the NEW command in prompt mode

```

>NEW
SONUMBER: NOW 00 5 10 PM
>(CR)
DN:
>5556789
LCC_ACC:
>ISDNKSET
GROUP:
>LONS634
SUBGRP:
>0
NCOS
>0
SNPA:
>613
KEY:
>5
RINGING:
>N
LTG: 0
>(CR)
LEN_OR_LTID:
>NI2 100
OPTKEY:
>5
OPTION:
>ODB
OPTKEY:
>$

```

Example of the NEW command in no-prompt mode

```
>NEW $ 5556789 ISDNKSET LONS634 0 0 613 5 N 0 NI2 100 5 ODB $
```

NEW - Establish service (continued)**Prompts**

The following table lists the input prompts for the NEW command in alphabetical order.

Input prompts for the NEW command (Sheet 1 of 3)

Prompt	Valid input	Explanation
CA_NUM	1-16	The number associated with a particular call appearance.
CARES_TYPE	NULL, DTM, DOR, DTMEPI	<p>The following are the four CARES types:</p> <ul style="list-style-type: none"> • NULL: unassigned • DTM: originating only • DOR: terminating only • DTMEPI: originating and priority incoming only <p>The CARES_TYPE field is prompted only if the NEWCA field is set to Y. The CARES type is associated with the call appearance, not the primary member of the CA.</p>
DN	Refer to DN in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	The DN associated with the service to be established.
GROUP	1 to 16 alphanumeric characters	The name of an IBN customer group.
KEY	1 to 69	The number associated with the physical key set to which the DN is assigned.
KEYLIST	1 to 69	The list of keys available on the terminal. Up to 24 keys can be specified.
LATANAME	Alphanumeric	The calling local access and transport area (LATA) name associated with the originator of the call.
LCC	ISDNKSET	The line class code for the service to be established.

NEW - Establish service (continued)**Input prompts for the NEW command (Sheet 2 of 3)**

Prompt	Valid input	Explanation
LEN_OR_LTID	Refer to LTID in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	The LTID of the DN to be established.
LTG	0 to 255. Default is 0.	Line treatment group.
MDNTYPE	SCA, MCA, EXB, CACH	Indicates the multiple appearance directory number (MADN) call appearance type.
NCOS	0 to 255	Network class of service for IBN lines, trunks, or attendant consoles, defines a set of capabilities or restrictions that allows or denies calls.
NDNAP	1 to 32	The number of key appearances that the NI-2 DN occupies on the ISDN set.
NEWCA	Y, N	An entry of Y indicates the creation of a new call appearance group. An entry of N indicates the user does not want to create a new call appearance group.
NOTICE	MWL, STD, MWL_STD	Allows multiple notification type assignments for MWT.
OPTION	Refer to table Line service options in the "Service order tables" section of this manual for a list of valid inputs.	Option(s) associated with a service to be established, modified, or deleted. Office parameter SO_MAX_OPTIONS_ALLOWED permits a maximum of 30 or 60 options single command.
OPTKEY	1 to 69	Key associated with the option.
RINGING	Y, N	Specifies whether a ring from a telephone speaker is required in addition to the call waiting tone heard from the handset. Ringing must be set to N for packet terminals.

NEW - Establish service (continued)**Input prompts for the NEW command (Sheet 3 of 3)**

Prompt	Valid input	Explanation
SLBRI_LATTR	0 to 31999 or \$	Line attribute index for SLBRI DNs.
SNPA	3 digit number	Service numbering plan area (area code).
STATUS	ACT, INACT	Option status.
SUBGRP	0 to 7	Subgroup of a customer group to which a station or DN belongs.

Error messages

The following error messages may result from the NEW command.

MADN/EKTS CACH error messages

The following table describes the error messages you can encounter when using the NEW command for the MADN/EKTS CACH service.

SERVORD error messages for MADN/EKTS CACH

Error output	Error description
The CA_NUM does not equal the total number of CAs datafilled.	The CA_NUM must equal the total number of CAs for the MADN/EKTS CACH group
The maximum number of 16 call appearances has been exceeded.	SERVORD prevents the assignment of more than 16 CAs for each MADN/EKTS CACH group.
Invalid CA number.	The value of the CA number is not datafilled.
This terminal type does not support Multiple MADN CACH Call Appearances.	To have more than one call appearance for each terminal, the terminal type must be a BRAFS ISDN EKTSI CACH terminal.
The MADN/EKTS CACH group does not exist. Please specify NEWCA as Y.	If the MADN/EKTS CACH group has not been created (non-MADN DN), the SERVORD user must specify NEWCA as Y.
Existing Servord error: ATTEMPT TO EXCEED MAXIMUM GROUP SIZE LIMIT OF 32. FAILED TO CREATE KSEETLINE	The SERVORD user has exceeded the maximum number of 32 members to a CA.
Existing Servord error: A primary member already exists on MDN group. Please specify primary as N.	The SERVORD user tries to associate a primary member to an existing CA that already has a primary member.

NEW - Establish service (continued)**DN Sharing with Different Circuit-Mode Call Types error messages**

The following table describes the error messages you may encounter when using the NEW command for DN sharing.

SERVORD error messages for DN Sharing with Different CMD Call Types

Message	Description
Cannot define shared circuit DN appearances on the same logical terminal	You cannot assign a DN already assigned to the same LTID. The CRBL option defines VI and CMD appearances for one DN on the same LTID.
DN sharing of circuit DN appearances supported on NI-2 logical terminal only	You cannot assign a DN already assigned to a 2B LTID.
DN is assigned to NON ISDN line.Sharing of DN not supported on Non ISDN lines	You cannot assign a DN already assigned to a non-ISDN terminal.
DN is a member of hunt group.Please use ADD command	You cannot assign a CMD call type of a DN appearance that is a member of a hunt group. Use the ADD command for hunt group member assignments.

Notes

The following notes apply to the NEW command:

- The NEW command is rejected if any options are assigned to packet terminals.
- All call types associated with a shared DN configuration must be in the same customer group.
- In the NA009 release, the Provisioning Support for Default Service feature prevents the entry of a ten-digit Default Service DN at the DN prompt. The following error message displays, where “<nnnnnnnnnn>” is the Default Service DN:

```
Default Service DN: Invalid input
<nnnnnnnnnn>
```

The following exception exists. Assume that

- A switch has multiple numbering plan areas (NPA) and duplicate exchange codes (NXX).
- Translations restricts some DNs—for example, forwarding or hunt group overflow DNs—to seven digits.

NEW - Establish service (continued)

The following condition allows entry of part of a Default Service DN at a SERVORD prompt.

The operating company attempts to enter a Default Service DN under one NPA. Under a different NPA, a forwarding or overflow DN shares the NXX and station code of the Default Service DN. That is, the seven digits of the forwarding or overflow DN are identical to those of the Default Service DN. In this event, SERVORD accepts the entry of the Default Service DN.

This behavior is in line with existing SERVORD behavior with normal DNs. SERVORD always accepts the entry of ambiguous DNs; if DN rejection occurs, the rejection is based on later, feature-specific checks.

- In NA008 and up, the SERVORD ISDN Terminal Type Based Feature Screening feature is applied to command NEW. Each time the NEW command is used, a compatibility check is made between the option or feature entered in the service order and the terminal to which it is being applied. If the screening process detects an incompatibility between the option or feature entered in the NEW command and the terminal to which it is being applied, the service order is rejected and an error message is displayed. The error message states that the feature and the terminal are not compatible.

The following is an example of the error message displayed when an incompatibility is detected by the screening process between the feature and the terminal it is being assigned to. The message includes the feature and the terminal type. The display is command specific so that the feature and terminal type listed will vary depending upon command entry.

```
This Feature/Terminal-Type combination is NOT supported:  
TRANSFER is the Line Option.NI1 Initializing Terminal is the  
Terminal Type.
```

The compatibility screening between feature and terminal type applies to the following terminal types: BRA stimulus, BRA MFT, NI-1 FIT, 2B FIT, 2B NIT, NI-2 FIT, and NI-2 NIT.

Note: The SERVORD ISDN Terminal Type Based Feature Screening feature does not apply to primary rate access (PRA) or signaling system 7 (SS7) functional terminals.

- If you enter the LSPAO option, the system prompts for CONTEXT and PROVIDER entries.
- If the operating company enters a seven-digit DN and the office code exists in multiple SNPAs, the system will generate an error message. T reprompt will occur.
- HUNT and SDN DNs cannot span SNPAs.

NEW - Establish service (end)

- The following error message displays when you add a new DN, ICM, or GIC key to a mapped LTID and you exceed the DN engineering limit.

```
*** ERROR - Can not add any DNs to the specified LTID***  
Engineering limit for DNs were exceeded.
```

- In NA012 release, the NEW command does not support echo station LTIDs or DNs. The following error message displays if you use this command with feature 59006435, Echo Station X.25 Loopback Testing.

```
The NEW command can not be used for Echo station LTID/DN.
```

```
Please use ECHOCI to modify Echo Station data.
```

OUT - Remove service

Description

The OUT command removes DNs from service for single-line and multiline telephone sets, except for bridged night number (BNN), directory number hunt (DNH), distributed line hunt (DLH), or multiline hunt (MLH) group members. The OUT command also removes a directory number (DN) when it is defined against a packet terminal on the DMS switch packet handler (PH). The command removes the DN if the DN exists in either table DNCTINFO or table DNCHNL.

For a primary DN (PDN) that is packet, the OUT command removes the entries in tables DNCTINFO, DNCHNL, and KSETLINE. For a secondary DN (SDN) that is packet, the OUT command removes the entry from tables DNCTINFO and KSETLINE. The OUT command allows the pilot DN to be removed from a hunt group for ISDN packet terminals.

For circuit DNs, the OUT command deletes entries in tables KSETLINE, DNATTRS, and KSETFEAT.

Note that the associated data in table KSETLINE cannot be deleted using table control methods if the DN exists in either table DNCTINFO or in table DNCHNL.

Applicability

This command is applicable to

- individual lines
- pilots of hunt groups
- business sets and data units

Example

The following examples show the OUT command when it is used to remove the service associated with DN 549-4012 and logical terminal identifier (LTID) ISDN 12.

OUT - Remove service (continued)**Example of the OUT command in prompt mode**

```

>OUT
SONUMBER: NOW 91 12 07 PM
>(CR)
DN:
>5494012
LEN_OR_LTID:
>ISDN 12
INTERCEPT_NAME:
>BLDN

```

Example of the OUT command in no-prompt mode

```

>OUT $ 5494012 ISDN 12 BLDN

```

Prompts

The following table lists the input prompts for the OUT command.

Input prompts for the OUT command

Prompt	Valid input	Explanation
DN	Refer to DN in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	The DN to be deleted.
INTERCEPT_NAME	ANCT = Machine intercept BLDN = Blank DN OPRT = Operator intercept UNDN = Undefined DN	The type of intercept desired.
LEN_OR_LTID	Refer to LTID in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	The LTID of the DN to be deleted.
SONUMBER	Refer to SONUMBER in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	The unique number of the service order to be entered.

OUT - Remove service (continued)

Error messages

The following error messages can result from the OUT command.

Error messages

Message	Description
The Primary CA cannot be removed until all secondary CAs are removed.	All secondary CAs must be removed before the primary CA can be removed.
The CACH Controller can be removed only if there is a BRAFS ISDN EKTS Secondary Member.	The SERVORD user attempts to remove the CACH controller without an existing BRAFS ISDN EKTS CACH secondary member in the primary CA.
WARNING: INPUT DN IS SHARED AND IS STILL IN USE BY ANOTHER TERMINAL.	The user tried to out a DN that is already assigned to another LTID of a different call type. The DN is shared, and is still in use by another terminal.
ERROR: Protected Service. Verify Action. PDO Option Assigned.	The prevent deletion option (PDO) prevents the use of the OUT command. You must remove the PDO from the line to out a line that has the PDO assigned.

Notes

The following notes apply to the OUT command:

- The OUT command removes the pilot DN after all the other hunt group members are deleted.
- You can remove the primary DN of a business set only after all secondary DNs are removed.
- You cannot remove or delete the CACH controller unless there is another ISDN secondary member that can become the primary member for this call appearance (CA), and also the CACH controller. The ISDN secondary member must be in the same CA as the CACH controller.
- You cannot remove the primary CA (CA 1) until all secondary CAs are removed.
- In the NA009 release, the Provisioning Support for Default Service feature prevents the entry of a ten-digit Default Service DN at the DN prompt. The following error message displays, where <nnnnnnnnnn> is the Default Service DN:

```
Default Service DN: Invalid input<nnnnnnnnnn>
```

OUT - Remove service (continued)

The following exception exists. Assume that

- A switch has multiple numbering plan areas (NPA) and duplicate exchange codes (NXX).
- Translations restricts some DNs—for example, forwarding or hunt group overflow DNs—to seven digits.

The following condition allows entry of part of a Default Service DN at a SERVORD prompt.

The operating company attempts to enter a Default Service DN under one NPA. Under a different NPA, a forwarding or overflow DN shares the NXX and station code of the Default Service DN. That is, the seven digits of the forwarding or overflow DN are identical to those of the Default Service DN. In this event, SERVORD accepts the entry of the Default Service DN.

This behavior is in line with existing SERVORD behavior with normal DNs. SERVORD always accepts the entry of ambiguous DNs. If DN rejection occurs, the rejection is based on later, feature-specific checks.

- During execution of the OUT command, SERVORD automatically deletes the following options if they are assigned to the line:
 - SLBRI_LATTR (line attribute index)
 - ACRJ (anonymous caller rejection)

The NA009 BRI in RES feature provides the SLBRI_LATTR and ACRJ functionality for ISDN BRI lines.

- To out a shared DN completely, perform the OUT command on all (VI, CMD, and PMD) appearances of the DN.
- If a terminal is provisioned with multiple appearances of the same DN and the OUT command is performed, the following algorithm for removal is followed:
 - packet mode data (PMD) removed first, if provisioned
 - search (starting at the key with the highest DN appearance and going to the next highest appearance as necessary) until a key with the DN is found and remove that key
- The system ensures that if a MADN key is deleted from an ISDN LTID and the DN is in a shared configuration, the MADN group has an NI-2 member remaining.

OUT - Remove service (end)

In NA012 release, the OUT command does not support echo station LTIDs or DNs. The following error message displays if you use this command with feature 59006435, Echo Station X.25 Loopback Testing.

The OUT command can not be used for Echo station LTID/DN.
Please use ECHOI to modify Echo station data.

PLP - Plug up (place on trouble intercept)

Description

Operating company personnel use the PLP command to plug up directory numbers (DN) on single-line and multiline telephone terminals. The DNs on plug up can originate but cannot receive calls.

The PLP command can plug up the pilot DN of directory number hunt (DNH), distributed line hunt (DLH), and multiline hunt (MLH) groups. The PLP command can plug up the pilot DN and members of a DNH group. If the DN is a member (primary or secondary) of a multiple appearance directory number (MADN) group, the PLP command suspends the entire terminal.

Applicability

The following conditions are applicable:

- individual line
- pilot of hunt group
- DNH group member

Example

The following are examples of the PLP command. In these examples, the PLP command places each line associated with DN 634-0100 and ISDN 1 on trouble intercept.

Example of the PLP command in prompt mode, 7-digit DNs

```
>PLP
DN:
>6340100
LEN:
>ISDN 1
```

Example of the PLP command in no-prompt mode, 7-digit DNs

```
>PLP 6340100 ISDN 1
```

PLP - Plug up (place on trouble intercept) (continued)

Example of the PLP command in prompt mode, 10-digit DNs

```
>PLP
DN:
>9196340100
LEN:
>ISDN 1
```

Example of the PLP command in no-prompt mode, 10-digit DNs

```
>PLP 9196340100 ISDN 1
```

Example of the PLP command in Ambiguity prompt mode, 7-digit DNs

```
>PLP
DN:
>6340100
This Local DN is not Unique.
Please Use the Full National DN.
6340100
***ERROR***
|
TYPE OF DN IS SO_DR
PLEASE ENTER:
DN:
```

Example of the PLP command in Ambiguity no-prompt mode, 7-digit DNs

```
>PLP 6211234 00 0 01 00
This Local DN is not Unique.
Please Use the Full National DN.
6211234 00 0 01 00
***ERROR***
|
TYPE OF DN IS SO_DR
PLEASE ENTER:
DN:
```

Note: The system activates PLP orders immediately. An SONUMBER prompt is not part of the service order.

PLP - Plug up (place on trouble intercept) (continued)

Prompts

The following table lists the system prompts for the PLP command.

Input prompts for the PLP command

Prompt	Valid input	Explanation
DN	7 or 10 digits with no spaces or hyphens	DN associated with the service that is to be established, modified, or deleted
LEN_OR_LTID	Refer to LEN_OR_LTID in the Prompts table in the "Service order tables" section of this manual for valid inputs.	The line equipment number associated with a service to be established, modified, or deleted

Error messages

The following warning messages can result from the PLP command.

Warning messages

Message	Description
WARNING: Input DN is shared. Only the CIRCUIT-MODE VOICE call appearance will be plugged up.	You attempted to plug up a DN that is already assigned to another LTID of a different call type. Only the voice (VI) appearance plugs up.
WARNING: Input DN is shared. Only the CIRCUIT-MODE DATA call appearance will be plugged up.	You attempted to plug up a DN that is already assigned to another LTID of a different call type. Only the circuit-mode data (CMD) appearance plugs up.
WARNING: Input DN is shared. Only the CIRCUIT-MODE call appearance will be plugged up.	You tried to plug up service on a DN on an NI-1 LTID. The DN on the NI-1 LTID is shared with a packet appearance on a different LTID.
WARNING: Input DN is shared. CIRCUIT-MODE voice and data call appearances will be plugged up.	You tried to plug up (place on trouble intercept) service for the single DN on a single DN terminal.

Notes

The following notes apply to the PLP command:

- The PLP command accepts 7-digit or 10-digit DNs. If the user enters an ambiguous DN, the system displays a warning and the same prompt until the user enters a valid 10-digit DN.
- The treatment given to calls to lines on trouble intercept (for example, TRBL = Trouble Intercept) is specified as part of the customer data.

PLP - Plug up (place on trouble intercept) (end)

- When the trouble is cleared, lines placed on trouble intercept can originate calls. These lines cannot receive calls until the RES command restores the lines.
- The PLP order can place DNH, MLH, and DLH group pilots and DNH group members on trouble intercept. You cannot use the PLP command on MLH/DLH group members. To make the members maintenance busy, you must remove the members from the hunting sequence.
- Trouble intercept can occur if the pilot or a member of the group receives a call. PLP on the pilot of a hunt group, like a DNH group, can cause trouble intercept. The state of individual members does not affect the occurrence of this trouble.
- You must use the RES command to restore a line on PLP.
- A shared DN changes the PLP prompting sequence to prompt for a DN and then for an LTID if the DN is a MADN or shared.
- If the DN is a member (primary or secondary) of a MADN group, the PLP command suspends the entire terminal.
- The prevent deletion option (PDO) prevents the use of the PLP command. You must delete the PDO before using the PLP command, or the following error message displays:

```
PLP and PDO are not compatible.  
ERROR: Protected Service. Verify Action.  
PDO Option Assigned.
```

RES - Restore service from suspension to an RCF DN

Description

The RES command restores service to busy or suspended single-line and multiline telephone set directory numbers (DN).

Applicability

The following list provides applicable conditions:

- individual line
- pilot (to restore hunt group)
- Remote Call Forwarding (RCF)

Examples

The following examples of the RES command show offices with and without duplicate DNs. This example restores service to the individual line for DN 621-5126 and line equipment number (LEN) 10 1 14 28. A SUS command affects service to this line.

Example of the RES command in prompt mode, unique 7-digit DN

```
>RES
SONUMBER: NOW 98 2 7 PM
>
DN:
>6215126
LEN:
>10 1 14 28
LEN:
> FUNC 1
COMMAND AS ENTERED
RES NOW 98 2 7 PM 6215126 10 1 14 28
```

Example of the RES command in no-prompt mode, unique 7-digit DN

```
>RES $ 6215126 10 1 14 28 FUNC 1
```

RES - Restore service from suspension to an RCF DN (continued)

Example of the RES command in prompt mode, 10-digit DN

```
>RES
SONUMBER: NOW 98 2 7 PM
>
DN:
>9196215126
LEN:
>10 1 14 28
LEN:
> FUNC 1
COMMAND AS ENTERED
RES NOW 98 2 7 PM 9196215126 10 1 14 28
```

Example of the RES command in no-prompt mode, 10-digit DN

```
>RES $ 9196215126 10 1 14 28 FUNC 1
```

Example of the RES command in prompt mode, duplicate 7-digit DNs

```
>RES
SONUMBER: NOW 98 2 7 PM
>
DN:
>6215126
This Local DN is not Unique.
Please Use the Full National DN.
6215126
*** Error ***
TYPE OF MEM_DN IS SO_DR
PLEASE ENTER:
DN:
>9196215126
LEN:
>FUNC 1
COMMAND AS ENTERED:
RES NOW 98 2 7 PM 9196215126 10 1 14 28
```

RES - Restore service from suspension to an RCF DN (continued)

Example of the RES command in no-prompt mode, duplicate 7-digit DNs

```
>RES $ 6215126 10 1 14 28
This Local DN is not Unique.
Please Use the Full National DN.
6215126
*** Error ***
>9196215126 FUNC 1
```

Prompts

The system prompts for the RES command appear in the following table.

Input prompts for the RES command

Prompt	Valid input	Explanation
DN	A series of seven or ten digits without spaces or hyphens	Directory number for a service to be restored.
LTID or LEN	Refer to DN and LTID in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	The LTID of the DN to be restored. If the DN is basic call shared (not MADN shared), the RES command prompts for an LTID.

Warning messages

The following warning messages may result from the RES command.

Shared DN with Different Circuit-Mode Call Types feature

The following table describes the warning messages you can encounter when using the RES command with shared DNs.

Warning messages for shared DNs (Sheet 1 of 2)

Message	Description
WARNING: Input DN is shared. Only the CIRCUIT-MODE VOICE call appearance will be restored.	The user tried to restore service on the VI appearance on an LTID with a DN that is already assigned to another LTID of a different call type.
WARNING: Input DN is shared. Only the CIRCUIT-MODE DATA call appearance will be restored.	The user tried to restore service on the CMD appearance on an LTID with a DN that is already assigned to another LTID of a different call type.

RES - Restore service from suspension to an RCF DN (end)

Warning messages for shared DNs (Sheet 2 of 2)

Message	Description
WARNING: Input DN is shared. Only the CIRCUIT-MODE call appearance will be restored.	The user tried to restore service on a DN on an NI-1 LTID. The DN on the NI-1 LTID is shared with a packet appearance on a different LTID.
WARNING: Input DN is shared. CIRCUIT-MODE VOICE and DATA call appearances will be restored.	The user tried to restore service for the single DN on a single DN terminal.

Notes

The following notes apply to the RES command:

- The RES command is valid for services suspended at the present time by a SUS command. The RES command is also valid for services that a PLP command places on trouble intercept.
- Use the RES command with the pilots to restore delayed hunt groups. Directory number hunt (DNH) group members placed one at a time on trouble intercept require separate RES commands.
- RES is available with the NTX733AD feature package.
- In NA012 release, the RES command does not support echo station LTIDs or DNs. If you use this command with feature 59006435, Echo Station X.25 Loopback Testing, the following error message displays:

RES command can not be used for Echo station LTID/DN.

SETPH - Change packet handler X.25 service parameters

Description

The SETPH command changes the default values of the X.25 service parameters for a logical terminal. A user can change a parameter without using SLT DET to unmap the LTID from the LEN except when NI000050 = IDLE (see SERVORD examples). In these instances, an error message is generated.

B-channels use link access procedure balanced (LAPB) and X.25 layer three parameters. D-channels use link access procedure on the D-channel (LAPD) and X.25 layer three parameters. LAPB and LAPD have their own set of parameters for packet terminals.

Up to 25 parameter values may be changed by one SETPH command. An additional SETPH command must be issued to change more than 25 parameter values for a single service.

Applicability

ISDN packet terminals

Example

In this example, ISDN 50 identifies a logical terminal with D service defined. Three changes are made to the LAPD parameters to values other than the defaults. The logical channel numbers (LCNs) are set in ascending order from 400. The number of LCNs is set to 30. The number of permanent virtual circuits (PVCs) is set to 5.

SETPH - Change packet handler X.25 service parameters (continued)

Example of the SETPH command in prompt mode

```
SO:
>SETPH
SONUMBER:  NOW 93 07 08 AM
> (CR)
LTID:
> ISDN
LTNUM:
>50
LAPD_PARM:
> LCNBASE
LCNBASE:
> 400
LAPD_PARM:
> NUMLCN
NUMLCN:
> 30
LAPD_PARM:
> NUMPVC
NUMPVC:
> 5
LAPD_PARM:
> $
```

Example of the SETPH command in no-prompt mode

```
>SETPH $ ISDN 50 LCNBASE 400 NUMLCN 30 NUMPVC 5 $
```

An error message is generated when an attempt is made, using the SETPH command, to modify parameters in functional group NI2 BRI, order code NI000050 while the option is in the IDLE state. The following examples show the use of the SETPH command to modify the X.25 parameters while NI000050_SOC=ON and while NI000050_SOC=IDLE.

SETPH - Change packet handler X.25 service parameters (continued)

Example of the SETPH command in prompt mode-NI000050=ON

```
SO:
>SETPH
SONUMBER:  NOW 96 9 16 PM
> $
LTID:
> PKT
LTNUM:
>401
LAPD_PARM:
> LCNBASE
LCNBASE:
>1
LAPD_PARM:
> $
```

Example of the SETPH command in no-prompt mode-NI000050=ON

```
>SETPH $ PKT 401 LCNBASE 0 1 $
```

Example of the SETPH command in prompt mode-NI000050=IDLE

```
SO:
>SETPH
SONUMBER:  NOW 96 9 16 PM
> $
LTID:
> PKT
LTNUM:
>401
LAPD_PARM:
> LCNBASE
LCNBASE:
>1
LAPD_PARM:
> $
COMMAND AS ENTERED:
SETPH NOW 96 9 16 PM PKT 401 LCNBASE 1 $
ENTER Y TO CONFIRM, N TO REJECT OR E TO EDIT
>Y
ERROR:  Terminal must be detached from LEN using SLT DET
before SETPH is allowed. To Change a mapped Packet
Terminal,Option NI000050 must be turned ON.
```

SETPH - Change packet handler X.25 service parameters (continued)

Example of the SETPH command in no-prompt mode-NI000050=IDLE

```
>SETPH $ PKT 401 LCNBASE 1 $ Y
```

Example of the SETPH command in prompt mode—unsuccessful change because the link is inservice

```
SO:
>SETPH
SONUMBER:  NOW 96 9 16 PM
> $
LTID:
> PKT
LTNUM:
> 401
LAPD_PARM:
> LCNBASE
LCNBASE:
>1
LAPD_PARM:
> $
COMMAND AS ENTERED:  SETPH NOW 96 9 16 PM PKT 401
LCMBASE 1 $
ENTER Y TO CONFIRM, N TO REJECT OR E TO EDIT
> Y
ERROR:  LINK MUST BE OOS, Rejecting changes.
```

Example of the SETPH command in no-prompt mode—unsuccessful change because the link is inservice

```
>SETPH $ PKT 401 LCNBASE 1 $
```

SETPH - Change packet handler X.25 service parameters (continued)

Prompts

The following table lists the input prompts for the SETPH command in alphabetical order.

Input prompts for the SETPH command

Prompt	Valid input	Explanation
LAPB_PARM	Refer to table LAPB parameters in the “Service order tables” section of this manual for information on valid inputs.	LAPB parameter. Enter the parameter name and enter the value.
LAPD_PARM	Refer to table LAPD parameters in the “Service order tables” section of this manual for information on valid inputs.	LAPD parameter. Enter the parameter name and, enter the value.
LTID	Refer to LTID in table Prompts in the “Service order tables” section of this manual for information on valid inputs.	Logical terminal identifier. The unique identifier consisting of two parts: logical terminal group (LTGRP) and logical terminal number (LTNUM).
SONUMBER	Refer to SONUMBER in table Prompts in the “Service order tables” section of this manual for information on valid inputs.	Service order number The unique number of the service order to be entered.

Notes

- The SETPH command updates tables DNCHNL and DNCTINFO. If NI000050 is set to ON, these tables can be updated even if the LTID has been mapped in table LTMAP.
- In the NA012 release, the SETPH command does not support echo station LTIDs or DNs. If you use this command with feature 59006435, Echo Station X.25 Loopback Testing, the following error message displays:

SETPH command can not be used for Echo station LTID/DN.
- In the NA014 release, feature 59013267, On-demand B-channel X.25 Packet Mode Data—Provisioning, Data Distribution Manager, and XLIU

SETPH - Change packet handler X.25 service parameters (end)

does not support the use of the SETPH command to change the X.25 parameters for an ODB DN.

If you attempt to use the SETPH command to change the X.25 parameters for an ODB DN, the following error message displays:

```
SETPH command cannot be used for ODB DNs.  
Use CHAPH command for ODB DNs.
```

SLT - Set up logical terminal

Description

The SLT command is used to set up logical terminal data for both circuit-switched and packet-switched terminals. The SLT command includes five functions: ADD, ATT, CHA, DET, and REM. The SLT command is always used with one of these functions. The command and the associated function are commonly referred to as a single command, for example, the SLT ADD command.

The SLT ADD command adds a new logical terminal and defines its service parameters. The SLT ADD command datafills tables LTDEF and KSETINV with the logical terminal identifier (LTID) profile information.

The SLT ATT command attaches a logical terminal to a line equipment number (LEN) and a terminal endpoint identifier (TEI). The SLT ATT command datafills table LTMAP with LTID-to-LEN mapping information and datafills table SPECCONN with provisioned B-channel information for B-channel packet terminals.

The SLT CHA command changes the following parameters associated with an LTID:

- AGA (associated group assignments)
- PVC (protocol version control)
- CACH (call appearance call handling)
- SPIDSFX (service profile identifier suffix)
- EKTS (electronic key telephone service)
- TERML (terminal limit)
- TSPID (free format terminal service profile identifier)

The SLT DET command detaches a logical terminal from a LEN and a TEI. This command removes datafill from table LTMAP.

The SLT REM command removes an LTID from the access information tables. This command removes datafill from table LTDEF.

Applicability

Integrated services digital network (ISDN) lines

Examples

The following examples show the uses of the SLT command and applicable parameters.

SLT - Set up logical terminal (continued)

When creating a new logical terminal for any type of service (voice, D-channel packet, B-channel packet, or combined voice and D-channel packet), two SLT commands must be entered: SLT ADD and SLT ATT.

The SLT ADD command adds a new logical terminal to the access termination and defines the type of service it can access. The SLT ATT command attaches the newly created logical terminal to a LEN and possibly to a TEI. Assign a directory number (DN) using the NEW command before attaching the LTID to a LEN.

Add a circuit-switched functional logical terminal

The following example shows the SLT ADD command used to define a circuit-switched functional logical terminal with an LTID of ISDN 99, a dynamic TEI set, a SPID suffix of 99, and a PVC issue of FUNCTIONAL 1.

SLT - Set up logical terminal (continued)

Example of the SLT ADD command in prompt mode for NI-1 with EKTS

```

> SLT
SONUMBER:  NOW 86 07 08 AM
> (CR)
LTID:
> ISDN 99
FUNCTION:
> ADD
LTCLASS:
> BRAFS
CS:
> Y
PS:
> N
MAXKEYS:
> 25
DEFLTERM:
> N
TEI_TYPE:
> DTEI
TSPID:
>01
ABS:
> VOICE
ABS:
> $
EKTS:
> Y
OPTION:
> SPIDSFX
SPID_SUFFIX:
> 99
OPTION:
> PVC
VERSION:
> FUNCTIONAL
ISSUE:
> 1
OPTION:
> $

```

Example of the SLT ADD command in no-prompt mode

```

> SLT $ ISDN 99 ADD BRAFS Y N 25 N DTEI 01 VOICE $ Y SPIDSFX 99
PVC FUNCTIONAL 1 $

```

SLT - Set up logical terminal (continued)

The following example shows the SLT ATT command used to attach the new circuit-switched functional logical terminal to LEN 0 0 0 3.

Example of the SLT ATT command in prompt mode

```
> SLT
SONUMBER: NOW 86 07 08 AM
> (CR)
LTID:
> ISDN 99
FUNCTION:
> ATT
LEN:
> 0 0 0 3
OPTION:
> $
```

Example of the SLT ATT command in no-prompt mode

```
> SLT $ ISDN 99 ATT 0 0 0 3 $
```

Add a D-channel packet-switched logical terminal

The following example shows the SLT ADD command used to define a packet-switched terminal with LTID ISDN 50. The packet-switched service (PS) field is set to D.

Example of the SLT ADD command in prompt mode

```
> SLT
SONUMBER: NOW 93 07 08 AM
> (CR)
LTID:
> ISDN 50
FUNCTION:
> ADD
LTCLASS:
> BRAFS
CS:
> N
PS:
> D
```

SLT - Set up logical terminal (continued)

Example of the SLT ADD command in no-prompt mode

```
> SLT $ ISDN 50 ADD BRAFS N D
```

The following example shows the SLT ATT command used to attach LTID ISDN 33 to LEN HOST 12 0 0 12. This example assumes that ISDN 33 is defined as a D-channel packet terminal.

Note: You must specify a TEI for D-channel packet terminals.

Example of the SLT ATT command in prompt mode

```
> SLT
SONUMBER: NOW 93 8 26 AM
> (CR)
LTID:
> ISDN 33
FUNCTION:
> ATT
LEN:
> HOST 12 0 0 12
OPTION:
> TEI
TEI:
> 26
OPTION:
> $
```

Example of the SLT ATT command in no-prompt mode

```
> SLT $ ISDN 33 ATT HOST 12 0 0 12 TEI 26 $
```

Add a B-channel packet-switched logical terminal

The following example shows the SLT ADD command used to define a packet-switched terminal with LTID ISDN 50. The packet-switched service field is set to B.

SLT - Set up logical terminal (continued)

Example of the SLT ADD command in prompt mode

```
> SLT
SONUMBER:  NOW 93 07 08 AM
> (CR)
LTID:
> ISDN 50
FUNCTION:
> ADD
LTCLASS:
> BRAFS
CS:
> N
PS:
> B
```

Example of the SLT ADD command in no-prompt mode

```
> SLT $ ISDN 50 ADD BRAFS N B
```

The following example shows the SLT ATT command used to attach LTID ISDN 32 to LEN HOST 12 0 0 12. This example assumes that ISDN 32 is defined as a B-channel packet terminal.

Note: You must establish the provisioned connections for B-channel packet terminals. Use option PHLINK to specify an X.25/X.75 link interface unit service group (XSG) channel connection.

SLT - Set up logical terminal (continued)

Example of the SLT ATT command in prompt mode

```
> SLT
SONUMBER:  NOW 93 8 26 AM
> (CR)
LTID:
> ISDN 32
FUNCTION:
> ATT
LEN:
> HOST 12 0 0 12
OPTION:
> PHLINK
XSG:
> 4
OPTION:
> BCH
BCH:
> B1
OPTION:
> $
```

Example of the SLT ATT command in no-prompt mode

```
> SLT $ ISDN 32 ATT HOST 12 0 0 12 PHLINK 4 BCH B1 $
```

Add a 2BD integrated NIT with dynamic TEI

The following example shows how to create a 2BD integrated NIT with dynamic TEI. The TERML limit can be greater than 1.

SLT - Set up logical terminal (continued)

Example of the SLT ADD command in prompt mode

```
> SLT
SONUMBER:  NOW 97 1 2 AM
>
LTID:
> PKT 100
FUNCTION:
> ADD
LTCLASS:
> BRAFS
CS:
> NI2
PS:
> D
MAXKEYS:
> 64
DEFLTERM:
> Y
OPTION:
> TERML
LIMIT:
> 1
OPTION:
> $
```

Example of the SLT ADD command in no-prompt mode

```
> SLT PKT 100 ADD BRAFS NI2 D 64 Y TERML 1 $
```

Add a D packet-only NIT with dynamic TEI

The following example shows how to create a D-channel packet-only NIT with dynamic TEI. The TERML limit cannot be greater than 1.

SLT - Set up logical terminal (continued)

Example of the SLT ADD command in prompt mode

```
> SLT
SONUMBER:  NOW 97 2 2 AM
>
LTID:
> PKT 101
FUNCTION:
> ADD
LTCLASS:
> BRAFS
CS:
> N
PS:
> D_Dyn
MAXKEYS:
> 64
DEFLTERM:
> Y
OPTION:
> TERML
LIMIT:
> 1
OPTION:
> $
```

Example of the SLT ADD command in no-prompt mode

```
> SLT PKT 101 ADD BRAFS N D_Dyn 64 Y TERML 1 $
```

Add a 2B FIT

The following example shows the SLT ADD command used to create a 2B-channel fully initialized terminal (FIT).

SLT - Set up logical terminal (continued)

Example of the SLT ADD command in prompt mode

```
> SLT
SONUMBER:  NOW 96 7 1 PM
> (CR)
LTID:
> ISDN 20
FUNCTION:
> ADD
LTCLASS:
> BRAFS
CS:
> 2B
PS:
> N
MAXKEYS:
> 64
DEFLTERM:
> N
TEI:
> DTEI
EKTS:
> N
OPTION:
> PVC
VERSION:
> FUNCTIONAL
ISSUE:
> 2
OPTION:
> $
```

Example of the SLT ADD command in no-prompt mode

```
> SLT ISDN 20 ADD BRAFS 2B N 64 N DTEI N PVC FUNCTIONAL 2 $
```

Attach an integrated NIT

The following example shows the SLT ATT command to attach an integrated NIT to a LEN. You cannot specify the TEI option to a dynamic TEI integrated NIT. See the “Notes” section at the end of this command description for a description of the error message that results.

SLT - Set up logical terminal (continued)

Example of the SLT ATT command in prompt mode

```
> SLT
SONUMBER:  NOW 97 2 3 AM
>
LTID:
> PKT 100
FUNCTION:
> ATT
LEN:
> 1 1 7 3
OPTION:
> $
```

Example of the SLT ATT command in no-prompt mode

```
> SLT PKT 100 ATT 1 1 7 3 $
```

Attach a packet-only NIT

The following example shows the SLT ATT command to attach a packet-only NIT to a LEN. You cannot specify the TEI option for a dynamic TEI D packet-only NIT. See the “Notes” section at the end of this command description for a description of the error message that results.

Example of the SLT ATT command in prompt mode

```
> SLT
SONUMBER:  NOW 97 2 4 AM
>
LTID:
> PKT 101
FUNCTION:
> ATT
LEN:
> 1 1 7 3
OPTION:
> $
```

Example of the SLT ATT command in no-prompt mode

```
> SLT PKT 101 ATT 1 1 7 3 $
```

SLT - Set up logical terminal (continued)

Attach a 2B FIT to an interface

The following examples show the SLT ATT command used to attach a 2B-channel terminal to an ISDN interface with the NI000050_SOC option in the ON and IDLE states. When the NI000050_SOC option is set to IDLE, an error message informs the user that the NI000050_SOC option must be turned to the ON state to attach the terminal.

Example of the SLT ATT command in prompt mode (NI000050_SOC option = ON)

```
> SLT
SONUMBER:  NOW 96 10 2 PM
> (CR)
LTID:
> ISDN 7
FUNCTION:
> ATT
LEN:
> SRCM 04 1 15 25
OPTION:
> $
```

Example of the SLT ATT command in no-prompt mode (NI000050_SOC option = ON)

```
> SLT ISDN 7 ATT SRCM 04 1 15 25 $
```

SLT - Set up logical terminal (continued)

Example of the SLT ATT command in prompt mode (NI000050_SOC option = IDLE)

```

> SLT
SONUMBER:  NOW 96 10 2 PM
> (CR)
LTID:
> ISDN 7
FUNCTION:
> ATT
LEN:
> SRCM 04 1 15 25
OPTION:
> $
COMMAND AS ENTERED:
SLT NOW 96 10 2 PM ISDN 7 ATT SRCM 04 1 15 25 $
ENTER Y TO CONFIRM, N TO REJECT OR E TO EDIT
> Y
ERROR:  2B terminals cannot be assigned to an ISDN
interface.  Option NI000050 must be turned ON.

```

Example of the SLT ATT command in no-prompt mode (NI000050_SOC option = IDLE)

```

> SLT ISDN 7 ATT SRCM 04 1 15 25 $
ERROR:  2B terminals cannot be assigned to an ISDN
interface.  Option NI000050 must be turned ON.

```

Attach a 1B NIT to an interface

The following examples show the SLT ATT command used to attach a 1B-channel non-initializing terminal (NIT) to an ISDN interface with the NI000050_SOC option in the ON and IDLE states. When the NI000050_SOC option is set to IDLE, an error message informs the user that the NI000050_SOC option must be turned to the ON state to attach the terminal.

SLT - Set up logical terminal (continued)

Example of the SLT ATT command in prompt mode (NI000050_SOC option = ON)

```
> SLT
SONUMBER: NOW 96 10 2 PM
> (CR)
LTID:
> ISDN 7
FUNCTION:
> ATT
LEN:
> SRCM 04 1 15 25
OPTION:
> $
```

Example of the SLT ATT command in no-prompt mode (NI000050_SOC option = ON)

```
> SLT ISDN 7 ATT SRCM 04 1 15 25 $
```

Example of the SLT ATT command in prompt mode (NI000050_SOC option = IDLE)

```
> SLT
SONUMBER: NOW 96 10 2 PM
> (CR)
LTID:
> ISDN 7
FUNCTION:
> ATT
LEN:
> SRCM 04 1 15 25
OPTION:
> $
COMMAND AS ENTERED:
SLT NOW 96 10 2 PM ISDN 7 ATT SRCM 04 1 15 25 $
ENTER Y TO CONFIRM, N TO REJECT OR E TO EDIT
> Y
ERROR: Default terminals cannot be assigned to an ISDN
interface. Option NI000050 must be turned ON.
```

SLT - Set up logical terminal (continued)

Example of the SLT ATT command in no-prompt mode (NI000050_SOC option = IDLE)

```
> SLT ISDN 7 ATT SRCM 04 1 15 25 $
ERROR: Default terminals cannot be assigned to an ISDN
interface. Option NI000050 must be turned ON.
```

Define an NI-2 default LTID

In NA008, the NI-1/NI-2 Interface Identification feature provides the capability to provision an NI-2 LTID using the SLT ADD command. An NI-2 LTID is a 2B-channel LTID with NI-2 capabilities. The CS (circuit-switched service) prompt for the SLT ADD command is enhanced to accept a new value of NI2, which defines an NI-2 LTID.

The OPTION prompt is enhanced to accept a new value of TERML, which specifies the number of NITs that can be supported on an NI-2 default LTID. The TERML option can be set to a value from 1 through 8 (a default value of 1 is assumed).

The following SERVORD example shows the SLT ADD command used to define an NI-2 default LTID. The number of NITs associated with the LTID is restricted to 5 with the TERML option.

SLT - Set up logical terminal (continued)

Example of the SLT ADD command in prompt mode

```
> SLT
SONUMBER:    NOW 96 7 1 PM
> (CR)
LTID:
> ISDN 100
FUNCTION:
> ADD
LTCLASS:
> BRAFS
CS:
> NI2
PS:
> N
MAXKEYS:
> 64
DEFLTERM:
> Y
OPTION:
> TERML 5
OPTION:
> $
```

Example of the SLT ADD command in no-prompt mode

```
> SLT $ ISDN 100 ADD BRAFS NI2 N 64 Y TERML 5 $
```

The NI-1/NI-2 Interface Identification feature also modifies the OPTION prompt for the SLT CHA command to accept a value of TERML.

The following SERVORD example shows the SLT CHA command used to change the number of NITs supported by an NI-2 default LTID. The number of supported NITs is set to 6 using the TERML option.

SLT - Set up logical terminal (continued)

Example of the SLT CHA command in prompt mode

```
> SLT
SONUMBER:  NOW 96 7 1 PM
> (CR)
LTID:
> ISDN 100
FUNCTION:
> CHA
OPTION:
> TERML 6
OPTION:
> $
```

Example of the SLT CHA command in no-prompt mode

```
> SLT $ ISDN 100 CHA TERML 6 $
```

Options assignment

Associated groups

In NA008, the ISDN Support for Associated Groups for LTIDs feature provides the capability to restrict access to B-channels on a call type basis. Refer to the AGA option in this document for further examples of the use of the SLT ADD, SLT ATT, and SLT CHA commands to define, attach, and change associated group assignments.

The following example shows the SLT command used to add the AGA option to a functional terminal with DNs associated with VI call type in one associated group and DNs associated with CMD call type in a second associated group.

SLT - Set up logical terminal (continued)

Example of the AGA option with the SLT ADD command in prompt mode

```
> SLT
SONUMBER:  NOW 97 07 08 AM
> $
LTID:
> ISDN 1
FUNCTION:
> ADD
LTCLASS:
> BRAFS
CS:
> NI2
PS:
> N
MAXKEYS:
> 64
DEFLTERM:
> N
TEI_TYPE:
> DTEI
TSPID:
> 6135551212
EKTS:
> N
OPTION:
> AGA
AG_GROUP:
> 1
AG_CT:
> AG_VI
OPTION:
> AGA
AG_GROUP:
> 2
AG_CT:
> AG_CMD
OPTION:
> $
```

Example of the AGA option with the SLT ADD command in no-prompt mode

```
> SLT $ ISDN 1 ADD BRAFS 2B N 64 N DTEI 6135551212 N AGA 1
AG_VI AGA 2 AG_CMD $
```

SLT - Set up logical terminal (continued)

The following example shows the SLT CHA command used to remove the associated group capability from an LTID by changing the AGA call type to AG_UNASSIGNED.

Example of the CHA command in prompt mode

```

> SLT
SONUMBER:  NOW 97 07 08 PM
> $
LTID:
> ISDN 1
FUNCTION:
> CHA
SET_ATTRIBUTE:
> AGA
AG_GROUP:
> 1
AG_CT:
> AG_UNASSIGNED
SET_ATTRIBUTE:
> $

```

Example of the CHA command in no-prompt mode

```

> SLT $ ISDN 1 CHA AGA 1 AG_UNASSIGNED $

```

Auto Resource Assignment

Prior to the introduction of the Auto Resource Assignment (ARA) feature, SERVORD required the user to specify an XSG number. The ARA feature makes the XSG number optional. If no XSG number is entered, the ARA feature provides the XSG number assignment and picks an available XSG with the least average throughput (packets/second).

Attach a B-channel packet terminal to an interface while the Auto Resource Assignment feature is active

The following examples show the SLT ATT command used to attach a B-channel packet terminal to an ISDN interface with the Auto Resource Assignment feature active and the NI000050_SOC option in the ON and IDLE states. When the NI000050_SOC option is set to IDLE, an error message informs the user that the automatic assignment cannot be made. Optional instructions are given.

SLT - Set up logical terminal (continued)

Example of the SLT ATT command in prompt mode (NI000050_SOC option = ON)

```
> SLT
SONUMBER:  NOW 96 10 2 PM
> (CR)
LTID:
> PKT 182
FUNCTION:
> ATT
LEN:
> HOST 67 1 15 12
OPTION:
> BCH
BCH:
> B1
OPTION:
> $
```

Example of the SLT ATT command in no-prompt mode (NI000050_SOC option = ON)

```
> SLT PKT 182 ATT HOST 67 1 15 12 BCH B1 $
```

The following example of the SLT ATT command displays the error message when the NI000050_SOC option is in the IDLE state.

SLT - Set up logical terminal (continued)

Example of the SLT ATT command in prompt mode (NI000050_SOC option = IDLE)

```

> SLT
SONUMBER:  NOW 96 10 2 PM
> (CR)
LTID:
> PKT 182
FUNCTION:
> ATT
LEN:
> HOST 67 1 15 12
OPTION:
> BCH
BCH:
> B1
OPTION:
> $
COMMAND AS ENTERED:
SLT NOW 97 6 2 PM ISDN 7 ATT SRCM 04 1 15 25 $
ENTER Y TO CONFIRM, N TO REJECT OR E TO EDIT
> Y
ERROR:  NI-2 terminals cannot be assigned to an ISDN
interface. Option NI000051 must be turned ON.

```

Example of the SLT ATT command in no-prompt mode (NI000050_SOC option = IDLE)

```

> SLT PKT 182 ATT HOST 67 1 15 12 BCH B1 $
ERROR:  NI-2 terminals cannot be assigned to an ISDN
interface. Option NI000051 must be turned ON.

```

Add the SLBRI option

The following example uses the SLT ADD command to add the SLBRI option to a new ISDN BRI NI-2 LTID.

SLT - Set up logical terminal (continued)

Example of the SLT ADD command for SLBRI in prompt mode

```
> SLT
SONUMBER:  NOW 96 12 3 PM
> (CR)
LTID:
> ISDN 1
FUNCTION:
> ADD
LTCLASS:
> BRAFS
CS:
> NI2
PS:
> N
MAXKEYS:
> 64
DEFLTERM:
> N
TEI_TYPE:
> DTEI
TSPID:
> 9
EKTS:
> N
OPTION:
> SLBRI
OPTION:
> $
```

Example of the SLT ADD command for SLBRI in no-prompt mode

```
> SLT $ ISDN 1 ADD BRAFS NI2 N 64 N DTEI 9 N SLBRI $
```

Add the TSPID option

The following example shows the SLT command when it is used to add option TSPID to an NI-2 Initializing BRAFS LTID.

SLT - Set up logical terminal (continued)

Example of the SLT ADD command for TSPID

```

>SLT
SONUMBER:      NOW  97  6 17 PM
> (CR)
LTID:
>ISDN 1
FUNCTION:
>ADD
LTCLASS:
>BRAFS
CS:
>NI2
PS:
>N
MAXKEYS:
>32
DEFLTERM:
>N
TEI_TYPE:
>DTEI
TSPID:
>6137235011
EKTS:
>N
OPTION:
>PVC
VERSION:
>FUNCTIONAL
ISSUE:
>2
OPTION:
>$

```

Example of the SLT ADD command for TSPID in no-prompt mode

```
> SLT $ ISDN1 ADD BRAFS N2 N 32 N DTEI 6137235011 N PVC FUNCTIONAL 2
```

Attach the LTID to a terminal for NI000051 SOC state

The SLT ATT command functions as normal when the NI000051 SOC state is ON. The command for attaching the terminal to the LTID is blocked if the NI000051 SOC state is in the IDLE state. An error message is sent indicating the need to turn the state of NI000051 to ON.

SLT - Set up logical terminal (continued)

Example of the SLT ATT command in prompt mode (NI000051_SOC option = ON)

```
> SLT
SONUMBER:  NOW 97 6 2 PM
> (CR)
LTID:
> ISDN 7
FUNCTION:
> ATT
LEN:
> HOST 67 1 15 12
OPTION:
> $
```

Example of the SLT ATT command in no-prompt mode (NI000051_SOC option = ON)

```
> SLT $ ISDN 7 ATT HOST 67 1 15 12 $
```

The following SERVORD example shows the SLT ATT command used to attach an NI-2 terminal to an ISDN interface. The NI000051_SOC state is IDLE. An error message is sent indicating the need to turn the state of NI000051 to ON.

Example of the SLT ATT command in prompt mode (NI000051_SOC option = IDLE)

```
> SLT
SONUMBER:  NOW 97 6 2 PM
> (CR)
LTID:
> ISDN 7
FUNCTION:
> ATT
LEN:
> HOST 67 1 15 12
OPTION:
> $
Terminals cannot be assigned to an ISDN interface.
Option NI000051 must be turned to ON.
```

SLT - Set up logical terminal (continued)

Example of the SLT ATT command in no-prompt mode (NI000051_SOC option = IDLE)

```
> SLT $ ISDN 7 ATT HOST 67 1 15 12 $
Terminals cannot be assigned to an ISDN interface.
Option NI000051 must be turned to ON.
```

Create a Meridian feature transparency LTID with dynamic TEI

The following example shows the SLT ADD command used to define a new circuit-switched Meridian feature transparency (MFT) logical terminal with an LTID of ISDN 67. This logical terminal has a dynamic TEI.

Example of the SLT ADD command in prompt mode

```
> SLT
SONUMBER: NOW 90 02 08 AM
> (CR)
LTID:
> ISDN 67
FUNCTION:
> ADD
LTCLASS:
> BRAMFT
MAXKEYS:
> 12
TEI_TYPE:
> DTEI
OPTION:
> SPIDSFY
SPID_SUFFIX:
> 06
OPTION:
> $
```

Example of the SLT ADD command in no-prompt mode

```
> SLT $ ISDN 67 ADD BRAMFT 12 DTEI SPIDSFY 06 $
```

The following example shows the SLT ATT command used to attach the new MFT logical terminal to LEN 0 0 0 1.

SLT - Set up logical terminal (continued)

Example of the SLT ATT command in prompt mode

```
> SLT
SONUMBER:  NOW 90 02 08 AM
> (CR)
LTID:
> ISDN 67
FUNCTION:
> ATT
LEN:
> 0 0 0 1
OPTION:
> $
```

Example of the SLT ATT command in no-prompt mode

```
> SLT $ ISDN 67 ATT 0 0 0 1 $
```

Change the SPID suffix

The following example shows the SLT CHA command used to change the SPID suffix for a logical terminal with LTID ISDN 99.

Example of the SLT CHA command in prompt mode

```
> SLT
SONUMBER:  NOW 88 09 03 PM
> (CR)
LTID:
> ISDN 99
FUNCTION:
> CHA
SET_ATTRIBUTE:
> SPIDSFX
NEW_SPID_SUFFIX:
> 02
SET_ATTRIBUTE:
> $
```

Example of the SLT CHA command in no-prompt mode

```
> SLT ISDN 99 CHA SPIDSFX 02 $
```

SLT - Set up logical terminal (continued)

Change the protocol version issue

The following example shows the SLT CHA command used to change the issue of a protocol version for a logical terminal with LTID ISDN 100.

Example of the SLT CHA command in prompt mode

```
> SLT
SONUMBER:  NOW 88 09 03 PM
> (CR)
LTID:
> ISDN 99
FUNCTION:
> CHA
SET_ATTRIBUTE:
> SPIDSFX
NEW_SPID_SUFFIX:
> 02
SET_ATTRIBUTE:
> $
```

Example of the SLT CHA command in no-prompt mode

```
> SLT ISDN 99 CHA SPIDSFX 02 $
```

Example of the SLT CHA command in prompt mode

```
> SLT
SONUMBER:  NOW 88 09 03 PM
> (CR)
LTID:
> ISDN 100
FUNCTION:
> CHA
SET_ATTRIBUTE:
> PVC
VERSION:
> FUNCTIONAL
ISSUE:
> 1
SET_ATTRIBUTE:
> $
```

SLT - Set up logical terminal (continued)

Example of the SLT CHA command in no-prompt mode

```
> SLT $ ISDN 100 CHA PVC FUNCTIONAL 1 $
```

Change from non-EKTS to EKTS LTID

The following example shows the SLT CHA command used to change from a non-EKTS to an EKTS LTID.

Example of the SLT CHA command in prompt mode (non-EKTS to EKTS LTID)

```
> SLT
SONUMBER:  NOW 88 09 03 PM
> (CR)
LTID:
> ISDN 100
FUNCTION:
> CHA
SET_ATTRIBUTE:
> EKTS
EKTS:
> Y
SET_ATTRIBUTE:
> $
```

Example of the SLT CHA command in no-prompt mode (non-EKTS to EKTS LTID)

```
> SLT $ ISDN 100 CHA EKTS Y $
```

Change authorized bearer services options

The following example shows the SLT CHA command used to change authorized bearer services (ABS) options.

SLT - Set up logical terminal (continued)

Example of the SLT CHA command in prompt mode (changing ABS options)

```

> SLT
SONUMBER:  NOW 88 09 03 PM
> (CR)
LTID:
> ISDN 100
FUNCTION:
> CHA
SET_ATTRIBUTE:
> ABS
NEW_ABS:
> NOVBD
NEW_ABS:
> $
SET_ATTRIBUTE:
> $

```

Example of the SLT CHA command in no-prompt mode (changing ABS options)

```
> SLT $ ISDN 100 CHA ABS NOVBD $
```

Remove a logical terminal

Two SLT commands are required to remove a logical terminal. The SLT DET command detaches the LTID from the LEN and TEI. The SLT REM command removes the LTID from the access information tables. (It is necessary to remove the DN from service using the OUT command before removing the LTID from the access information tables.)

In the following examples, logical terminal ISDN 99 is detached using the SLT DET command.

Example of the SLT DET command in prompt mode

```

> SLT
SONUMBER:  NOW 86 08 07 AM
> (CR)
LTID:
> ISDN 99
FUNCTION:
> DET

```

SLT - Set up logical terminal (continued)

Example of the SLT DET command in no-prompt mode

```
> SLT $ ISDN 99 DET
```

In the following examples, logical terminal ISDN 99 is removed from the ISDN line using the SLT REM command.

Example of the SLT REM command in prompt mode

```
> SLT  
SONUMBER: NOW 86 08 07 AM  
> (CR)  
LTID:  
> ISDN 99  
FUNCTION:  
> REM
```

Example of the SLT REM command in no-prompt mode

```
> SLT $ ISDN 99 REM
```

SLT - Set up logical terminal (continued)

Prompts

The following table lists the input prompts for the SLT command in alphabetical order.

Input prompts for the SLT command (Sheet 1 of 7)

Prompt	Valid input	Explanation
ABS	VOICE, VBD, CMD	Authorized bearer services. This option allows the bearer services to which a circuit-switched call can be subscribed. A prompt for ABS is displayed only if the set is a circuit-switched functional set. VOICE = analog voice VBD = voiceband data CMD = circuit-mode data
AG_CT	AG_VI, AG_CMD, AG_ALL, AG_UNASSIGNED	Associated group call type. Used with the AGA option. AG_VI = voiceband AG_CMD = circuit mode data AG_ALL = both call types AG_UNASSIGNED = unassigned call type
AG_GROUP	1-9	Associated group number. Enter 1-9 for the associated group number.
BCH	B1, B2	B-channel. The B-channel selected for packet data.
CS	Y, N, 2B, NI2	Circuit switched. Designates circuit-switched service.
DCHCHNL	0 to 31	D-channel handler channel. The D-channel handler channel to which the loop is connected.
DEFLTERM	Y or N	Default logical terminal. Enter Y to provision an integrated and a packet-only NIT with dynamic TEI. For a packet-only NIT, the TEI_TYPE of UNATEI automatically datafills.

SLT - Set up logical terminal (continued)**Input prompts for the SLT command (Sheet 2 of 7)**

Prompt	Valid input	Explanation
DYNAMIC_TEI	Y or N	Dynamic terminal endpoint identifier
EKTS	Y or N	Electronic key telephone set Note: Only a Basic Rate Access Functional Set (BRAFS) with dynamic TEI can be defined as an EKTS set.
FUNCTION	ADD, REM, ATT, DET, CHA	Function. The action required by the service order.
ISSUE	0, 1, 2	Issue. The protocol issued for the logical terminal. 0 = Stimulus, MFT, and ETSI 1 = Bellcore functional 2 = when protocol variant control feature is present
LEN	Refer to LEN in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	Line equipment number. The LEN of the 2B1Q U-loop or S/T loop to be moved. The loop must be located on an enhanced line concentrating module (LCME).
LIMIT	1-8	Default logical terminal limit. Enter a value for the maximum number of NITs allowed on the interface. For packet-only NITs with dynamic TEI, the only valid value is one.
LTCLASS	BRAFS, BRAMFT	Logical terminal class. Class of logical terminal based on the type of messaging exchanged between the terminal and the ISDN switch. BRAFS (Basic Rate Access Functional Set) = functional BRAMFT (Basic Rate Access Meridian Feature Transparency) = Meridian feature transparency

SLT - Set up logical terminal (continued)

Input prompts for the SLT command (Sheet 3 of 7)

Prompt	Valid input	Explanation
LTID	Refer to LTID in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	Logical terminal identifier
LTNUM	1 to 1022	The logical terminal number.
MAXKEYS	2 to 64	Maximum keys. Maximum number of feature activators (keys) on a logical terminal used for circuit-switched service.
NEWABS	VOICE, VBD, CMD	New authorized bearer service VOICE= analog voice, VBD = voiceband data, CMD = circuit-mode data
NEW_SPID_SU FFIX	8-character alphanumeric suffix or NIL	New service profile identifier. The new service profile identifier. It must be entered for sets with dynamic TEIs that do not have a unique primary directory number (PDN). Note: For information on what types of SPID suffixes a particular ISDN set can accept, refer to the ISDN set's user guide. The SPID suffix in the DMS switch and in the ISDN set must match. The NIL is used only when the SPID SUFFIX is removed from the LTID.

SLT - Set up logical terminal (continued)**Input prompts for the SLT command (Sheet 4 of 7)**

Prompt	Valid input	Explanation
OPTION	AGA, CACH, EKTS, PVC, SLBRI, SPIDSFX, TERML	<p>Option. Options installed on the terminal.</p> <p>AGA-Associated Group Assignment. This option is used to restrict a DN/CT or a group of DN/CTs to a single B-channel. It is valid for circuit-switched BRAFS terminals only.</p> <p>CACH-Call Appearance Call Handling is valid for EKTS sets only.</p> <p>EKTS-Electronic Key Telephone Set is valid for circuit-switched BRAFS terminals only.</p> <p>PVC-Protocol Version Control. The version of the protocol used by the BRAFS terminal.</p> <p>SLBRI-Single-line BRI. Identifies an ISDN set as a single-line ISDN BRI.</p> <p>SPIDSFX-Service Profile Identifier. This option must be entered for sets with dynamic TEIs that do not have a unique PDN.</p> <p>TERML-Number of NITs that can be supported on an NI-2 default LTID.</p>
OPTION	TEI, PHLINK, TO, BCH, PHI,DCHCHNL	Option. Parameters used to define information paths with the SLT ATT function.
PHI	0 to 1023	Packet handler interface. Packet handler interface specified for D- and Bd-type terminals.

SLT - Set up logical terminal (continued)**Input prompts for the SLT command (Sheet 5 of 7)**

Prompt	Valid input	Explanation
PHLINK	0 to 749	Packet handler link. If NI000050 is set to IDLE, the special connection endpoint to the PH (used for terminals with B-channel packet service only). This entry is not required if special connection details are already in table SPECCONN.
PS	N, B, D, D_Dyn	Packet-switched service N = no packet service, B = packet service on a B-channel, D = packet service on the D-channel, and D_Dyn = dynamic TEI for D-channel packet-only NITs
SET_ ATTRIBUTE	ABS, AGA, CACH, PVC, EKTS, SLBRI, SPIDSFX	Set attribute. Options to add or change on the terminal. ABS-Authorized Bearer Service AGA-Associated Group Assignment is used to restrict a DN/CT or a group of DN/CTs to a single B-channel. CACH-Call Appearance Call Handling is valid for EKTS sets only. PVC-Protocol Version Control. The version of the protocol used by the BRAFS terminal. EKTS-Electronic Key Telephone Set is valid for circuit-switched BRAFS terminals only. SLBRI-Single-line BRI. Identifies an ISDN set as a single-line ISDN BRI. SPIDSFX-new Service Profile Identifier suffix must be entered for sets with dynamic TEIs that do not have a unique PDN.

SLT - Set up logical terminal (continued)**Input prompts for the SLT command (Sheet 6 of 7)**

Prompt	Valid input	Explanation
SLBRI	Y, N	Designates an ISDN BRI LTID as a single-line BRI.
SPID_SUFFIX	8-character alphanumeric suffix	<p>Service profile identifier suffix. This SPID suffix must be entered for sets with dynamic TEIs that do not have a unique PDN.</p> <p>Note: For information on what types of SPID suffixes a particular ISDN set can accept, refer to the ISDN set's user guide. The SPID suffix in the DMS switch and in the ISDN set must match.</p>
TEI	0 to 63	Terminal endpoint identifier. The TEI is required only for static TEI terminals with circuit-switched or D-channel packet service.
TEI_TYPE	DTEI, UATEI, UNATEI STEI	<p>Terminal endpoint identifier type. The type of TEI assignment:</p> <p>DTEI = dynamic TEI</p> <p>UATEI = user-assigned TEI</p> <p>UNATEI = user- or network-assigned dynamic TEI</p> <p>STEI = static TEI</p> <p>Note: User-assigned dynamic TEI applies only to circuit-switched terminals.</p>
TSPID	1 to 18 digits	Terminal service profile identifier option, which is used to initialize BRIFS LTIDs. This option is used with the Free Format SPID feature.

SLT - Set up logical terminal (continued)

Input prompts for the SLT command (Sheet 7 of 7)

Prompt	Valid input	Explanation
VERSION	FUNCTIONAL, ETSI (Europe)	Version. The version of the protocol used by the BRAFS terminal.
XSG	0 to 749	X.25 or X.75 service group. Input for this prompt is optional if the Auto Resource Assignment feature is provided. If no XSG is specified, the Auto Resource Assignment feature finds an XSG with the least average throughput from the queue of available XSGs.

Notes**SLT command**

The following general notes apply to the SLT command:

- To move the ISDN line located on an LCME from one ISDN service group (ISG) to another, use the SERVORD command CISG. The CISG command allows ISDN traffic on an LCME to be redistributed among ISGs.
- The SPID_SUFFIX option can be entered when the dynamic TEI is set.
- To remove a SPID_SUFFIX from a logical terminal, enter NIL after SPIDSEFX. (The nil field symbol, \$, cannot be used.) If the terminal is a member of a hunt or multiple appearance DN (MADN) group, the SPID_SUFFIX cannot be changed to NIL. If such an attempt is made, an error message is displayed and the service order is rejected.

SLT ATT command

The following notes apply to the SLT ATT command:

- The SLT ATT command checks for maximum B LTID and maximum D LTID parameters.
- To attach a logical terminal so that it provides D service:
 - Complete the TEI fields.
 - Enter the option DCHCHNL. This step is optional. If the option is not entered, the exchange termination selects the channel for the service to use.
- To attach a logical terminal so that it provides B service, you can specify a dynamic TEI or you can assign the TEI. There is no requirement to set the

SLT - Set up logical terminal (continued)

B-channel. The exchange termination assigns the B-channel each time a call is requested by the terminal.

- To attach a data packet network (DPN) logical terminal so that it provides PB service to the packet handler, options BCH and PHLINK are valid.
- To attach a logical terminal that provides PB service to another ISDN line that provides PB service on the same node, use option BCH to specify the first B-channel. Use option TO to connect the first line to the second line.

If option TO is entered in the service order, the connection is assumed to be permanently assigned from one ISDN line to another ISDN line.

- When provisioning remote digital terminal (RDT) lines, you can automatically create or alter an LNINV tuple. This capability allows software and services to be provisioned on the line in a single SERVORD transaction. This optional capability is enabled or disabled through the parameter RDT_SO_AUTOCREATE_LNINV.
- The following error message displays when you attach an LTID to a loop and you exceed the LTID engineering limit (LTID limit or both LTID and DN limits).

```
*** ERROR - Can not attach anymore LTID to the LEN***  
Engineering limits for LTID were exceeded.
```

- The following error message displays when you attach an LTID to a loop and you exceed the engineering limit but not the LTID limit.

```
*** ERROR - Can not attach the specified LTID to the LEN***  
Engineering limit for DNs were exceeded.
```

- The following error message displays if you try to attach a second NIT LTID to a LEN.

```
Current LEN already has another NIT LTID attached to it
```

- The following error message displays if you specify the TEI option for an integrated NIT with dynamic TEI.

```
TEI option cannot be assigned to a Dynamic TEI, Integrated  
NIT***ERROR-INCONSISTENT DATA***
```

- The following error message displays if you specify the TEI option for a packet-only NIT.

```
TEI option cannot be assigned to a Dynamic TEI, D-packet NIT
```

SLT - Set up logical terminal (continued)

- In the NA012 release, the SLT ATT command does not support echo station LTIDs or DNs. The following error message displays if you use this command with feature 59006435, Echo Station X.25 Loopback Testing.

SLT command can not be used for Echo station LTID/DN.

- In the NA014 release, feature On-demand B-channel (ODB) X.25 Packet Mode Data—Provisioning, Data Distribution Manager, and XLIU (59013267) gives the user of the SLT ATT command the following four ways to attach an LTID provisioned with ODB DNs to a LEN:
 - specify no options
 - specify the PHLINK option only
 - specify the DCHCHNL option only
 - specify both the PHLINK and DCHCHNL options

Note: See “Section 8” of the appendix for examples of using each of these four options with the SLT ATT command with LTIDs provisioned with ODB DNs.

SLT CHA command

The following notes apply to the SLT CHA command:

- The SLT CHA command cannot be used to change parameters LTCLASS, MAXKEYS, or TEL_TYPE.
- The operating company cannot use the SLT CHA command to change the SLBRI option on an existing LTID. The following error message displays:


```
SLBRI option can only be changed by editing tables
LTDEF and DNCTINFO using table control.
```

To change the SLBRI option on an existing LTID, the operating company must use table control to update tables LTDEF and DNCTINFO.
- The SLT CHA command can be used to change the protocol_version_issue attribute for a functional logical terminal only. The default version and issue are assigned to BRAMFT terminals.
- Attempts to change an NI-1 LTID to an NI-2 LTID or to change an NI-2 LTID to an NI-1 LTID using the SLT CHA command are blocked. The NI-1 LTID must be detached using the SLT DET command, and the NI-2 LTID must be redefined and reattached using the SLT ADD and SLT ATT commands.

SLT DET command

Use the SLT DET command when provisioning RDT lines to delete datafill in table LNINV. This capability allows software and services to be provisioned

SLT - Set up logical terminal (end)

on the line in a single SERVORD transaction. This optional capability is enabled or disabled through parameter RDT_SO_AUTOCREATE_LNINV.

Note: In the NA012 release, the SLT DET command does not support echo station LTIDs or DNs. If you use this command with feature 59006435, Echo Station X.25 Loopback Testing, the following error message displays:

```
Slt command can not be used for Echo station LTID/DN.
```

SLT REM command

Use the SLT REM command after the SLT DET command and the OUT command to remove the DNs from the terminal. This restriction applies only to packet terminals.

SLT ADD command

The following notes apply to the SLT ADD command:

- Use the SLT ADD command to add the SLBRI option to an ISDN BRI line. Introduced by the NA009 BRI in RES feature, the SLBRI option adds individual ISDN BRI lines in an existing residential customer group.
- The following error message displays if the CS type is not N when you enter a PS type of D_Dyn to define an integrated or packet-only NIT with dynamic TEI.

```
INVALID ACCESS PRIVILEGE***ERROR-INCONSISTENT DATA***
```

- The following error message displays if DEFLTERM = N with the PS type of D_Dyn.

```
DEFLTERM = N is not valid option***ERROR-INCONSISTENT  
DATA***
```

The following error message displays when you add a new DN, ICM, or GIC key to a mapped LTID and you exceed the DN engineering limit.

```
*** ERROR - Can not add any DNs to the specified LTID***  
Engineering limit for DNs were exceeded.
```

SUS - Suspend service

Description

The SUS command suspends service to Directory Numbers (DNs) on single-line and multi-line telephone sets. The SUS command can suspend only the pilot for directory Number Hunt (DNH) groups and Bridged Night Numbers (BNN). The SUS command can suspend either the pilot or members of Distributed Line Hunt (DLH) or Multi-Line Hunt (MLH) groups. This command suspends the complete group when a member or pilot of a group gets suspended.

If the DN is a primary member of a MADN group, the SUS command suspends all appearances of the DN in the MADN group on the terminal. If the DN is a secondary member of the MADN group, only that member is suspended. If the suspended member is a single DN, the CMD call appearance is also suspended when the CMD is located on the referenced LTID.

Applicability

This command applies to

- individual lines
- pilots (to suspend hunt group)
- remote call forwarding (RCF) lines

Examples

The following examples show the SUS command and applicable parameters.

Suspend service on a unique 7-digit DN

The following example shows the SUS command used to suspend service on an individual line associated with DN 621-5126 and logical terminal identifier (LTID) FUNC 1. This example shows the responses for this command in an office with a unique 7-digit DN.

Example of the SUS command in prompt mode, unique 7-digit DN

```
>SUS
SONUMBER: NOW 98 2 7 PM
>(CR)
DN:
>6215126
LEN:
>FUNC 1
```

SUS - Suspend service (continued)

Example of the SUS command in no-prompt mode, unique 7-digit DN

```
>SUS $ 6215126 FUNC1
```

Suspend service on a unique 10-digit DN

The following example shows the SUS command used to suspend service on an individual line associated with DN 621-5126 and logical terminal identifier (LTID) FUNC 1. This example shows the responses for this command in an office with a unique 10-digit DN.

Example of the SUS command in prompt mode, 10-digit DN

```
>SUS  
SONUMBER: NOW 98 2 7 PM  
>(CR)  
DN:  
>9196215126  
LEN:  
>FUNC 1
```

Example of the SUS command in no-prompt mode, 10-digit DN

```
>SUS $ 9196215126 FUNC1
```

Suspend service on a duplicate 7-digit DN

The following example shows the SUS command used to suspend service on an individual line associated with DN 621-5126 and logical terminal identifier (LTID) FUNC 1. This example shows the responses for this command in an office with a duplicate 7-digit DN.

SUS - Suspend service (continued)

Example of the SUS command in prompt mode, duplicate 7-digit DN

```

>SUS
SONUMBER: NOW 98 2 7 PM
>(CR)
DN:
>6215126
This Local DN is not Unique.
Please Use the Full National DN.
6215126
*** Error ***
TYPE OF DN IS SO_DR
PLEASE ENTER
DN:
>9196215126
LEN:
>FUNC 1

```

Example of the SUS command in no-prompt mode, duplicate 7-digit DN

```
>SUS $ 6215126 FUNC1
```

Prompts

The system prompts for the SUS command are shown in the following table.

Input prompts for the SUS command

Prompt	Valid input	Explanation
DN	Refer to DN in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	The directory number associated with the service suspended.
LEN	Refer to LTID in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	The LTID associated with the service suspended.

Error messages

The following warning messages may result from the SUS command.

SUS - Suspend service (continued)

Shared DN with Different Circuit-Mode Call Types feature

The following table describes the warning messages you may encounter when using the SUS command with shared DNs.

Warning messages for shared DNs

Message	Description
WARNING: Input DN is shared. Only the CIRCUIT-MODE VOICE call appearance will be suspended.	The user tried to suspend service on an LTID with a DN that is already assigned to another LTID of a different call type.
WARNING: Input DN is shared. Only the CIRCUIT-MODE DATA call appearance will be suspended.	The user tried to suspend service on an LTID with a DN that is already assigned to another LTID of a different call type.
WARNING: Input DN is shared. Only the CIRCUIT-MODE call appearance will be suspended.	The user tried to suspend service on a DN on an NI-1 LTID. The DN on the NI-1 LTID is shared with a packet appearance on a different LTID.
WARNING: Input DN is shared. CIRCUIT-MODE voice and data call appearances will be suspended.	The user tried to suspend service for the single DN on a single DN terminal.

Notes

The following notes apply to the SUS command:

- To restore service on a line following an SUS command, use the RES command. For additional information, refer to the *SERVORD Reference Manual*.
- Use the SUS command to suspend hunt group service. To suspend an entire group, enter the pilot DN and LEN. The SUS command is not applicable to bridged night numbers (BNN).
- The treatments given to calls terminating on the suspended line and the attempts to originate calls from the suspended line are part of the customer data.
- Seven-digit DN ambiguity exists if the DMS-100 switch serves more than one numbering plan area (NPA) and the same 7-digit DN is used in multiple NPAs. SOC option SERV0003 resolves this issue by prompting

SUS - Suspend service (continued)

for the full 10-digit DN when ambiguity exists. If the full 10-digit DN is initially entered, ambiguity will not exist.

- In the NA009 release, the Provisioning Support for Default Service feature prevents the entry of a 10-digit Default Service DN at the DN prompt. The following error message displays, where <nnnnnnnnnn> is the Default Service DN:

```
Default Service DN: Invalid input<nnnnnnnnnn>
```

The following exception exists. Assume that

- A switch has multiple NPAs and duplicate exchange codes (NXX).
- Translations restricts some DN—forwarding or hunt group overflow DN—to seven digits.

The following condition allows entry of part of a Default Service DN at a SERVORD prompt.

The operating company attempts to enter a Default Service DN under one NPA. Under a different NPA, a forwarding or overflow DN shares the NXX and station code of the Default Service DN. That is, the seven digits of the forwarding or overflow DN are identical to those of the Default Service DN. In this event, SERVORD accepts the entry of the Default Service DN.

This behavior is in line with existing SERVORD behavior with normal DN. SERVORD always accepts the entry of ambiguous DN. If DN rejection occurs, the rejection is based on later, feature-specific checks.

- SUS prompts for a DN and then an LTID if the DN is a MADN or shared DN.
- If you use the SUS command on a secondary MADN member, the command only suspends that member.
- If you use the SUS command on a primary MADN member, the entire group is suspended.
- If you enter an LTID that is a Single DN which is a primary member of a MADN group, all MADN and circuit mode data (CMD) are suspended.
- If you enter an LTID for a terminal that is a Single DN terminal and does not contain a primary member of MADN, all call appearance (CA) members and the CMD on the LTID are suspended.
- If you enter an LTID for a terminal that is a Single DN terminal and does not contain a primary member of MADN, all call appearance (CA) members and the CMD on the LTID are suspended.

SUS - Suspend service (end)

- In NA012 release, the SUS command does not support echo station LTIDs or DNs. If you use this command with feature 59006435, Echo Station X.25 Loopback Testing, the following error message displays:

SUS command can not be used for echo station LTID/DN.

- The prevent deletion option (PDO) prevents the use of the SUS command. You must delete PDO before using the SUS command, or the following error message displays:

SUS and PDO are not compatible.
ERROR: Protected Service. Verify Action.
PDO Option Assigned.

SWLT - Swap logical terminals

Description

The SWLT command swaps two logical terminals by detaching and then reattaching the terminals to each other's line equipment number (LEN). You must uniquely identify both logical terminals by their directory numbers (DN), data network addresses (DNA), or logical terminal identifiers (LTID). Only compatible terminals can be swapped.

Applicability

ISDN lines

Example

The following example shows the SWLT command when it is used to swap two logical terminals identified by DNs.

Example of the SWLT command in prompt mode, 7-digit DNs

```
>SWLT
SONUMBER: NOW 76 1 7 AM
>$
FUNCTION:
> DNS
DN1 :
>6215862
DN2 :
>6215863
```

Example of the SWLT command in no-prompt mode, 7-digit DNs

```
>SWLT $ DNS 6215862 6215863
```

SWLT - Swap logical terminals (continued)

Example of the SWLT command in prompt mode, 10-digit DNs

```
>SWLT
SONUMBER: NOW 76 1 7 AM
>$
FUNCTION:
> DNS
DN1:
>6136215862
DN2:
>6136215863
```

Example of the SWLT command in no-prompt mode, 10-digit DNs

```
>SWLT $ DNS 6215862 6215863
```

SWLT - Swap logical terminals (continued)

Example of the SWLT command in Ambiguity prompt mode, 7-digit DNs

```

>SWLT
SONUMBER: NOW 98 1 13 AM
>$
FUNCTION:
> DNS
DN1:
>6215862
This Local DN is not Unique.
Please Use the Full National DN.
6215862
***ERROR***
|
TYPE OF DN1 IS SO_DR
PLEASE ENTER:
DN1:
>6136215862
DN2:
>6215863
This Local DN is not Unique.
Please use the Full National DN.
6215863
***ERROR***
|
TYPE OF DN2 IS SO_DR
PLEASE ENTER:
DN2:
>6136215863

```

Example of the SWLT command in Ambiguity no-prompt mode, 7-digit DNs

```

>SWLT $ DNS 6215862 6215863
This Local DN is not Unique.
Please Use the Full National DN.
6215862 6215863 5501411
***ERROR***
|
TYPE OF DN1 IS SO_DR
PLEASE ENTER:
DN1:
>

```

The following example shows the SWLT command when it is used to swap two logical terminals identified by LTIDs.

SWLT - Swap logical terminals (continued)

Example of the SWLT command in prompt mode, LTIDS

```

>SWLT
SONUMBER: NOW 91 12 07 PM
>
FUNCTION:
> LTIDS
LTID1:
> ISDN 29
LTID2:
> ISDN 379
    
```

Example of the SWLT command in no-prompt mode, LTIDS

```
>SWLT $ LTIDS ISDN 29 ISDN 379
```

Prompts

The following table lists the input prompts for the SWLT command.

Input prompts for the SWLT command (Sheet 1 of 2)

Prompt	Valid input	Explanation
DN1	7-digit DN or 0-digit DN for ambiguity	The directory number associated with one of the logical terminals. Customers should use 10 digits when they provision Nxx in the office.
DN2	7-digit DN or 10-digit DN for ambiguity	The directory number associated with the other logical terminal
DNA1	1-to 15-digit DN	The data network address assigned to one of the logical terminals
DNA2	1-to 15-digit DN	The data network address assigned to the other logical terminal
FUNCTION	DNS, DNAS, or LTIDS	The identifier for the logical terminals to be swapped

SWLT - Swap logical terminals (continued)

Input prompts for the SWLT command (Sheet 2 of 2)

Prompt	Valid input	Explanation
LTID1	Refer to LTID in the "Prompts" table in the "Service order tables" section of this manual for information on valid inputs.	The LTID assigned to one of the logical terminals
LTID2	Refer to LTID in the "Prompts" table in the "Service order tables" section of this manual for information on valid inputs.	The LTID assigned to the other logical terminal
SONUMBER	Refer to SONUMBER in the "Prompts" table in the "Service order tables" section of this manual for information on valid inputs.	The unique number of the service order to be entered

Notes

The following notes apply to the SWLT command:

- The SWLT command can accept 7-digit or 10-digit DNs. If the customer enters an ambiguous DN, the system displays a warning. The warning continues until the customer enters a valid 10-digit DN.
- LTIDs must be the same type of terminal for swapping.
- D-packet LTIDs must belong to the same LTGRP for swapping.
- You cannot use the SWLT command on B-channel packet (PB) terminals.
- You cannot swap terminals with the PHI and LTBYTE options.
- When two logical terminals are swapped, the new TEIs may be different. In this case, you must reprogram the TEIs.
- In the NA009 release, the Provisioning Support for Default Service feature prevents the entry of a default service DN at the DN1 and DN2 prompts. The following error message displays, where <nnnnnnnnnn> is the default service DN:

```
Default Service DN: Invalid input
<nnnnnnnnnn>
```

SWLT - Swap logical terminals (end)

The following exception exists. Assume that

- A switch has multiple numbering plan areas (NPA) and duplicate exchange codes (NXX).
- Translations restricts some DNs—for example, forwarding or hunt group overflow DNs—to seven digits.

The following condition allows entry of part of a Default Service DN at a SERVORD prompt.

The operating company attempts to enter a default service DN under one NPA. Under a different NPA, a forwarding or overflow DN shares the NXX and station code of the default service DN. That is, the seven digits of the forwarding or overflow DN are identical to those of the default service DN. In this event, SERVORD accepts the entry of the default service DN.

Like with normal DNs, SERVORD always accepts the entry of ambiguous DNs. If DN rejection occurs, the rejection is based on later, feature-specific checks.

If an LTID contains a shared DN, the LTIDs to be swapped must be on the same interface.

4 Service order options

This chapter consists of a listing of service order options, in alphanumeric order. For each option, the following information is presented: the option name, a short description, an example, the prompts associated with the option, assignability information, line class code compatibility information, option prerequisites, feature identification, and any further notes about the option. The format of the information for each option is described in detail in the "Basic service order information" chapter in this document.

ACB - Automatic call back

Description

The ACB option enables a subscriber to place a call to the last station the subscriber called. If the destination line is busy, ACB monitors the line until it becomes idle and can accept the call.

The ISDN ACB option provides the same functionality as the CLASS ACB option to subscribers using National ISDN 2 (NI-2) terminals. ISDN ACB applies to both voice and data calls, and is supported for the following bearer capabilities (BC) datafilled in table BCDEF (Bearer Capability Definition): SPEECH, 3_1KHZ, 64KDATA, and 56KDATA.

Example

The following example shows how the ACB option is added to an ISDN terminal using the ADO (add option) command.

Example of the ACB option in prompt mode

```
> ADO
SONUMBER:  NOW 97 7 9 PM
> (CR)
DN_OR_LEN:
> 6215099
OPTKEY:
> 4
OPTION:
> ACB
BILLING_OPTION:  NOAMA
> $
KEYLIST:
> $
OPTKEY:
> $
```

Example of the ACB option in no-prompt mode

```
> ADO $ 6215099 4 ACB $ $ $
```

ACB - Automatic call back (continued)

Prompts

The following table provides the system prompts for the ACB option.

Input prompts for the ACB option

Prompt	Valid input	Explanation
BILLING_OPTION	AMA, NOAMA	Indicates the billing option to be specified when SUSP is enabled for the office. Enter AMA if an AMA record should be created; enter NOAMA if an AMA record should not be created.
DN_OR_LEN	Refer to DN and LTID in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	Enter the line's DN or LTID. For a multiple appearance directory number (MDN) line or for MLH/DLH hunt members, if a DN is specified, the user is prompted for the LTID. If the LTID is entered, the user is not prompted for the DN.
KEYLIST	1 to 69	The list of keys available on the terminal. Up to 24 keys can be specified.
OPTION	Refer to table Line service options in the "Service order tables" section of this manual for a list of valid inputs.	Option(s) associated with a service to be established, modified, or deleted. A maximum of 20 options can be specified in a single command.
OPTKEY	1 to 69	Key associated with the option.
SONUMBER	Refer to SONUMBER in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	The unique number of the service order to be entered.

ACB - Automatic call back (end)

ACB to line class code compatibility

This option only applies to the line class code of ISDNKSET.

Assignability

The following functionalities apply to this option:

- set functionality: no
- subset functionality: yes
- DN functionality: no
- key functionality: no

Option prerequisites

There are no prerequisites for this option.

Notes

The following notes apply to ACB:

- ISDN ACB can be assigned to any key on an ISDN terminal except the DN key.
- ISDN ACB is incompatible with packet-switched data.
- ISDN ACB is incompatible with the following Multiple Appearance Directory Number (MADN) variants: CACH (call appearance call handling), EXB (extension bridging), and MCA (multiple call arrangement). ISDN ACB is compatible with MADN SCA (single call arrangement).
- ISDN ACB cannot be provisioned on the same line with the following options:
 - Automatic Line (AUL)
 - Denied Origination (DOR)
 - Denied Termination (DTM)
 - Ring Again (RAG)

Feature identification

Functionality: NI000051

Feature number: AF6619

ACOU - Additional call offering unrestricted

Description

The ACOU option notifies users that a call for the DN is present at the switch, though no B-channel is available for the call.

Example

The following are examples of how the ACOU option is added. The first example shows the ADO command as it is used to add the ACOU option to DN 234-5432 which appears on an NI-1 set. The second example shows the ADO command as it is used to add the ACOU option to DN 234-5200 which appears on an NI-2 set.

Example of adding the ACOU option to an NI-1 set in prompt mode

```
>ADO
SONUMBER:  NOW 97 04 08 AM
>(CR)
DN_OR_LEN:
>2345432
OPTKEY:
>9
OPTION:
>ACOU
:VI_NI1_NBL
>1
OPTKEY:
>$
```

Example of adding the ACOU option to an NI-1 set in no-prompt mode

```
>ADO $ 2345432 9 ACOU 1 $
```

ACOU - Additional call offering unrestricted (continued)

Example of adding the ACOU option to an NI-2 set in prompt mode

```
>ADO
SONUMBER:  NOW 97 04 08 AM
>(CR)
DN_OR_LEN:
>2345200
OPTKEY:
>9
OPTION:
>ACOU
VI_NI1_NBL:
>1
CMD_NBL:
>2
OPTKEY:
>$
```

Example of adding the ACOU option to an NI-2 set in no-prompt mode

```
>ADO $ 2345200 9 ACOU 1 2 $
```

ACOU - Additional call offering unrestricted (continued)

Prompts

The following table provides the system prompts for the ACOU option.

Input prompts for the ACOU option (Sheet 1 of 2)

Prompt	Valid input	Explanation
CMD_NBL	0 TO 15	Enter the NBL for the CMD call type. This prompt only applies to NI-2 sets. Note: The value must be set to 1 less than the call reference busy limit (CRBL) for the call type, except when the CRBL is set to 1.
DN_OR_LEN	Refer to DN and LTID in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	Enter the line's DN or LTID. For a MDN line or MLH/DLH hunt members, if a DN is specified, the user is prompted for the LTID. If the LTID is entered, the user is not prompted for the DN.
OPTION	Refer to table Line service options in the "Service order tables" section of this manual for a list of valid inputs.	Option(s) associated with a service to be established, modified, or deleted. A maximum of 20 options can be specified in a single command.
OPTKEY	1 to 69	Key associated with the option.

ACOU - Additional call offering unrestricted (continued)

Input prompts for the ACOU option (Sheet 2 of 2)

Prompt	Valid input	Explanation
SONUMBER	Refer to SONUMBER in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	The unique number of the service order to be entered.
VI_NI1_NBL	0 TO 15	For NI-1 sets, enter the NBL value. For NI-2 sets, enter the NBL value for the VI call type. Note: For NI-2 sets, the value must be set to 1 less than the CRBL for the call type, except when the CRBL is set to 1

ACOU to line class code compatibility

For ISDN, the only valid line class code is ISDNKSET.

Assignability

The following functionalities apply to this option:

- set functionality: no
- subset functionality: no
- DN functionality: yes
- key functionality: no

Option prerequisites

ACOU can be assigned to non-NI-2 sets only if the NUMC option has been assigned.

ACOU - Additional call offering unrestricted (end)

Notes

The following notes apply to the ACOU option:

- ACOU is applicable only to DNs on non-EKTS ISDN function sets.
- ACOU must be added to an SFC DN key on a BRAFS keyset which has none of the following options: DNH, MLH, or DLH. ACOU is compatible with KSH.
- The ACOU option is incompatible with the following options:
 - DNH, SCMP, MLH, DLH, and MDN.

Feature identification

Functionality: NTX755AB

Functionality: NTX755AC

Feature number: AQ0779

ACR - Aggregate CND Recording

Description

Aggregate CND Recording (ACR) is an extension of the Calling Number/Name Delivery (CND/CNAMD) feature. ACR is part of the Calling Number Identification Service (CNIS) feature for integrated services digital network (ISDN) basic rate interface (BRI) lines. The ACR line option allows the operating company to generate separate peg counts for voiceband information (VI) and circuit-mode data (CMD) calls.

Option ACR appends module code 071 to the AMA record generated when CND/CNAMD is active on a SUSP basis for the DN. The bearer capability field in module code 071 shows the call type. A value of 101 in this field indicates voice; a value of 203 indicates CMD.

Example

The following is an example of option ACR in prompt mode. Assign option CND to key 1 before you add ACR or add both options at the same time. In this example, CND was added to the DN earlier.

Example of the ACR option in prompt mode

```
> ADO
SONUMBER:   NOW 96 7 1 PM
>
DN:
> 6755000
OPTKEY:
> 1
OPTION:
> ACR
OPTKEY:
> $
```

Example of the ACR option in no-prompt mode

```
> ADO $ 6755000 1 ACR $
```

ACR - Aggregate CND Recording (end)

Prompts

The following table provides the system prompts for option ACR.

Input prompts for the ACR option

Prompt	Valid input	Explanation
DN	7 or 10 digits entered with no spaces or hyphens	Directory number associated with the service that you establish, modify, or delete.
OPTION	ACR	Option(s) associated with a service that you establish, modify, or delete. Specify a maximum of 20 options in any single command.
OPTKEY	1 to 69	Key associated with the option.

ACR to line class code compatibility

Option ACR applies to the line class code of ISDNKSET only.

Assignability

The following functionalities apply to this option:

- set functionality: no
- subset functionality: no
- DN functionality: yes
- key functionality: no

Option prerequisites

Option ACR has the following prerequisite: Calling Number Delivery (CND) must be present or you must add it in the same SERVORD command as option ACR.

Notes

There are no notes for this option.

Feature identification

Functionality: NI000052

Feature number: AF7454

ACRJ - Anonymous caller rejection

Description

The ACRJ (anonymous caller rejection) option allows the subscriber to reject incoming calls with caller identification information blocked. The system evaluates anonymity when a call terminates on an ISDN BRI line with ACRJ assigned. An anonymous call that terminates on an ISDN BRI line with ACRJ assigned routes to the ACRJ treatment.

Example

The following is an example of the ACRJ option. This example assigns ACRJ to an existing line with an ISDNKSET line class code (LCC).

Example of the ACRJ option in prompt mode

```
> ADO
SONUMBER:  NOW 97 7 9 PM
> (CR)
LEN_OR_LTID:
> ISDN 200
OPTKEY:
> 1
OPTION:
> ACRJ
STATUS:
> INACT
KEYLIST:
> $
OPTKEY:
> $
```

Example of the ACRJ option in no-prompt mode

```
> ADO $ ISDN 200 1 ACRJ INACT $ $
```

ACRJ - Anonymous caller rejection (continued)

Prompts

The following table provides the system prompts for the ACRJ option.

Input prompts for the ACRJ option

Prompt	Valid input	Explanation
LEN_OR_LTID	Refer to DN and LEN_OR_LTID in the "Prompts" table in Chapter 2 for information on valid inputs.	Enter the DN or LEN. If a DN for an MDN line or MLH or DLH group member is specified, the system prompts for the LEN. The system will not prompt for the DN.
DNS	10-digit DN	Directory number added to the ACRJ list.
KEYLIST	1 to 69	The list of keys available on the terminal. Up to 24 keys can be specified.
OPTION	Refer to the "Line service options" table in Chapter 2 for a list of valid inputs.	Option(s) associated with a service to be established, modified, or deleted. Specify a maximum of 20 options in any single ADD, ADO, EST, or NEW command.
OPTKEY	1 to 69	Key associated with the option.
SONUMBER	Refer to SONUMBER in the "Prompts" table in Chapter 2 for information on valid inputs.	The unique number of the service order.
STATUS	ACT, INACT	Status of the option.

ACRJ to line class code compatibility

For ISDN, the only valid line class code is ISDNKSET.

Assignability

The following functionalities apply to this option:

- set functionality: no
- subset functionality: yes

ACRJ - Anonymous caller rejection (end)

- DN functionality: no
- key functionality: no

Option prerequisites

There are no prerequisites for this option.

Notes

The following notes apply to ACRJ:

- The ACRJ feature is enabled or disabled for the office through the ACRJ tuple in table RESOFC. The ENABLED field must be set to Y to enable ACRJ office-wide.
- Use the SERVORD NEW command to assign the ACRJ option when you create the primary DN (PDN).
- Use the SERVORD ADO command to assign the ACRJ option after you have created the PDN.
- Assign ACRJ on a flat-rate basis only. Subscriber usage-sensitive pricing (SUSP) is not supported.

Feature identification

Functionality: NI000060

Feature number: AF7198

AFC - Additional functional calls

Description

Single-call capability on a DN supported by a functional terminal is known as single functional call (SFC). A call appearance is automatically assigned the SFC option when it is first added to a logical terminal.

Multiple call capacity for NI-1 sets is added to the SFC DN by assigning additional functional call (AFC) members.

Assign the AFC option to the same key as the assigned DN. If the ADO command assigns the AFC option, AFC can only be added to an assigned DN key. It is possible to assign up to four additional calls for each SFC DN.

AFC members are identical to the corresponding SFC DN. Any MDC feature assigned against the SFC is also automatically associated with the AFC members.

The AFC option can not be assigned to NI-2 sets using the ADO command. It is automatically added to NI-2 sets when the option CRBL is added with a total CRBL value greater than 1.

Example

The following example shows the ADO command when it is used to add four additional functional calls.

Example of the AFC option in prompt mode

```

>ADO
SONUMBER:  NOW 92 12 08 AM
>(CR)
DN_OR_LEN:
>2345432
OPTKEY:
>9
OPTION:
>AFC
AFCCALLS:
>4
OPTKEY:
>$

```

Example of the AFC option in no-prompt mode

```

>ADO $ 2345432 9 AFC 4 $

```

AFC - Additional functional calls (continued)

Prompts

The following table provides the system prompts for the AFC option.

Input prompts for the AFC option

Prompt	Valid input	Explanation
NUMCALLS	1 to 4	The number of additional functional calls.
DN_OR_LEN	Refer to DN and LTID in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	Enter the line's DN or LTID. For an MDN line or MLH/DLH hunt members, if a DN is specified, the user is prompted for the LTID. If the LTID is entered, the user is not prompted for the DN.
OPTION	Refer to table Line service options in the "Service order tables" section of this manual for a list of valid inputs.	Option(s) associated with a service to be established, modified, or deleted. A maximum of 20 options can be specified in a single command.
OPTKEY	1 to 69	Key associated with the option.
SONUMBER	Refer to SONUMBER in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	The unique number of the service order to be entered.

AFC to line class code compatibility

For ISDN, the only valid line class code is ISDNKSET.

Assignability

The following functionalities apply to this option:

- set functionality: no
- subset functionality: no
- DN functionality: yes
- key functionality: no

AFC - Additional functional calls (end)

Option prerequisites

There are no prerequisites for this option.

Notes

The following notes apply to the AFC option:

- Added calls are assigned to unused keys immediately following the highest key to which an SFC DN (or a corresponding AFC member) is assigned. There must be a sufficient number of keys available to assign the additional calls.
- The AFC value is the number of additional function calls, so the total number of calls on the DN is AFC+1, or AFC+SFC.
- The AFC option is incompatible with the CRBL, DBC, MDN, and NUMC options.
- The AFC key(s) created by the AFC option will appear as the next greater key number(s) in table KSETFEAT or in a QLT.
- The AFC option is deleted from the key to which the DN is assigned.

Feature identification

Functionality: NTX753AA

Functionality: NTX753AB

Feature number: AJ0165

AGA - Associated group assignment

Description

The AGA option allows the specification of the Associated Group Assignment (AGA) capability to be used for ISDN Basic Rate Access Functional Set (BRAFS) circuit-switched (CS) 2B channel and NI-2 terminals.

The SERVORD SLT ADD, SLT CHA, and SLT ATT commands are enhanced to support the AGA option.

Example

The following section shows SERVORD examples for defining or changing the AGA option on an LTID and for attaching an LTID to an interface.

Defining the AGA option, one group, VI call type

The following example shows the SLT ADD command used to define the AGA option for an NI-2 2B LTID. All DNs associated with the voiceband (VI) call type are placed in one associated group.

Note: The SLT ADD command can also be used to define the AGA option for a 2B channel LTID or for an NI-2 2BD LTID.

AGA - Associated group assignment (continued)

Example of the AGA option with SLT ADD command in prompt mode

```

SO:
> SLT
SONUMBER:  NOW 97 07 26 AM
> $
LTID:
> ISDN 1
FUNCTION:
> ADD
LTCLASS:
> BRAFS
CS:
> NI2
PS:
> N
MAXKEYS:
> 64
DEFLTERM:
> N
TEI_TYPE:
> DTEI
TSPID:
> 6135551212
EKTS:
> N
OPTION:
> AGA
AG_GROUP:
> 1
AG_CT:
> AG_VI
OPTION:
> $

```

Example of the AGA option with SLT ADD command in no-prompt mode

```

>SLT $ ISDN 1 ADD BRAFS NI2 N 64 N DTEI 6135551212 N AGA 1
AG_VI $

```

Defining the AGA option, two groups, two call types

The following example shows the SLT ADD command used to define the AGA option for an NI-2 2B LTID that has DNs associated with the VI call type in

AGA - Associated group assignment (continued)

one associated group and DNs associated with the circuit-mode data (CMD) call type in a second associated group.

Note: The SLT ADD command can also be used to define the AGA option for a 2B channel LTID or for an NI-2 2BD LTID.

Example of the AGA option with the SLT ADD command in prompt mode

```
SO:
> SLT
SONUMBER:  NOW 97 07 26 AM
> $
LTID:
> ISDN 1
FUNCTION:
> ADD
LTCLASS:
> BRAFS
CS:
> NI2
PS:
> N
MAXKEYS:
> 64
DEFLTERM:
> N
TEI_TYPE:
> DTEI
TSPID:
> 6135551212
EKTS:
> N
OPTION:
> AGA
AG_GROUP:
> 1
AG_CT:
> AG_VI
OPTION:
> AGA
AG_GROUP:
> 2
AG_CT:
> AG_CMD
OPTION:
> $
```

AGA - Associated group assignment (continued)

Example of the AGA option with SLT ADD command in no-prompt mode

```

>SLT $ ISDN 1 ADD BRAFS NI2 N 64 N DTEI 6135551212 N AGA 1
AG_VI AGA 2 AG_CMD $
```

Defining all DN/CTs assigned to an LTID in one associated group

The following example shows the SLT ADD command used to define the AGA option for a 2B channel LTID with all the DN/CTs in one associated group.

Note: The SLT ADD command can also be used to define the AGA option for an NI-2 2B LTID or for an NI-2 2BD LTID.

Example of the AGA option with the ADD command in prompt mode

```

SO:
> SLT
SONUMBER:  NOW 97 07 26 AM
> $
LTID:
> ISDN 1
FUNCTION:
> ADD
LTCLASS:
> BRAFS
CS:
> 2B
PS:
> N
MAXKEYS:
> 64
DEFLTERM:
> N
TEI_TYPE:
> DTEI
TSPID:
> 6135551212
EKTS:
> N
OPTION:
> AGA
AG_GROUP:
> 1
AG_CT:
> AG_ALL
OPTION:
> $
```

AGA - Associated group assignment (continued)

Example of the AGA option with the SLT ADD command in no-prompt mode

```
>SLT $ ISDN 1 ADD BRAFS 2B N 64 N DTEI 6135551212 N AGA 1
AG_ALL $
```

Changing the AGA field of an existing associated group

The following example shows the SLT CHA command used to change the AGA field of an existing associated group for the LTID ISDN 1. After completion of the CHA command, all the DNs of the VI call type on the LTID ISDN 1 are placed in the associated group number one.

Example of the AGA option with SLT CHA command in prompt mode

```
SO:
>SLT
SONUMBER: NOW 97 07 26 PM
>$
LTID:
>ISDN 1
FUNCTION:
>CHA
SET_ATTRIBUTE:
>AGA
AG_GROUP:
>1
AG_CT:
>AG_VI
SET_ATTRIBUTE:
>$
```

Example of the AGA option with SLT CHA command in no-prompt mode

```
>SLT $ ISDN 1 CHA AGA 1 AG_VI $
```

Removing the associated group capability

The following example shows the SLT CHA command used to remove the associated group capability from an LTID by changing the AGA call type to AG_UNASSIGNED.

AGA - Associated group assignment (continued)

Example of the AGA option with SLT CHA command in prompt mode

```

SO:
>SLT
SONUMBER:  NOW 97 07 26 PM
> $
LTID:
>ISDN 1
FUNCTION:
>CHA
SET_ATTRIBUTE:
>AGA
AG_GROUP:
>1
AG_CT:
>AG_UNASSIGNED
SET_ATTRIBUTE:
>$

```

Example of the AGA option with SLT CHA command in no-prompt mode

```
>SLT $ ISDN 1 CHA AGA 1 AG_UNASSIGNED $
```

Attaching existing NI-2 LTIDs to a LEN

The SLT ATT command is used to attach existing NI-2 LTIDs to a LEN. The attachment succeeds when there are no conflicts in AGA groups. Conflicts in AGA groups occur when two AGA groups are assigned the same number. The following example shows the SLT ATT command used to attach two NI-2 LTIDs that have the AGA option to a LEN.

Example of attaching existing NI-2 LTIDs with SLT ATT command

```

> SLT $ ISDN 1 ADD BRAFS NI2 N 64 N DTEI N AGA 1 AG_ALL $
> SLT $ ISDN 10 ADD BRAFS NI2 N 64 N DTEI N AGA 2 AG_ALL $
> SLT $ ISDN 1 ATT HOST 01 0 00 04 $
> SLT $ ISDN 10 ATT HOST 01 0 00 04 $

```

AGA - Associated group assignment (continued)

Resolving AGA option errors

An explanation of AGA option errors and the resolution of such errors follows:

1. AGA is defined for two NI-2 LTIDs identified as ISDN 1000 and ISDN 100. All the DNs associated with the VI call type are placed in AGA 1 and all the DNs associated with the CMD call type are placed in another associated group identified as AGA 1.
2. An attempt is made to attach ISDN 1000 and ISDN 100 to a LEN interface.
3. An error message displays indicating a conflict in AGA group numbers.
4. An attempt is made to change ISDN 1000 AGA 1 AG_VI to ISDN 1000 AGA 2 AG_VI.
5. An error message displays indicating a conflict in AGA call types.
6. The AGA assignment is removed from ISDN 1000 AGA 1 AG_VI by changing ISDN 1000 to AGA 1 AG_UNASSIGNED.
7. ISDN 1000 AGA 1 AG_VI is successfully changed to ISDN 1000 AGA 2 AG_VI.
8. ISDN 1000 and ISDN 100 are successfully attached to a LEN.

The following figure shows an example of resolving AGA option errors.

AGA - Associated group assignment (continued)

Example of resolving AGA option errors

```
>SLT $ ISDN 1000 ADD BRAFS NI2 N 64 N DTEI AGA 1 AG_VI $  
>SLT $ ISDN 100 ADD BRAFS NI2 N 64 N DTEI AGA 1 AG_CMD $
```

```
>SLT $ ISDN 1000 ATT HOST 01 0 00 05 $ Y
```

```
>SLT $ ISDN 100 ATT HOST 01 0 00 05 $ Y
```

```
AGA already exists for Group 1  
Cannot add the tuple to table LTMAP
```

```
>SLT $ ISDN 1000 CHA AGA 2 AG_VI $
```

```
Redundancy Error: AG_GROUP 1 AG_CT is  
equal to AG_GROUP 2 AG_CT  
Unable to update table LTDEF
```

```
>SLT $ ISDN 1000 CHA AGA 1 AG_UNASSIGNED$
```

```
>SLT $ ISDN 1000 CHA AGA 2 AG_VI $
```

```
>SLT $ ISDN 1000 ATT HOST 01 0 00 05 $ Y
```

```
>SLT $ ISDN 100 ATT HOST 01 0 00 05 $ Y
```

AGA - Associated group assignment (continued)

Prompts

The following table provides the system prompts for the AGA option.

Input prompts for the AGA option (Sheet 1 of 3)

Prompt	Valid input	Explanation
ABS	VOICE = Analog voice VBD = Voiceband data CMD = Circuit mode data	Authorized bearer services (available with NTX750AB05 feature package). This option limits the bearer services to which a circuit-switched call can subscribe. A prompt for ABS is displayed only if the set is a circuit-switched functional set.
AG_CT	AG_VI, AG_CMD, AG_ALL, AG_UNASSIGNED	Associated groups call type. Enter AG_VI for voiceband information call type. Enter AG_CMD for circuit mode data call type. Enter AG_ALL for both call types. Enter AG_UNASSIGNED for an unassigned call type.
AG_GROUP	1-9	Associated group number. Enter 1-9 for the associated group number. Nine AGs are allowed on an interface.
CS	2B, NI2	Circuit-switched service. Enter 2B for pre-NI-2 terminals. Enter NI2 for NI-2 terminals.
DEFLTERM	Y, N	Identifies an LTID as a default logical terminal. Enter Y for the default non-initializing terminal (NIT) and the default service profile. Enter N for the fully initializing terminal (FIT).
EKTS	Y, N	Electronic key telephone set. Note: Only a functional (BRAFS) set with dynamic TEI can be defined as an EKTS.

AGA - Associated group assignment (continued)

Input prompts for the AGA option (Sheet 2 of 3)

Prompt	Valid input	Explanation
FUNCTION	ADD, REM, ATT, DET, CHA	The action required by the service order.
LTCLASS	BRAFS	Class of logical terminal based on the type of messaging exchanged between the terminal and the ISDN switch. Enter BRAFS for functional messaging.
LTID	1 to 8 alphanumeric characters, followed by a space and a terminal number (1 to 1022)	The logical terminal identifier of the LTID to be added, removed, attached, detached, or changed.
MAXKEYS	2 to 64	Maximum number of feature activators (keys) on a logical terminal used for circuit-switched service.
OPTION (in SLT ADD and SLT CHA function)	AGA	The associated group assignment option
PS	N, D	Packet-switched service. For 2B and NI-2 2B terminals, enter N for no packet service. For NI-2 2BD terminals, enter D for packet service on the D-channel.
SET_ATTRIBUTE	AGA	Options to add or change on the terminal.
SONUMBER	Refer to SONUMBER in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	The unique number of the service order to be entered.
TEI_TYPE	DTEI = Dynamic	The type of TEI assignment.

AGA - Associated group assignment (end)

Input prompts for the AGA option (Sheet 3 of 3)

Prompt	Valid input	Explanation
TSPID	1-18 digits	Terminal service profile identifier option, which is used to initialize BRIFS LTIDs. This option is used with the Free Format SPID feature.
VERSION	FUNCTIONAL	The version of the protocol used by the BRAFS terminal.

AGA to line class code compatibility

For ISDN, the only valid line class code is ISDNKSET.

Assignability

The following functionalities apply to this option:

- set functionality: yes
- subset functionality: no
- DN functionality: no
- key functionality: no

Option prerequisites

There are no prerequisites for this option.

Notes

The following notes apply to option AGA:

- The assignment of associated groups is dependent on the BRAFS CS type of either 2B or NI2.
- Option AGA is compatible with all line options.
- By definition, the number of B-channels allowed on an associated group (AG) is one.
- A maximum of nine AGs are allowed on an interface.

Feature identification

Functionality: NI000051, NI000060

Feature number: AF6642, AF7326

AMSG - Access to Messaging

Description

The AMSG option assigned to a line provides the access to messaging service to the end user on a line.

The following Service Order System (SERVORD) commands support the AMSG line option:

- ADO - add option
- CHF - change feature
- DEO - delete option
- EST - establish option
- NEW - new option

Example

The following is an example of adding option AMSG to an ISDN line.

Example of adding the AMSG option using the ADO command in prompt mode

```
> ADO
SONUMBER:          NOW 98 11 10 PM
> $
DN_OR_LEN:
> 5551212
OPTKEY:
> 1
OPTION:
> AMSG
OPTION
> $
```

The following is an example of deleting option AMSG from an ISDN line.

AMSG - Access to Messaging (continued)

Example of deleting the AMSG option using the DEO command in prompt mode

```

> DEO
SONUMBER:          NOW 98 11 10 PM
> $
DN_OR_LEN:
> 5551212
OPTKEY:
> 1
OPTION:
> AMSG
OPTION
> $

```

Prompts

The following table provides the system prompts for the AMSG option.

Input prompts for the AMSG option

Prompt	Valid input	Explanation
DN_OR_LEN	For DN, 7 or 10 digits entered with no spaces or hyphens	Enter the DN or LEN of the line. In the event of an MDN line or MLH/DLH members, if a DN is specified, then the switch prompts the end user for the LEN. If the LEN exists the switch does not prompt the end user for the DN.
OPTKEY	1 to 69	Optional key identifies the business set key, to which the end user assigns option AMSG.
OPTION	AMSG	Establish an option associated with a service. The user can specify a maximum of 20 options with any single ADD, ADO, EST, or NEW command.

AMSG to line class code compatibility

For ISDN, the only valid line class code is ISDNKSET.

AMSG - Access to Messaging (end)

Assignability

The following functionalities apply to this option:

- set functionality: no
- subset functionality: no
- DN functionality: yes
- key functionality: no

Option prerequisites

There are no prerequisites for this option.

Notes

The following notes apply to AMSG:

- The AMSG option is not compatible with the ASP (Alternate Service Provider) option with the AMSG service.
- Only add the AMSG option to a DN key.
- AMSG is not compatible with Series I Peripherals (LM and RLM).

Feature identification

Functionality: RES00077

Feature number: AJ5115

AMSGDENY - Access to Messaging Deny

Description

AMSGDENY prevents the line from receiving the access to messaging service. The operating company assigns the AMSGDENY option.

The following Service Order System (SERVORD) commands support the AMSGDENY line option:

- ADO - add option
- CHF - change feature
- DEO - delete option
- EST - establish option
- NEW - new option

Example

The following is an example of deleting option AMSGDENY from a key set.

Example of the AMSGDENY option using the DEO command in prompt mode

```
> DEO
SONUMBER:          NOW 98 11 10 PM
> $
DN_OR_LEN:
> 5551212
OPTKEY:
> 1
OPTION:
> AMSGDENY
OPTKEY:
> $
```

The following is an example of adding option AMSGDENY to a key set.

AMSGDENY - Access to Messaging Deny (continued)

Example of the AMSGDENY option using the ADO command

```

> ADO
SONUMBER:      NOW 98 11 10 PM
> $
DN_OR_LEN:
> 5551212
OPTKEY:
> 1
OPTION:
> AMSGDENY
OPTKEY:
> $

```

Prompts

The following table provides the system prompts for option AMSGDENY.

Input prompts for the AMSGDENY option

Prompt	Valid input	Explanation
DN_OR_LEN	For DN, 7 or 10 digits entered with no spaces or hyphens	Enter the line's DN or LEN. In the event of an MDN line or MLH/DLH members, if a DN is indicated, then the switch prompts the end user for the LEN. If the LEN exist, then the switch does not prompt the end user for the DN.
OPTKEY	1 to 69	Optional key identifies the business set key, to which the end user assigns option AMSGDENY.
OPTION	AMSGDENY	Option indicates an established service. Specify A maximum of 20 options with any single ADD, ADO, EST, or NEW command.

AMSGDENY to line class code compatibility

For ISDN, the only valid line class code is ISDNKSET.

AMSGDENY - Access to Messaging Deny (end)

Assignability

The following functionalities apply to this option:

- set functionality: no
- subset functionality: no
- DN functionality: yes
- key functionality: no

Option prerequisites

There are no prerequisites for this option.

Notes

Only add the AMSGDENY option to a DN key.

Feature identification

Functionality: RES00077

Feature number: AJ5115

AR - Automatic recall

Description

The AR option allows a subscriber to place a call to the last station that called the subscriber. If the destination line is busy, AR monitors it until it becomes idle and can accept the call.

The ISDN AR option provides the same functionality as the CLASS AR option to subscribers using National ISDN 2 (NI-2) terminals. ISDN AR applies to both voice and data calls, and is supported for the following bearer capabilities (BC) datafilled in table BCDEF (Bearer Capability Definition): SPEECH, 3_1KHZ, 64KDATA, and 56KDATA.

Example

The following example shows how the AR option is added to an ISDN terminal using the ADO command.

Example of the AR option in prompt mode

```
> ADO
SONUMBER:  NOW 97 7 9 PM
> (CR)
DN_OR_LEN:
> 6215099
OPTKEY:
> 1
OPTION:
> AR
BILLING_OPTION: NOAMA
> $
KEYLIST:
> $
OPTKEY:
> $
```

Example of the ACB option in no-prompt mode

```
> ADO $ 6215099 1 AR $ $ $
```

AR - Automatic recall (continued)

Prompts

The following table provides the system prompts for the AR option.

Input prompts for the AR option

Prompt	Valid input	Explanation
BILLING_OPTION	AMA, NOAMA	Indicates the billing option to be specified when SUSP is enabled for the office. Enter AMA if an AMA record should be created; enter NOAMA if an AMA record should not be created.
DN_OR_LEN	Refer to DN and LTID in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	Enter the line's DN or LTID. For a multiple appearance directory number (MDN) line or for MLH/DLH hunt members, if a DN is specified, the user is prompted for the LTID. If the LTID is entered, the user is not prompted for the DN.
KEYLIST	1 to 69	The list of keys available on the terminal. Up to 24 keys can be specified.
OPTION	Refer to table Line service options in the "Service order tables" section of this manual for a list of valid inputs.	Option(s) associated with a service to be established, modified, or deleted. A maximum of 20 options can be specified in a single command.
OPTKEY	1 to 69	Key associated with the option.
SONUMBER	Refer to SONUMBER in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	The unique number of the service order to be entered.

AR - Automatic recall (end)

AR to line class code compatibility

This option only applies to the line class code of ISDNKSET.

Assignability

The following functionalities apply to this option:

- set functionality: no
- subset functionality: yes
- DN functionality: no
- key functionality: no

Option prerequisites

There are no prerequisites for this option.

Notes

The following notes apply to AR:

- ISDN AR must be assigned to the DN key on an ISDN terminal.
- ISDN AR is incompatible with packet-switched data.
- ISDN AR is incompatible with the following Multiple Appearance Directory Number (MADN) variants: CACH (call appearance call handling), EXB (extension bridging), and MCA (multiple call arrangement). ISDN AR is compatible with MADN SCA (single call arrangement).
- ISDN AR cannot be provisioned on the same line with the following options:
 - Automatic Line (AUL)
 - Denied Origination (DOR)
 - Denied Termination (DTM)
 - Ring Again (RAG)

Feature identification

Functionality: NI000051

Feature number: AF6619

ARR - Aggregate RND Recording

Description

Option ARR produces aggregate call type-specific AMA records for the Redirecting Number Delivery (RND) feature. Assign both options ARR and RND to the same primary or secondary DN.

Option RND sums available and not available RND deliveries. Option ARR causes these sums to split into four categories: available and not available voice, and available and not available circuit-mode data (CMD). When a DN has the RND option, the ARR option causes the aggregate counting values to determine call type and increments the counters.

The Service Order System (SERVORD) updates or creates a tuple in table KSETLINE for every DN that has option ARR. If the DN is a Multiple Appearance Directory Number (MADN), only the primary or controller of the MADN group can have option ARR.

Example

The following is an example of ARR in prompt mode. Assign the billing option RND with, or before, option ARR. Option SUSP in table AMAOPTS is ON.

ARR - Aggregate RND Recording (continued)

Example of the ARR option in prompt mode

```

> NEW
SONUMBER: NOW 98 01 01 PM
> $
DN:
> 6755000
LCC:
> ISDNKSET
GROUP:
> GRP
SUBGRP:
> 0
SNPA:
> 619
KEY:
> 1
RINGING:
> Y
LATANAME:
> LATA1
LTG: 0
>
LEN_OR_LTID:
> ISDN 1
OPTKEY:
> 1
OPTION:
> RND
BILLING_OPTION: NOAMA
> AMA
OPTKEY:
> 1
OPTION:
> ARR
OPTKEY:
$

```

Example of the ARR option in no-prompt mode

```

> NEW $ 6755000 ISDNKSET GRP 0 619 1 Y LATA1 ISDN 1 (1 RND
AMA) (1 ARR) $

```

ARR - Aggregate RND Recording (continued)

Prompts

The following table provides the system prompts for the ARR option.

Input prompts for the ARR option (Sheet 1 of 2)

Prompt	Valid input	Explanation
DN	7 or 10 digits (entered with no spaces or hyphens)	The DN of the LTID
LCC	ISDNKSET	The line class code
GROUP	1 to 16 alphanumeric characters	The name of the customer group
SUBGRP	0 to 7	Subgroup of a customer group to which a DN belongs
SNPA	3-digit number	Service numbering plan area (or area code)
KEY	1 to 69	The number linked with the key set to which the DN applies
RINGING	Y, N	Indicates if you require a ring from a telephone speaker in addition to the call-waiting tone from the headset
LATANAME	alphanumeric	The calling local access and transport area (LATA) name related to the call originator
LTG:0	0 to 255, default is 0	Line treatment group
LEN_OR_LTID	an LTGRP of 1 to 8 alphanumeric digits, a space, and a terminal number (1 to 1022)	The logical terminal identifier (LTID) of the DN
OPTKEY	1 to 69	Indicates the key linked to the option

ARR - Aggregate RND Recording (end)

Input prompts for the ARR option (Sheet 2 of 2)

Prompt	Valid input	Explanation
OPTION	ARR, RND	Indicates the option related to the service you add, delete, or modify
BILLING_OPTION:NOAMA	AMA , NOAMA	Indicates if you require Automatic Message Accounting (AMA) for RND

ARR to line class code compatibility

For ISDN, the only line class code is ISDNKSET.

Assignability

The following functionalities apply to this option:

- set functionality: no
- subset functionality: no
- DN functionality: yes
- key functionality: no

Option prerequisites

Option ARR requires option RND. Use the ADO command to add option ARR to a DN on an LTID that has the RND option. You can add ARR and RND at the same time. If you delete option RND, you also remove option RND.

Feature identification

Functionality: Redirecting Number and Reason Delivery for ISDN CFW

Feature number: AF7736

BBGI - Basic Business Group ISDN

Description

Option BBGI facilitates automatic message accounting (AMA) recording for the office, customer group, or line. The AMA records produced track the use of Basic Business Group (BBG) ISDN basic rate interface (BRI) facilities and services.

BBGI billing appends module code 074, ISDN basic business group, to all BBG ISDN enabled BRI AMA records. Module code 074 identifies the

- BBG ISDN call type
- billing number of the BBG customer
- associated virtual facility group (VFG) or trunk group number (TGN) used in the call

BBGI billing generates AMA records for calls that originate from or terminate to a BRI facility. This option supports originations on VFGs and trunk groups if they are members of a BBG ISDN customer group that terminates to a BRI facility.

Example

The following is an example of option BBGI.

Example of the BBGI option

```
> ADO
SONUMBER:  NOW 98 1 23 PM
>
DN_OR_LEN:
> 6211590
OPTKEY:
> 1
OPTION:
> BBGI
BBGI_STATE
> Y
OPTKEY:
> $
COMMAND AS ENTERED:
ADO NOW 98 1 23 PM 6211590 ( BBGI Y ) $
ENTER Y TO CONFIRM, NO TO REJECT OR E TO EDIT
> Y
```

BBGI - Basic Business Group ISDN (continued)

Prompts

The following table provides the system prompts for option BBGI.

Input prompts for the BBGI option

Prompt	Valid input	Explanation
DN	7 or 10 digits entered with no spaces or hyphens.	Directory number associated with the service that you establish, modify, or delete.
DN_OR_LEN	Refer to DN and LTID in this table for information on valid inputs.	Enter the DN or LTID for the line. For an MDN line or MLH/DLH members, if you specify a DN, SERVORD prompts for the LTID. If the user enters the LTID, SERVORD does not prompt for the DN.
BBGI_STATE	Y or N	Indicates if the feature is enabled for the line.
LTID	An LTID consists of a logical terminal group (LTGRP) name of 1 to 8 alphanumeric digits, a space, and a terminal number (1 to 1022).	The logical terminal identifier.
OPTION	BBGI	Option(s) associated with a service that you establish, modify, or delete. Specify a maximum of 20 options in a single command.
OPTKEY	1 to 69	Key associated with the option.

BBGI to line class code compatibility

Option BBGI applies to the line class code of ISDNKSET only.

Assignability

The following functionalities apply to this option:

- set functionality: no
- subset functionality: no

BBGI - Basic Business Group ISDN (end)

- DN functionality: yes
- key functionality: no

Option prerequisites

BBGI has the following prerequisite. You can assign option BBGI at any time. Option BBGI does not, however, affect AMA recording until you set the AMAOPTS tuple ISDNBBGBILL to ON.

Notes

There are no notes for this option.

Feature identification

Functionality: NI000052

Feature number: AF7503

BC - Bearer capability

Description

The BC option enables the set to receive and translate information required in routing.

Example

The following example shows the ADO command when it is used to add the BC option to DN 234-5432.

Example of the BC option in prompt mode

```
>ADO
SONUMBER:  NOW 92 12 08 AM
> (CR)
DN_OR_LEN:
>2345432
OPTKEY:
>9
OPTION:
>BC
BCNAME:
>SPEECH
OPTKEY:
>$
```

Example of the BC option in no-prompt mode

```
>ADO $ 2345432 9 BC SPEECH $
```

BC - Bearer capability (continued)

Prompts

The following table provides the system prompts for the BC option.

Input prompts for the BC option

Prompt	Valid input	Explanation
BCNAME	Alphanumeric	Bearer capability name. This name must be present in table BCNAME.
DN_OR_LEN	Refer to DN and LTID in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	Enter the line's DN or LTID. For an MDN line or MLH/DLH hunt members, if a DN is specified, the user is prompted for the LTID. If the LTID is entered, the user is not prompted for the DN.
OPTION	Refer to table Line service options in the "Service order tables" section of this manual for a list of valid inputs.	Option(s) associated with a service to be established, modified, or deleted. A maximum of 20 options can be specified in a single command.
OPTKEY	1 to 69	Key associated with the option.
SONUMBER	Refer to SONUMBER in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	The unique number of the service order to be entered.

BC to line class code compatibility

For ISDN, the only valid line class code is ISDNKSET.

Assignability

The following functionalities apply to this option:

- set functionality: no
- subset functionality: no
- DN functionality: yes
- key functionality: no

BC - Bearer capability (end)

Option prerequisites

There are no prerequisites for this option.

Notes

The following notes apply to the BC option:

- Option BC must be datafilled in table LCCOPT against the ISDNKSET line class code.
- Bearer capability only applies to BRAKS. The NA011 release removes obsolete BRAKS types of ISDN BRI. A reformat in NA011 changes obsolete BRAKS LTIDs that were present to default BRAFS LTIDs.
- Option BC is incompatible with the following options:
 - ACD, CNF, CWD, CWI, CWO, CWT, DCBI, EBO, EMW, FXR, ICM, MBSCAMP, MPH, MWIDC, MWQRY, MWT, UCD, UCDS, 3WC, and 3WCPUB.

Feature identification

Functionality: NTX750AB

Functionality: NTX750AC

Functionality: NTX750AD

Feature number: AC0094

BLOCKCDN - Block called party number

Description

The BLOCKCDN option blocks the delivery of the called party number (CDN) information element in the SETUP message.

When the BLOCKCDN option is assigned to an ISDN set, calls can no longer terminate to that set. The ISDN set becomes an originate-only set; that is, you can make calls from the set, but you cannot receive calls on the set. All calls to a DN with BLOCKCDN assigned receive a busy signal.

Using SERVORD, the BLOCKCDN option is

- added to the DN using the ADO command
- deleted from the DN using the DEO or OUT commands
- assigned to new DNs using the NEW command
- modified by using the CHF command

The ADO, CHF, AND NEW commands reject the assignment of the BLOCKCDN option if the LTCLASS associated with the DN is not BRAFS.

Example

The following example shows the ADO command when it is used to add the BLOCKCDN option to DN 234-5432.

Example of the BLOCKCDN option in prompt mode

```
>ADO
SONUMBER:  NOW 92 12 08 AM
>(CR)
DN_OR_LEN:
>2345432
OPTKEY:
>9
OPTION:
>BLOCKCDN
OPTKEY:
>$
```

Example of the BLOCKCDN option in no-prompt mode

```
>ADO $ 2345432 9 BLOCKCDN $
```

BLOCKCDN - Block called party number (continued)

Prompts

The following table provides the system prompts for the BLOCKCDN option.

Input prompts for the BLOCKCDN option

Prompt	Valid input	Explanation
DN_OR_LEN	Refer to DN and LTID in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	Enter the line's DN or LTID. For an MDN line or MLH/DLH hunt members, if a DN is specified, the user is prompted for the LTID. If the LTID is entered, the user is not prompted for the DN.
OPTION	Refer to table Line service options in the "Service order tables" section of this manual for a list of valid inputs.	Option(s) associated with a service to be established, modified, or deleted. A maximum of 20 options can be specified in a single command.
OPTKEY	1 to 69	Key associated with the option.
SONUMBER	Refer to SONUMBER in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	The unique number of the service order to be entered.

BLOCKCDN to line class code compatibility

For ISDN, the only valid line class code is ISDNKSET.

Assignability

The following functionalities apply to this option:

- set functionality: no
- subset functionality: no
- DN functionality: yes
- key functionality: no

Option prerequisites

There are no prerequisites for this option.

BLOCKCDN - Block called party number (end)

Notes

The following notes apply to the BLOCKCDN option:

- Option BLOCKCDN must be datafilled in table LCCOPT against the ISDNKSET line class code.
- Option BLOCKCDN is compatible with all line options.
- Option BLOCKCDN was originally designed for use with the Enhanced Service Provider (ESP)
- Option BLOCKCDN does not apply to ISDN EKTS CACH sets. EKTS CACH sets do not utilize the CDN Information Element (IE) within the SETUP message. EKTS CACH sets use a Call Appearance Identifier (CAPI) in the SETUP message.

Feature identification

Functionality: NTX796AA

Feature number: AG1709

BLOCKCGN - Block calling party number

Description

The BLOCKCGN option blocks the delivery of the calling party number (CGN) information element in the SETUP message.

The BLOCKCGN option controls delivery of the CGN at the terminating end. Assigning BLOCKCGN to a user prevents the CGN from being displayed to that user.

Using SERVORD, the BLOCKCGN option is

- added to the DN using the ADO command
- deleted from the DN using the DEO or OUT commands
- assigned to new DNs using the NEW command
- modified by using the CHF command

The ADO, CHF, AND NEW commands reject the assignment of the BLOCKCDN option if the LTCLASS associated with the DN is not BRAFS.

Example

The following example shows the ADO command when it is used to add the BLOCKCGN option to DN 234-5432.

Example of the BLOCKCGN option in prompt mode

```

>ADO
SONUMBER:  NOW 92 12 08 AM
>(CR)
DN_OR_LEN:
>2345432
OPTKEY:
>9
OPTION:
>BLOCKCGN
OPTKEY:
>$

```

Example BLOCKCGN option in no-prompt mode

```

>ADO $ 2345432 9 BLOCKCGN $

```

BLOCKCGN - Block calling party number (continued)

Prompts

The following table provides the system prompts for the BLOCKCGN option.

Input prompts for the BLOCKCGN option

Prompt	Valid input	Explanation
DN_OR_LEN	Refer to DN and LTID in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	Enter the line's DN or LTID. For an MDN line or MLH/DLH hunt members, if a DN is specified, the user is prompted for the LTID. If the LTID is entered, the user is not prompted for the DN.
OPTION	Refer to table Line service options in the "Service order tables" section of this manual for a list of valid inputs.	Option(s) associated with a service to be established, modified, or deleted. A maximum of 20 options can be specified in a single command.
OPTKEY	1 to 69	Key associated with the option.
SONUMBER	Refer to SONUMBER in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	The unique number of the service order to be entered.

BLOCKCGN to line class code compatibility

For ISDN, the only valid line class code is ISDNKSET.

Assignability

The following functionalities apply to this option:

- set functionality: no
- subset functionality: no
- DN functionality: yes
- key functionality: no

Option prerequisites

There are no prerequisites for this option.

BLOCKCGN - Block calling party number (end)

Notes

The following notes apply to the BLOCKCGN option:

- Option BLOCKCGN must be datafilled in table LCCOPT against the ISDNKSET line class code
- Option BLOCKCGN is compatible with all line options
- Option BLOCKCGN was originally designed for use with the Enhanced Service Provider (ESP)

Feature identification

Functionality: NTX796AA

Feature number: AG1709

BNN - Bridged night number

Description

The BNN option allows a subscriber to advertise a different number for night service without requiring a third wire. BNNs can be assigned to DNH, MLH, and DLH groups.

Several BNNs can be assigned to a main hunt group. If required, hunting can take place among the BNNs. If the BNNs form a hunt group, hunting is sequential unless option CIR is assigned to the BNN group.

Example

The following example shows the EST command when is used to establish a BNN group with a pilot DN of 722-5000 on a DLH group pilot that has an LTID of ISDN 1. No options are assigned.

Example of the BNN option in prompt mode

```

>EST
SONUMBER:      NOW  92  5  7  PM
>(CR)
GROUPTYPE:
>BNN
PILOT_DN:
>7225000
HOST_HUNT_TYPE:
>DLH
HOST_LEN:
>ISDN 1 1
LEN_BNN:
>ISDN 4 1 7225010
LEN_BNN:
>ISDN 5 1 7225020
LEN_BNN:
>$
OPTION:
>$
GROUPSIZE:
>3

```

Example of the BNN option in no-prompt mode

```

>EST $ BNN 7225000 DLH ISDN 1 1 ISDN 4 1 7225010 ISDN 5 1 7225020
$ $ 3

```

BNN - Bridged night number (continued)

Prompts

The following table provides the system prompts for the BNN option.

Input prompts for the BNN option (Sheet 1 of 2)

Prompt	Valid input	Explanation
GROUPSIZE	0 to 1024	The expected maximum size of the hunt group. The group size specified must be large enough to accommodate the group's expected membership.
GROUPTYPE	BNN = Bridged night number CPU = Call pickup DLH = Distributed line hunt DNH = Directory number hunt MLH = Multiline hunt UA = No hunt	The type of hunt group to be established, modified, or deleted.
HOST_HUNT_T YPE	BNN = Bridged night number CPU = Call pickup DLH = Distributed line hunt DNH = Directory number hunt MLH = Multiline hunt UA = No hunt	The type of hunt group on which a BNN hunt group is established.
HOST_LEN	Refer to LTID and KEY in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	The LTID of the MLH/DLH group associated with the pilot of a BNN hunt group and the terminal's physical key.

BNN - Bridged night number (continued)

Input prompts for the BNN option (Sheet 2 of 2)

Prompt	Valid input	Explanation
LEN_BNN	Valid input format: LTID KEY BNN Where: LTID = refer to LTID in table Prompts in the "Service order tables" section of this manual for more information on valid inputs KEY = refer to KEY in table Prompts in the "Service order tables" section of this manual for more information on valid inputs BNN = refer to DN in table Prompts in the "Service order tables" section of this manual for more information on valid inputs	The LTID of a member of a host DLH/MLH group, the terminal's physical key, and the DN of its associated BNN hunt group member.
OPTION	Refer to table Line service options in the "Service order tables" section of this manual for a list of valid inputs.	Option(s) associated with a service to be established, modified, or deleted. A maximum of 20 options can be specified in a single command.
PILOT_DN	Refer to DN in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	The DN of a BNN/DNH group pilot or the DN associated with a DLH/MLH group.
SONUMBER	Refer to SONUMBER in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	The unique number of the service order to be entered.

BNN to line class code compatibility

For ISDN, the only valid line class code is ISDNKSET.

Assignability

The following functionalities apply to this option:

- set functionality: yes
- subset functionality: no
- DN functionality: no
- key functionality: no

BNN - Bridged night number (end)

Option prerequisites

There are no prerequisites for this option.

Notes

The following notes apply to the BNN option:

- For information on the ABNN (Add a Bridged Night Number) and DBNN (Delete a Bridged Night Number) SERVORD commands, refer to the *SERVORD Reference Manual*.
- If an LTID is deleted from the host hunt group, any BNN associated with it is automatically removed.
- A maximum of 20 BNN members can be specified in a single ADD or EST command.
- Deleting a BNN does not affect the associated LTID or DN of the daytime service.
- Use the DEL command to delete members of BNN hunt groups. Use the OUT command to delete the pilot of BNN hunt groups.
- Option BNN is incompatible with the following options:
 - ACB, ACD, AR, ARDDN, CALLOG, CBE, CBI, CBU, CDE, CDI, CDU, CFB, CFBL, CFD, CFDA, CFDVT, CFF, CFI, CFK, CFRA, CFS, CFU, CFW, CMCF, CNAMD, CPU, CSDO, CUSD, CWX, DIN, DRCW, ECM, EHLA, IECFB, IECFD, LDTPSAP, LINEPSAP, MDN, MLAMP, MPB, MREL, PBL, PLP, RAG, RCHD, RSUS, SC1, SC2, SC3, SCA, SCF, SCL, SCMP, SCRJ, SCS, SCU, SDN, SLVP, SMDI, SOR, SORC, SPB, UCD, UCSD, and WUCR.
- You cannot use the BNN option on a line that has the prevent deletion option (PDO) assigned. The following error message displays: `ERROR: Option PDO cannot be assigned to this type of line.`

Feature identification

Functionality: NTX007AA, NTX007AB, NTX804AA

Feature number: BT0070

CACH - Call appearance call handling

Description

The CACH option allows MADN EKTS calls to be directed to a call appearance rather than a DN. Multiple appearances of the same number can then be reflected on the terminal.

Example

The following example shows the SLT command when it is used to add the CACH option to LTID ISDN 9.

CACH - Call appearance call handling (continued)

Example of the CACH option in prompt mode

```

SO:
>SLT
SONUMBER:  NOW 86 07 08 AM
> (CR)
LTID:
>ISDN 9
FUNCTION:
> ADD
LTCLASS:
> BRAFS
CS:
> Y
PS:
> N
MAXKEYS:
> 64
DEFLTERM:
>N
TEI_TYPE:
> DTEI
TSPID:
> 1
ABS:
> VOICE CMD VBD
EKTS:
>Y
OPTION:
> CACH
OPTION:
> PVC
VERSION:
> FUNCTIONAL
ISSUE:
> 2
OPTION:
> $

```

Example of the CACH option in no-prompt mode

```

>SLT $ ISDN 9 ADD BRAFS Y N 64 DTEI 1 (VOICE) (CMD) (VBD)
Y (CACH) (PVC FUNCTIONAL 2) $

```

CACH - Call appearance call handling (continued)**Prompts**

The following table provides the system prompts for the CACH option.

Input prompts for the CACH option (Sheet 1 of 2)

Prompt	Valid input	Explanation
ABS	VOICE = Analog voice VBD = Voiceband data CMD = Circuit-mode data	Authorized bearer services. This option lists the allowable bearer services. The default entry is VOICE, VBD, CMD.
CS	Y, N	Circuit-switched service.
EKTS	Y, N	Electronic key telephone set (available with feature package NTX753AA). Note: Only a functional (BRAFS) set with dynamic TEI can be defined as an EKTS set.
FUNCTION	ADD, REM, ATT, DET, CHA	The action required by the service order.
ISSUE	0 = MFT 1 = Bellcore functional 2 = For NI-1 compliance	The protocol issued for the logical terminal.
LTCLASS	BRAFS = Functional BRAMFT = Meridian feature transparency	Class of logical terminal based on the type of messaging exchanged between the terminal and the ISDN switch.
LTID	Refer to LTID in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	The logical terminal identifier.
MAXKEYS	2 to 64	Maximum number of feature activators (keys) on a logical terminal used for circuit-switched service.

CACH - Call appearance call handling (continued)

Input prompts for the CACH option (Sheet 2 of 2)

Prompt	Valid input	Explanation
OPTION (in SLT ADD function)	SPIDSFY, CACH, PVC	Options installed on the terminal.
PS	N = No packet service B = Packet service on a B-channel D = Packet service on the D-channel	Packet-switched service.
SONUMBER	Refer to SONUMBER in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	The unique number of the service order to be entered.
TEI_TYPE	STEI = Static DTEI = Dynamic UATEI = User-assigned TEI UNATEI = User or network assigned non-initializing terminal Note: User-assigned dynamic TEI applies only to circuit-switched terminals.	The type of TEI assignment.
VERSION	FUNCTIONAL, MFT AUSTEL, MFT	The version of the protocol used by the BRAFS terminal.

CACH to line class code compatibility

For ISDN, the only valid line class code is ISDNKSET.

Assignability

The following functionalities apply to this option:

- set functionality: yes
- subset functionality: no
- DN functionality: no
- key functionality: no

CACH - Call appearance call handling (end)

Option prerequisites

The EKTS option must be assigned before the CACH option.

Notes

The following notes apply to the CACH option:

- The CACH option does not change the capabilities provided by the basic EKTS option.
- There are no incompatible options.

Feature identification

Functionality: NTX754AB

Feature number: AR0038

CBI - Exclude intragroup calls from CFB

Description

The CBI option prevents the forwarding of intragroup calls. In certain applications where a high proportion of the incoming calls are intragroup, this option prevents the remote station from being flooded with external calls.

Example

The following example shows the ADO command when it is used to add the CBI option to DN 234-5432.

Example of the CBI option in prompt mode

```
>ADO
SONUMBER:  NOW 92 12 08 AM
>(CR)
DN_OR_LEN:
>2345432
OPTKEY:
>9
OPTION:
>CBI
OPTKEY:
>$
```

Example of the CBI option in no-prompt mode

```
>ADO $ 2345432 9 CBI $
```

CBI - Exclude intragroup calls from CFB (continued)

Prompts

The following table provides the system prompts for the CBI option.

Input prompts for the CBI option

Prompt	Valid input	Explanation
DN_OR_LEN	Refer to DN and LTID in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	Enter the line's DN or LTID. For an MDN line or MLH/DLH hunt members, if a DN is specified, the user is prompted for the LTID. If the LTID is entered, the user is not prompted for the DN.
OPTION	Refer to table Line service options in the "Service order tables" section in this manual for a list of valid inputs.	Option(s) associated with a service to be established, modified, or deleted. A maximum of 20 options can be specified in a single command.
OPTKEY	1 to 69	Key associated with the option.
SONUMBER	Refer to SONUMBER in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	The unique number of the service order to be entered.

CBI to line class code compatibility

For ISDN, the only valid line class code is ISDNKSET.

Assignability

The following functionalities apply to this option:

- set functionality: no
- subset functionality: no
- DN functionality: yes
- key functionality: no

CBI - Exclude intragroup calls from CFB (end)

Option prerequisites

Option CBI is incompatible with the following options:

- BNN, CBE, DLH, DNH, DTM, FNT, HOT, IECFB, MLH, PRH, TBO, and TRMBOPT.

Notes

There are no notes for this option.

Feature identification

Functionality: NTX413AA, NTX413AB

Feature number: BC1206

CFMDN - Call forwarding MADN secondary member

Description

The CFMDN option allows secondary members of a multiple appearance directory number (MADN) group to activate and deactivate call forwarding (CFF, CFU, and CFI only) from a station.

Example

The following example shows the ADO command when it is used to assign the CFMDN option to a secondary EKTS member (the feature is already assigned to the primary member). The EKTS member has an LTID of ISDN 22.

Example of the CFMDN option in prompt mode

```
>ADO
SONUMBER:  NOW 92 6 2 PM
>(CR)
DN_OR_LEN:
>ISDN 22
OPTION:
>CFMDN
OPTKEY:
>$
```

Example of the CFMDN option in no-prompt mode

```
>ADO $ ISDN 22 CFMDN $
```

CFMDN - Call forwarding MADN secondary member (continued)

Prompts

The following table provides the system prompts for the CFMDN option.

Input prompts for the CFMDN option

Prompt	Valid input	Explanation
DN_OR_LEN	Refer to DN and LTID in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	Enter the line's DN or LTID. For an MDN line or MLH/DLH hunt members, if a DN is specified, the user is prompted for the LTID. If the LTID is entered, the user is not prompted for the DN.
OPTION	Refer to table Line service options in the "Service order tables" section of this manual for a list of valid inputs.	Option(s) associated with a service to be established, modified, or deleted. A maximum of 20 options can be specified in a single command.
SONUMBER	Refer to SONUMBER in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	The unique number of the service order to be entered.

CFMDN to line class code compatibility

For ISDN, the only valid line class code is ISDNKSET.

Assignability

The following functionalities apply to this option:

- set functionality: no
- subset functionality: no
- DN functionality: yes
- key functionality: no

Option prerequisites

The MDN option must be assigned before the CFMDN option.

CFMDN - Call forwarding MADN secondary member (end)

Notes

The following notes apply to the CFMDN option:

- This feature supports the call forward universal (CFU), call forward intragroup (CFI), and call forward fixed (CFF) variants of the call forward feature.
- One or more secondary members in an EKTS group can be assigned the CFMDN capability.
- When a secondary EKTS member activates this feature, the primary EKTS member's set and all DNs on the primary member's keylist are forwarded.
- The CFMDN option only shows up on a QLEN of an EBS when CFMDN is assigned to the primary DN key of the set.
- Option CFMDN is incompatible with the following options:
 - DRCW, PRL, SCF, and SCRJ.
- CFMDN cannot be deleted from a MADN secondary member with a SERVORD DEO command while that member is using call forward programming.
- CFMDN cannot be deleted from a MADN secondary member with a table control CHA command while that member is using call forward programming.

Feature identification

Functionality: NTXA72AA

Feature number: AG0985

CFRA - Call Forwarding Remote Access

Description

Option CFRA (Call Forwarding Remote Access) allows end users to program ISDN Call Forwarding (CFW) features on their telephone from a remote set. Option CFRA applies to pre-NI-2 terminals that subscribe to

- Call Forwarding Fixed (CFF)
- Call Forwarding Intragroup (CFI)
- Call Forwarding Universal (CFU)

Note: CFF, CFI, and CFU are exclusive CFW features.

Example

The following is an example of the CFRA option.

Example of the CFRA option in prompt mode

```

>ADO
SONUMBER:  NOW 96 10 22 PM
> $
DN_OR_LEN:
>NI1 4
OPTKEY:
>11
OPTION:
> CFRA
CFRAPIN
>600
FIRSTUSE:
> Y
OPTKEY:
> $

```

Example of the CFRA option in no-prompt mode

```
>ADO $ NI1 4 11 CFRA 600 Y $
```

CFRA - Call Forwarding Remote Access (continued)

Prompts

The following table shows the system prompts for the CFRA option.

Input prompts for the CFRA option

Prompt	Valid input	Explanation
CFRAPIN	2-4 digits	Enter the first personal identification number (PIN) the operating company assigns to the line.
FIRSTUSE	Y or N	Enter Y or N to indicate if the user must change the PIN before using CFRA for the first time. Note: This prompt applies when station programmable PIN (SPP) is set as datafill in table CUSTSTN. When set to Y, the user must change their PIN with SPP before using CFRA for the first time.
OPTION	CFRA	Specifies the option associated with a service established, modified, or deleted from the specified LTID

CFRA to line class code compatibility

For ISDN, the only valid line class code is ISDNKSET.

Assignability

The following functionalities apply to this option:

- set functionality: no
- subset functionality: yes
- DN functionality: no
- key functionality: no

Option prerequisites

The line must have option CFF, CFI, or CFU.

Notes

The following SERVORD options are not compatible with option CFRA:

- Bridged Night Number
- Free Number Terminating

CFRA - Call Forwarding Remote Access (end)

- Hotel/Motel
- Operator Number Identification
- Terminating Billing Option

Feature identification

Functionality: NI000052

Feature number: AF7685

CFXDNCT - Call forwarding per DN per call type

Description

The CFXDNCT option provisions call forwarding features on NI-2 ISDN terminals for BRI lines on a per DN per call type basis. The supported CFW features are CFU, CFI, CFF, CFB, CFD, CFRA, CBU, CBI, CBE, CDU, CDI, and CDE.

SERVORD ensures that supported CFW features are added by option CFXDNCT if at least one appearance of CFXDNCT has been provisioned. For example, if CFU has been provisioned on an NI-2 device by option CFXDNCT, then an ADO of CFB is disallowed. CFB must also be added using CFXDNCT.

The DNs entered as the forwarding DNs are converted to a keylist by SERVORD. The check procedures for the SERVORD transaction look for all the appearances of a DN call type pair on an NI-2 device and create a keylist.

Example

The following is an example of the CFXDNCT option.

CFXDNCT - Call forwarding per DN per call type (continued)

Example of the CFXDNCT option in prompt mode

```

>ADO
SONUMBER:  NOW 96 10 22 PM
> $
DN_OR_LEN:
> ISDN 2
OPTKEY:
> 14
OPTION:
> CFXDNCT
CALLTYPE:
> VI
CFXTYPE:
> CFU
OVRDACR:
> N
NOTIFY:
> Y
DN_OR_KEYLIST:
> DN
CFDNCT_DNS:
> 9055551001
CFDNCT_DNS:
>9055551002
CFDNCT_DNS:
>9055551003
CFDNCT_DNS:
>$
OPTKEY:
>$

```

Example of the CFXDNCT option in no-prompt mode

```

> ADO $ ISDN 2 14 CFXDNCT VI CFU N Y DN 9055551001 9055551002
9055551003 $ $

```

CFXDNCT - Call forwarding per DN per call type (continued)

Prompts

The following table provides the system prompts for the CFXDNCT option.

Input prompts for the CFXDNCT option (Sheet 1 of 3)

Prompt	Valid input	Explanation
DN_OR_LEN	an LTID consists of a logical terminal group name (LTGRP) of 1 to 8 alphanumeric digits, a space, and a terminal number (1 to 1022)	Specifies the LTID of the NI-2 device to which CFW will be assigned
OPTKEY	1-64	Specifies the feature activator (FA) or DN on the ISDN set to which the option is assigned
OPTION	CFXDNCT	Specifies the option associated with a service to be established, modified, or deleted from the specified LTID
CALLTYPE	VI, CMD	Specifies the CT of the DN or DN's you want to assign to a CFW keylist Note 1: Specify a keylist of all VI or CMD keys by entering VI or CMD as the CALLTYPE and \$ at the first DN or KEY prompt. Note 2: If a PMD DN appearance already exists, a dollar sign (\$) cannot be used to indicate that all DN's of a device are selected. Each DN appearance must be entered manually for assignment of CFXDNCT on the VI and CMD appearance.
CFXTYPE	CFU, CFI, CFF, CFB, CFD, CFRA, CBU, CBI, CBE, CDU, CDI, CDE	Specifies the CFW sub-feature to be assigned
OVRDACR	Y, N	Specifies whether override for account code is required (datafill for CFU)

CFXDNCT - Call forwarding per DN per call type (continued)

Input prompts for the CFXDNCT option (Sheet 2 of 3)

Prompt	Valid input	Explanation
CFRAPIN	2-4 digits	Enter the first personal identification number (PIN) the operating company assigns to the line. This prompt applies to CFXTYPE CFRA only.
FIRSTUSE	Y or N	Enter Y or N to indicate if the user must change the PIN before using CFRA for the first time. This prompt applies to CFXTYPE CFRA only. Note: This prompt applies when station programmable PIN (SPP) is set as datafill in table CUSTSTN. When set to Y, the end user must change their PIN with SPP before using CFRA for the first time.
CFBCNTL	F, P, N	Specifies the type of CFB control. F is fixed assignment for CFB; N is normal (default) assignment for CFB; and P is programmed assignment for CFB. (datafill for CFB)
CFBDN	up to 30 digits	Specifies the call forwarding DN for CFB option (prompt appears when CFBCNTL = F or N)
CFFDN	up to 30 digits	Specifies the call forwarding DN for CFF option (datafill for CFF)
CFDCNTL	F, P, N	Specifies the type of CFD control. F is fixed assignment for CFD; N is normal (default) assignment for CFD; and P is programmed assignment for CFD. (datafill for CFD)
CFDDN	up to 30 digits	Specifies the call forwarding DN for CFD option (prompt appears after CFDCNTL)

CFXDNCT - Call forwarding per DN per call type (continued)

Input prompts for the CFXDNCT option (Sheet 3 of 3)

Prompt	Valid input	Explanation
NOTIFY	Y, N	Provides the switching mechanism for Reminder Notification (prompt appears when CFXTYPE = CFU, CFI, or CFF)
DN_OR_KEYLIST	DN, KEYLIST	Specifies whether you want to enter the required keylist as a list of DNs or a list of key numbers. The keys in this list are assigned the CFW feature specified in prompt CFXTYPE.
CFXDNCT_DNS	10-digit DN	<p>Prompted for if DN was input at previous prompt. A DN is prompted for continuously until a \$ is entered to indicate a complete list. Only the DN keys that match the CALLTYPE specified earlier are provisioned with CFW.</p> <p>Note: Specify a keylist of all VI or CMD keys by entering VI or CMD as the CALLTYPE and \$ at the first DN or KEY prompt.</p>
KEY	1-64	<p>Prompted for if KEYLIST was input at previous prompt. A key is prompted for continuously until a \$ is entered to indicate a complete list. The specified keys must be the CRBL master key of each DN appearance.</p> <p>Note: Specify a keylist of all VI or CMD keys by entering VI or CMD as the CALLTYPE and \$ at the first DN or KEY prompt.</p>

CFXDNCT to line class code compatibility

For ISDN, the only valid line class code is ISDNKSET.

CFXDNCT - Call forwarding per DN per call type (continued)

Assignability

The following functionalities apply to this option:

- set functionality: no
- subset functionality: yes
- DN functionality: no
- key functionality: no

Option prerequisites

There are no prerequisites for this option.

Notes

The following notes apply to option CFXDNCT:

- A DN/CT appearance is limited to one keylist at a time.
- The CFW sub-features CFU, CFI, CFF, CFB, CFD, CFRA, CBE, CBI, CBU, CDE, CDI, and CDU are supported only if they are provisioned through option CFXDNCT. If these features are added to a terminal as options before CFXDNCT is provisioned, CFXDNCT cannot be added to the same terminal. These features cannot be added to a terminal as options if CFXDNCT has already been provisioned. CFXDNCT must be used again to add the CFW feature and sub-features.
- The CFW sub-feature CFF, CFI, or CFU must be present on the line provisioned by option CFXDNCT before CFXDNCT can provision CFRA. Sub-feature CFRA applies to voice (VI) call types only.
- If CFW is not provisioned by option CFXDNCT for an NI-2 device, CFW reverts to pre-NI-2 CFW functionality. (CFW sub-features are added as options through SERVORD, not through option CFXDNCT.)
- You cannot change the call type associated with a CFXDNCT FA using the CHF or ADO commands. To change the call type of an existing CFXDNCT FA, you must remove and then re-add option CFXDNCT.
- Option CFXDNCT for the VI and CMD call types cannot share the same FA key or DN appearance. Each CFW instance must reside on a separate virtual key. For example, CFW for the VI CT and CFW for the CMD CT cannot both be provisioned on the PDN. Only one can be provisioned on the PDN, and the other can be provisioned on an FA that has a keylist containing the PDN.
- The DN appearance on a base station must be in the 10-digit DN format, and the number of DNs in a DN list is limited to 4.

CFXDNCT - Call forwarding per DN per call type (end)

- A CMD DN/CT pair cannot be included in a VI call type keylist, and a VI DN/CT pair cannot be included in a CMD call type keylist.
- At the DN_OR_KEYLIST prompt of option CFXDNCT, if the entries are DNs, only the DN keys that match the call type already specified are provisioned with CFW. For example, if CMD was specified at the CALLTYPE prompt and DNs 6215000 and 6215001 are entered, only the CMD appearances (not the VI) on DNs 6215000 and 6215001 are assigned CFW. If the entries are keys, the specified keys must be the Call Reference Busy Limit (CRBL) master key of each DN appearance. Specifying Additional Functional Call (AFC) appearances fails.

Feature identification

Functionality: NI000051

Feature number: AF6901

CFXVAL - Call forwarding validation

Description

Option CFXVAL provides remote DN validation or courtesy call, or both, to the NI-2 ISDN terminal that has Call Forwarding (CFW) assigned. CFXVAL validates the call forward remote DN as well as the call type. Depending on the data entered, either DN validation or a courtesy call, or both, occur during programming of the remote DN.

Prior to this feature, CFWVAL was the pre-NI-2 customer group option for group members provisioned with CFW in table CUSTSTN. CFXVAL makes this same functionality available for each ISDN terminal. CFXVAL functionality takes precedence over CFWVAL if both options are provisioned.

Example

The following is an example of the CFXVAL option.

Example of the CFXVAL option in prompt mode

```

>ADO
SONUMBER:  NOW 96 10 22 PM
> $
DN_OR_LEN:
> ISDN 2
OPTKEY:
> 1
OPTION:
> CFXVAL
TERMOPT:
> Y
OPTKEY:
> $

```

Example of the CFXVAL option in no-prompt mode

```

> ADO $ ISDN2 1 CFXVAL Y $

```

CFXVAL - Call forwarding validation (continued)

Prompts

The following table provides the system prompts for the CFXVAL option.

Input prompts for the CFXVAL option

Prompt	Valid input	Explanation
DN_OR_LEN	an LTID consists of a logical terminal group name (LTGRP) of 1 to 8 alphanumeric digits, a space, and a terminal number (1 to 1022)	Specifies the LTID or DN of the NI-2 device to which CFW will be assigned
OPTKEY	1	Specifies the FA or DN on the ISDN set to which the option is assigned
OPTION	CFXVAL	Specifies the option associated with a service to be established, modified, or deleted from the specified LTID
TERMOPT	Y, N	Specifies whether a Courtesy Call is made to the remote DN when the user programs CFW from the set (datafill when OPTION = CFXVAL)

CFXVAL to line class code compatibility

For ISDN, the only valid line class code is ISDNKSET.

Assignability

The following functionalities apply to this option:

- set functionality: yes
- subset functionality: no
- DN functionality: no
- key functionality: no

Option prerequisites

There are no prerequisites for this option.

CFXVAL - Call forwarding validation (end)

Notes

The following notes apply to option CFXVAL:

- Option CFXVAL is added by the ADO or NEW command. At the OPTKEY prompt, a DN appearance of key 1 (not an FA) must be specified. CFXVAL is deleted by the DEO command. This does not delete or negate the pre-NI-2 customer group option CFWVAL, if provisioned. The CHF command can be used to change the feature.
- Courtesy call only applies to the VI call type. Validation is available for both VI and CMD.

Feature identification

Functionality: NI000051

Feature number: AF6901

CHG - Provide charge number for calling number

Description

The CHG option allows the operating company to provide the charge number as the calling number when the latter is not available for delivery to the enhanced service provider.

Example

The following example shows the ADO command when it is used to add the CHG option to DN 234-5432.

Example of the CHG option in prompt mode

```
>ADO
SONUMBER:  NOW 92 12 08 AM
>(CR)
DN_OR_LEN:
>2345432
OPTKEY:
>9
OPTION:
>CHG
OPTKEY:
>$
```

Example of the CHG option in no-prompt mode

```
>ADO $ 2345432 9 CHG $
```

CHG - Provide charge number for calling number (continued)

Prompts

The following table provides the system prompts for the CHG option.

Input prompts for the CHG option

Prompt	Valid input	Explanation
DN_OR_LEN	Refer to DN and LTID in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	Enter the line's DN or LTID. For an MDN line or MLH/DLH hunt members, if a DN is specified, the user is prompted for the LTID. If the LTID is entered, the user is not prompted for the DN.
OPTION	Refer to table Line service options in the "Service order tables" section of this manual for a list of valid inputs.	Option(s) associated with a service to be established, modified, or deleted. A maximum of 20 options can be specified in a single command.
OPTKEY	1 to 69	Key associated with the option.
SONUMBER	Refer to SONUMBER in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	The unique number of the service order to be entered.

CHG to line class code compatibility

For ISDN, the only valid line class code is ISDNKSET.

Assignability

The following functionalities apply to this option:

- set functionality: no
- subset functionality: no
- DN functionality: yes
- key functionality: no

Option prerequisites

The TBO option must be assigned before the CHG option.

CHG - Provide charge number for calling number (end)

Notes

The following notes apply to option CHG:

- Option CHG must be datafilled in table LCCOPT against the ISDNKSET line class code.
- Option CHG is compatible with all line options.

Feature identification

Functionality: NTX796AA

Feature number: AG1709

CIDSDLV - CIDS delivery

Description

The Caller ID Delivery and Suppression (CIDS) Delivery option enables the subscriber to deliver the call originator's name and number, according to each call. This option can be added to directory number (DN) key 1 or to a feature key, and can apply to a subset of DNs.

Example

The following example shows how to add the CIDSDLV option to a primary DN. The functionality applies to all the DNs on the set because keylist is datafilled with \$.

Example of the CIDSDLV option in prompt mode

```

> ADO
SONUMBER:  NOW 96 7 1 PM
> $
DN:
> 6755000
OPTKEY:
> 1
OPTION:
> CIDSDLV
BILLING_OPTION:  NOAMA
> AMA
KEYLIST:
> $
OPTKEY:
> $

```

Example of the CIDSDLV option in no-prompt mode

```

>ADO 6755000 1 CIDSDLV AMA $ $

```

CIDSDLV - CIDS delivery (continued)

Prompts

The following table provides the system prompts for the CIDSDLV option.

Input prompts for the CIDSSUP option

Prompt	Valid input	Explanation
DN	7 or 10 digits entered with no spaces or hyphens	Specifies the DN of the line to be assigned the service
OPTKEY	1 to 69	Specifies the key associated with the option
OPTION	CIDSDLV	Specifies the option associated with a service to be established, modified, or deleted. A maximum of 20 options can be specified in a single command.
BILLING_ OPTION	AMA or NOAMA	Allows billing to be turned on or off, if SUSP is set to ON in table AMAOPTS. This prompt does not appear if SUSP is set to OFF.
KEYLIST	Any list of 1 or more valid DN keys, or \$ to indicate all DN keys (1-69)	Specifies a list of DN keys on the terminal to which the feature applies. Up to 24 keys can be specified.

CIDSDLV to line class code compatibility

Option CIDSDLV applies to the line class code of ISDNKSET only.

Assignability

The following functionalities apply to this option:

- set functionality: no
- subset functionality: yes
- DN functionality: no
- key functionality: no

Option prerequisites

There are no prerequisites for this option.

CIDSDLV - CIDS delivery (end)

Notes

The following notes apply to CIDSDLV:

- If you enable office parameter SO_ALLOW_REDUNDANT_FEATURE, SERVORD accepts attempts to add this option to a DN when the DN already has this option. Instead of rejecting the ADO command with an error message, SERVORD accepts the command entry and displays a message that verifies acceptance.
- If you enable office parameter SO_ALLOW_REDUNDANT_FEATURE, SERVORD accepts attempts to delete this option from a DN to which it was not assigned. Instead of rejecting the DEO command with an error message, SERVORD accepts the command entry and displays a message that verifies acceptance.
- The Bridged Night Number (BNN) option is incompatible with CIDSDLV.
- The Automatic Line (AUL) and Denied Origination (DOR) options are incompatible with CIDSDLV that has AMA set to ON.

Feature identification

Functionality: NI000051

Feature number: AF6627, AF7511

CIDSSUP - CIDS suppression

Description

The Caller ID Delivery and Suppression (CIDS) Suppression option enables the subscriber to block the delivery of the call originator's name and number, according to each call. This option can be added to directory number (DN) key 1 or to a feature key, and can apply to a subset of DNs.

Example

The following example shows how to add the CIDSSUP option to a primary DN. The functionality applies to all the DNs on the set because keylist is datafilled with \$.

Example of the CIDSSUP option in prompt mode

```
> ADO
SONUMBER:  NOW 96 7 1 PM
>
DN:
> 6755000
OPTKEY:
> 1
OPTION:
> CIDSSUP
BILLING_OPTION: NOAMA
> AMA
KEYLIST:
> $
OPTKEY:
> $
```

Example of the CIDSSUP option in no-prompt mode

```
>ADO 6755000 1 CIDSSUP AMA $ $
```

CIDSSUP - CIDS suppression (continued)

Prompts

The following table provides the system prompts for the CIDSSUP option.

Input prompts for the CIDSSUP option

Prompt	Valid input	Explanation
DN	numeric	Specifies the DN of the line that is to be assigned the service
OPTKEY	1 to 69	Specifies the key associated with the option
OPTION	CIDSSUP	Specifies the option associated with a service to be established, modified, or deleted. A maximum of 20 options can be specified in a single command.
BILLING_ OPTION	AMA or NOAMA	Allows billing to be turned on or off, if SUSP is set to ON in table AMAOPTS. This prompt does not appear if SUSP is set to OFF.
KEYLIST	Any list of 1 or more valid DN keys, or \$ to indicate all DN keys (1-69)	Specifies a list of DN keys on the terminal to which the feature applies. Up to 24 keys can be specified.

CIDSSUP to line class code compatibility

Option CIDSSUP applies to the line class code of ISDNKSET only.

Assignability

The following functionalities apply to this option:

- set functionality: no
- subset functionality: yes
- DN functionality: no
- key functionality: no

CIDSSUP - CIDS suppression (end)

Option prerequisites

There are no prerequisites for this option.

Notes

The following notes apply to CIDSSUP:

- If you enable office parameter SO_ALLOW_REDUNDANT_FEATURE, SERVORD accepts attempts to add this option to a DN when the DN already has this option. Instead of rejecting the ADO command with an error message, SERVORD accepts the command entry and displays a message that verifies acceptance. The text of the messages can vary according to the option or feature you are adding.
- If you enable office parameter SO_ALLOW_REDUNDANT_FEATURE, SERVORD accepts attempts to delete this option from a DN to which it was not assigned. Instead of rejecting the DEO command with an error message, SERVORD accepts the command entry and displays a message that verifies acceptance. The text of the messages can vary according to the option or feature you are deleting.
- The Bridged Night Number (BNN) option is incompatible with CIDSSUP.
- The Automatic Line (AUL) and Denied Origination (DOR) options are incompatible with CIDSSUP that has AMA set to ON.

Feature identification

Functionality: NI000051

Feature number: AF6627, AF7511

CMD - Circuit mode data

Description

Circuit Mode Data (CMD) is a line option for a 2B fully initializing terminal (FIT) or 2B non-initializing terminal (NIT). The option CMD can only be assigned to line class code ISDNKSET.

The CMD line option also provides a carrier for intraLATA PIC (LPIC) calls on a directory number (DN) or call type (CT) basis for ISDN 2B channel logical terminal identifier (LTID) and NI-2 LTID ISDN terminals.

Example

The following example shows use of the NEW command to add the CMD option.

CMD - Circuit mode data (continued)

Example of using the NEW command to add option CMD to a 2B FIT in the prompt mode

```
> NEW
SONUMBER:  NOW 96 7 1 PM
>(CR)
DN:
> 6755000
LCC:
> ISDNKSET
GROUP:
> IBNTST
SUBGRP:
> 0
NCOS:
> 0
SNPA:
> 619
KEY:
> 1
RINGING:
>Y
LATANAME:
> LATA1
LTG:
> 0
LEN_or_LTID:
ISDN 20
OPTKEY:
>1
OPTION:
>CMD
CMD RATE:
>56
CMD_PIC:
>CARR2
CMD_LPIC
>CARR1
CMD_LPIC_CHOICE
Y
OPTKEY:
$
```

Example of using the new command to add option CMD to a 2B FIT in the no-prompt mode

```
>NEW $ 6755000 ISDNKSET IBNTST 0 0 619 1 Y LATA1 0 ISDN 20 1
CMD 56 CARR2 CARR1 Y $
```

CMD - Circuit mode data (continued)

The following example shows use of the EST command to add the option CMD when establishing a hunt group with a DN on a 2B-channel FIT.

Example of the use of the EST command to add option CMD when establishing a hunt group with a DN on a 2B channel FIT in the prompt mode

```
> EST
SONUMBER:  NOW 96 7 1 PM
>(CR)
GROUPTYPE:
>DNH
PILOT_DN:
> 6755000
LCC:
> ISDNKSET
GROUP:
> IBNTST
SUBGRP:
> 0
```

CMD - Circuit mode data (continued)

Example of the use of the EST command to add option CMD when establishing a hunt group with a DN on a 2B channel FIT in the prompt mode

```

NCOS:
> 0
SNPA:
> 619
KEY:
> 1
RINGING:
> Y
LATANAME:
> LATA1
LTG:
> 0
PILOT_LEN:
> ISDN 20
DN_LEN
> 6755000
LEN:
> 1 1 1 1
KEY:
> 1
DN_LEN:
> $
OPTION:
> CMD
CMD_RATE:
> 56
CMD_PIC:
> CARR2
CMD_LPIC:
> CARR1
CMD_LPIC_CHOICE:
> Y
OPTION:
> $
GROUPSIZE:
> 1
OPTION:
> $
    
```

Example of the use of the EST command to add option CMD when establishing a hunt group with a DN on a 2B channel FIT in the no-prompt mode

```

>EST $ DNH 6755000 ISDNKSET IBNTST 0 0 619 1 Y LATA1 0 ISDN 20
6755000 1 1 1 1 1 $ CMD 56 CARR2 CARR1 Y $ 1 $
    
```

CMD - Circuit mode data (continued)**Prompts**

The following table provides the system prompts for option CMD.

Input prompts for option CMD (Sheet 1 of 3)

Prompt	Valid input	Explanation
DN	Refer to DN in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	directory number The DN associated with the service to be established.
LCC	ISDNKSET	Line class code. LCC ISDNKSET is the only valid LCC for Voiceband Information.
GROUP	1 to 16 alphanumeric characters	Group The name of an IBN customer group.
SUBGROUP	0 to 7	Subgroup The subgroup of a customer group to which a station or DN belongs.
GROUPTYPE	DNH	Directory number hunt
NCOS	0 to 255	Network class of service The NCOS for IBN lines, trunks, or attendant consoles; defines a set of capabilities or restrictions that allows or denies calls.
SNPA	3-digit number	Service numbering plan area The 3-digit service numbering plan area code.
KEY	1 to 69	Key The number associated with the physical key set to which the DN is assigned.

CMD - Circuit mode data (continued)**Input prompts for option CMD (Sheet 2 of 3)**

Prompt	Valid input	Explanation
RINGING	Y or N	Ringing Specifies whether a ring from a telephone speaker is required in addition to the call-waiting tone heard from the handset.
LATANAME	Alphanumeric	The local access and transport area (LATA) name associated with the originator of the call.
LTG	0 to 255Default 0	Line treatment group. A number that allows the translator to distinguish between customer lines with the same LCC, but different screening and routing patterns.
LEN_OR_LTID	1 to 8 alphanumeric digits, a space, and a terminal number (1 to 1022)	Logical terminal identifier. An LTID consists of a logical terminal group (LTGRP) name and a terminal number
OPTKEY	1 to 69	Option key Key associated with the option.
OPTION	CMD	Option Option(s) associated with a service to be established, modified, or deleted. A maximum of 20 options can be specified in a single command. Enter CMD for the Circuit Mode Data option.

CMD - Circuit mode data (continued)**Input prompts for option CMD (Sheet 3 of 3)**

Prompt	Valid input	Explanation
CMD_RATE	56, 64, BOTH	Circuit mode data rate The circuit Mode Data rate access speed 56 = 56K data 64 = 64K data BOTH = 56K data and 64k data
CMD_PIC	\$ or any valid name from table OCCNAME	Circuit mode data primary interLATA carrier Enter the Circuit Mode Data primary interLATA carrier name
CMD_LPIC	\$ or any valid name from table OCCNAME	Circuit mode data primary intraLATA carrier Enter the Circuit Mode Data primary intraLATA carrier name
CMD_LPIC_CH OICE	Y or N(default is N)	Casual access calling allowed
GROUPSIZE	1-1024	Enter the maximum size of the hunt group

CMD to line class code compatibility

The option CMD can only be assigned to LCC ISDNKSET.

Assignability

The following functionalities apply to this option:

- set functionality: no
- subset functionality: no
- DN functionality: yes
- key functionality: yes

Option prerequisites

There are no prerequisites for this option.

CMD - Circuit mode data (end)

Notes

The following notes apply to VI and CMD:

- If the user does not specify either option CMD or option VI when adding a DN to an LTID through the use of the NEW or EST commands, both options are assigned to the line.
- The ADO and DEO commands can be used to add or delete either the CMD or VI option if the other remains assigned to the line.
- If options CMD and VI are added to a DN, the user must add option AFC to enable both call types to be accessed simultaneously.
- CMD is incompatible with MADN groups.
- CMD is not applicable to ISDN BRI packet calls.
- SERVORD interface using the VI and CMD options is limited to 2B channel or NI-2 ISDN terminals.

Feature identification

Functionality: NI000050

Feature number: AF6441

Functionality: NI00051

Feature number: AF6645

CNAMD - Calling name delivery

Description

The CNAMD option allows the incoming caller's name as well as the time and date of the call to be displayed on the customer premises equipment (CPE).

Example

The following is an example of the CNAMD option (ADO command). CNAMD is datafilled on a secondary DN. The SUSP entry in table AMAOPTS is set to ON, so the ADO option prompts for the billing option parameter.

Example of the CNAMD option in prompt mode

```

>ADO
SONUMBER:  NOW 96 10 31 PM
>(CR)
DN_OR_LEN:
> ISDN 20
OPTKEY:
> 2
OPTION:
> CNAMD
BILLING OPTION:NOAMA
>AMA
OPTKEY:
> $
COMMAND AS ENTERED:
ADO NOW 96 10 31 PM ISDN 20 (2 CNAMD) $
ENTER Y TO CONFIRM, N TO REJECT OR E TO EDIT

```

Example of the CNAMD option in no-prompt mode

```

>ADO ISDN 20 2 CNAMD AMA $

```

CNAMD - Calling name delivery (continued)

Prompts

The following table provides the system prompts for the CNAMD option.

Input prompts for the CNAMD option

Prompt	Valid input	Explanation
BILLING_OPTION	AMA or NOAMA	Indicates billing option to be specified, if required, when assigning CNAMD
DN_OR_LEN	numeric	Specifies the DN or line equipment number (LEN) that is to be assigned the service
OPTKEY	1 to 69	Specifies the key associated with the option
OPTION	CNAMD	Specifies what option is added to or removed from the line

CNAMD to line class code compatibility

For ISDN, the only valid line class code is ISDNKSET.

Assignability

The following functionalities apply to this option:

- set functionality: no
- subset functionality: no
- DN functionality: yes
- key functionality: no

Option prerequisites

There are no prerequisites for this option.

Notes

The following notes apply to CNAMD:

- ISDN CNAMD cannot be added through a feature group.
- ISDN CNAMD is incompatible with Multiple Appearance Directory Number (MADN) single call arrangement (SCA) and MADN call appearance call handling (CACH).
- ISDN CNAMD is incompatible with BLOCKCGN, BNN, DOR, and AUL.

CNAMD - Calling name delivery (end)

Feature identification

Functionality: NI000051

Feature number: AF6628

CND - Calling number delivery

Description

The Calling Number Delivery (CND) option allows the calling party directory number (DN) and the time and date of the call to be displayed on the customer premises equipment (CPE).

Example

The following is an example of the CND option (ADO command). CND is datafilled on a secondary DN. The SUSP entry in table AMAOPTS is set to ON, so the ADO option prompts for the parameter BILLING_OPTION.

Example of the CND option in prompt mode

```

>ADO
SONUMBER:  NOW 96 10 31 PM
>
DN_OR_LEN:
> ISDN 20
OPTKEY:
> 2
OPTION:
> CND
BILLING_OPTION:NOAMA
>AMA
OPTKEY:
> $
    
```

Example of the CND option in no-prompt mode

```

>ADO ISDN 20 2 CND AMA $
    
```

Prompts

The following table provides the system prompts for the CND option.

Input prompts for the CND option (Sheet 1 of 2)

Prompt	Valid input	Explanation
BILLING_OPTION:	AMA or NOAMA	Indicates billing option to be specified, if required, when assigning CND
DN_OR_LEN	numeric	Specifies the DN or line equipment number (LEN) that is to be assigned the service

CND - Calling number delivery (end)

Input prompts for the CND option (Sheet 2 of 2)

Prompt	Valid input	Explanation
OPTION	CND	Specifies what option is added to or removed from the line
OPTKEY	1 to 69	Specifies the key associated with the option

CND to line class code compatibility

For ISDN, the only valid line class code is ISDNKSET.

Assignability

The following functionalities apply to this option:

- set functionality: no
- subset functionality: no
- DN functionality: yes
- key functionality: no

Option prerequisites

There are no prerequisites for this option.

Notes

The following notes apply to CND:

- ISDN CND cannot be added to a secondary multiple appearance DN (MADN) single call arrangement (SCA) or call appearance call handling (CACH) member.
- ISDN CND is incompatible with BNN, DOR, AUL, and BLOCKCGN.
- ISDN CND cannot be added through a feature group.

Feature identification

Functionality: NI000051

Feature number: AF6628

COT - Customer-originated Trace

Description

The COT option allows the recipient of a malicious call to request an automatic trace of the call.

Example

The example displays the assignment of the COT option with the ADO command. The assignment of COT is on key 5. The SUSP entry in table AMAOPTS is set to "OFF," which suppresses the billing option prompt.

Example of the COT option in prompt mode

```
> ADO
SONUMBER:          NOW  98  5  5  AM
>
DN_OR_LEN:
> 6211000
OPTKEY:
> 5
OPTION
> COT
BILLING_OPTION:
> NOAMA
KEYLIST:
> $
OPTKEY
> $
```

Example of the COT option in no-prompt mode

```
>ADO $ 6210000 5 COT NOAMA $
```

COT - Customer-originated Trace (continued)

Prompts

The following table provides the system prompts for the COT option.

Input prompts for the COT option

Prompt	Valid input	Explanation
SONUMBER	Refer to SONUMBER in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	The unique number of the service order to be entered.
DN_OR_LEN	Refer to DN and LTID in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	Enter the line's DN or LTID. For an MDN line or MLH/DLH hunt members, if a DN is specified, the user is prompted for the LTID. If the LTID is entered, the user is not prompted for the DN.
OPTKEY	1-69 for the business set	Identifies the key on the business set for the option.
OPTION	Refer to table Line service options in the "Service order tables" section of this manual for a list of valid inputs.	Option(s) associated with a service to be established, modified, or deleted. A maximum of 20 options can be specified in a single command.
BILLING_OPTION	AMA=creates an automatic message accounting (AMA) record. NOAMA=creates no AMA record	Specifies the billing option. The option AMA indicates billing is on a usage basis. The option NOAMA indicates billing is on a subscription basis.
KEYLIST	Lists of key numbers 1-69 or \$	Specifies key numbers of the DNs for the applicable option on a multi-line set.

COT to line class code compatibility

For ISDN, the only valid line class code is ISDNKSET.

COT - Customer-originated Trace (end)

Assignability

The following functionalities apply to this option:

- set functionality: no
- subset functionality: yes
- DN functionality: no
- key functionality: no

Option prerequisites

There are no prerequisites for this option.

Notes

The following notes apply to COT:

- Option COT is incompatible with the options 3WCPUB, AUL, AVT, CCSA, DOR, DTM, LDTPSAP, LNPTST and PCWT, PREMTBL, SAP.
- assign the COT option to one key on each business set
- assignment of COT to the primary DN (PDN) excludes the assignment of COT to a feature key
- assignment of COT to a feature key excludes the assignment of COT to the PDN

Feature identification

Functionality: NTXA0, MDC00004

Feature number: AG0762, AF7543, AG1151

CPU - Call Pickup

Description

The CPU option allows a station to answer incoming calls to another station within the same pickup group. The CPU option is provided on an individual station basis within a specific IBN customer group.

Example

The following example shows the ADO command when it is used to add the CPU option to LTID ISDN 10.

Example of the CPU option in prompt mode

```
>ADO
SONUMBER:      NOW  92  5  7  PM
>(CR)
DN_OR_LEN:
>ISDN 12
OPTKEY:
>1
OPTION:
>CPU
CPU_LEN:
>ISDN 10
KEYLIST:
>$
OPTION:
>$
```

Example of the CPU option in no-prompt mode

```
>ADO $ ISDN 12 1 CPU ISDN 10 $ $
```

CPU - Call Pickup (continued)

Prompts

The following table provides the system prompts for the CPU option.

Input prompts for the CPU option

Prompt	Valid input	Explanation
CPULEN or CPU_LEN	Refer to LTID in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	The LTID of the member added to a CPU group.
DN_OR_LEN	Refer to DN and LTID in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	Enter the line's DN or LTID. For an MDN line or MLH/DLH hunt members, if a DN is specified, the user is prompted for the LTID. If the LTID is entered, the user is not prompted for the DN.
OPTION	Refer to table Line service options in the "Service order tables" section of this manual for a list of valid inputs.	Option(s) associated with a service to be established, modified, or deleted. A maximum of 20 options can be specified in a single command.
SONUMBER	Refer to SONUMBER in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	The unique number of the service order to be entered.

CPU to line class code compatibility

For ISDN, the only valid line class code is ISDNKSET.

Assignability

The following functionalities apply to this option:

- set functionality: yes
- subset functionality: no
- DN functionality: no
- key functionality: no

CPU - Call Pickup (end)

Option prerequisites

Option CPU is incompatible with the following options:

- BNN, DOR, DTM, HOT, LDTPSA, and PDO.

Notes

The following notes apply to option CPU:

- CPU may be assigned to a key without a lamp.
- A maximum of 20 stations can be changed with the EST, ADD or DEL commands.
- The recommended size of the CPU group is 20 to 30 members.
- To establish a CPU group or add LTIDs to an existing CPU group, all the LTIDs must be in working order and must have been previously assigned. The LTIDs cannot be part of another CPU group.
- To add LTIDs to an existing group, the LINKLTID must belong to the existing group.
- With an EBS, CPU is established or added to any blank key or to key 1 for code access.
- Only one CPU key is assigned to an EBS.
- Feature AJ1240 allows the user to add Call Pickup to feature groups for key sets only (non-IBN).
- Other applicable SERVORD commands are DEO and CHF.
- The assignment of the prevent deletion option (PDO) to a line prevents the removal of the line from service. You cannot use the PDO on a line with the CPU option assigned. The following error message displays:

CPU and PDO are not compatible

Feature identification

Functionality: NTXF88AB

Feature number: AJ1240 (adding CPU to feature groups for key set)

Functionality: NTX100AA, NYXZ00AA

Feature number: BC1453

CRBL - Call reference busy limit

Description

Option CRBL limits the number of active calls on a call type basis. CRBL can only be added with the NEW command. CRBL can have additional information or parameters updated with the CHF (change feature) command.

Example

Example of option CRBL with NEW command

```
>NEW
SO_NUMBER:  NOW 97 4 10
> $
DN:
> 62114040
LCC_ACC:
> ISDNKSET
GROUP:
> COMKODAK
SUBGRP:
> 0
NCOS:
> 0
SNPA:
> 613
KEY:
> 1
RINGING:
> Y
LATANAME:
> NILLATA
LTG: 0
>(CR)
>LEN_OR_LTID:
>ISDN 80
OPTKEY:
>1
OPTION:
>CRBL
VI:
>2
CMD:
>1
OPTKEY:
>$
```

CRBL - Call reference busy limit (continued)

Example of option CRBL with NEW command

```

>NEW
SO_NUMBER:  NOW 97 4 10
> $
DN:
> 62114040
LCC_ACC:
> ISDNKSET
GROUP:
> COMKODAK
SUBGRP:
> 0
NCOS:
> 0
SNPA:
> 613
KEY:
> 1
RINGING:
> Y
LATANAME:
> NILLATA
LTG: 0
>(CR)
>LEN_OR_LTID:
>ISDN 80
OPTKEY:
>1
OPTION:
>CRBL
VI:
>2
CMD:
>1
OPTKEY:
>$

```

The following example shows additional parameters added to option CRBL with the CHF command.

```
/nse/I2F_ileaf.cab/SERVORD.drw/29SER_8.fdr/29SER_8_B.fdr
```

CRBL - Call reference busy limit (continued)**Prompts**

The following table provides the system prompts for option CRBL.

Input prompts for option CRBL (Sheet 1 of 2)

Prompt	Valid input	Explanation
CMD	0 to 16	Indicates number of active calls that may be assigned for the CMD call type for the DN.
DN	Refer to DN in table 2-5 for information on valid inputs.	The DN associated with the service to be established.
GROUP	1 to 16 alphanumeric characters	The name of an MDC customer group.
KEY	1 to 69	The number associated with the physical set key to which the DN is assigned.
LATANAME	Alphanumeric	The call local access and transport area (LATA) name associated with the originator of the call.
LCC_ACC	ISDNKSET	The line class code for the service to be established.
LEN_OR_LTID	Refer to LTID in table 2-5 for information on valid inputs.	The LTID of the DN to be established.
LTG	0 to 255. Default is 0.	Line treatment group.
NCOS	0 to 255	Network class of service for MDC lines, trunks, or attendant consoles, defines a set of capabilities or restrictions that allows or denies calls.
OPTION	CRBL	Indicates that the Call Reference Busy Limit option is added.
OPTKEY	1 to 69	Key associated with the option.

CRBL - Call reference busy limit (continued)

Input prompts for option CRBL (Sheet 2 of 2)

Prompt	Valid input	Explanation
RINGING	Y or N	Specifies whether a ring from a telephone speaker is required in addition to the call waiting tone heard from the handset. Ringing must be set to N for packet terminals.
SNPA	3 digit number	Service numbering plan area (area code)
SONUMBER	Refer to SONUMBER in table 2-5 for information on valid inputs.	The unique number of the service order to be entered.
SUBGRP	0 to 7	Subgroup of a customer group to which a station or DN belongs.
VI	0 to 16	Indicates the number of active calls that may be assigned for the VI call type for the Dn.

CRBL to line class code compatibility

For ISDN, the only valid line class code is ISDNKSET.

Assignability

The following functionalities apply to this option:

- set functionality: no
- subset functionality: no
- DN functionality: yes
- key functionality: no

Option prerequisites

CRBL is assignable on NI-2 sets only.

CRBL - Call reference busy limit (end)

Notes

The following notes apply to option CRBL:

- CRBL is assigned to NI-2 sets instead of AFC or NUMC.
- Option CRBL is incompatible with the following options: AFC, MDN, and NUMC.
- If the CRBL VI value is a number other than 0, all DBC values default to DBC_SP.
- If the CRBL VI value is 0 and the DBC value in table DNATTRS is BC_64KDATA, all DBC values default to DBC_64K.

Feature identification

Functionality: DMSCCM08

Feature number: AF6658 and BY76787

DBC - Default bearer capability

Description

Option DBC allows the user to assign a default bearer capability to each DN appearance key on an NI-2 FIT set. DBC is automatically assigned to a DN or AFC key when it is assigned to the set during service order activity. The DBC value can be changed by using the CHF command.

Example

The following example shows how the option DBC value assigned to a DN or AFC key can be changed. In the example the DBC value for key 2 is being changed from 3_1_KHZ to SPEECH.

Example of option DBC being changed using the CHF command

```
> CHF
SONUMBER:  NOW 97 4 10
> (CR)
DN:
> 6214040
OPTKEY:
> 2
OPTION:
> DBC
DBC:
> DBC_SP
OPTKEY:
> $
```

Example of option DBC being changed using the CHF command in no-prompt mode

```
>CHF 6214040 2 DBC DBC_SP $
```

DBC - Default bearer capability (continued)

Prompts

The following table provides the system prompts for option DBC.

Input prompts for option DBC

Prompt	Valid input	Explanation
DBC	DBC_SPDBC_3_1_KDBC_56K DBC_64K	Indicates the allowable default bearer capability for the DN appearance key on the set.
DN	Seven or ten digit number	Enter the DN with which the feature being modified is associated.
OPTKEY	1 to 69	Key associated with the option.
OPTION	Refer to table 2-2 for a list of valid inputs	Indicates the option which is being modified.
SONUMBER	Refer to SONUMBER in table 2-5 for information on valid inputs.	The unique number of the service order to be entered.

DBC to line class code compatibility

For ISDN, the only valid line class code is ISDNKSET.

Assignability

The following functionalities apply to this option:

- set functionality: no
- subset functionality: no
- DN functionality: yes
- key functionality: no

Option prerequisites

There are no prerequisites for this option.

DBC - Default bearer capability (end)

Notes

The following notes apply to DBC:

- The DBC option is only assignable to NI-2 FIT sets.
- The DBC option is incompatible with the following options: AFC, MDN, and NUMC.

Feature identification

Functionality: DMSCCM08

Feature number: AF6658

DCC - Flexible calling deactivate conference facility

Description

Flexible calling deactivate conference facility (DCC) enhances the flexible calling (FC) feature. DCC applies to NI-1 and NI-2 BRI terminals with protocol version control (PVC) of functional 2.

The DCC feature removes the conference facility in the following conditions:

- a member of the conference releases the connection and the conference changes from three members to two members (the controller and one member)
- the drop request changes the conference from three members to the controller and one member
- the controller connects to a conference call over a B-channel and there is only one member on the conference
- the controller retrieves the conference call from hold and two members of the conference remain (the controller and one other member)

The assignment of DCC is made through SERVORD to the primary directory number (PDN) of the ISDN set. The FC feature is a prerequisite. The DCC option is assigned with the NEW or ADO commands.

Example

The following is an example of DCC option with the NEW command in the prompt mode.

DCC - Flexible calling deactivate conference facility (continued)

Example of the DCC option with the NEW command in prompt mode

```

> NEW
SONUMBER: NOV 97 10 4PM
> CR
DN:
> 6755000
LCC:
> ISDNKSET
GROUP:
> ISDNGRP
SUBGRP:
> 0
NCOS:
> 0
SNPA:
> 619
KEY:
> 1
RINGING:
> y
LATANAME:
> LATA1
LTG:
> 0
LEN_OR_LTID:
> ISDN 20
OPTKEY:
7
OPTION:
FC
CONFSIZE:
6
OPTKEY:
1
OPTION:
DCC
OPTKEY:
$

```

The following is an example of the DCC option with the NEW command in the no-prompt mode.

Example of the DCC option with the NEW command in no-prompt mode

```

>NEW $ 6755000 ISDNKSET ISDNGRP 0 0 619 1 Y LATA1 0 ISDN 20 7
FC 6 1 DCC

```

DCC - Flexible calling deactivate conference facility (continued)

The following is an example of DCC option in the prompt mode.

Example of the DCC option with the ADO command in prompt mode

```

>ADO
SONUMBER: NOW 97 10 5 PM
> DN_or_LEN:
6755000
> OPTKEY:
1
>OPTION:
DCC
> OPTKEY
$
    
```

Example of the DCC option with the ADO commnad in no-prompt mode

```

>ADO $ 6755000 1 DCC
    
```

Prompts

The following table provides the system prompts for the DCC option.

Input prompts for the DCC option (Sheet 1 of 3)

Prompt	Valid input	Explanation
DN		Directory number The DN associated with the service to be established.
LCC	ISDNKSET	Line class code The line class code ISDNKSET is the only valid LCC for Voiceband information.
GROUP	1 to 16 alphanumeric characters	Group The name of an IBN customer group.
SUBGRP	0 to 7	Subgroup of a customer group to which a station or DN belongs.

DCC - Flexible calling deactivate conference facility (continued)**Input prompts for the DCC option (Sheet 2 of 3)**

Prompt	Valid input	Explanation
NCOS	0 to 255	The NCOS FOR IBN lines, trunks, or attendant consoles; defines a set of capabilities or restrictions that allows or denies calls.
SNPA	3-digit number	Service numbering plan area
KEY	1 to 69	Key The number associated with the physical key set to which the DN is assigned.
RINGING	Y or N	Ringling Specifies whether a ring from a telephone speaker is required in addition to the call-waiting tone heard from the handset.
LATANAME	Alphanumeric	The local access and transport area (LATA) name associated with the originator of the call.
LTG	0 to 256	Line treatment group. A number that allows the translator to distinguish between subscriber lines with the same LCC, but different screening and routing patterns.
LEN_OR_LTID	1 to 8 alphanumeric digits, a space, and a terminal number (1 to 1022)	Logical terminal identifier. An LTID consists of a logical terminal group (LTGRP) name and a terminal number.
OPTKEY	1 to 69	Option key The numeral associated with the option.

DCC - Flexible calling deactivate conference facility (end)

Input prompts for the DCC option (Sheet 3 of 3)

Prompt	Valid input	Explanation
OPTKEY	1	Key associated with the option.
OPTION	DCC	Flexible calling deactivate conference facility.

DCC to line class code compatibility

The DCC option is assigned to LCC ISDNKSET.

Assignability

The following functionalities apply to this option:

- set functionality: yes
- subset functionality: no
- DN functionality: no
- key functionality: no

Option prerequisites

The FC feature is a prerequisite for DCC.

Notes

There are no notes for this option.

Feature identification

Functionality: NI000060

Feature number: AF7297

DCF - Denied call forwarding

Description

The DCF option is used to prevent a line from receiving forwarded calls. This security option is useful especially for computer ports.

Example

The following example shows the ADO command when it is used to add the DCF option to DN 234-5432.

Example of the DCF option in prompt mode

```
>ADO
SONUMBER:  NOW 92 12 08 AM
>(CR)
DN_OR_LEN:
>2345432
OPTKEY:
>9
OPTION:
>DCF
OPTKEY:
>$
```

Example of the DCF option in no-prompt mode

```
>ADO $ 2345432 9 DCF $
```

DCF - Denied call forwarding (continued)

Prompts

The following table provides the system prompts for the DCF option.

Input prompts for the DCF option

Prompt	Valid input	Explanation
DN_OR_LEN	Refer to DN and LTID in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	Enter the line's DN or LTID. For an MDN line or MLH/DLH hunt members, if a DN is specified, the user is prompted for the LTID. If the LTID is entered, the user is not prompted for the DN.
OPTION	Refer to table Line service options in the "Service order tables" section of this manual for a list of valid inputs.	Option(s) associated with a service to be established, modified, or deleted. A maximum of 20 options can be specified in a single command.
OPTKEY	1 to 69	Key associated with the option.
SONUMBER	Refer to SONUMBER in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	The unique number of the service order to be entered.

DCF to line class code compatibility

For ISDN, the only valid line class code is ISDNKSET.

Assignability

The following functionalities apply to this option:

- set functionality: no
- subset functionality: no
- DN functionality: yes
- key functionality: no

Option prerequisites

Option DCF is incompatible with the LDTPSAP option.

DCF - Denied call forwarding (end)

Notes

There are no notes for this option.

Feature identification

Functionality: NTX413AA, NTX413AB

Feature number: BC1206

DEFLTERM - Default logical terminal

Description

The DEFLTERM option defines an LTID as a non-initializing terminal. A default logical terminal provides a default service profile for a non-initializing functional signaling (BRAFS) terminal on a loop. When the DEFLTERM option is assigned to an LTID, the user- or network-assigned TEI (UNATEI) option is automatically assigned to the LTID.

Example

The following example shows the SLT ADD command when it is used to add the DEFLTERM option to LTID ISDN 99.

Example of the DEFLTERM option in prompt mode

```
SO:
> SLT
SONUMBER:  NOW 86 07 08 AM
> (CR)
LTID:
> ISDN 99
FUNCTION:
> ADD
LTCLASS:
> BRAFS
CS:
> Y
PS:
> N
MAXKEYS:
> 64
DEFLTERM:
> Y
ABS:
> $
OPTION:
> PVC
VERSION:
> ETSI
ISSUE:
> 0
OPTION:
> $
```

DEFLTERM - Default logical terminal (continued)

Example of the DEFLTERM option in no-prompt mode

```
>SLT $ ISDN 99 ADD BRAFS Y N 64 Y $ PVC ETSI 0 $
```

Prompts

The following table provides the system prompts for the DEFLTERM option.

Input prompts for the DEFLTERM option (Sheet 1 of 2)

Prompt	Valid input	Explanation
ABS	VOICE = Analog voice VBD = Voiceband data CMD = Circuit-mode data	Authorized bearer services. This option lists the allowable bearer services. The default entry is VOICE, VBD, CMD.
CS	Y, N	Circuit-switched service.
DEFLTERM	Y, N	Defines the LTID as a non-initializing terminal. A default logical terminal provides a default service profile for a non-initializing terminal on the loop.
FUNCTION	ADD, REM, ATT, DET, CHA	The action required by the service order.
ISSUE	0 = MFT and ETSI	The protocol issued for the logical terminal.
LTCLASS	BRAFS = Functional = Meridian feature transparency BRAMFT	Class of logical terminal based on the type of messaging exchanged between the terminal and the ISDN switch.
LTID	Refer to LTID in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	The logical terminal identifier.
MAXKEYS	2 to 64	Maximum number of feature activators (keys) on a logical terminal used for circuit-switched service.

DEFLTERM - Default logical terminal (continued)**Input prompts for the DEFLTERM option (Sheet 2 of 2)**

Prompt	Valid input	Explanation
OPTION (in SLT ADD function)	PVC	Options installed on the terminal.
PS	N = No packet service B = Packet service on a B-channel D = Packet service on the D-channel	Packet-switched service
SONUMBER	Refer to SONUMBER in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	The unique number of the service order to be entered.
VERSION	ETSI, MFT	The version of the protocol used by the BRAFS terminal.

DEFLTERM to line class code compatibility

For ISDN lines, the only valid line class code is ISDNKSET.

Assignability

The following functionalities apply to this option:

- set functionality: yes
- subset functionality: no
- DN functionality: no
- key functionality: no

Option prerequisites

The DEFLTERM option is only valid for BRAFS terminals.

Incompatible options

EKTS, CACH, SPIDSFX

DEFLTERM - Default logical terminal (end)

Notes

The following notes apply to the DEFLTERM option:

- Only one LTID per loop can be assigned the DEFLTERM option.
- Only one non-initializing terminal is supported on a BRI loop.
- The DEFLTERM option replaces the NONINIT/UNATEI options and their associated prompts in SERVORD.

Feature identification

Functionality: NTXV10

Feature number: AR0268

DFDN - Default directory number

Description

Default Directory Number (DFDN) is a line option for an NI-2 integrated terminal (IT) with 2 B-channels and 1 D-channel (2BD) capability. Options packet mode data (PMD) and DFDN can only be assigned to line class code ISDNKSET. When datafilling feature ISDN Packet Single DN (AF6782) on an IT both voiceband information / circuit mode data (VI/CMD) and PMD call type key appearances must be defined.

Option PMD is assigned to the packet switched (PS) service instance of an NI-2 terminal. PMD cannot be assigned to key one of an IT. Only the primary directory number (PDN) of VI/CMD call type can be assigned to key one. To assign the primary number for PMD service use SERVORD line option DFDN (default directory number).

Example

The following example shows use of the NEW command to add the DFDN option to a PMD key.

DFDN - Default directory number (continued)

Example of using the NEW command to add option DFDN to a 2BD IT in the prompt mode

```

>NEW
SONUMBER:  JUL 97 07 08 AM
DN:
>7235116
LCC_ACC:
>ISDNKSET
GROUP:
>CUSTB
SUBGRP:
>1
NCOS:
> 0
SNPA:
> 613
KEY:
> 7
RINGING:
>N
LTANAME:
>NILLATA
LTG:
>ISDN 20
OPTKEY:
> 7
OPTION:
> PMD
OPTKEY:
> 7
OPTION:
> DFDN
OPTKEY:
>$

```

Example of using the new command to add option DFDN to a 2BD IT in the no-prompt mode

```

>NEW 7235116 ISDNKSET CUSTB 1 0 613 7 N NILLATA ISDN 20 7 PMD 7  
DFDN $

```

DFDN - Default directory number (continued)

Prompts

The following table provides the system prompts for option PMD.

Input prompts for option DFDN (Sheet 1 of 3)

Prompt	Valid input	Explanation
DN	Refer to DN in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	directory number The DN associated with the service to be established.
LCC	ISDNKSET	Line class code. LCC ISDNKSET is the only valid LCC for Voiceband Information.
GROUP	1 to 16 alphanumeric characters	Group The name of an IBN customer group.
SUBGROUP	0 to 7	Subgroup The subgroup of a customer group to which a station or DN belongs.
NCOS	0 to 511	Network class of service The NCOS for IBN lines, trunks, or attendant consoles; defines a set of capabilities or restrictions that allows or denies calls.
SNPA	3-digit number	Service numbering plan area The 3-digit service numbering plan area code.
KEY	2 to 69	Key The number associated with the physical key set to which the DN is assigned. PMD cannot be assigned to key 1.

DFDN - Default directory number (continued)

Input prompts for option DFDN (Sheet 2 of 3)

Prompt	Valid input	Explanation
RINGING	N	<p>Ringling</p> <p>Specifies whether a ring from a telephone speaker is required in addition to the call-waiting tone heard from the handset. Only voice instances can have ringing, enter N for PMD.</p>
LATANAME	Alphanumeric	<p>The local access and transport area (LATA) name associated with the originator of the call.</p>
LTG	0 to 255Default 0	<p>Line treatment group.</p> <p>A number that allows the translator to distinguish between customer lines with the same LCC, but different screening and routing patterns.</p>
LEN_OR_LTID	1 to 8 alphanumeric digits, a space, and a terminal number (1 to 1022)	<p>Logical terminal identifier.</p> <p>An LTID consists of a logical terminal group (LTGRP) name and a terminal number</p>
OPTKEY	1 to 69	<p>Option key</p> <p>Key associated with the option.</p>
OPTION	PMD	<p>Option</p> <p>Option(s) associated with a service to be established, modified, or deleted. A maximum of 20 options can be specified in a single command. Enter PMD for the Packet Mode Data option.</p>

DFDN - Default directory number (continued)**Input prompts for option DFDN (Sheet 3 of 3)**

Prompt	Valid input	Explanation
OPTKEY	1 to 69	Option key Key associated with the option.
OPTION	DFDN	Option Option(s) associated with a service to be established, modified, or deleted. A maximum of 20 options can be specified in a single command. Enter DFDN to define the key as default directory number (primary number for PMD).

DFDN to line class code compatibility

The option DFDN can only be assigned to LCC ISDNKSET.

Assignability

The following functionalities apply to this option:

- set functionality: no
- subset functionality: no
- DN functionality: yes
- key functionality: yes

Option prerequisites

There are no prerequisites for this option.

Notes

The following notes apply to DFDN:

- Packet mode data (PMD) call type cannot be assigned to first key on terminal provisioned as 2BD. By default the primary directory number (PDN) assigned to key one is VI type.
- Primary number for PMD must be assigned as OPTION default directory number (DFDN).
- Only the DN format in table KSETLINE is supported.

DFDN - Default directory number (end)

- The ringing option is not supported on PMD keys.
- Features Key Short Hunt (KSH) and Call Forward (CFX), assigned in table KSETFEAT, are modified to bypass DNs assigned to PMD type.
- In table LTMAP the following controls will be implemented:
 - Static terminal endpoint identifier (STEI) option will not be allowed when datafilling a terminal that supports ISDN Packet Single DN service.
 - PHI option is not allowed for 2BD type terminals.
 - BCH option is not allowed for 2BD type terminals.
 - The DCHNL option must be specified for 2BD type terminals.
 - A 2BD terminal cannot be attached to an ILD LEN.
- The following terminal access privilege types can coexist on a single ISDN loop.
 - Single DN, single dynamic TEI, with different CT's on an integrated FIT (2BD access privilege).
 - NI-2 FIT (2B access privilege with NITYPE option set to NI-2).

Feature identification

Functionality: NI000051

Feature numbers: AF6782, AF6777

DLH - Distributed line hunt

Description

The DLH option allows distributed line hunting. Only one pilot DN is associated with the hunt group. Hunting starts after the first idle line found by the previous hunt and continues until the starting point of the hunt is reached. At this point, busy tone is returned unless options LOD (line overflow to a DN) or LOR (line overflow to a route) are assigned to the hunt group. DLH is assigned to groups requiring an equal distribution of calls.

DLH is a valid option for packet terminals configured on the DMS packet handler.

Example

The following example shows the EST command when it is used to establish a DLH group with pilot LEN ISDN 4, pilot DN 621-5907.

DLH - Distributed line hunt (continued)

Example of the DLH option in prompt mode

```

SO:
>EST
SONUMBER: NOW 90 12 19 PM
> (CR)
GROUPTYPE:
>DLH
PILOT_DN:
>6215907
LCC:
>ISDNKSET
GROUP:
>IBNTST
SUBGRP:
>0
NCOS:
>0
SNPA:
>613
KEY:
>18
RINGING:
>Y
LATANAME:
>NILLATA
PILOT_LEN:
>ISDN 4
MEM_LEN:
>$
OPTION:
>$
GROUPSIZE:
>10

```

Example of the DLH option in no-prompt mode

```

>EST $ DLH 6215907 ISDNKSET IBNTST 0 0 613 18 Y NILLATA ISDN 4
$ $ 10

```

DLH - Distributed line hunt (continued)**Prompts**

The following table provides the system prompts for the DLH option.

Input prompts for the DLH option (Sheet 1 of 2)

Prompt	Valid input	Explanation
GROUP	1 to 16 alphanumeric characters	The name of an IBN customer group.
GROUPSIZE	0 to 1024	The expected maximum size of the hunt group. The group size specified must be large enough to accommodate the group's expected membership.
GROUPTYPE	BNN = Bridged night number CPU = Call pickup DLH = Distributed line hunt DNH = Directory number hunt MLH = Multiline hunt UA = No hunt	The type of hunt group to be established, modified, or deleted.
KEY	1 to 69	The number associated with the physical key set to which the DN is assigned.
LATANAME	Alphanumeric	The calling local access and transport area (LATA) name associated with the originator of the call.
LCC	ISDNKSET	The line class code for the service to be established.
MEM_LEN	Refer to LTID in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	The LTID of the member added to a DLH or MLH group.
NCOS	0 to 255	Network class of service for IBN lines, trunks, or attendant consoles; defines a set of capabilities or restrictions that allows or denies calls.

DLH - Distributed line hunt (continued)

Input prompts for the DLH option (Sheet 2 of 2)

Prompt	Valid input	Explanation
OPTION	Refer to table Line service options in the "Service order tables" section of this manual for a list of valid inputs.	Option(s) associated with a service to be established, modified, or deleted. A maximum of 20 options can be specified in a single command.
PILOT_DN	Refer to DN in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	The DN of a BNN/DNH group pilot or the DN associated with a DLH/MLH group.
PILOT_LEN	Refer to LTID in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	The LTID of a hunt group pilot.
RINGING	Y, N	Specifies whether a ring from a telephone speaker is required in addition to the call waiting tone heard from the handset.
SNPA	3-digit number	Service numbering plan area (area code).
SONUMBER	Refer to SONUMBER in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	The unique number of the service order to be entered.
SUBGRP	0 to 7	Subgroup of a customer group to which a station or DN belongs.

DLH to line class code compatibility

For ISDN, the only valid line class code is ISDNKSET.

Assignability

The following functionalities apply to this option:

- set functionality: yes
- subset functionality: no

DLH - Distributed line hunt (end)

- DN functionality: no
- key functionality: no

Option prerequisites

There are no prerequisites for this option.

Notes

The following notes apply to DLH:

- A hunt group can consist of up to 256 lines.
- The pilot DN and the hunt group members must belong to the same customer group. However, the LOD DN can be outside the customer group.
- Option DLH is incompatible with the following options:
 - ACD, CBE, CBI, CBU, CDE, CDI, CDU, CFB, CFBL, CFD, CFDA, CFDVT, CIR, CWI, CWT, CWX, DMCT, DNH, ECM, EHL, IECFB, IECFD, INT, MDN, MLAMP, MLH, MPB, MREL, NSDN, PCWT, PRH, RAG, RCHD, RSUS, SCMP, SDN, SHU, SLVP, SOR, SORC, UCD, UCSD, and WUCR.

The following notes apply to the DLH option on packet terminals:

- All members of a packet hunt group must reside on the same switch.
- A packet terminal cannot have incoming calls barred (ICB=Y in table DNCTINFO).
- A DN can appear in one hunt group only.

Feature identification

Functionality: NTX100AA

Feature number: F1237

Functionality: NTXP47AA (DMS PH Hunt)

Feature number: AQ0894 (DMS PH Hunt)

DND - Do not disturb

Description

The DND option is used to divert calls from a DN to a treatment (tone or announcement), a specified route, or an attendant. This option can be assigned to individual DNs or to all members of a DND group.

Example

The following example shows the ADO command when it is used to add the DND option to DN 234-5432.

Example of the DND option in prompt mode

```
>ADO
SONUMBER:  NOW 92 12 08 AM
>(CR)
DN_OR_LEN:
>2345432
OPTKEY:
>9
OPTION:
>DND
DNDGRP:
>3
OPTKEY:
>$
```

Example of the DND option in no-prompt mode

```
>ADO $ 2345432 9 DND 3 $
```

DND - Do not disturb (continued)

Prompts

The following table provides the system prompts for the DND option.

Input prompts for the DND option

Prompt	Valid input	Explanation
DNDGRP	1 to 63	The DND group to which the line is assigned.
DN_OR_LEN	Refer to DN and LTID in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	Enter the line's DN or LTID. For an MDN line or MLH/DLH hunt members, if a DN is specified, the user is prompted for the LTID. If the LTID is entered, the user is not prompted for the DN.
OPTION	Refer to table Line service options in the "Service order tables" section of this manual for a list of valid inputs.	Option(s) associated with a service to be established, modified, or deleted. A maximum of 20 options can be specified in a single command.
OPTKEY	1 to 69	Key associated with the option.
SONUMBER	Refer to SONUMBER in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	The unique number of the service order to be entered.

DND to line class code compatibility

For ISDN, the only valid line class code is ISDNKSET.

Assignability

The following functionalities apply to this option:

- set functionality: no
- subset functionality: no
- DN functionality: yes
- key functionality: no

DND - Do not disturb (end)

Option prerequisites

This option can be assigned only when the DND option is assigned to the customer group in table CUSTSTN.

Notes

The following notes apply to option DND:

- The schedules for the various DND groups are defined in the DNDSCHED table.
- If required, incoming call identification code 13 should be assigned in the FNMAP and ICIDATA tables for the DND option.
- Option DND is incompatible with the following options:
 - DTM, EHLD, LDTPSAP, LINEPSAP, MDN, MLAMP, MREL, and PBL.

Feature identification

Functionality: NTX106AA

Feature number: BC0933

DNH - Directory number hunt

Description

The DNH option allows directory number hunting. Each line in the hunt group has its own unique directory number (DN). The hunt group can be accessed by dialing any DN in the hunt group.

The number of lines hunted depends on the hunting option (circular or sequential) assigned to the DNH group. Circular hunting hunts all lines in the hunt group regardless of the starting point. Sequential hunting starts at the number dialed and ends at the last number in the group.

Example

The following example shows the EST command when it is used to establish a DNH group with pilot DN 722-1234 and LTID ISDN 7.

DNH - Directory number hunt (continued)

Example of the DNH option in prompt mode

```

SO:
>EST
SONUMBER: NOW 85 7 8 PM
>(CR)
GROUPTYPE:
>DNH
PILOT_DN:
>7221234
LCC:
>ISDNKSET
GROUP:
>COMKODAK
SUBGRP:
>0
NCOS:
>0
SNPA:
>613
KEY:
>3
RINGING
>N
LATANAME:
>NILLATA
PILOT_LEN:
>ISDN 7
DN_LEN:
>$
OPTION:
>$
GROUPSIZE:
>10

```

Example of the DNH option in no-prompt mode

```

>EST $ DNH 7221234 ISDNKSET COMKODAK 0 0 613 3 N NILLATA
ISDN 7 $ $ 10

```

DNH - Directory number hunt (continued)

Prompts

The following table provides the system prompts for the DNH option.

Input prompts for the DNH option (Sheet 1 of 2)

Prompt	Valid input	Explanation
DN_LEN	Refer to DN and LTID in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	The DN of the member added to a DNH group and its associated LTID.
GROUP	1 to 16 alphanumeric characters	The name of an IBN customer group
GROUPSIZE	0 to 1024	The expected maximum size of the hunt group. The group size specified must be large enough to accommodate the group's expected membership.
GROUPTYPE	BNN = Bridged night number CPU = Call pickup DLH = Distributed line hunt DNH = Directory number hunt MLH = Multiline hunt UA = No hunt	The type of hunt group to be established, modified, or deleted.
KEY	1 to 69	The number associated with the physical key set to which the DN is assigned.
LATANAME	Alphanumeric	The calling local access and transport area (LATA) name associated with the originator of the call.
LCC	ISDNKSET	The line class code for the service to be established.
NCOS	0 to 255	Network class of service for IBN lines, trunks, or attendant consoles; defines a set of capabilities or restrictions that allows or denies calls.

DNH - Directory number hunt (continued)

Input prompts for the DNH option (Sheet 2 of 2)

Prompt	Valid input	Explanation
OPTION	Refer to tableLine service options in the "Service order tables" section of this manual for a list of valid inputs.	Option(s) associated with a service to be established, modified, or deleted. A maximum of 20 options can be specified in a single command.
PILOT_DN	Refer to DN in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	The DN of a BNN/DNH group pilot or the DN associated with a DLH/MLH group.
PILOT_LEN	Refer to LTID in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	The LTID of a hunt group pilot.
RINGING	Y, N	Specifies whether a ring from a telephone speaker is required in addition to the call waiting tone heard from the handset.
SNPA	3-digit number	Service numbering plan area (area code).
SONUMBER	Refer to SONUMBER in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	The unique number of the service order to be entered.
SUBGRP	0 to 7	Subgroup of a customer group to which a station or DN belongs.

DNH to line class code compatibility

For ISDN, the only valid line class code is ISDNKSET.

Assignability

The following functionalities apply to this option:

- set functionality: yes
- subset functionality: no

DNH - Directory number hunt (end)

- DN functionality: no
- key functionality: no

Option prerequisites

There are no prerequisites for this option.

Notes

The following notes apply to DNH:

- A hunt group can consist of up to 256 lines.
- The pilot DN and the hunt group members must belong to the same customer group.
- Option DNH is incompatible with the following options:
 - ACD, ACOU, CBE, CBI, CBU, CFB, CWX, DLH, DMCT, ECM, IECFB, LDTPSAP, MDN, MLAMP, MLH, MPB, MPH, MREL, NSDN, RCHD, RSUS, SCMP, SDN, SLVP, UCD, UCDS, and WUCR.

Feature identification

Functionality: NTX100AA

Feature number: F1237

DPCAR - Detailed Privacy Change Allowed Recording

Description

The Privacy Change Allowed (PCA) feature for ISDN basic rate interface (BRI) lets the operating company control if the user can send a number/name presentation value (PI) to the switch. The Privacy Change Allowed Caller ID Delivery and Suppression (PCACIDS) line option allows the customer premises equipment (CPE) to send its own PI to the DMS switch.

Option DPCAR, assigned to the line along with option PCACIDS, allows the operating company to generate call-specific AMA records for ISDN BRI lines. Option DPCAR also divides the PCA peg counts into voice and circuit-mode calls.

Example

The following is an example of option DPCAR. Assign option PCACIDS to key 1 before you add DPCAR, or add both options at the same time. In this example, option PCACIDS was added to the DN earlier.

Example of the DPCAR option in prompt mode

```

> ADO
SONUMBER:    NOW 96 7 1 PM
>
DN:
> 6755000
OPTKEY:
> 1
OPTION:
> DPCAR
OPTKEY:
> $

```

Example of the DPCAR option in no-prompt mode

```

> ADO $ 6755000 1 DPCAR $

```

DPCAR - Detailed Privacy Change Allowed Recording (end)

Prompts

The following table provides the system prompts for option DPCAR.

Input prompts for the DPCAR option

Prompt	Valid input	Explanation
DN	7 or 10 digits entered with no spaces or hyphens	Directory number associated with the service that you establish, modify, or delete.
OPTION	DPCAR	Option(s) associated with a service that you establish, modify, or delete. Specify a maximum of 20 options in any single command.
OPTKEY	1 to 69	Key associated with the option.

DPCAR to line class code compatibility

Option DPCAR applies to the line class code of ISDNKSET only.

Assignability

The following functionalities apply to this option:

- set functionality: no
- subset functionality: no
- DN functionality: yes
- key functionality: no

Option prerequisites

DPCAR has the following prerequisite: Privacy Change Allowed Caller ID Delivery and Suppression (PCACIDS) must be present or you must add it in the same SERVORD command as option DPCAR.

Notes

There are no notes for this option.

Feature identification

Functionality: NI000052

Feature number: AF7454

DROP - Drop last add-on member

Description

The DROP option allows a user to drop the last call added to a conference call. This option is used with the FC option.

Example

The following example shows the ADO command when it is used to add the DROP option on key 11 of DN 234-5432.

Example of the DROP option in prompt mode

```
>ADO
SONUMBER:  NOW 92 12 08 AM
>(CR)
DN_OR_LEN:
>2345432
OPTKEY:
>9
OPTION:
>FC
CONFSIZE:
>3
OPTKEY:
>11
OPTION:
>DROP
OPTKEY:
>$
```

Example of the DROP option in no-prompt mode

```
>ADO $ 2345432 9 FC 3 11 DROP $
```

DROP - Drop last add-on member (continued)

Prompts

The following table provides the system prompts for the DROP option.

Input prompts for the DROP option

Prompt	Valid input	Explanation
CONF SIZE	3	The maximum number of calls supported on a conference call.
DN_OR_LEN	Refer to DN and LTID in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	Enter the line's DN or LTID. For an MDN line or MLH/DLH hunt members, if a DN is specified, the user is prompted for the LTID. If the LTID is entered, the user is not prompted for the DN.
OPTION	Refer to table Line service options in the "Service order tables" section of this manual for a list of valid inputs.	Option(s) associated with a service to be established, modified, or deleted. A maximum of 20 options can be specified in a single command.
OPTKEY	1 to 69	Key associated with the option.
SONUMBER	Refer to SONUMBER in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	The unique number of the service order to be entered.

DROP to line class code compatibility

For ISDN, the only valid line class code is ISDNKSET.

Assignability

The following functionalities apply to this option:

- set functionality: no
- subset functionality: no
- DN functionality: yes
- key functionality: no

DROP - Drop last add-on member (end)

Option prerequisites

The DROP option must be assigned to a higher key than the FC option.

Notes

The following notes apply to option DROP:

- The FC option must be assigned before the DROP option.
- The DROP option is compatible with all line options.

Feature identification

Functionality: NTX755AA, NTX755AB, and NTX755AC

Feature number: AG1301

EHL D - EKTS hold

Description

The EHL D option is used to specify the EKTS hold operating mode for a line.

Example

The following example shows the ADO command when it is used to add the EHL D option to an MDN single-call arrangement (SCA) group member. This example is abridged.

Example of the EHL D option in prompt mode

```
SO :
>CHF
SONUMBER :  NOW
. . .
OPTION :
>MDN
MDNTYPE :
>SCA
PRIMARY :
>Y
RINGING :
>Y
DIR_NUMBER :
>7227010
DENIAL_TRMT :
>TONE
BRIDGING :
>Y
CONF_SIZE :
>30
BRIDGE_TONE :
> N
INIT_STAT :
>PRIVATE
PRL_MODE :
>MANUAL
OPTION :
>EHL D
OPTION :
>$
```

EHL D - EKTS hold (continued)**Example of the EHL D option in no-prompt mode**

```
>CHF $ ... MDN SCA Y Y 7227010 TONE Y 30 N PRIVATE MANUAL EHL D $
```

Prompts

The following table provides the system prompts for the EHL D option.

Input prompts for the EHL D option (Sheet 1 of 3)

Prompt	Valid input	Explanation
BRIDGE_TONE	Y, N	<p>Bridging tone. This parameter specifies whether a tone is heard by the external party and all active MDN members when a new member bridges into the call.</p> <p>Note: This prompt appears if Y is entered for the BRIDGING prompt.</p>
BRIDGING	Y, N	<p>This parameter specifies whether bridging is allowed.</p> <p>Note: This prompt appears if the MDN group is SCA.</p>
CONF_SIZE	3 to 30	<p>The maximum number of parties on a conference bridge (including the external party and the member who answered the call).</p> <p>Note: This prompt appears if Y is entered for the BRIDGING prompt.</p>

EHL D - EKTS hold (continued)

Input prompts for the EHL D option (Sheet 2 of 3)

Prompt	Valid input	Explanation
DENIAL_TRMT	SILENCE, TONE	Denial treatment. This parameter specifies whether a tone is heard by a member not allowed to bridge into a call. Note 1: This prompt appears if the MDN group is SCA. Note 2: This field is ignored for ISDN functional sets (BRAFS).
DIR_NUMBER	Refer to DN in table Prompts in the "Service order tables" section of this manual for information on valid inputs	DN to be assigned to an MDN line.
INIT_STATE	PRIVATE, NONPRIVATE	Initial privacy status. This parameter specifies whether a call is initially private or nonprivate. Note: This prompt appears if the MDN group is SCA.
MDNTYPE	MCA = Multi-call arrangement SCA = Single-call arrangement	Type of MDN group.
OPTION	Refer to table Line service options in the "Service order tables" section of this manual for a list of valid inputs.	Option(s) associated with a service to be established, modified, or deleted. A maximum of 20 options can be specified in a single command.
PRIMARY	Y or N	Primary member of an MDN group.

EHL D - EKTS hold (continued)**Input prompts for the EHL D option (Sheet 3 of 3)**

Prompt	Valid input	Explanation
PRL_MODE	MANUAL = Only one member is allowed to bridge into the call after privacy has been explicitly released. AUTO = All members are allowed to bridge into the call after privacy has been explicitly released.	Privacy release mode. Note: This prompt appears if PRIVATE is entered for the INIT_STAT prompt.
RINGING	Y, N	Specifies whether a ring from a telephone speaker is required in addition to the call waiting tone heard from the handset.
SONUMBER	Refer to SONUMBER in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	The unique number of the service order to be entered.

EHL D to line class code compatibility

For ISDN, the only valid line class code is ISDNKSET.

Assignability

The following functionalities apply to this option:

- set functionality: yes
- subset functionality: no
- DN functionality: no
- key functionality: no

Option prerequisites

There are no prerequisites for this option.

EHLD - EKTS hold (end)

Notes

The following notes apply to EHLD:

- The EHLD option has the following effect on the status of privacy:
 - If the privacy release (PRL) option is active and the holding member is non-bridging, the holding member becomes non-private. The MADN HLD option results in the status remaining private.
 - If the privacy (PRIVATE) option is active, the non-bridging holding member remains private. The MADN HLD option causes the member to become non-private.
- For a bridged holding member, or for other members of the MADN group, there is no difference in the privacy status changes that result from using either the EHLD or HLD option.
- Option EHLD is incompatible with the following options:
 - AAB, AAK, ACD, BNN, CALLOG, DLH, DND, DNH, ECM, GIC, LDTPSAP, MLH, MPH, PBL, PRH, RMB, SDN, SHU, SLVP, SMDI, SOR, SORC, UCD, UCSD, and WUCR.

Feature identification

Functionality: NTX754AA, NTX754AB

Feature number: AG1342

EKTS - Electronic key telephone service

Description

In a key terminal, each directory number (DN) appearance is associated with its own function key. Electronic key telephone service (EKTS) offers enhanced call-handling operation to support groups of key functional terminals that handle multiple calls.

EKTS is required to support a multiple appearance DN group equipped with key functional terminals.

EKTS service permits DN appearance keys to be used for

- call termination (indication against the key shows an incoming call, pushing the key allows you to answer the call)
- call origination (pushing an inactive DN key accesses the line for that DN and allows you to make an outgoing call)
- bridging (pushing a key associated with a call answered at another terminal bridges you into the call)
- bridged-call exclusion
- call disconnect or clearing (a call is released when the last terminal active on the call disconnects)
- hold and retrieve (a call can be held and retrieved from any integrated services digital network (ISDN) terminal in the group)

Example

The following example shows the SLT command when it is used to create a circuit-switched functional logical terminal with an LTID of ISDN 99, a dynamic TEI set, and the EKTS service.

EKTS - Electronic key telephone service (continued)

Example of the EKTS option in prompt mode

```
SO:
>SLT
SONUMBER:  NOW 86 07 08 AM
> (CR)
LTID:
>ISDN 99
FUNCTION:
>ADD
LTCLASS:
>BRAFS
CS:
>Y
PS:
>N
MAXKEYS:
>25
TEI_TYPE:
>DTEI
ABS:
>VOICE
ABS:
>VBD
ABS:
>$
EKTS:
>Y
OPTION:
>PVC
VERSION:
> FUNCTIONAL
ISSUE:
> 2
OPTION:
> CACH
OPTION:
>$
```

Example of the EKTS option in no-prompt mode

```
>SLT $ ISDN 99 ADD BRAFS Y N 25 DTEI VOICE VBD $ Y PVC
FUNCTIONAL 1 CACH $
```

EKTS - Electronic key telephone service (continued)

Prompts

The following table provides the system prompts for the EKTS option.

Input prompts for the EKTS option (Sheet 1 of 2)

Prompt	Valid input	Explanation
ABS	VOICE = analog voice VBD = voiceband data CMD = circuit-mode data	Authorized bearer services (available with NTX750AB05 feature package). This option indicates the bearer services to which a circuit-switched call can subscribe. A prompt for ABS is displayed only if the set is a circuit-switched functional set.
CS	Y, N	Circuit-switched service.
EKTS	Y, N	Electronic key telephone set (available with NTX753AA03 feature package). Note: Only a functional (BRAFS) set with dynamic TEI can be defined as an EKTS set.
FUNCTION	ADD, REM, ATT, DET, CHA	The action required by the service order.
ISSUE	0 = MFT 1 = Bellcore functional 2 = When protocol variant control feature is present	The protocol issued for the logical terminal.
LTCLASS	BRAFS = Functional BRAMFT= Meridian feature transparency	Class of logical terminal based on the type of messaging exchanged between the terminal and the ISDN switch.

EKTS - Electronic key telephone service (continued)

Input prompts for the EKTS option (Sheet 2 of 2)

Prompt	Valid input	Explanation
LTID	Refer to LTID in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	The logical terminal identifier.
MAXKEYS	2 to 64	Maximum number of feature activators (keys) on a logical terminal used for circuit-switched service.
OPTION (in SLT ADD function)	SPIDSFY, CACH, PVC, EKTS ELN, TERML, AGA	Options installed on the terminal.
PS	N = no packet service B = packet service on a B-channel D = packet service on the D-channel	Packet-switched service.
SONUMBER	Refer to SONUMBER in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	The unique number of the service order to be entered.
TEI_TYPE	STEI= static DTEI= dynamic UATEI= user-assigned TEI UNATEI= user or network assigned non-initializing terminal Note: User-assigned dynamic TEI applies only to circuit-switched terminals.	The type of TEI assignment.
VERSION	FUNCTIONAL, MFT AUSTEL, MFT	The version of the protocol used by the BRAFS terminal.

EKTS to line class code compatibility

For ISDN, the only valid line class code is ISDNKSET.

EKTS - Electronic key telephone service (end)

Assignability

The following functionalities apply to this option:

- set functionality: yes
- subset functionality: no
- DN functionality: no
- key functionality: no

Option prerequisites

Only a functional signaling (BRAFS) terminal with a dynamic TEI can be defined as an EKTS set.

Notes

Although EKTS is compatible with Additional Functional Calls (AFC), MADN DNs are not compatible with AFC. EKTS must be present for MADN to appear on an ISDN terminal.

Feature identification

Functionality: NTX754AB

Feature number: None

ELN - Essential line

Description

The essential line (ELN) option allows a line to be designated as essential. When emergency cut-off is activated, all non-essential subscriber originating calls are denied service. A line with the ELN option is allowed to originate calls when the switching unit has line load control active.

If the ELN feature is added to a logical terminal identifier (LTID), all the directory numbers (DN) in that LTID receive preferential treatment. An NI-2 default LTID can be associated with a maximum of eight non-initializing terminals (NIT). If an NI-2 default LTID is provisioned with ELN, the calls that originate from any of the NITs sharing that default LTID receive preferential treatment. Option ELN can be assigned to an LTID by using the SERVORD SLT ADD or SLT CHA command..

This feature is allowed to be used by NI-1 and NI-2 LTIDs only if the NI000051 package is in the ON state.

Examples

The following are examples of the ELN option.

Example of adding the ELN option in the prompt mode

```
>SLT
SONUMBER:      NOW  92  4 13 PM
> $
LTID:
>ISDN 1
FUNCTION:
> ADD
LTCLASS:
>BRAFS
CS:
> NI2
PS:
> N
MAXKEYS:
> 64
DEFLTERM:
> Y
OPTION:
> ELN
OPTION:
>$
```

ELN - Essential line (continued)**Example of adding the ELN option in the no-prompt mode**

```
>SLT $ ISDN 1 ADD BRAFS NI2 N 64 Y ELN $
```

Example of using the CHA command to add ELN option in the prompt mode

```
>SLT
SONUMBER:      NOW  97  5  01 PM
> $
LTID:
>ISDN 99
FUNCTION:
>CHA
OPTION:
>ELN
OPTKEY:
> Y
OPTION:
> $
```

Example of using the CHA command to add ELN option in the no-prompt mode

```
>SLT $ ISDN 99 CHA ELN Y $
```

Prompts

The following table provides the system prompts for the ELN option.

Input prompts for the ELN option (Sheet 1 of 2)

Prompt	Valid input	Explanation
SONUMBER	Refer to SONUMBER in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	The unique number of the service order to be entered.
LTID	Refer to LTID in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	Enter the logical terminal identifier

ELN - Essential line (end)

Input prompts for the ELN option (Sheet 2 of 2)

Prompt	Valid input	Explanation
LTCLASS	BRAFS, BRAMFT	Logical terminal class BRAFS = Basic Rate Access Functional Set BRAMFT = Basic Rate Access Meridian Feature Transparency
CS	Y, N, 2B, NI2	Circuit switched type
OPTION	ELN(Refer to tables Line service options in the "Service order tables" section of this manual for a list of valid inputs.)	Option(s) associated with a service to be established, modified, or deleted. A maximum of 20 options can be specified in any single ADD, ADO, EST, CHA, or NEW command.

ELN to line class code compatibility

The ELN option (for ISDN) can only be assigned to LCC ISDNKSET.

Assignability

The following functionalities apply to this option:

- set functionality: yes
- subset functionality: no
- DN functionality: no
- key functionality: no

Option prerequisites

There are no prerequisites for this option.

Notes

There are no notes for this option.

Feature identification

Functionality: NI000051

Feature number: AF6934

FC - Flexible calling

Description

The FC option allows a subscriber to establish two or more concurrent calls and to join them in a conference. The following FC capabilities are supported:

- designate an established call as a conference call
- hold a basic call and retrieve it from hold
- hold a conference call and retrieve it from hold
- bridge a basic call to a conference call
- release the last call added to the conference call (DROP parameter)
- transfer a conference call with more than two members (XFER or TRANSFER parameter)

Note: As of the NA008 release, the TRANSFER parameter replaces the XFER parameter for NI-2 ISDN terminals. The XFER parameter applies only to NI-1 ISDN terminals.

- clear the conference call

Prior to the NA008 release, the FC option could be provisioned on only one feature key on an ISDN terminal (a second assignment of FC was not permitted on a terminal). With the NA008 release, FC can be provisioned on two feature keys on an ISDN terminal, as long as each instance has a unique maximum conference size (CONFSIZE) assigned to it. If an attempt is made to provision a second instance of FC on a terminal that already has FC provisioned, and the requested conference size is the same as that of the existing FC instance, an error message is displayed and the SERVORD request is denied.

Example

The following example shows the ADO command when it is used to add the FC option with a conference size of three to DN 234-5432.

FC - Flexible calling (continued)

Example of the FC option in prompt mode

```
>ADO
SONUMBER:  NOW 92 12 08 AM
>(CR)
DN_OR_LEN:
>2345432
OPTKEY:
>9
OPTION:
>FC
CONFSIZE:
>3
OPTKEY:
>$
```

Example of the FC option in no-prompt mode

```
>ADO $ 2345432 9 FC 3 $
```

The following SERVORD example shows an attempt to add a duplicate appearance of FC with a maximum conference size of 6 to feature key 19 on an ISDN terminal using the ADO command. In this example, it is assumed that feature key 17 on the terminal already has FC assigned with a maximum conference size of 6. Since more than one instance of FC with the same maximum conference size cannot be added on an ISDN terminal, an error message is displayed and the SERVORD request is denied.

FC - Flexible calling (continued)

Example of the FC option in prompt mode

```
SO:
> ADO
SONUMBER: NOW 97 9 10 PM
> (CR)
DN_OR_LEN:
> ISDN 303
OPTKEY:
> 19
OPTION:
> FC
CONFSIZE:
> 6
OPTKEY:
> $
COMMAND AS ENTERED:
ADO NOW 97 9 10 PM ISDN 303 (19 FC 6 ) $
ENTER Y TO CONFIRM, N TO REJECT OR E TO EDIT
> Y
There already exists a conference size 6 on key 17
FC did NOT pass checking.
COMMAND AS ENTERED:
ADO NOW 97 9 10 PM ISDN 303 (19 FC 6 ) $
ENTER Y TO CONFIRM, N TO REJECT OR E TO EDIT
>
```

Example of the FC option in no-prompt mode

```
> ADO $ ISDN 303 19 FC 6 $ Y
```

```
There already exists a conference size 6 on key 17
FC did NOT pass checking.
```

FC - Flexible calling (continued)

Prompts

The following table provides the system prompts for the FC option.

Input prompts for the FC option

Prompt	Valid input	Explanation
DN_OR_LEN	Refer to DN and LTID in table Prompts in the "Service order tables" section of this manual for information on valid inputs	Enter the line's DN or LTID. In the case of an MDN line or MLH/DLH hunt members, if a DN is specified the user is prompted for the LTID. If the LTID is entered, the user is not prompted for the DN.
CONFSIZE	3 to 30	The maximum number of calls supported on a conference call.
OPTION	Refer to table Line service options in the "Service order tables" section of this manual for a list of valid inputs.	Option(s) associated with a service to be established, modified, or deleted. A maximum of 20 options can be specified in a single command.
OPTKEY	1 to 64	Key associated with the option.
SONUMBER	Refer to SONUMBER in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	The unique number of the service order to be entered.

FC to line class code compatibility

For ISDN, the only valid line class code is ISDNKSET.

Assignability

The following functionalities apply to this option:

- set functionality: no
- subset functionality: no
- DN functionality: yes
- key functionality: no

FC - Flexible calling (continued)

Option prerequisites

The SFC option must be assigned before FC.

Notes

The following notes apply to option FC:

- FC is valid only on a BRAFS set.
- The key associated with the FC option must be lower than the key assigned to the DROP, XFER, or TRANSFER sub-options.
- XFER is provisionable only on pre-NI-2 terminals.
- TRANSFER is provisionable only on NI-2 terminals.
- FC, XFER, TRANSFER, and DROP can be added as two or three separate ADO entries. Because XFER, TRANSFER, and DROP are only parameters (sub-options), the FC option must always be entered first. XFER, TRANSFER, and DROP can be included as part of the initial FC ADO input, or can be added later as ADO entries. Refer to DROP, XFER, and TRANSFER for more information.
- FC can be provisioned on up to two feature keys on an ISDN terminal, as long as each key has a unique assigned conference size (CONFSIZE). An attempt to add a new FC key to a terminal will be successful only if fewer than two FC keys are already assigned and the conference size of the new key is not a duplicate of any other FC key existing on the terminal.
- If one FC key and a TRANSFER key are provisioned on a terminal, FC cannot be removed until TRANSFER is removed.
- If two FC keys and a TRANSFER (non-primary DN (PDN)) key are provisioned on a terminal, one of the FC keys can be removed as long as the remaining FC key is on a lower feature key and is compatible with the TRANSFER call type. If the TRANSFER call type is not one of the following, the remaining FC key must have a conference size of three.
 - CTALL (allows any type of call to be transferred)
 - CTINTRA (allows incoming and outgoing calls to be transferred when both the original conference call and the remaining conference call are intra-customer group members)
- If two FC keys are assigned and TRANSFER is assigned to the PDN key, one of the FC keys can be removed as long as the remaining FC key is compatible with the TRANSFER call type. If the TRANSFER call type is not CTALL or CTINTRA, the remaining FC key must have a conference size of three. The previous requirement that TRANSFER exist on a higher feature key does not apply when TRANSFER is assigned to the PDN key.

FC - Flexible calling (end)

- When FC with a conference size of three is provisioned on a key and a TRANSFER key with a call type other than CTALL or CTINTRA is assigned, the CHF (change feature information for pre-existing feature) command cannot change the conference size of the FC key with a size of three. The reason is because this must be the only compatible FC key for this TRANSFER. The other key must have a conference size greater than three. Changing the conference size will result in no compatible FC keys for this type of TRANSFER key.
- If one FC key and a DROP key are provisioned on a terminal, FC cannot be removed until DROP is removed.
- If two FC keys and a DROP key are provisioned on a terminal, one of the FC keys can be removed as long as the remaining FC key is on a lower feature key than the DROP feature key.
- Autodrop and autobridging are not supported.
- Option FC is compatible with all line options.

Feature identification

Functionality: NTX755AA, NTX755AB, NTX755AC

Feature number: AG1301

ICM - Intercom (business sets)

Description

The ICM option allows a business set user to directly terminate upon a predesignated business set by pressing the ICM feature key.

Example

The following example shows the ADO command when it is used to assign the ICM option to key 5 of a business set associated with LTID ISDN 10.

Example of the ICM option in prompt mode

```

>ADO
SONUMBER:      NOW  91 12  7 PM
>(CR)
DN_OR_LEN:
>ISDN 10
OPTION:
>ICM
LINK_LEN:
>ISDN 10
SIC_KEY:
>5
DOR:
>Y
SMDR:
>Y
OPTKEY:
>$

```

Example of the ICM option in no-prompt mode

```

>ADO $ ISDN 10 ICM ISDN 10 5 Y Y $

```

In the following example, a second business set, associated with LTID ISDN 12, is linked with the primary set.

ICM - Intercom (business sets) (continued)

Example of the ICM option in prompt mode

```
>ADO
SONUMBER: NOW 91 12 7 PM
> (CR)
DN_OR_LEN:
>ISDN 12
OPTKEY:
>6
OPTION:
>ICM
LINK_LEN:
>ISDN 10
SIC_KEY:
>5
DOR:
>Y
SMDR:
>Y
OPTKEY:
>$
```

Example of the ICM option in no-prompt mode

```
>ADO $ ISDN 12 6 ICM ISDN 10 5 Y Y $
```

Note 1: The LINK_LEN must be the host LTID.

Note 2: The SIC_LEN must correspond to the OPTKEY assigned to the option on the host set.

Note 3: The SIC_KEY of the second set must be the same as the host SIC_KEY.

ICM - Intercom (business sets) (continued)

Prompts

The following table provides the system prompts for the ICM option.

Input prompts for the ICM option

Prompt	Valid input	Explanation
DN_OR_LEN	Refer to DN and LTID in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	Enter the line's DN or LTID. In the case of an MDN line or MLH/DLH hunt members, if a DN is specified the user is prompted for the LTID. If the LTID is entered, the user is not prompted for the DN.
DOR	Y, N	Denied origination.
LINK_LEN or LINKLEN	Refer to LTID in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	The LTID of the member in an existing DLH/CPU/MLH group to which new members are linked.
OPTION	Refer to table Line service options in the "Service order tables" section of this manual for a list of valid inputs.	Option(s) associated with a service to be established, modified, or deleted. A maximum of 20 options can be specified in a single command.
SIC_KEY	1 to 69	Straight intercom key.
SMDR	Y, N	Station message detail recording.
SONUMBER	Refer to SONUMBER in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	The unique number of the service order to be entered.

ICM to line class code compatibility

For ISDN, the only valid line class code is ISDNKSET.

ICM - Intercom (business sets) (end)

Assignability

The following functionalities apply to this option:

- set functionality: no
- subset functionality: no
- DN functionality: no
- key functionality: yes

Option prerequisites

There are no prerequisites for this option.

Notes

The following notes apply to option ICM:

- ICM must be added to each business set individually with the ADO command.
- ICM does not have to be assigned to the same OPTKEY on both sets.
- Business sets can be datafilled to originate and/or answer an ICM call on their ICM keys.
- The Call Park feature is deactivated on ICM calls because intercom lines have no DN against which the call can be parked.
- Option ICM is incompatible with the BC option.

Feature identification

Functionality: NTX106AA

Feature number: F1829

ICSDEACT - In Call Service Deactivation

Description

The In Call Service Deactivation (ICSDEACT) option prevents the system from offering the Enhanced Busy Call Return (EBCR) to a line. Normally, the end user adds this line with the ICSCTRL feature.

Example

The following Service Order System (SERVORD) example shows how the ADO (add option) command adds the ICSDEACT option to a key set line.

Example of adding the ICSDEACT line option to a key set line in prompt mode

```

> ADO
SONUMBER:                NOW 96 04 10 PM
> $
DN_OR_LEN:
> 7217146
OPTKEY:
> 1
OPTION:
> ICSDEACT
OPTKEY:
> $

```

Prompts

The system prompts for the ICSDEACT option appear in the following table.

Input prompts for the ICSDEACT option

Prompt	Valid input	Explanation
OPTKEY	1 to 69	Optional key identifies the business set key, to which the end user assigns option ICSDEACT.
OPTION	ICSDEACT	Establishes service options. The user can specify a maximum of 20 options in each ADD, ADO, EST, or NEW command.

ICSDEACT - In Call Service Deactivation (end)

ICSDEACT to line class code compatibility

For ISDN, the only valid line class code is ISDNKSET.

Assignability

The following functionalities apply to this option:

- set functionality: no
- subset functionality: no
- DN functionality: yes
- key functionality: no

Option prerequisites

There are no prerequisites for this option.

Notes

The only valid ISDNKSET lines for ICSDEACT are NI-2 lines.

Feature identification

Functionality: RES00076

Feature number: AJ4122B, AJ4122A

ILDCHNL - ISDN Line Drawer Channel

Description

ATTENTION

The ISDN line drawer for remotes (ILDR) is first available for the following configurations in the NA007/XPM08 timeframe:

- remote switching center-SONET (RSC-S)
- remote switching center (RSC) configurations

The ILDR is first available for the following configurations in the NA008/XPM81 timeframe:

- remote line concentrating module (RLCM)
- outside plant module (OPM)
- outside plant access cabinet (OPAC)

The ILDCHNL option is added to the service line type (SLT) command to define Bd channel on an ILDR. The ILDCHNL option is like the DCHCHNL option in the D-channel handler (DCH)-based architecture.

Table SPECCONN supports a new endpoint. This endpoint allows the system to declare B d channels from the ILDR to the packet handler. The format of the endpoint follows.

ILDCHNL <site> <LCM number> <LCM unit> <drawer number> <BD1 or BD2>

Example

The following are examples of the ILDCHNL option.

ILDCHNL - ISDN Line Drawer Channel (continued)

Example of the ILDCHNL option in prompt mode

```

> SLT
SONUMBER:  NOW 97 3 20 AM
>
LTID:
> ISDN 1
FUNCTION:
> ATT
LEN:
> REM1 0 0 18 1
OPTION:
> TEI 1
OPTION:
> ILDCHNL
ILDCHNL:
> BD1
    
```

Example of the ILDCHNL option in no-prompt mode

```
>SLT $ ISDN 1 ATT REM1 0 0 18 1 TEI 1 ILDCHNL BD1
```

Prompts

The system prompts for the ILDCHNL option appear in the following table.

Input prompts for the ILDCHNL option (Sheet 1 of 2)

Prompt	Valid input	Explanation
SONUMBER	Refer to SONUMBER in the Prompts table in Chapter 2 for information on valid inputs.	The service order number the user enters.
LTID	Refer to LEN_OR_LTID in the Prompts table in Chapter 2 for information on valid inputs.	The logical terminal identifier of the directory number (DN) to change.
FUNCTION	Refer to FUNCTION in the Prompts table in Chapter 2 for information on valid inputs.	Indicates the function that adds, changes or deletes the network attributes.
LEN	Refer to LEN in the Prompts table in Chapter 2 for information on valid inputs.	The line equipment number associated with a service to establish, modify or delete.

ILDCHNL - ISDN Line Drawer Channel (continued)

Input prompts for the ILDCHNL option (Sheet 2 of 2)

Prompt	Valid input	Explanation
OPTION	Refer to the Line service options table in Chapter 2 for a list of valid inputs.	Service options the user establishes, modifies or deletes. The user can specify a maximum of 20 options each ADD, ADO, EST, or NEW command.
ILDCHNL	BD1 or BD2	Defines the Bd channel to which the LTID maps.

Assigning ILDCHNL

The following functionalities apply to the ILDCHNL option:

- set functionality applies
- subset functionality does not apply
- DN functionality does not apply
- key functionality applies

Option requirements

ILDCHNL has the following requirements:

- In the current line concentrating device (LCD) architecture, the user must enter data for a minimum of one line in table LNINV for each line concentrating module (LCM). This data entry must occur before the user can enter data for B d connections in table SPECCONN for ISDN line drawers (ILD) in the same LCM.
- In table SPECCONN, an entry must be present. This entry must establish the nailedup connection from the ILDR BD1/BD2 channel to the XSG channel of the extended link interface unit (XLIU). This entry must be present before the user attempts to add packet services.

Note: The system must return the BD1/BD2 channel in the ILDR to service before packet services become operational. The channel returns to service at the ILD level of the MAP.

ILDCHNL - ISDN Line Drawer Channel (end)

Notes

The following notes apply to ILDCHNL:

- The ILDCHNL option is for use with D-packet switching LTIDs that map to an ILDR Bd-channel. The following options are not compatible with ILDR LTIDs:
 - DCHCHNL
 - PHLINK
- The terminal endpoint identification (TEI) option must be assigned.
- The ILDCHNL option requires a display phone.

Feature identification

Functionality: ISDN Line Drawer

Feature number: AF6391

ISDNAMA - ISDN service recording in AMA

Description

The ISDNAMA option is used to specify ISDN signaling and supplementary services that are to be recorded in AMA when used by the associated directory number/call type (DN/CT).

The ISDNAMA option accepts call types, voiceband information (VBINFO), and/or circuit-mode data (CMDATA), with associated ISDN service billing profiles from table ISDNBILL (one billing per call type). In table ISDNBILL, the billing profile name is associated with a list of ISDN signaling and supplementary services that are recorded in AMA when used by the associated DN/CT.

Example

The following examples show the different uses of the ISDNAMA option.

Adding the ISDNAMA option to a VBINFO call type

The following example shows the ADO command when it is used to assign ISDN service usage billing exclusively to a VBINFO call type.

Example of the ISDNAMA option in prompt mode

```

>ADO
  SONUMBER:   NOW 92 12 08 AM
>(CR)
  DN_OR_LEN:
>2345432
  OPTKEY:
>9
  OPTION:
>ISDNAMA
  CALLTYPE_AND_ISDNBILL_GRP:
>VBINFO ISDNGRP1
  CALLTYPE_AND_ISDNBILL_GRP:
>$
  OPTKEY:
>$

```

Example of the ISDNAMA option in no-prompt mode

```

>ADO $ 2345432 9 ISDNAMA VBINFO ISDNGRP1 $ $

```

ISDNAMA - ISDN service recording in AMA (continued)

Adding the ISDNAMA option to VBINFO and CMDATA call types

The following example shows the ADO command when it is used to assign ISDN service usage billing to VBINFO and CMDATA call types.

Example of the ISDNAMA option in prompt mode

```
>ADO
SONUMBER:  NOW 92 12 08 AM
>(CR)
DN_OR_LEN:
>2345432
OPTKEY:
>9
OPTION:
>ISDNAMA
CALLTYPE_AND_ISDNBILL_GRP:
>VBINFO ISDNGRP1
CALLTYPE_AND_ISDNBILL_GRP:
>CMDATA ISDNGRP2
OPTKEY:
>$
```

Example of the ISDNAMA option in no-prompt mode

```
>ADO $ 2345432 9 ISDNAMA VBINFO ISDNGRP1 CMDATA ISDNGRP2 $
```

ISDNAMA - ISDN service recording in AMA (continued)

Prompts

The following table provides the system prompts for the ISDNAMA option.

Input prompts for the ISDNAMA option

Prompt	Valid input	Explanation
CALLTYPE_AND_ISDNBILL_GRP	Refer to CALLTYPE in table Prompts in the "Service order tables" section of this manual for information on valid inputs. Valid group names are datafilled in table ISDNBILL.	The type of call to which billing is assigned and the group name specifying which signaling and supplementary service capabilities are billed.
DN_OR_LEN	Refer to DN and LTID in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	Enter the line's DN or LTID. In the case of an MDN line or MLH/DLH hunt members, if a DN is specified the user is prompted for the LTID. If the LTID is entered, the user is not prompted for the DN.
OPTION	Refer to table Line service options in the "Service order tables" section of this manual for a list of valid inputs.	Option(s) associated with a service to be established, modified, or deleted. A maximum of 20 options can be specified in a single command.
OPTKEY	1 to 69	Key associated with the option.
SONUMBER	Refer to SONUMBER in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	The unique number of the service order to be entered.

ISDNAMA to line class code compatibility

For ISDN, the only valid line class code is ISDNKSET.

Assignability

The following functionalities apply to this option:

- set functionality: no
- subset functionality: no

ISDNAMA - ISDN service recording in AMA (end)

- DN functionality: yes
- key functionality: no

Option prerequisites

There are no prerequisites for this option.

Notes

The following notes apply to ISDNAMA:

- The ISDNAMA option can be assigned only to BRAFS terminals.
- The ISDN service billing profile DEFAULT in table ISDNBILL has a specific purpose. DEFAULT is associated with services that are considered billable for all DN/CT pairs that do not have the ISDNAMA option assigned. This profile is not allowed to be associated through the ISDNAMA option since it applies by default.
- An ISDN service billing profile from table ISDNBILL can be associated with as many DN/CT pairs as required.
- Option ISDNAMA is compatible with all line options.

Feature identification

Functionality: NTX159AA

Feature number: AF3556

KSH - Key short hunt

Description

The KSH option allows incoming calls to search for an idle DN to end on, by hunting through a set of directory number (DN) appearances on a business set.

Example

The following example shows the ADO command when it is used to assign the KSH option to three DN appearances on the set.

Example of the KSH option in prompt mode

```

>ADO
SONUMBER:      NOW  91 12  7 PM
>(CR)
DN_OR_LEN:
>7205000
OPTKEY:
>1
OPTION:
>KSH
OVTYPE:
>N
KEYLIST:
>1
KEYLIST:
>2
KEYLIST:
>4
KEYLIST:
>$
OPTKEY:
>$

```

Example of the KSH option in no-prompt mode

```

>ADO $ 7205000 1 KSH N 1 2 4 $ $

```

KSH - Key short hunt (continued)

Prompts

The following table provides the system prompts for the KSH option.

Input prompts for the KSH option

Prompt	Valid input	Explanation
DN_OR_LEN	Refer to DN and LTID in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	Enter the line's DN or LTID. In the case of an MDN line or MLH/DLH hunt members, if a DN is specified the user is prompted for the LTID. If the LTID is entered, the user is not prompted for the DN.
KEYLIST	1 to 69	The list of keys available on the terminal. Up to 24 keys can be specified.
OPTION	Refer to table Line service options in the "Service order tables" section of this manual for a list of valid inputs.	Option(s) associated with a service to be established, modified, or deleted. A maximum of 20 options can be specified in a single command.
OPTKEY	1 to 69	Key associated with the option.
OVRTYPE	N = No overflow D = DN to which overflow is to go R = Route	Type of overflow required when short hunt group is busy.
SONUMBER	Refer to SONUMBER in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	The unique number of the service order to be entered.

KSH to line class code compatibility

For ISDN, the only valid line class code is ISDNKSET.

KSH - Key short hunt (continued)

Assignability

The following functionalities apply to this option:

- set functionality: no
- subset functionality: yes
- DN functionality: no
- key functionality: no

Option prerequisites

There are no prerequisites for this option.

Notes

The following notes apply to option KSH:

- Since the feature is assigned to the entire keyset, it must be assigned to key 1. (Only one appearance of KSH can be present on any one set.)
- The keylist of keys (DN appearances) to be included in the KSH group is determined as follows:
 - A maximum of 24 keys can be included in the keylist through SERVORD.
 - All DN appearances on the set (maximum 64) can be included in the keylist by specifying \$ in the keylist field.
 - The keylist can include any standard ISDN DN, including SFCs or MADNs. In the case of MADNs, only the primary member of the group can be included in the keylist. AFC appearances cannot be included.
 - Only SFCs can be included in the keylist. AFC members are included in the hunt group by specifying the SFCs member for that group in the keylist.
 - A DN in the KSH keylist cannot appear in any other KSH group or hunt group.
- An overflow must be specified as
 - no overflow (N), in which busy treatment is returned to the originator
 - overflow to a specified DN (D)
 - overflow to a specified route (R)

KSH - Key short hunt (end)

- Only MDN SCA is compatible with KSH
- Option KSH is incompatible with the following options:
 - SMDI, UCD, and UCDS.

Feature identification

Functionality: NTX106AA

Feature number: BR0720

LMOH - Line Music on Hold

Description

The LMOH (Line Music on Hold) option allows the service provider to define multiple music on hold sources across one customer group. LMOH provides an alternate music source for the following lines and corresponding line options:

- Integrated Business Network (IBN)
 - Call Hold (CHD)
 - Call Park (PRK)
 - Permanent Hold (HLD)
- Proprietary Business Set (PSET)
 - PRK
 - Key Set Music on Hold (KSMOH)
 - MBS Camp-On (MBSCAMPO)
- Meridian feature transparency terminal (MFT) ISDN and BRAFS (basic rate access functional set) ISDN
 - Call Park (PRK)
 - Flexible Calling (FC)

Note: An ISDN set requires options KSMOH and LMOH if a party on hold is to receive a LMOH audio source.

The line audio source for the hold feature instead of the customer group audio source provide the music to the connection. Table CUSTSTN (Customer Group Station) identifies the audio source for a customer group.

The default audio source in table CUSTSTN for the hold feature applies if the conditions that follow occur.

- The assignment of LMOH is not on a line.
- The assignment of LMOH is on a line but no tuple exists in table AUDIO for the active hold feature.

Example

The following SERVORD example adds LMOH - Line Music on Hold to a business set with the ADO SERVORD command.

LMOH - Line Music on Hold (continued)

SERVORD example for LMOH - Line Music on Hold in prompt mode

```

>ADO
SONUMBER:  NOW 98 11 09  AM
>
DN_OR_LEN:
> 0 0 01 15
OPTKEY:
> 1
OPTION:
> LMOH
AUDIOGRP:
> AUDIO2
OPTION:
> $
    
```

An example of the LMOH option in no-prompt mode follows.

SERVORD example for LMOH - Line Music on Hold in no-prompt mode

```
> ADO $ 00 01 15 1 LMOH AUDIO2 $
```

Prompts

The following table provides the system prompts for the LMOH option.

Input prompts for the LMOH option

Prompt	Valid input	Explanation
OPTION	Refer to table Line service options in Chapter 2 for a list of valid inputs.	Option(s) for a service to establish, modify, or delete. The user can specify a maximum of 20 options for any ADD, ADO, EST, or NEW command.
AUDIOGRP	AUDIO1 to AUDIO512	Specifies the announcement or music to be applied to the line on hold.

LMOH - Line Music on Hold (continued)

LMOH to line class code compatibility

The following table shows LMOH compatibility to LCC.

LMOH to LCC compatibility

Line class code	Compatible?
1FR-1MR:	No
RES:	No
IBN:	Yes
2FR-10FR:	No
CSD:	No
PSET LCCs:	Yes
DATA-PDATA:	No
MADO-MPDA:	No
WATSLCC:	No
COIN LCC:	No
PBX LCC:	No
TWX LCC:	No
ZMD, ZMZPA:	No

Assignability

The following functionalities apply to this option:

- set functionality: yes
- subset functionality: no
- DN functionality: no
- key functionality: no

Option prerequisites

There are no prerequisites for this option.

LMOH - Line Music on Hold (end)

Notes

The notes that follow apply to LMOH.

- The assignment of option KSMOH (Keyset Music on Hold) is a requirement for an ISDN set to have an audio source. The party on hold hears silence if the assignment of KSMOH is not on the set.
- The assignment of option LMOH can apply to key 1 only.

For more information describing the interactions between the LMOH option and other options, see the *Translations Guide*.

Feature identification

Functionality: MDC00065

Feature number: AF7806

MDN - Multiple appearance directory number

Description

The MDN option assigns a DN to more than one set. Electronic Key Telephone Service (EKTS) serves as a base for MDN features on ISDN Basic Rate Interface (BRI) terminals. To assign MDN features, assign EKTS to each terminal, create call appearances for each MDN DN, and assign them to the appropriate logical terminal identifiers (LTID).

Engineering rules

The engineering rules for option MDN, as they apply to ISDN, follow:

- no more than 16 members of the same MDN group can appear on a single ISDN line group controller (LGC) or line trunk controller (LTC)
- no more than eight members of the same MDN group can appear on a single enhanced line concentrating module (LCME) or ISDN LCM (LCMI)
- no more than four members of the same MDN group can appear on the same LCME or LCMI drawer
- all members of a MDN group must belong to the same customer group

MADN group types

The types of MADN groups that apply to ISDN follow:

- single call arrangement (SCA)
allows one set to be active, originating or terminating, on the MADN at one time
- multiple call arrangement (MCA)
allows more than one set to be active on the group at the same time
- Call Appearance Call Handling (CACH)
allows MADN calls to be directed to a call appearance rather than a DN

Example

The following examples show the various uses of the MDN option and applicable parameters.

Adding the MDN option to a DN

The following example shows the ADO command when it is used to add the MDN option to DN 722-5000. The MDN member is defined as the primary member and the group DN is the same as the current line number.

MDN - Multiple appearance directory number (continued)

Example of the MDN option in prompt mode

```
>ADO
SONUMBER:      NOW  92  1  3 AM
>(CR)
DN_OR_LEN:
>7225000
OPTKEY:
>1
OPTION:
>MDN
MDNTYPE:
>MCA
PRIMARY:
>Y
DIR_NUMBER: 7225000
>
INTERCEPT_NAME:
>BLDN
OPTKEY:
>$
```

Example of the MDN option in no-prompt mode

```
>ADO $ 7225000 1 MDN MCA Y BLDN $
```

Adding a new MDN SCA group with bridging capability

The following example shows the ADO command when it is used to add a new MDN SCA group with bridging capability to an existing line.

MDN - Multiple appearance directory number (continued)

Example of the MDN option in prompt mode

```

SO:
>ADO
SONUMBER: NOW
>(CR)
DN_OR_LEN:
>ISDN 1
OPTKEY:
>1
OPTION:
>MDN
MDNTYPE:
>SCA
PRIMARY:
>Y
DIR_NUMBER: 7227010
>
INTERCEPT_NAME:
>BLDN
DENIAL_TRMT:
>TONE
BRIDGING:
>Y
CONF_SIZE:
>30
BRIDGE_TONE:
>Y
INIT_STAT:
>PRIVATE
PRL_MODE:
>MANUAL
OPTKEY:
>$

```

Example of the MDN option on IBN LCC in no-prompt mode

```
>ADO $ ISDN 1 1 MDN SCA Y $ BLDN TONE Y 30 Y PRIVATE MANUAL $
```

Adding an existing line to an existing MDN SCA group

The following example shows the ADO command when it is used to provision an existing line as a new member of an existing MDN SCA group.

Only a member of the same customer group as the primary MDN member can be added to the MDN SCA group. If there is no primary member, the customer group is defined by the first secondary member.

MDN - Multiple appearance directory number (continued)

Example of the MDN option in prompt mode

```
SO:
>ADO
SONUMBER:  NOW
> (CR)
DN_OR_LEN:
>ISDN 2
OPTKEY:
>1
OPTION:
>MDN
MDNTYPE:
>SCA
PRIMARY:
>N
DIR_NUMBER: 7224398
>7227010
DENIAL_TRMT:
>TONE
BRIDGING:
>N
OPTKEY:
>$
```

Example of the MDN option in no-prompt mode

```
>ADO $ ISDN 2 1 MDN SCA N 7227010 TONE N $
```

Adding a new line as a member of an existing MDN SCA group

The following example shows the NEW command when it is used to provision a new line as a member of an existing MDN SCA group.

MDN - Multiple appearance directory number (continued)

Example of the MDN option in prompt mode

```

SO:
>NEW
SONUMBER:      NOW  94  6 25 PM
> (CR)
DN:
>6219000
LCC_ACC:
>ISDNKSET
GROUP:
>CGA
SUBGRP:
>0
NCOS:
>0
SNPA:
>909
KEY:
>1
RINGING:
>N
LATANAME:
>NILLATA
LTG: 0
> (CR)
LEN_OR_LTID:
>ISDN 1
OPTKEY:
>1
OPTION:
>MDN
MDNTYPE:
>SCA
PRIMARY:
>N
DENIAL_TRMT:
>SILENCE
BRIDGING:
>N
OPTKEY:
>$

```

Example of the MDN option in no-prompt mode

```

>NEW $ 6219000 ISDNKSET CGA 0 0 909 1 N NILLATA 0 ISDN 1 1 MDN  
SCA N SILENCE N $

```

MDN - Multiple appearance directory number (continued)

Prompts

The following table provides the system prompts for the MDN option.

Input prompts for the MDN option (Sheet 1 of 2)

Prompt	Valid input	Explanation
BRIDGE_TONE	Y, N	<p>Bridging tone. This parameter specifies whether a tone is heard by the external party and all active MDN members when a new member bridges into the call.</p> <p>Note: This prompt appears if Y is entered for the BRIDGING prompt.</p>
BRIDGING	Y, N	<p>This parameter specifies whether bridging is allowed.</p> <p>Note: This prompt appears if the MDN group is SCA.</p>
CONF_SIZE	3 to 30	<p>The maximum number of parties on a conference bridge (including the external party and the member who answered the call).</p> <p>Note: This prompt appears if Y is entered for the BRIDGING prompt.</p>
DENIAL_TRMT	SILENCE, TONE	<p>Denial treatment. This parameter specifies whether a tone is heard by a member not allowed to bridge into a call.</p> <p>Note 1: This prompt appears if the MDN group is SCA.</p> <p>Note 2: This field is ignored for ISDN functional sets (BRAFS).</p>
DIR_NUMBER	Refer to DN in table Prompts in the "Service order tables" section of this manual for information on valid inputs	DN assigned to a MDN line.

MDN - Multiple appearance directory number (continued)

Input prompts for the MDN option (Sheet 2 of 2)

Prompt	Valid input	Explanation
DN_OR_LEN	Refer to DN and LTID in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	Enter the line's DN or LTID. In the case of an MDN line or MLH/DLH hunt members, if a DN is specified you are prompted for the LTID. If the LTID is entered, you are not prompted for the DN.
INIT_STATE	PRIVATE, NONPRIVATE	Initial privacy status. This parameter specifies whether a call is initially private or nonprivate. Note: This prompt appears if the MDN group is SCA.
MDNTYPE	MCA = Multiple call arrangement SCA = Single call arrangement CACH = Call Appearance Call Handling	Type of MDN group.
OPTION	Refer to table Line service options in the "Service order tables" section of this manual for a list of valid inputs.	Option(s) associated with a service to be established, modified, or deleted. A maximum of 20 options can be specified in a single command.
OPTKEY	1 to 69	Key associated with the option.
PRIMARY	Y, N	Primary member of a MDN group.
PRL_MODE	MANUAL = Only one member is allowed to bridge into the call after privacy has been explicitly released. AUTO = All members are allowed to bridge into the call after privacy has been explicitly released.	Privacy release mode. Note: This prompt appears if PRIVATE is entered for the INIT_STAT prompt.

MDN - Multiple appearance directory number (continued)

MDN to line class code compatibility

For ISDN, the only valid line class code is ISDNKSET.

Assignability

The following functionalities apply to this option:

- set functionality applies
- subset functionality does not apply
- DN functionality does not apply
- key functionality does not apply

Option prerequisites

There are no prerequisites for this option.

Notes

The following notes apply to option MDN:

- You can delete the MDN option from a member only if that member is idle. You can change the MDNTYPE assigned to a MDN group only when the group is idle.
- For the ISDN MDN group, the logical terminal to which the MDN member is to belong must be defined with EKTS and with the DTEI (dynamic TEI) option.
- You cannot assign both the PRL and PRV options to the same BRAFS terminal with a MDN SCA member with bridging. Assign either PRL or PRV.
- Option MDN is incompatible with the following options:
 - AAB, AAK, ACB, ACD, AINDN, AR, BNN, CALLOG, CRBL, DCND, DLH, DMCT, DND, DNH, ECM, GIC, LDTPSAP, MLH, MPH, PBL, PDO, PRH, RMB, SDN, SHU, SLVP, SMDI, SOR, SORC, UCD, UCDS, and WUCR
- The ISDN Automatic Call Back (ACB) and Automatic Recall (AR) options are incompatible with the following MDN variants:
 - CACH (call appearance call handling), EXB (extension bridging), and MCA (multiple call arrangement). ISDN ACB and AR are compatible with MDN SCA.
- Call Reference Busy Limit (CRBL) is a required and default option on all NI-2 LTIDs for normal DNs. CRBL cannot be added to MADN DNs

MDN - Multiple appearance directory number (end)

because MADN and CRBL are incompatible. There are two issues created by this incompatibility:

- The SERVORD command ADO cannot be used to add the MDN option to a normal DN on an NI-2 LTID. A MADN DN can only be added to an NI-2 LTID by using the NEW command.
- The SERVORD command DEO can be used to remove the MDN option from a DN on an NI-2 LTID. The remaining DN will have a CRBL value of (1,0) associated with it.
- Data calls are only supported on the primary MDN. If a data call is attempted from a secondary MDN appearance, the call will not complete and logs SME 108 and 109 will be generated.

Note: Not all SME 108 and 109 logs are a result of a data call being attempted from a secondary MDN.

- With the NA012 feature RES Members in a MADN SCA, 50115729, both RES and ISDN lines can be members of the same MADN SCA group.
- The prevent deletion option (PDO) prevents the removal of a line from service. The PDO is not compatible with the MDN option. You must first remove the MDN option from a line before assigning the PDO to the line or the following error message displays:

MDN and PDO are not compatible

Feature identification

Functionality: NTX106AA

Feature number: F1832

MDNNAME - MDN member name

Description

The MDNNAME option allows names to be assigned to multiple-appearance directory number (MDN) groups and to each secondary member of an MDN group. These names are displayed on Meridian business sets with display during call activity in order to provide more detailed calling information to the parties involved in the call.

Example

The following is an example of the MDNNAME option.

Example of the MDNNAME option in the prompt mode

```
>ADO
SONUMBER:      NOW  92  4 13 PM
>
DN_OR_LEN:
>ISDN 5
OPTKEY:
>2
OPTION:
>MDNNAME
DISPLAYNAME:
>MGRUBB
OPTKEY:
>$
```

Example of the MDNNAME option in the no-prompt mode

```
>ADO $ ISDN 5 2 MDNNAME MGRUBB $
```

MDNNAME - MDN member name (continued)

Prompts

The following table provides the system prompts for the MDNNAME option.

Input prompts for the MDNNAME option

Prompt	Valid input	Explanation
SONUMBER	Refer to SONUMBER in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	The unique number of the service order to be entered.
DN_OR_LEN	Refer to DN and LEN_OR_LTID in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	Enter the line's DN or LEN. In the case of an MDN line or MLH/DLH hunt members, if a DN is specified then the user is prompted for the LEN. If the LEN is entered, then the user is not prompted for the DN.
OPTION	Refer to table Line service options in the "Service order tables" section of this manual for a list of valid inputs.	Option(s) associated with a service to be established, modified, or deleted. A maximum of 20 options can be specified in any single ADD, ADO, EST, or NEW command.
OPTKEY	1-69 for business set; 1, 2, 3, 4, or 7 for data unit	Identifies key on business set or data unit to which an option is assigned.
DISPLAYNAME	1-15 characters	Name to be displayed on an MBS.

MDNNAME to line class code compatibility

The following table shows MDNNAME compatibility to LCC.

MDNNAME to LCC compatibility (Sheet 1 of 2)

Line class code	Compatible?
1FR-1MR:	No
RES:	No

MDNNAME - MDN member name (continued)

MDNNAME to LCC compatibility (Sheet 2 of 2)

Line class code	Compatible?
IBN:	Yes
2FR-10FR:	No
CSD:	No
KEYSET LCCs:	Yes
DATA-PDATA:	No
MADO-MPDA:	No
WATSLCC:	No
COIN LCC:	No
PBX LCC:	No
TWX LCC:	No
ZMD, ZMZPA:	No

Assignability

The following functionalities apply to this option:

- set functionality: yes
- subset functionality: no
- DN functionality: no
- key functionality: no

Option prerequisites

The MDN option must be assigned to a line before the MDNNAME option may be assigned to it.

Notes

The following notes apply to MDNNAME:

- With the MDNNAME option, when an MDN member originates a call, the originator's name is displayed on the terminating party's phone. When a call terminates on the primary DN of an MDN group, the MDN group

MDNNAME - MDN member name (end)

name is displayed on the originating party's phone before answer, and the MDN member's name is displayed after answer.

- MDN group names are associated with the MDN primary DN, while MDN member names are associated with the individual station's line equipment number (LEN). If a member name is not datafilled, the group name is used.
- Names can be assigned to primary MDN members with the calling name display (CNAMD) option.

Feature identification

Functionality: NTX946AB

Feature number: F6680

MEMDISP - MDN member display

Description

The MEMDISP option allows the member names of an MDN group to be sent across a particular network identified in Table NETNAMES.

Example

The following are examples of the MEMDISP option.

Example of the MEMDISP option in the prompt mode

```
>ADO
SONUMBER:      NOW  92  4 13 PM
>
DN_OR_LEN:
>ISDN 5
OPTKEY:
>2
OPTION:
>MEMDISP
NETNAME:
>PUBLIC
NETNAME:
>$
OPTKEY:
>$
```

Example of the MEMDISP option in the no-prompt mode

```
>ADO $ ISDN 5 2 MEMDISP PUBLIC $ $
```

MEMDISP - MDN member display (continued)

Prompts

The following table provides the system prompts for the MEMDISP option.

Input prompts for the MEMDISP option

Prompt	Valid input	Explanation
SONUMBER	Refer to SONUMBER in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	The unique number of the service order to be entered.
DN_OR_LEN	Refer to DN and LEN_OR_LTID in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	Enter the line's DN or LEN. In the case of an MDN line or MLH/DLH hunt members, if a DN is specified then the user is prompted for the LEN. If the LEN is entered, then the user is not prompted for the DN.
OPTION	Refer to table Line service options in the "Service order tables" section of this manual for a list of valid inputs.	Option(s) associated with a service to be established, modified, or deleted. A maximum of 20 options can be specified in any single ADD, ADO, EST, or NEW command.
OPTKEY	1-69 for business set; 2, 3, 4, or 7 for data unit	1, Identifies key on business set or data unit to which an option is assigned.
NETNAME	Character string	Network name shown as DN attribute.

MEMDISP to line class code compatibility

The following table shows MEMDISP compatibility to LCC.

MEMDISP to LCC compatibility (Sheet 1 of 2)

Line class code	Compatible?
1FR-1MR:	No
RES:	No

MEMDISP - MDN member display (continued)

MEMDISP to LCC compatibility (Sheet 2 of 2)

Line class code	Compatible?
IBN:	Yes
2FR-10FR:	No
CSD:	No
KEYSET LCCs:	Yes
DATA-PDATA:	No
MADO-MPDA:	No
WATSLCC:	No
COIN LCC:	No
PBX LCC:	No
TWX LCC:	No
ZMD, ZMZPA:	No

Assignability

The following functionalities apply to this option:

- set functionality: yes
- subset functionality: no
- DN functionality: no
- key functionality: no

Option prerequisites

The MDN option must be established prior to or at the same time as adding the MEMDISP option.

Notes

To transmit display information, the MEMDISP option must be assigned to the DN; the set does not need display capabilities to transmit this information. However, the set does need display capabilities to receive this information.

MEMDISP - MDN member display (end)

Feature identification

Functionality: NTX946AC

Feature number: F6680

MLH - Multiline hunt

Description

The MLH option allows multiline hunting. Only one pilot DN is associated with the hunt group. Hunting is sequential.

MLH is a valid option for packet terminals configured on the DMS packet handler.

Example

The following example shows the EST command when it is used to establish an MLH group with pilot DN 722-4260 and pilot LTID ISDN 9.

MLH - Multiline hunt (continued)**Example of the MLH option in prompt mode**

```

SO:
>EST
SONUMBER: NOW 85 7 8 PM
> (CR)
GROUPTYPE:
>MLH
PILOT_DN:
>7224260
LCC:
>ISDNKSET
GROUP:
>COMKODAK
SUBGRP:
>0
NCOS:
>0
SNPA:
>613
KEY:
>3
RINGING:
>N
LATANAME:
>NILLATA
PILOT_LEN:
>ISDN 9
MEM_LEN:
>$
OPTION:
>$
GROUPSIZE:
>10

```

Example of the MLH option in no-prompt mode

```

>EST $ MLH 7224260 ISDNKSET COMKODAK 0 0 613 3 N NILLATA  
ISDN 9 $ $ 10

```

Adding members to a hunt group

The following example shows the ADD command when it is used to add MLH group members ISDN 10 and ISDN 11 on key 1. These members are added to the pilot LTID ISDN 9.

MLH - Multiline hunt (continued)

Example of the MLH option in prompt mode

```
SO:  
>ADD  
SONUMBER: NOW 85 7 8 PM  
>(CR)  
GROUPTYPE:  
>MLH  
LINK_LEN: (Pilot LTID)  
>ISDN 9  
KEY:  
>1  
MEM_LEN:  
>ISDN 10  
KEY:  
>1  
MEM_LEN:  
>ISDN 11  
KEY:  
>1  
MEM_LEN:  
>$  
OPTION:  
>$  
GROUPSIZE:  
>3
```

Example of the MLH option in no-prompt mode

```
>ADD $ MLH ISDN 9 1 ISDN 10 1 ISDN 11 $ $ 3
```

MLH - Multiline hunt (continued)**Prompts**

The following table provides the system prompts for the MLH option.

Input prompts for the MLH option (Sheet 1 of 2)

Prompt	Valid input	Explanation
GROUP	1 to 16 alphanumeric characters	The name of an IBN customer group.
GROUPSIZE	0 to 1024	The expected maximum size of the hunt group. The group size specified must be large enough to accommodate the group's expected membership.
GRUOPTYPE	BNN = Bridged night number CPU = Call pickup DLH = Distributed line hunt DNH = Directory number hunt MLH = Multiline hunt UA = No hunt	The type of hunt group to be established, modified, or deleted.
KEY	1 to 69	The number associated with the physical key set to which the DN is assigned.
LATANAME	Alphanumeric	The calling local access and transport area (LATA) name associated with the originator of the call.
LCC	ISDNKSET	The line class code for the service to be established.
MEM_LEN	Refer to LTID in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	The LTID of the member added to a DLH or MLH group.
NCOS	0 to 255	Network class of service for IBN lines, trunks, or attendant consoles; defines a set of capabilities or restrictions that allows or denies calls.

MLH - Multiline hunt (continued)**Input prompts for the MLH option (Sheet 2 of 2)**

Prompt	Valid input	Explanation
OPTION	Refer to table Line service options in the "Service order tables" section of this manual for a list of valid inputs.	Option(s) associated with a service to be established, modified, or deleted. A maximum of 20 options can be specified in a single command.
PILOT_DN	Refer to DN in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	The DN of a BNN/DNH group pilot or the DN associated with a DLH/MLH group.
PILOT_LEN	Refer to LTID in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	The LTID of a hunt group pilot.
RINGING	Y, N	Specifies whether or not a ring from a telephone speaker is required in addition to the call waiting tone heard from the handset.
SNPA	3-digit number	Service numbering plan area (area code).
SONUMBER	Refer to SONUMBER in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	The unique number of the service order to be entered.
SUBGRP	0 to 7	Subgroup of a customer group to which a station or DN belongs.

MLH to line class code compatibility

For ISDN, the only valid line class code is ISDNKSET.

Assignability

The following functionalities apply to this option:

- set functionality: yes
- subset functionality: no

MLH - Multiline hunt (end)

- DN functionality: no
- key functionality: no

Option prerequisites

There are no prerequisites for this option.

Notes

The following notes apply to option MLH:

- A hunt group can consist of up to 256 lines.
- The pilot DN and the hunt group members must belong to the same customer group.
- Option MLH is incompatible with the following options:
 - ACD, CBE, CBI, CBU, CCW, CDE, CDI, CDU, CFB, CFBL, CFD, CFDA, CFDVT, CSDO, CWX, DLH, DMCT, DNH, ECM, EHL, IECFB, IECFD, INT, MDN, MLAMP, MPB, MREL, NSDN, PCWT, PRH, RAG, RCHD, RSUS, SCMP, SDN, SLVP, SOR, SORC, UCD, UCDS, and WUCR.

The following notes apply to the MLH option on packet terminals:

- All members of a packet hunt group must reside on the same switch.
- A packet terminal cannot have incoming calls barred (ICB=Y in table DNCTINFO).
- A DN can appear in one hunt group only.

Feature identification

Functionality: NTX100AA

Feature number: F1237

Functionality: NTP47AA (DMS PH Hunt)

Feature number: AQ0894 (DMS PH Hunt)

MREL - MDN release

Description

The MREL option allows the customized disconnection of external party calls for single call arrangement (SCA) MDN groups with bridging. With the MREL option, the bridge is taken down (released) and the bridged members are no longer active when the external party disconnects from the call.

Example

The following are examples of the MREL option.

Example of the MREL option in the prompt mode

```
>ADO
SONUMBER:      NOW  92  4 13 PM
>
DN_OR_LEN:
>ISDN 5
OPTKEY:
>2
OPTION:
>MREL
OPTKEY:
>$
```

Example of the MREL option in the no-prompt mode

```
>ADO $ ISDN 5 2 MREL $
```

MREL - MDN release (continued)**Prompts**

The following table provides the system prompts for the MREL option.

Input prompts for the MREL option

Prompt	Valid input	Explanation
SONUMBER	Refer to SONUMBER in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	The unique number of the service order to be entered.
DN_OR_LEN	Refer to DN and LEN_OR_LTID in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	Enter the line's DN or LEN. In the case of an MDN line or MLH/DLH hunt members, if a DN is specified then the user is prompted for the LEN. If the LEN is entered, then the user is not prompted for the DN.
OPTION	Refer to table Line service options in the "Service order tables" section of this manual for a list of valid inputs.	Option(s) associated with a service to be established, modified, or deleted. A maximum of 20 options can be specified in any single ADD, ADO, EST, or NEW command.
OPTKEY	1-69 for business set; 1, 2, 3, 4, or 7 for data unit	Identifies key on business set or data unit to which an option is assigned.

MREL to line class code compatibility

The following table shows MREL compatibility to LCC.

MREL to LCC compatibility (Sheet 1 of 2)

Line class code	Compatible?
1FR-1MR:	No
RES:	No
IBN:	Yes
2FR-10FR:	No

MREL - MDN release (continued)

MREL to LCC compatibility (Sheet 2 of 2)

Line class code	Compatible?
CSD:	No
KEYSET LCCs:	Yes
DATA-PDATA:	No
MADO-MPDA:	No
WATSLCC:	No
COIN LCC:	No
PBX LCC:	No
TWX LCC:	No
ZMD, ZMZPA:	No

Assignability

The following functionalities apply to this option:

- set functionality: yes
- subset functionality: no
- DN functionality: no
- key functionality: no

Option prerequisites

The MREL option can only be assigned to MDN groups of SCA type with bridging.

Notes

The following notes apply to MREL:

- The MREL option is recommended for Meridian Digital Centrex (MDC) customers with a high call usage.
- If the MDN group type is changed from SCA, the MREL option will automatically be removed from the group.
- The CHF command cannot be used with the MREL option.
- For more information on the operation of the MREL option see the *Translations Guide*.

MREL - MDN release (end)

Feature identification

Functionality: NTX878AC

Feature number: AG1568

MRF - MDN ring forward

Description

The MRF option allows single call arrangement (SCA) MDN appearances to ring on a delayed or abbreviated basis. The MRF option has four ringing alternatives:

- to ring until the call is answered or abandoned
- to ring until a timeout occurs (abbreviated)
- to ring after a timeout has occurred (delayed)
- not to ring at all

The MRF option also allows the ring alerting associated with a call terminating on an MDN SCA group to initially be applied to one set of appearances of the MDN and then to be forwarded to another set of appearances of the MDN. Ring forwarding can be activated automatically (with a 0, or 12 to 60 second timer) or manually. The MRF manual (MRFM) key allows a user to override the timer, aborting the abbreviated ringing and starting the delayed ringing.

Example

The following set of examples shows the ADO command when it is used to add the MRF option to a MADN group and specify ringing options for members of the group. Three steps are required:

1. Create a new MADN SCA group by adding the MDN option to an existing line, FUNC 20. Then add the MRF option to the group, with the ring option for this member.
2. Create a secondary EKTS member and assign it a ring option.
3. Add the MADN ring forward manual (MRFM) key to key 7 of FUNC 20.

Adding the MRF option to an MADN SCA group (abridged)

This example is abridged.

MRF - MDN ring forward (continued)

Example of the MRF option in prompt mode

```

SO:
>ADO
SONUMBER:  NOW 91 07 12 AM
>(CR)
DN_OR_LEN:
>ISDN 20
OPTION:
>MDN
MDNTYPE:
>SCA
PRIMARY:
>Y
RINGING:
>Y
DIR_NUMBER:
>7225047
...
OPTION:
>MRF
AUTO:
>Y
MRF_TIMER:
>20
MRF_RING:
>ABBR
OPTION:
>$

```

Example of the MRF option in no-prompt mode

```
>ADO $ ISDN 20 MDN SCA Y Y 7225047 ... MRF Y 20 ABBR $
```

Creating a secondary EKTS member

This example is abridged.

MRF - MDN ring forward (continued)

Example of the MRF option in prompt mode

```
SO:
>ADO
SONUMBER:  NOW 91 07 17 AM
>(CR)
DN_OR_LEN:
>ISDN 21
OPTION:
>MDN
MDNTYPE:
>SCA
PRIMARY:
>N
RINGING:
>Y
DIR_NUMBER:
>7225047
...
MRF_RING:
>DELAY
OPTION:
>$
```

Example of the MRF option in no-prompt mode

```
>ADO $ ISDN 21 MDN SCA N 7225047 ... DELAY $
```

Adding the MRFM key

The following example shows the ADO command used to add the MRFM key option to the logical terminal identified as ISDN 20.

Example of the MRF option in prompt mode

```
>ADO
SONUMBER:  NOW 92 4 13 PM
>(CR)
DN_OR_LEN:
>ISDN 20
OPTION:
>MRFM
OPTION:
>$
```

MRF - MDN ring forward (continued)

Example of the MRF option in no-prompt mode

>ADO \$ ISDN 20 MRFM \$

Prompts

The following table provides the system prompts for the MRF option.

Input prompts for the MRF option (Sheet 1 of 2)

Prompt	Valid input	Explanation
AUTO	Y = The MRF feature is activated (ringing is forwarded) after a timeout specified in the MRF_TIMER prompt, or after the MRFM key is operated. N = Only the MRFM key activates the feature.	Automatic forward ringing for MDN.
DIR_NUMBER	Refer to DN in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	DN to be assigned to an MDN line.
DN_OR_LEN	Refer to DN and LTID in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	Enter the line's DN or LTID. For a MDN line or for MLH/DLH hunt members, if a DN is specified, the user is prompted for the LTID. If the LTID is entered, the user is not prompted for the DN.
MDNTYPE	MCA (Multi-call arrangement) is the only valid entry.	Type of MDN group.

MRF - MDN ring forward (continued)

Input prompts for the MRF option (Sheet 2 of 2)

Prompt	Valid input	Explanation
MRF_RING	<p>ALWAYS = The member rings when the call completes until it is answered or abandoned.</p> <p>NEVER = The member never rings.</p> <p>ABBR= The member rings when the call completes until MRF takes effect automatically, due to the timeout, or manually, due to the MRFM key (or the call is answered or abandoned).</p> <p>DELAY = The member rings when MRF takes effect automatically or manually) until the call is answered or abandoned.</p>	MDN ring forward.
MRF_TIMER	0, and 12 to 60 seconds	MDN ring forward timer.
OPTION	Refer to table Line service options in the "Service order tables" section of this manual for a list of valid inputs.	Option(s) associated with a service to be established, modified, or deleted. A maximum of 20 options can be specified in a single command.
PRIMARY	Y, N	Primary member of an MDN group.
RINGING	Y, N	Specifies whether or not a ring from a telephone speaker is required in addition to the call waiting tone heard from the handset.
SONUMBER	Refer to SONUMBER in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	The unique number of the service order to be entered.

MRF to line class code compatibility

For ISDN, the only valid line class code is ISDNKSET.

MRF - MDN ring forward (continued)

Assignability

The following functionalities apply to this option:

- set functionality: no
- subset functionality: no
- DN functionality: yes
- key functionality: no

Option prerequisites

MRF has the following prerequisites:

- The MDN option must be assigned before the MRF option.
- The MRF option can be assigned only to SCA type MDN groups.

Notes

The following notes apply to option MRF:

- Every member of the MDN group must have ring type of ALWAYS or NEVER before the MRF option may be removed with the DEO command.
- MRF affects only the currently active call. Subsequent incoming calls and calls on other DN's on the set are not affected.
- Because more than one DN on a set can be assigned the MRF feature, the following situations can result:
 - A single MRFM key on a set can be used to activate MRF for all EKTS DN's on the set which have the MRF option.
 - An ISDN keyset can have more than one MRFM key assigned, and the keylists associated with the different keys can overlap.
- MRF can interact with the call-forward-don't-answer (CFD) feature. If the CFD timer is set lower than the MRF timer, automatic MRF is not activated because the call is forwarded before the MRF timer expires. If both timers are set with the same value, either feature may be activated (with confusing effects to the end-user).
- It is possible to create a configuration that doesn't work, even though the individual parts of datafill are valid. For instance:
 - An EKTS group can be designated as having manual MRF without associated MRFM key. If none of the ISDN sets on which the EKTS members appear have an MRFM key associated with that group, MRF will not take effect.
 - For an EKTS group with MRF, only members with ringing options ALWAYS and ABBR ring at the beginning of the call. If none of the

MRF - MDN ring forward (end)

EKTS members have ALWAYS or ABBR ringing options, the incoming call will not ring any set in the group until MRF takes effect. (If for some reason, such as not having an MRFM key, MRF is not activated, the call will not ring.)

- For an EKTS group with MRF, only the EKTS members with ringing options ALWAYS or DELAY receive ringing after MRF is activated. If no EKTS members have ALWAYS or DELAY options, the call stops ringing when MRF is activated, even though it is still present on the EKTS DN.
- Visual indications of incoming calls are not affected by this feature.
- Option MRF is incompatible with the LDTPSAP option.

Feature identification

Functionality: NTXA33AA

Feature number: AF1272

MSGDEACT - Message Deactivation

Description

The end user controls option MSGDEACT, and assigns the line option by dialing the vertical access (star) code of the messaging deactivation functionality (MSGCTRL feature). The MSGDEACT option prevents the system from offering the Access to Messaging service to a line.

The following commands support the MSGDEACT option:

- ADO - add option
- CHF - change feature
- DEO - delete option
- EST - establish option
- NEW - new option

Example

The following is an example of option MSGDEACT on an ISDN line.

Example of adding the MSGDEACT option to a key set using the ADO command in prompt mode

```
>ADO
SONUMBER:                NOW 98 04 10 PM
> $
DN_OR_LEN:
> 5551212
OPTKEY:
> 1
OPTION:
> MSGDEACT
OPTION:
> $
```

MSGDEACT - Message Deactivation (continued)

Prompts

The following table provides the system prompts for the MSGDEACT option.

Input prompts for the MSGDEACT option

Prompt	Valid input	Explanation
DN_OR_LEN	For DN, 7 or 10 digits entered with no spaces or hyphens	Enter the line's DN or LEN. In the event of an MDN line or MLH/DLH members, if a DN is specified, then the switch prompts the end user for the LEN. If the LEN exists, then the switch does not prompt the end user for the DN.
OPTKEY	1 to 69	Optional key identifies the business set key, to which the end user assigns option MSGDEACT.
OPTION	MSGDEACT	Establishes service options. The user can specify a maximum of 20 options with each ADD, ADO, EST, or NEW command.

MSGDEACT to line class code compatibility

For ISDN, the only valid line class code is ISDNKSET.

Assignability

The following functionalities apply to this option:

- set functionality: no
- subset functionality: no
- DN functionality: yes
- key functionality: no

Option prerequisites

There are no prerequisites for this option.

Notes

Only add the MSGDEACT option to a DN key.

MSGDEACT - Message Deactivation (end)

Feature identification

Functionality: RES00077

Feature number: AJ5115

MWT-Message Waiting

Description

The MWT option prompts an ISDN subscriber with a special dial tone to indicate that messages are waiting.

Example

The following is an example of the MWT option in prompt mode.

Example of the MWT option in prompt mode

```
>ADO
SONUMBER:      NOW  97  8 18 PM
>
DN_OR_LEN:
>ISDN 6
OPTKEY:
>7
OPTION:
>MWT
NOTICE:
>STD
CAR:
>Y
CRRCFW:
>ALL
CRX:
>N
OPTKEY:
>$
```

Example of the MWT option in no-prompt mode

```
>ADO NOW 97 8 18 PM ISDN 6 ( 7 MWT STD Y ALL N ) $
```

MWT-Message Waiting (end)

Prompts

The following table provides the system prompts for the MWT option.

Input prompts for the MWT option

Prompt	Valid input	Explanation
NOTICE	MWL = Message Waiting Lamp STD = Stuttered Dialtone MWL_STD = both MWL and STD	Notification type.

MWT to line class code compatibility

For ISDN, the only valid line class code is ISDNKSET.

Assignability

The following functionalities apply to this option:

- set functionality: no
- subset functionality: yes
- DN functionality: no
- key functionality: no

Option prerequisites

There are no prerequisites for this option.

Notes

The following notes apply to MWT:

- The MWT option affects the SERVORD commands NEW, ADO, and CHF.

Feature identification

Functionality: NI000060

Feature number: AF7333

NDNAP - Number of DN Appearances

Description

The NDNAP option defines the number of key appearances allocated to a directory number (DN) on a National ISDN 2 (NI-2) set. Option NDNAP allows DNs to have a number of key appearances assigned that is less than the Call Reference Busy Limit (CRBL) total. DNs on NI-2 sets must have a number of key appearances that is less than or equal to the CRBL total. The NDNAP value must be at least 1.

The call limit does not change when the NDNAP value is lower than the CRBL total. The subscriber can continue to place the number of calls up to the limits set by the CRBL values. For example, a subscriber can have a CRBL VI = 2, CRBL CMD = 2, yet have only two keys provisioned on the set. The subscriber can continue to place four active calls.

Example

The following is an example of the NDNAP option in prompt mode.

NDNAP - Number of DN Appearances (continued)

Example of the NDNAP option in prompt mode

```
> new $
DN:
> 7231500
LCC_ACC:
> isdnkset
GROUP:
> bnr
SUBGRP:
> 0
NCOS:
> 0
SNPA:
> 613
KEY:
> 1
RINGING:
> y
LATANAME:
> nillata
LTG: 0
> 0
LEN_OR_LTID
> isdn 200
OPTKEY:
> 1
OPTION:
> crbl
VI:
> 2
CMD:
> 2
OPTKEY:
> 1
OPTION:
> ndnap
NDNAP:
> 2
OPTKEY:
> $
```

NDNAP - Number of DN Appearances (continued)

Example of the NDNAP option in no-prompt mode

```
> new $ 7231500 isdnkset bnr 0 0 613 1 y nillata 0 isdn 200 1 crbl 2 2 1
ndnap 2 $
```

Prompts

The following table provides the system prompts for the NDNAP option.

Input prompts for the NDNAP option (Sheet 1 of 2)

Prompt	Valid input	Explanation
DN	7 or 10 digits entered with no spaces or hyphens	The directory number associated with the service that you establish, modify, or delete.
LCC_ACC	ISDNKSET	The line class code for the service to be established.
GROUP	1 to 16 alphanumeric characters	The name of an IBN customer group.
SUBGRP	0 to 7	The subgroup of a customer group to which a station or DN belongs.
NCOS	0 to 511	The network class of service for IBN lines, trunks, or attendant consoles; defines a set of capabilities or restrictions that allows or denies calls.
SNPA	3-digit number	The service numbering plan area (area code).
KEY	1 to 69	The number associated with the physical key set to which the DN is assigned.
RINGING	Y, N	Indicates if the user requires a ring from a telephone speaker and the call-waiting tone heard from the handset.

NDNAP - Number of DN Appearances (continued)

Input prompts for the NDNAP option (Sheet 2 of 2)

Prompt	Valid input	Explanation
LATANAME	Alphanumeric	The calling local access and transport area (LATA) name associated with the originator of the call.
LTG:	0 to 9998. Default is 0.	Line treatment group.
LEN_OR_LTID	An LTID consists of a logical terminal group name (LTGRP) of 1 to 8 alphanumeric characters, a space, and a terminal number (1 to 1022)	The LTID of the DN to be changed or deleted.
OPTKEY	1 to 69	The key associated with the option.
OPTION	CRBL, NDNAP	The option(s) associated with a service that you establish, modify, or delete. Specify a maximum of 20 options in a single command.
VI	0 to 16	Voiceband Information. Enter the maximum number of active calls that an NI-2 DN can have at any one time for a VI call type.
CMD	0 to 16	Circuit Mode Data. Enter the maximum number of active calls that an NI-2 DN can have at any one time for a CMD call type.
NDNAP	1 to 32	Number of DN Appearances. Enter the number of key appearances that the NI-2 ISDN DN is to occupy on the ISDN set.

NDNAP to line class code compatibility

Option NDNAP applies to the line class code of ISDNKSET only.

NDNAP - Number of DN Appearances (end)

Assignability

The following functionalities apply to this option:

- set functionality: no
- subset functionality: no
- DN functionality: yes
- key functionality: no

Option prerequisites

There are no prerequisites for this option.

Notes

There are no notes for this option.

Feature identification

Functionality: NI000052

Feature number: AF7485

NUMC - Number of calls allowed

Description

Multiple call capacity is added to the SFC DN by assigning additional members through the NUMC option. It is possible to assign up to five calls for each DN.

Example

The following example shows the ADO command when it is used to allow a total of three calls on a set.

Example of the NUMC option in prompt mode

```
>ADO
SONUMBER:  NOW 92 12 08 AM
>(CR)
DN_OR_LEN:
>2345432
OPTKEY:
>9
OPTION:
>NUMC
NUMCALLS:
>3
OPTKEY:
>$
```

Example of the NUMC option in no-prompt mode

```
>ADO $ 2345432 9 NUMC 3 $
```

NUMC - Number of calls allowed (continued)

Prompts

The following table provides the system prompts for the NUMC option.

Input prompts for the NUMC option

Prompt	Valid input	Explanation
DN_OR_LEN	Refer to DN and LTID in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	Enter the line's DN or LTID. In the case of an MDN line or MLH/DLH hunt members, if a DN is specified the user is prompted for the LTID. If the LTID is entered, the user is not prompted for the DN.
NUMCALLS	1 to 5	The number of calls allowed.
OPTION	Refer to table Line service options in the "Service order tables" section of this manual for a list of valid inputs.	Option(s) associated with a service to be established, modified, or deleted. A maximum of 20 options can be specified in a single command.
OPTKEY	1 to 69	Key associated with the option.
SONUMBER	Refer to SONUMBER in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	The unique number of the service order to be entered.

NUMC to line class code compatibility

For ISDN, the only valid line class code is ISDNKSET.

Assignability

The following functionalities apply to this option:

- set functionality: no
- subset functionality: no
- DN functionality: yes
- key functionality: no

NUMC - Number of calls allowed (end)

Option prerequisites

There are no prerequisites for this option.

Notes

The following notes apply to option NUMC:

- Added calls are assigned to unused keys immediately following the highest key to which an SFC DN (or a corresponding AFC member) is assigned. There must be a sufficient number of keys available to assign the additional calls. When the NUMCALLS option is used, the number of additional function calls is NUMCALLS-1.
- Option NUMC is incompatible with the AFC, DBC, and CRBL options.

Feature identification

Functionality: NTX753AA, NTX753AB

Feature number: AJ0162

ODB – On-demand B-channel

Description

The On-demand B-channel (ODB) option enables the subscriber to originate packet-mode calls over a user initiated B-channel. The user initiates B-channel connections between their line and the packet handler (PH). When connected, the subscriber can originate and receive packet-mode calls over the B-channel. When not in use for packet-mode data calls, the B-channel is available for voice and circuit-switched data calls. The ODB option allows VI, CMD, and PMD call types to share the B-channel.

Only the NEW command can be used to assign the ODB option to an national ISDN-2 (NI2)2B-channel/D-channel (2BD) terminal. No other options can be assigned on the key to which the ODB option is assigned. The following service order commands can not be used with the ODB option:

- ADD
- ADO
- ADDPH
- CHF
- DEO
- EST
- SETPH

Example

An example of the ODB option in prompt mode follows. This example applies to software release NA014 and up.

ODB – On-demand B-channel (continued)

Example of the ODB option in prompt mode

```
>NEW
SONUMBER:      NOW 0  5  9  PM
>
DN:
>5556789
LCC_ACC
>ISDNKSET
GROUP:
>LONS634
SUBGRP:
>0
NCOS:
>0
SNPA:
>613
KEY:
>5
RINGING:
>N
LTG: 0
>
LEN_OR_LTID:
>NI2 100
OPTKEY:
>5
OPTION:
>ODB
OPTKEY:
>$
```

An example of the ODB option in no-prompt mode follows.

Example of the ODB option in no-prompt mode

```
>NEW $ 5556789 ISDNKSET LONS634 0 0 613 5 N 0 NI2 100 5 ODB $
```

ODB – On-demand B-channel (continued)

Prompts

The table that follows provides the system prompts for the ODB option.

Input prompts for the ODB option (Sheet 1 of 2)

Prompt	Correct input	Explanation
DN	Refer to DN in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	Directory number
LCC	ISDNKSET	Line class code
GROUP	1 TO 16 alphanumeric characters	Group The name of the IBN customer group.
SUBGROUP	0 to 7	Subgroup
NCOS	0 to 255	Network class of service
SNPA	3-digit number	Service numbering plan area
KEY	1 to 69	Key
RINGING	Y or N	Ringling
LATANAME	Alphanumeric	The local access and transport area (LATA) name associated with the originator of the call.
LTG	0 to 255 Default 0	Line treatment group
LEN_OR_LTID	1 to 8 digits, a space, and a terminal number (1 to 1022)	Logical terminal identifier An LTID consists of a logical terminal group (LTGRP) name and a terminal number

ODB – On-demand B-channel (continued)

Input prompts for the ODB option (Sheet 2 of 2)

Prompt	Correct input	Explanation
OPTKEY	1 to 69	Option key
OPTION	ODB	Option Option(s) associated with a service to be established, modified or deleted. A maximum of 20 options can be specified in a single command. Enter ODB for the On-demand B-channel option. Note: No other option can be assigned to the key with option ODB assigned.

ODB to line class code compatibility

For ODB, the only valid line class code is ISDNKSET.

Assignability

The functionalities that follow apply to this option:

- set functionality: no
- subset functionality: no
- DN functionality: yes
- key functionality: no

Option prerequisites

There are no prerequisites for this option.

Notes

The notes that follow apply to the ODB option:

- ODB only supports packet service origination.
- No other options can be assigned on the key to which the ODB option is assigned.
- BRI voice features are not available for ODB DNs.

ODB – On-demand B-channel (continued)

- Single and shared DN configurations are supported with option ODB.
- The existing restriction on the sharing of a DN across D-channel packet and B-channel packet (nailed-up packet or ODB packet) continues to apply.
- Only NI2 2BD terminals support option ODB.
- General requirement (GR) 199 parameters such as NOBCOEDN and NBCCTOEDN are not implemented for option ODB.
- Under normal call clearing conditions, channel disconnection occurs only as a result of user-initiated actions.
- The DMS software uses an additional call condense block (CCB) to support the on-demand connection to the X.25/X.75 link interface unit (XLIU).
- Timer T320 is not supported for option ODB.
- Query tools can be used to observe the status of X.25 calls.
- Nailed-up B-channel-specific packet maintenance commands are not available for option ODB.
- Only packet AMA records generate for an ODB call. B-channel usage is not billed or pegged.
- Operational measurements (OM) that normally peg for Q.931 termination do not peg for ODB calls.
- For ODB calls, Q.931 initiated connection establishment and X.25 packet virtual connection are considered as two separate call attempts. Therefore, the respective OMs for Q.931 initiated connections and X.25 packet virtual connections peg.
- The DMS software assumes that called party number (CDN) is present only in the X.25 call request packet. Therefore, the DMS software ignores any CDN present in the Q.931 SETUP.
- Both B-channels can engage ODB calls as long as the calls are on separate ODB DNs.
- Conditional and unconditional notification requirements are not supported for option ODB.
- The DMS software does not support On-demand B-channel service as a default service.
- The DMS software does not support channel selection subscription parameters for the ODB option.
- The DMS software does not support the maximum combined throughput class per interface parameter for option ODB.

ODB – On-demand B-channel (end)

- The DMS software does not support the minimum throughput class per LCN parameter for option ODB.
- The DMS software supports Q.931 to X.25 cause code mapping only in the case of premature disconnect of B-channels. A premature disconnect of B-channels occurs when the user sends a disconnect (DISC) message when there is still packet calls present on that channel.
- The DMS software does not support X.25 to Q.931 cause code mapping for option ODB.
- The DMS software allows the provisioning of an ODB DN on an unmapped LTID.
- The DMS software allows the provisioning of a D-packet DN on an unmapped LTID that is already provisioned with ODB DNs.
- The DMS software does not allow the sharing of an ODB DN in a single DN configuration with a DN having a calltype PMD.
- The DMS software does not allow the sharing of an ODB DN in a shared DN configuration with a DN appearance having a call type PMD.
- An ODB DN cannot be assigned to a closed user (CUG) group.
- An ODB DN cannot be in either a voice or packet hunt group.
- An ODB DN cannot be part of a permanent virtual circuit (PVC).

Feature identification

Functionality: NI000052

Feature number: 59013267

PCACIDS - Privacy change allowed CIDS

Description

The Privacy Change Allowed (PCA) Caller ID Delivery and Suppression (CIDS) option enables the subscriber to deliver the call originator's name and number, according to each call. This option can be added to DN key 1 or to a feature key, and can apply to a subset of DNs.

Example

The following example shows how to add the PCACIDS option to an existing primary DN. The functionality applies to all the DNs on the set because the keylist prompt is datafilled with \$.

Example of the PCACIDS option in prompt mode

```
> ADO
SONUMBER:  NOW 96 7 1 PM
>
DN:
> 6755000
OPTKEY:
> 1
OPTION:
> PCACIDS
ALLOWPI:
> Y
KEYLIST:
> $
OPTKEY:
> $
```

Example of the PCACIDS option in no-prompt mode

```
>ADO 6755000 1 PCACIDS Y $ $
```

PCACIDS - Privacy change allowed CIDS (continued)

Prompts

The following table provides the system prompts for the PCACIDS option.

Input prompts for the PCACIDS option

Prompt	Valid input	Explanation
ALLOWPI	Y or N	Specifies whether the presentation indicator can be used to change the ISDN SETUP message.
DN	numeric	Specifies the DN that is to be assigned the service
OPTKEY	1 to 69	Specifies the key associated with the option
OPTION	PCACIDS	Specifies the option associated with a service to be established, modified, or deleted
KEYLIST	Any list of 1 or more valid DN keys, or \$ to indicate all DN keys (1-69)	Specifies a list of DN keys on the terminal to which the feature applies. Up to 24 keys can be specified.

PCACIDS to line class code compatibility

Option PCACIDS applies to the line class code of ISDNKSET only.

Assignability

The following functionalities apply to this option:

- set functionality: no
- subset functionality: yes
- DN functionality: no
- key functionality: no

Option prerequisites

There are no prerequisites for this option.

Notes

There are no notes for this option.

PCACIDS - Privacy change allowed CIDS (end)

Feature identification

Functionality: NI000051

Feature number: AF6627

PMD - Packet mode data

Description

Packet Mode Data (PMD) is a line option for an NI-2 integrated terminal (IT) with 2 B-channels and 1 D-channel (2BD) capability. The option PMD can only be assigned to line class code ISDNKSET. When datafilling feature ISDN Packet Single DN (AF6782) on an IT both voiceband information / circuit mode data (VI/CMD) and PMD call type key appearances must be defined.

Option PMD is assigned to the packet switched (PS) service instance of an NI-2 terminal. PMD cannot be assigned to the key one of an IT. Only the primary directory number (PDN) of VI call type can be assigned to key one. To assign the primary number for PMD service use SERVORD line option DFDN (default directory number).

Example

The following example shows use of the NEW command to add the PMD option.

PMD - Packet mode data (continued)

Example of using the **NEW** command to add option PMD to a 2BD IT in the prompt mode

```
>NEW
SONUMBER:  JUL 97 07 08 AM
DN:
>7235116
LCC_ACC:
>ISDNKSET
GROUP:
>CUSTB
SUBGRP:
>1
NCOS:
> 0
SNPA:
> 613
KEY:
> 7
RINGING:
>N
LTANAME:
>NILLATA
LTG:
>ISDN 20
OPTKEY:
> 7
OPTION:
> PMD
OPTKEY:
>$
```

Example of using the new command to add option PMD to a 2BD IT in the no-prompt mode

```
>NEW 7235116 ISDNKSET CUSTB 1 0 613 7 N NILLATA ISDN 20 7 PMD $
```

PMD - Packet mode data (continued)

Prompts

The following table provides the system prompts for option PMD.

Input prompts for option PMD (Sheet 1 of 2)

Prompt	Valid input	Explanation
DN	Refer to DN in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	directory number The DN associated with the service to be established.
LCC	ISDNKSET	Line class code. LCC ISDNKSET is the only valid LCC for Voiceband Information.
GROUP	1 to 16 alphanumeric characters	Group The name of an IBN customer group.
SUBGROUP	0 to 7	Subgroup The subgroup of a customer group to which a station or DN belongs.
NCOS	0 to 511	Network class of service The NCOS for IBN lines, trunks, or attendant consoles; defines a set of capabilities or restrictions that allows or denies calls.
SNPA	3-digit number	Service numbering plan area The 3-digit service numbering plan area code.
KEY	2 to 69	Key The number associated with the physical key set to which the DN is assigned. PMD cannot be assigned to key 1.

PMD - Packet mode data (continued)**Input prompts for option PMD (Sheet 2 of 2)**

Prompt	Valid input	Explanation
RINGING	N	Ringing Specifies whether a ring from a telephone speaker is required in addition to the call-waiting tone heard from the handset. Only voice instances can have ringing, enter N for PMD.
LATANAME	Alphanumeric	The local access and transport area (LATA) name associated with the originator of the call.
LTG	0 to 255Default 0	Line treatment group. A number that allows the translator to distinguish between customer lines with the same LCC, but different screening and routing patterns.
LEN_OR_LTID	1 to 8 alphanumeric digits, a space, and a terminal number (1 to 1022)	Logical terminal identifier. An LTID consists of a logical terminal group (LTGRP) name and a terminal number
OPTKEY	1 to 69	Option key Key associated with the option.
OPTION	PMD	Option Option(s) associated with a service to be established, modified, or deleted. A maximum of 20 options can be specified in a single command. Enter PMD for the Packet Mode Data option.

PMD - Packet mode data (continued)

PMD to line class code compatibility

The option PMD can only be assigned to LCC ISDNKSET.

Assignability

The following functionalities apply to this option:

- set functionality: no
- subset functionality: no
- DN functionality: yes
- key functionality: yes

Option prerequisites

There are no prerequisites for this option.

Notes

The following notes apply to PMD:

- If call type is not specified when defining new ISDN DN key, voice interface (VI) is applied as default.
- When datafilling ISDN Packet Single DN both VI/CMD and PMD call type key appearances must be defined.
- Packet mode data (PMD) call type cannot be assigned to first key on terminal provisioned as 2BD. By default the primary directory number (PDN) assigned to key one is VI type.
- Primary number for PMD must be assigned as OPTION default directory number (DFDN).
- Only the DN format in table KSETLINE is supported.
- A DN on the same terminal cannot be shared between two keys with same call types (VI, CMD, or PMD).
- The ringing option is not supported on PMD keys.
- Features Key Short Hunt (KSH) and Call Forward (CFX), assigned in table KSETFEAT, are modified to bypass DNs assigned to PMD type.
- In table LTMAP the following controls will be implemented:
 - Static terminal endpoint identifier (STEI) option will not be allowed when datafilling a terminal that supports ISDN Packet Single DN service.
 - PHI option is not allowed for 2BD type terminals.
 - BCH option is not allowed for 2BD type terminals.

PMD - Packet mode data (end)

- The DCHNL option must be specified for 2BD type terminals.
- A 2BD terminal cannot be attached to an ILD LEN.
- The following terminal access privilege types can coexist on a single ISDN loop.
 - Single DN, single dynamic TEI, with different CT's on an integrated FIT (2BD access privilege).
 - NI-2 FIT (2B access privilege with NITYPE option set to NI-2).

Feature identification

Functionality: NI000051

Feature numbers: AF6782, AF6777

PROVCDS - Called party subaddress

Description

The PROVCDS option allows the network to accept and transfer called party subaddress information from the user equipment on call origination.

Example

The following example shows the ADO command when it is used to add the PROVCDS option to DN 234-5432 for voiceband information (VBINFO) and circuit-mode data (CMDATA) types of call.

Example of the PROVCDS option in prompt mode

```
>ADO
SONUMBER:  NOW 92 12 08 AM
>(CR)
DN_OR_LEN:
>2345432
OPTKEY:
>9
OPTION:
>PROVCDS
CALLTYPE:
>VBINFO
CALLTYPE:
>CMDATA
OPTKEY:
>$
```

Example of the PROVCDS option in no-prompt mode

```
>ADO $ 2345432 9 PROVCDS VBINFO CMDATA $
```

PROVCDS - Called party subaddress (continued)

Prompts

The following table provides the system prompts for the PROVCDS option.

Input prompts for the PROVCDS option

Prompt	Valid input	Explanation
CALLTYPE	VBINFO = Voiceband information CMDATA = Circuit-mode data	The type of circuit-mode bearer capabilities.
DN_OR_LEN	Refer to DN and LTID in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	Enter the line's DN or LTID. For a MDN line or for MLH/DLH hunt members, if a DN is specified, the user is prompted for the LTID. If the LTID is entered, the user is not prompted for the DN.
OPTION	Refer to table Line service options in the "Service order tables" section of this manual for a list of valid inputs.	Option(s) associated with a service to be established, modified, or deleted. A maximum of 20 options can be specified in a single command.
OPTKEY	1 to 69	Key associated with the option.
SONUMBER	Refer to SONUMBER in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	The unique number of the service order to be entered.

PROVCDS to line class code compatibility

For ISDN, the only valid line class code is ISDNKSET.

Assignability

The following functionalities apply to this option:

- set functionality: no
- subset functionality: no
- DN functionality: yes
- key functionality: no

PROVCDS - Called party subaddress (end)

Option prerequisites

There are no prerequisites for this option.

Notes

The following notes apply to option PROVCDS:

- Although the assignment of this option is not blocked in table control, service orders block the assignment of option PROVCDS to a DN or LEN not associated with a BRAFS set.
- Option PROVCDS must be datafilled against the ISDNKSET line class code in table LCCOPT.
- Option PROVCDS is compatible with all line options.

Feature identification

Functionality: NTX753AA, NTX753AB

Feature number: AJ0814

PROVCGS - Calling party subaddress

Description

The PROVCGS option allows the network to accept and transfer calling party subaddress information from the user equipment on call origination.

Example

The following example shows the ADO command when it is used to add the PROVCGS option to DN 234-5432 for voiceband information (VBINFO) and circuit-mode data (CMDATA) types of call.

Example of the PROVCGS option in prompt mode

```
>ADO
SONUMBER:  NOW 92 12 08 AM
>(CR)
DN_OR_LEN:
>2345432
OPTKEY:
>9
OPTION:
>PROVCGS
CALLTYPE:
>VBINFO
CALLTYPE:
>CMDATA
OPTKEY:
>$
```

Example of the PROVCGS option in no-prompt mode

```
>ADO $ 2345432 9 PROVCGS VBINFO CMDATA $
```

PROVCGS - Calling party subaddress (continued)

Prompts

The following table provides the system prompts for the PROVCGS option.

Input prompts for the PROVCGS option

Prompt	Valid input	Explanation
CALLTYPE	VBINFO = Voiceband information CMDATA = Circuit-mode data	The type of circuit-mode bearer capabilities.
DN_OR_LEN	Refer to DN and LTID in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	Enter the line's DN or LTID. For a MDN line or for MLH/DLH hunt members, if a DN is specified, the user is prompted for the LTID. If the LTID is entered, the user is not prompted for the DN.
OPTION	Refer to tableLine service options in the "Service order tables" section of this manual for a list of valid inputs.	Option(s) associated with a service to be established, modified, or deleted. A maximum of 20 options can be specified in a single command.
OPTKEY	1 to 69	Key associated with the option.
SONUMBER	Refer to SONUMBER in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	The unique number of the service order to be entered.

PROVCGS to line class code compatibility

For ISDN, the only valid line class code is ISDNKSET.

Assignability

The following functionalities apply to this option:

- set functionality: no
- subset functionality: no
- DN functionality: yes
- key functionality: no

PROVCGS - Calling party subaddress (end)

Option prerequisites

There are no prerequisites for this option.

Notes

The following notes apply to option PROVCGS:

- Although the assignment of this option is not blocked in table control, service orders block the assignment of option PROVCGS to a DN or LEN not associated with a BRAFS set.
- Option PROVCGS must be datafilled against the ISDNKSET line class code in table LCCOPT.
- Option PROVCGS is compatible with all line options.

Feature identification

Functionality: NTX753AA, NTX753AB

Feature number: AJ0814

PROVHLC - High-layer compatibility

Description

The PROVHLC option allows the network to accept and transfer high-layer compatibility information from the user equipment on call origination.

Example

The following example shows the ADO command when it is used to add the PROVHLC option to DN 234-5432 for voiceband information (VBINFO) and circuit-mode data (CMDATA) types of call.

Example of the PROVHLC option in prompt mode

```
>ADO
SONUMBER:  NOW 92 12 08 AM
>(CR)
DN_OR_LEN:
>2345432
OPTKEY:
>9
OPTION:
>PROVHLC
CALLTYPE:
>VBINFO
CALLTYPE:
>CMDATA
OPTKEY:
>$
```

Example of the PROVHLC option in no-prompt mode

```
>ADO $ 2345432 9 PROVHLC VBINFO CMDATA $
```

PROVHLC - High-layer compatibility (continued)

Prompts

The following table provides the system prompts for the PROVHLC option.

Input prompts for the PROVHLC option

Prompt	Valid input	Explanation
CALLTYPE	VBINFO = Voiceband information CMDATA = Circuit-mode data	The type of circuit-mode bearer capabilities.
DN_OR_LEN	Refer to DN and LTID in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	Enter the line's DN or LTID. For a MDN line or for MLH/DLH hunt members, if a DN is specified, the user is prompted for the LTID. If the LTID is entered, the user is not prompted for the DN.
OPTION	Refer to table Line service options "Service order tables" section of this manual for a list of valid inputs.	Option(s) associated with a service to be established, modified, or deleted. A maximum of 20 options can be specified in a single command.
OPTKEY	1 to 69	Key associated with the option.
SONUMBER	Refer to SONUMBER in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	The unique number of the service order to be entered.

PROVHLC to line class code compatibility

For ISDN, the only valid line class code is ISDNKSET.

Assignability

The following functionalities apply to this option:

- set functionality: no
- subset functionality: no
- DN functionality: yes
- key functionality: no

PROVHLC - High-layer compatibility (end)

Option prerequisites

There are no prerequisites for this option.

Notes

The following notes apply to option PROVHLC:

- Although the assignment of this option is not blocked in table control, service orders block the assignment of option PROVHLC to a DN or LEN not associated with a BRAFS set.
- Option PROVHLC must be datafilled against the ISDNKSET line class code in table LCCOPT.
- Option PROVHLC is compatible with all line options.

Feature identification

Functionality: NTX753AA, NTX753AB

Feature number: AJ0814

PROVLLC - Low-layer compatibility

Description

The PROVLLC option allows the network to accept and transfer low-layer compatibility information from the user equipment on call origination.

Example

The following example shows the ADO command when it is used to add the PROVLLC option to DN 234-5432 for voiceband information (VBINFO) and circuit-mode data (CMDATA) calls.

Example of the PROVLLC option in prompt mode

```
>ADO
SONUMBER:  NOW 92 12 08 AM
>(CR)
DN_OR_LEN:
>2345432
OPTKEY:
>9
OPTION:
>PROVLLC
CALLTYPE:
>VBINFO
CALLTYPE:
>CMDATA
OPTKEY:
>$
```

Example of the PROVLLC option in no-prompt mode

```
>ADO $ 2345432 9 PROVLLC VBINFO CMDATA $
```

PROVLLC - Low-layer compatibility (continued)

Prompts

The following table provides the system prompts for the PROVLLC option.

Input prompts for the PROVLLC option

Prompt	Valid input	Explanation
CALLTYPE	VBINFO = Voiceband information CMDATA = Circuit-mode data	The type of circuit-mode bearer capabilities.
DN_OR_LEN	Refer to DN and LTID in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	Enter the line's DN or LTID. For a MDN line or for MLH/DLH hunt members, if a DN is specified, the user is prompted for the LTID. If the LTID is entered, the user is not prompted for the DN.
OPTION	Refer to table Line service options in the "Service order tables" section of this manual for a list of valid inputs.	Option(s) associated with a service to be established, modified, or deleted. A maximum of 20 options can be specified in a single command.
OPTKEY	1 to 69	Key associated with the option.
SONUMBER	Refer to SONUMBER in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	The unique number of the service order to be entered.

PROVLLC to line class code compatibility

For ISDN, the only valid line class code is ISDNKSET.

Assignability

The following functionalities apply to this option:

- set functionality: no
- subset functionality: no
- DN functionality: yes
- key functionality: no

PROVLLC - Low-layer compatibility (end)

Option prerequisites

There are no prerequisites for this option.

Notes

The following notes apply to option PROVLLC:

- Although the assignment of this option is not blocked in table control, service orders block the assignment of option PROVLLC to a DN or LEN not associated with a BRAFS set.
- Option PROVLLC must be datafilled against the ISDNKSET line class code in table LCCOPT.
- Option PROVLLC is compatible with all line options.

Feature identification

Functionality: NTX753AA, NTX753AB

Feature number: AJ0814

PVC - Protocol version control

Description

The PVC option allows the specification of the Layer 3 protocol to be used for a given ISDN BRI terminal.

Example

The following examples show the various uses of the PVC option.

Adding the PVC option

The following example shows the SLT command when it is used to add the PVC option to a functional logical terminal.

PVC - Protocol version control (continued)

Example of the PVC option in prompt mode

```
SO:
>SLT
SONUMBER: NOW 86 07 08 AM
> (CR)
LTID:
>ISDN 99
FUNCTION:
> ADD
LTCLASS:
> BRAFS
CS:
> Y
PS:
> N
MAXKEYS:
> 64
DEFLTERM:
>N
TEI_TYPE:
> DTEI
TSPID:
> 1
ABS:
> VOICE CMD VBD
EKTS:
>Y
OPTION:
> PVC
VERSION:
> FUNCTIONAL
ISSUE:
> 2
OPTION:
> $
```

Example of the PVC option in no-prompt mode

```
>SLT $ ISDN 7 ADD BRAFS Y N 64 DTEI 1 VOICE CMD VBD Y
PVC FUNCTIONAL 2 $
```

Changing the protocol version issue

The following example shows the SLT command when it is used to change the protocol version issue for a logical terminal with LTID FUNC 99.

PVC - Protocol version control (continued)

Example of the PVC option in prompt mode

```

SO:
>SLT
SONUMBER:  NOW 88 09 03 PM
>(CR)
LTID:
>ISDN 99
FUNCTION:
>CHA
SET_ATTRIBUTE:
>PVC
VERSION:
>FUNCTIONAL
ISSUE:
>1
SET_ATTRIBUTE:
>$

```

Example of the PVC option in no-prompt mode

```
>SLT $ ISDN 99 CHA PVC FUNCTIONAL 1 $
```

Prompts

The following table provides the system prompts for the PVC option.

Input prompts for the PVC option (Sheet 1 of 4)

Prompt	Valid input	Explanation
ABS	VOICE = Analog voice VBD = Voiceband data CMD = Circuit-mode data	Authorized bearer services. This option lists the allowable bearer services. The default entry is VOICE, VBD, CMD.
CS	Y, N	Circuit-switched service.

PVC - Protocol version control (continued)

Input prompts for the PVC option (Sheet 2 of 4)

Prompt	Valid input	Explanation
EKTS	Y, N	Electronic key telephone set (available with NTX753AA03 feature package). Note: Only a functional (BRAFS) set with dynamic TEI can be defined as an EKTS set.
FUNCTION	ADD, REM, ATT, DET, CHA	The action required by the service order.
ISSUE	0 = MFT and ETSI 1 = Bellcore functional 2 = When protocol variant control feature is present	The protocol issued for the logical terminal.
LTCLASS	BRAFS = Functional BRAMFT=Meridianfeature transparency	Class of logical terminal based on the type of messaging exchanged between the terminal and the ISDN switch.
LTID	Refer to LTID in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	The logical terminal identifier.
MAXKEYS	2 to 64	Maximum number of feature activators (keys) on a logical terminal used for circuit-switched service.

PVC - Protocol version control (continued)

Input prompts for the PVC option (Sheet 3 of 4)

Prompt	Valid input	Explanation
OPTION (in SLT ADD function)	SPIDSFY, AGA, CACH, PVC, NONINIT	Options installed on the terminal. SPIDSFY-Service Profile Identifier, must be entered for sets with dynamic TEIs that do not have a unique PDN. AGA-Associated Group Assignment. Used to restrict a DN/CT or a group of DN/CTs to a single B-channel. Valid only for circuit switched BRAFS terminal. CACH-Call Appearance Call Handling, valid only for EKTS set. PVC-Protocol Version Control. The version of the protocol used by the BRAFS terminal.
PS	N = No packet service B = Packet service on a B-channel D = Packet service on the D-channel	Packet-switched service.

PVC - Protocol version control (continued)

Input prompts for the PVC option (Sheet 4 of 4)

Prompt	Valid input	Explanation
SET_ATTRIBUTE	SPIDSFY, AGA, CACH, PVC, ABS	Options to add or change on the terminal. SPIDSFY-Service Profile Identifier, must be entered for sets with dynamic TEIs that do not have a unique PDN. AGA-Associated Group Assignment. Used to restrict a DN/CT or a group of DN/CTs to a single B-channel. Valid only for circuit switched BRAFS terminal. CACH-Call Appearance Call Handling, valid only for EKTS set. PVC-Protocol Version Control. The version of the protocol used by the BRAFS terminal.
SONUMBER	Refer to SONUMBER in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	The unique number of the service order to be entered.
TEI_TYPE	STEI = Static DTEI = Dynamic UATEI = User-assigned TEI UNATEI = User or network assigned non-initializing terminal Note: User-assigned dynamic TEI applies only to circuit-switched terminals.	The type of TEI assignment.
VERSION	FUNCTIONAL, ETSI (Europe)	The version of the protocol used by the BRAFS terminal.

PVC - Protocol version control (end)

PVC to line class code compatibility

For ISDN, the only valid line class code is ISDNKSET.

Assignability

The following functionalities apply to this option:

- set functionality: yes
- subset functionality: no
- DN functionality: no
- key functionality: no

Option prerequisites

This option needs package NTX753AB to work properly.

Notes

The following notes apply to option PVC:

- The PVC option can be assigned only to a BRAFS terminal.
- Option PVC is compatible with all line options.

Feature identification

Functionality: NTX753AB

Feature number: AF3604

RND - Redirecting Number Delivery

Description

Add RND as a flat-rate or a subscriber usage sensitive pricing (SUSP) option. If SUSP is OFF in table AMAOPTS, option RND bills on a flat rate. If SUSP is ON but you indicate NOAMA when you add RND, RND bills on a flat rate. If SUSP is ON and the operating company indicates AMA, then RND bills as SUSP. As a SUSP option, use the CNDA and CNDD access codes to control the feature.

The Service Order System (SERVORD) updates or creates a tuple in table RESFEAT for every DN that has option RND.

Example

The following is an example of RND in prompt mode. Option SUSP in table AMAOPTS is ON.

RND - Redirecting Number Delivery (continued)

Example of the RND option in prompt mode

```

> NEW
SONUMBER: NOW 98 7 1 PM
> $
DN:
> 6755000
LCC:
> ISDNKSET
GROUP:
> ISDNGRP
SUBGRP:
> 0
NCOS:
> 0
SNPA:
> 619
KEY:
> 1
RINGING:
> Y
LATANAME:
> LATA1
LTG: 0
>
LEN_OR_LTID:
> ISDN 20
OPTKEY:
> 1
OPTION:
> RND
BILLING_OPTION: NOAMA
>AMA
OPTKEY:
>$

```

Example of the RND option in no-prompt mode

```

> NEW $ 6755000 ISDNKSET ISDNGRP 0 0 619 1 Y LATA1 ISDN 20 1
RND AMA $

```

RND - Redirecting Number Delivery (continued)

Prompts

The following table provides the system prompts for the RND option.

Input prompts for the RND option (Sheet 1 of 2)

Prompt	Valid input	Explanation
DN	7 or 10 digits (entered with no spaces or hyphens)	The DN of the LTID to which you add, change, or delete option RND
LCC	ISDNKSET	The line class code for the DN
GROUP	1 to 16 alphanumeric characters	The name of the customer group
SUBGRP	0 to 7	Subgroup of a customer group to which a DN belongs
SNPA	3-digit number	Service numbering plan area (or area code)
KEY	1 to 69	The number linked to the key set of your DN
RINGING	Y, N	Indicates if the telephone must ring in addition to the call-waiting tone from the headset
LATANAME	alphanumeric	The calling local access and transport area (LATA) name related to the call originator
LTG:0	0 to 255, default is 0	Line treatment group
LEN_OR_LTID	an LTGRP of 1 to 8 alphanumeric digits, a space, and a terminal number (1 to 1022)	The logical terminal identifier (LTID) of the DN
OPTKEY	1 to 69	Indicates the key connected to the option

RND - Redirecting Number Delivery (continued)

Input prompts for the RND option (Sheet 2 of 2)

Prompt	Valid input	Explanation
OPTION	ARR, RND	Describes the option related to the service you add, delete, or modify
BILLING_OPTION:NOAMA	AMA , NOAMA	Indicates if Automatic Message Accounting (AMA) applies to RND

RND to line class code compatibility

For ISDN, the only line class code is ISDNKSET.

Assignability

The following functionalities apply to this option:

- set functionality: no
- subset functionality: no
- DN functionality: yes
- key functionality: no

Option prerequisites

There are no prerequisites for this option.

Notes

The following notes apply to option RND:

- Option RND is incompatible with the following options: AVT, BLOCKCGN, BNN, CCSA, DCND, LDTPSAP, PCWT, PREMTBL, and 3WCPUB.
- Option RND SUSP is incompatible with options DOR and AUL.
- You cannot add option RND to a secondary Multiple Appearance DN (MADN) Single Call Arrangement (SCA)/Call Appearance Call Handling (CACH) member.
- Redirection display is not supported on ISDN BRI sets if the forwarded base station is a POTS line using POTS call forwarding.
- If you remove option RND, you also remove option ARR.

RND - Redirecting Number Delivery (end)

Feature identification

Functionality: Redirecting Number and Reason Delivery for ISDN CFW

Feature number: AF7736

SCA - Selective call acceptance

Description

The SCA option allows a subscriber to selectively accept calls from a limited set of previously identified directory numbers (DNs). These DNs are built into a list through the subscriber list editing (SLE) facility. Calls rejected are given SCA treatment.

Example

The following example shows the ADO command when it is used to add the SCA option to LTID FUNC 1.

Example of the SCA option in prompt mode

```
SO:
>ADO
SONUMBER:    NOW 91 12 4 PM
>(CR)
DN_OR_LEN:
>FUNC 1
OPTKEY:
>1
OPTION:
>SCA
STATUS:
>INACT
DNS:
>$
OPTKEY:
>$
```

Example of the SCA option in no-prompt mode

```
>ADO $ FUNC 1 1 SCA INACT $ $
```

SCA - Selective call acceptance (continued)

Prompts

The following table provides the system prompts for the SCA option.

Input prompts for the SCA option

Prompt	Valid input	Explanation
DN_OR_LEN	Refer to DN and LTID in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	Enter the line's DN or LTID. For a MDN line or for MLH/DLH hunt members, if a DN is specified, the user is prompted for the LTID. If the LTID is entered, the user is not prompted for the DN.
DNS	10-digit DN	Directory number added to the SCRJ list.
OPTION	Refer to table Line service options in the "Service order tables" section of this manual for a list of valid inputs.	Option(s) associated with a service to be established, modified, or deleted. A maximum of 20 options can be specified in a single command.
SONUMBER	Refer to SONUMBER in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	The unique number of the service order to be entered.
STATUS	ACT, INACT	Status of the option

SCA to line class code compatibility

For ISDN, the only valid line class code is ISDNKSET.

Assignability

The following functionalities apply to this option:

- set functionality: no
- subset functionality: no
- DN functionality: yes
- key functionality: no

SCA - Selective call acceptance (end)

Option prerequisites

There are no prerequisites for this option.

Notes

The following notes apply to option SCA:

- The subscriber with the SCA option is not informed that calls are being rejected.
- The SCA option takes precedence over most other terminating features which may exist on a destination station, regardless of the state of the line. In other words, a call is first screened by SCA. For accepted calls, the other screening features function as required.
- Option SCA is incompatible with the following options:
 - 3WCPUB, BNN, CCSA, CFMDN, DCND, DIN, DMCT, DTM, EHL, LDTSPAP, PCWT, and PRL.
- For more information on the operation of the SCA option, refer to the *Translations Guide*.

Feature identification

Functionality: NTXA45AA

Feature number: AG1675

SCF - Selective call forwarding

Description

The SCF option is a screening line editing (SLE) feature which allows calls that terminate on the line to be forwarded to a remote destination if the number of the originating station matches one of the numbers in the SCF list.

Example

The following example shows the ADO command when it is used to add the SCF option to LTID FUNC 1.

Example of the SCF option in prompt mode

```
SO:
>ADO
SONUMBER:    NOW 91 12 4 PM
>(CR)
DN_OR_LEN:
>FUNC 1
OPTKEY:
>1
OPTION:
>SCF
STATUS:
>INACT
DNS:
>$
FDN:
>6215001
NUMCALLS:
>1
RINGREM:
>RING
OPTKEY:
>$
```

Example of the SCF option in no-prompt mode

```
>ADO $ FUNC 1 1 SCF INACT $ 6215001 1 RING $
```

SCF - Selective call forwarding (continued)

Prompts

The following table provides the system prompts for the SCF option.

Input prompts for the SCF option

Prompt	Valid input	Explanation
DN_OR_LEN	Refer to DN and LTID in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	Enter the line's DN or LTID. For a MDN line or for MLH/DLH hunt members, if a DN is specified, the user is prompted for the LTID. If the LTID is entered, the user is not prompted for the DN.
DNS	10-digit DN	Directory number added to the SCRJ list.
FDN	1 to 24 digits Note: "\$" must not be used.	Number to which calls will be forwarded.
NUMCALLS	1 to 5	The number of calls allowed.
OPTION	Refer to table Line service options in the "Service order tables" section of this manual for a list of valid inputs.	Option(s) associated with a service to be established, modified, or deleted. A maximum of 20 options can be specified in a single command.
OPTKEY	1 to 69	Key associated with the option.
RINGREM	RING = Ring is on for SCF NORING = Ring is off NA = Customer group ring value	Ring reminder option.
SONUMBER	Refer to SONUMBER in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	The unique number of the service order to be entered.
STATUS	ACT, INACT	Status of the option.

SCF - Selective call forwarding (end)

SCF to line class code compatibility

For ISDN, the only valid line class code is ISDNKSET.

Assignability

The following functionalities apply to this option:

- set functionality: no
- subset functionality: no
- DN functionality: yes
- key functionality: no

Option prerequisites

This option needs the SLE feature package (NTXE56AA) to work.

Notes

The following notes apply to SCF:

- This option cannot be assigned to members of multiple call arrangement (MCA) groups.
- If the set has Additional Functional Call (AFC), Additional Call Offering—Unrestricted (ACOU), or Additional Call Offering—Restricted (ACOR) for that key, the SLE feature can only be assigned to the master DN key.
- When SLE features are assigned to a set which has the AFC, ACOU, or ACOR features, the SLE feature's screening list is common for all AFC keys.
- The screening list can be accessed and changed from the master DN key or any other AFC key. However, only one SLE session can be active at one time for the same DN.
- The SLE features may only be added to the primary member of a (EKTS) group. The secondary members, as well as the primary member, will be able to access the features.
- Option SCF is incompatible with the following options:
 - 3WCPUB, ATC, BNN, CCSA, CFMDN, CSDO, DIN, DTM, EHLD, FNT, HOT, LDTPSAP, ONI, PCWT, PLP, PRL, and TRMBOPT.

Feature identification

Functionality: NTXA95AA

Feature number: AG1628

SCRJ - Selective call rejection

Description

The SCRJ option is a screening list editing (SLE) feature which allows a subscriber to selectively reject calls arriving from a limited set of previously identified DNs.

Example

The following example shows the ADO command when it is used to add the SCRJ option to LTID FUNC 1.

Example of the SCRJ option in prompt mode

```
SO:
>ADO
SONUMBER:    NOW 91 12 4 PM
>(CR)
DN_OR_LEN:
>FUNC 1
OPTKEY:
>1
OPTION:
>SCRJ
STATUS:
>INACT
DNS:
>$
OPTKEY:
>$
```

Example of the SCRJ option in no-prompt mode

```
>ADO $ FUNC 1 1 SCRJ INACT $ $
```

SCRJ - Selective call rejection (continued)

Prompts

The following table provides the system prompts for the SCRJ option.

Input prompts for the SCRJ option

Prompt	Valid input	Explanation
DN_OR_LEN	Refer to DN and LTID in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	Enter the line's DN or LTID. For a MDN line or for MLH/DLH hunt members, if a DN is specified, the user is prompted for the LTID. If the LTID is entered, the user is not prompted for the DN.
DNS	10-digit DN	Directory number added to the SCRJ list.
OPTION	Refer to table Line service options in the "Service order tables" section of this manual for a list of valid inputs.	Option(s) associated with a service to be established, modified, or deleted. A maximum of 20 options can be specified in a single command.
OPTKEY	1 to 69	Key associated with the option.
SONUMBER	Refer to SONUMBER in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	The unique number of the service order to be entered.
STATUS	ACT, INACT	Status of the option.

SCRJ to line class code compatibility

For ISDN, the only valid line class code is ISDNKSET.

Assignability

The following functionalities apply to this option:

- set functionality: no
- subset functionality: no
- DN functionality: yes
- key functionality: no

SCRJ - Selective call rejection (end)

Option prerequisites

This option needs the SLE feature package (NTXE56AA) to work.

Notes

The following notes apply to SCRJ:

- This option cannot be assigned to members of multiple call arrangement (MCA) groups.
- If the set has Additional Functional Call (AFC), Additional Call Offering — Unrestricted (ACOU), or Additional Call Offering — Restricted (ACOR) for that key, the SLE feature can only be assigned to the master DN key.
- When SLE features are assigned to a set which has the AFC, ACOU, or ACOR features, the SLE feature's screening list is common for all AFC keys.
- The screening list can be accessed and changed from the master DN key or any other AFC key. However, only one SLE session can be active at one time for the same DN.
- The SLE features may only be added to the primary member of a (EKTS) group. The secondary members, as well as the primary member, will be able to access the features.
- Option SCRJ is incompatible with the following options:
 - 3WCPUB, BNN, CCSA, CFMDN, DIN, DMCT, DTM, EHLA, LDTPSAP, PCWT, and PRL.

Feature identification

Functionality: NTXA96AA

Feature number: AG1605

SCU - Speed calling user

Description

The SCU option allows a line to be designated as a speed calling user in a speed calling group. A speed calling user can only originate calls with speed calling and cannot affect the contents of the speed calling list.

Example

The following example shows the ADO command when it is used to assign the SCU option to DN 722-5000.

Example of the SCU option in prompt mode

```
>ADO
SONUMBER:      NOW  92  5 12 PM
> (CR)
DN_OR_LEN:
>7225000
OPTKEY:
>2
OPTION:
>SCU
CONTLEN:
>ISDN 2
SCU_TDN:
>Y
OPTKEY:
>$
```

Example of the SCU option in no-prompt mode

```
>ADO $ 7225000 SCU ISDN 2 Y $
```

SCU - Speed calling user (continued)

Prompts

The following table provides the system prompts for the SCU option.

Input prompts for the SCU option

Prompt	Valid input	Explanation
CONTLEN	Refer to LTID in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	Defines the controller's LTID that must point to a line having the SCL option; if the controller is an attendant, the voice pair LTID is specified.
DN_OR_LEN	Refer to DN and LTID in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	Enter the line's DN or LTID. For an MDN line or for MLH/DLH hunt members, if a DN is specified, the user is prompted for the LTID. If the LTID is entered, the user is not prompted for the DN.
OPTION	Refer to table Line service options in the "Service order tables" section of this manual for a list of valid inputs.	Option(s) associated with a service to be established, modified, or deleted. A maximum of 20 options can be specified in a single command.
OPTKEY	1 to 69	Key associated with the option.
SCU_TDN	Y, N	Specifies whether toll denial is applied to speed called numbers.
SONUMBER	Refer to SONUMBER in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	The unique number of the service order to be entered.

SCU to line class code compatibility

For ISDN, the only valid line class code is ISDNKSET.

SCU - Speed calling user (end)

Assignability

The following functionalities apply to this option:

- set functionality: no
- subset functionality: no
- DN functionality: yes
- key functionality: no

Option prerequisites

There are no prerequisites for this option.

Notes

The following notes apply to option SCU:

- The controller of a speed calling group can be any station assigned the SCL option.
- A user is assigned to a particular speed calling group by specifying the LTID of the controlling line.
- A speed calling user can only have access to one speed calling long list. If the controller has both a long and a short list, the user will only have access to the long list.
- Option SCU is incompatible with the following options:
 - AUL, BNN, CPR, HOT, SC2, SC3, and SCL.
- For information on how changing line class codes affects the SCU option, refer to the *Translations Guide*.

Feature identification

Functionality: NTX100AA

Feature number: F0419 (IBN)

Functionality: NTX106AA

Feature number: F1814 (MBS)

Functionality: NTX250AA

Feature number: F3163 (DATAPATH)

SDS - Special Delivery Service

Description

The SDS option adds the Enhanced Busy Call Return (EBCR) service.

Example

The following is an example of adding option SDS to a key set.

Example of adding the SDS line option to a key set in prompt mode

```

> ADO
SONUMBER:                NOW 96 04 10 PM
> $
DN_OR_LEN:
> 7217146
OPTKEY:
> 1
OPTION:
> SDS
OPTKEY:
> $

```

The following is an example of deleting option SDS from a key set.

Example of deleting the SDS line option from a key set in prompt mode

```

> DEO
SONUMBER:                NOW 96 04 10 PM
> $
DN_OR_LEN:
> 7217146
OPTKEY:
> 1
OPTION:
> SDS
OPTKEY:
> $

```

SDS - Special Delivery Service (continued)

Prompts

The following table provides the system prompts for the SDS option.

Input prompts for the SDS option

Prompt	Valid input	Explanation
DN_OR_LEN	For DN, 7 or 10 digits entered with no hyphens or spaces	Enter the line's DN or LEN. In the case of an MDN line or MLH/DLH members, if a DN is specified, then the switch prompts the end user for the LEN. If the LEN exist, then the switch does not prompt the end user for the DN.
OPTKEY	1 to 69	Optional key identifies the business set key, to which the end user assigns option SDS.
OPTION	SDS	Option indicates an established service. Specify a maximum of 20 options in any single ADD, ADO, EST, or NEW command.

SDS to line class code compatibility

For ISDN, the only valid line class code is ISDNKSET.

Assignability

The following functionalities apply to this option:

- set functionality: no
- subset functionality: no
- DN functionality: yes
- key functionality: no

Option prerequisites

There are no prerequisites for this option.

SDS - Special Delivery Service (end)

Notes

The following notes apply to SDS:

- You can not assign options SDS and SDSDENY to the same line.
- The only valid ISDNKSET lines for SDS are NI-2 lines.

Feature identification

Functionality: RES00076

Feature number: AJ4122B, AJ4122Az

SDSDENY - Special Delivery Service Deny

Description

The SDSDENY option prevents a line from receiving the Enhanced Busy Call Return (EBCR) service.

Example

The following is an example of adding option SDSDENY to a key set.

Example of adding option SDSDENY to a key set in prompt mode

```
> ADO
SONUMBER:                NOW 96 04 10 PM
> $
DN_OR_LEN:
> 7217146
OPTKEY:
> 1
OPTION:
> SDSDENY
OPTKEY:
> $
```

The following is an example of deleting option SDSDENY from a key set.

Example of deleting option SDSDENY from a key set in prompt mode

```
> DEO
SONUMBER:                NOW 96 04 10 PM
> $
DN_OR_LEN:
> 7217146
OPTKEY:
> 1
OPTION:
> SDSDENY
OPTKEY:
> $
```

SDSDENY - Special Delivery Service Deny (continued)

Prompts

The following table provides the system prompts for the SDSDENY option.

Input prompts for the SDSDENY option

Prompt	Valid input	Explanation
DN_OR_LEN	For DN, 7 or 10 digits entered with no spaces or hyphens	Enter the line's DN or LEN. In the case of an MDN line or MLH/DLH members, if a DN is specified, then the switch prompts the end user for the LEN. If the LEN exist, then the switch does not prompt the end user for the DN.
OPTKEY	1 to 69	Optional key identifies the business set key to which the end user assign option SDSDENY.
OPTION	SDSDENY	Option identifies the with established service. Specify a maximum of 20 options in any single ADD, ADO, EST, or NEW command.

SDSDENY to line class code compatibility

For ISDN, the only valid line class code is ISDNKSET.

Assignability

The following functionalities apply to this option

- set functionality: no
- subset functionality: no
- DN functionality: yes
- key functionality: no

Option prerequisites

There are no prerequisites for this option.

SDSDENY - Special Delivery Service Deny (end)

Notes

The following notes apply to SDSDENY:

- You can not assign options SDSDENY and SDS to the same line.
- The only valid ISDNKSET lines for SDSDENY are NI-2 lines.

Feature identification

Functionality: RES00076

Feature number: AJ4122B, AJ4122A

SLBRI - Single-line BRI

Description

The SLBRI (single-line basic rate interface) option identifies an integrated services digital network (ISDN) set as a single-line ISDN BRI.

NA011

Feature AU3279, LINEATTR Servord Enhancements, splits table LINEATTR (Line Attribute) into three tables to make data management easier:

- LINEATTR
- XLAPLAN
- RATEAREA

The XLAPLAN and RATEAREA Service Order System (SERVORD) options apply to plain old telephone service (POTS), residential enhanced services (RES), and SLBRI lines. These options allow you to provision translations and billing information for a DN in table XLAPLAN and table RATEAREA, respectively.

Office parameter XLAPLAN_RATEAREA_SERVORD_ENABLED in table OFCVAR controls the functionality of this feature. When set to OPTIONS_ENABLED, options XLAPLAN and RATEAREA override the default values in fields DFLTXLP and DFLTRA in table LINEATTR.

For option SLBRI, you can also use the LINEATTR prompt with the CHG command when office parameter XLAPLAN_RATEAREA_SERVORD_ENABLED is set to OFF.

NA009

Feature AF7198, BRI in RES, introduced the SLBRI option. This feature allows the operating company to place single ISDN BRI lines in an existing residential customer group. SLBRIs share translations with the other members of the group. SLBRIs have access to all ISDN features that are not related to customer groups. SLBRIs have access to some Custom Local Area Signaling Services (CLASS) features.

The SLBRI option supports the additional datafill required for the RES Translations Simplification feature.

Use the SERVORD SLT command with the ADD subcommand to assign the SLBRI option when provisioning a National ISDN 2 (NI-2) logical terminal identifier (LTID).

SLBRI - Single-line BRI (continued)

Example

The following is an example of the SLBRI option. This example uses the SLT ADD command to add the SLBRI option.

Example of the SLBRI option in prompt mode

```
> SLT
SONUMBER:  NOW 96 7 1 PM
> (CR)
LTID:
> ISDN 200
FUNCTION:
> ADD
LTCLASS:
> BRAFS
CS:
> NI2
PS:
> N
MAXKEYS:
> 64
DEFLTERM:
> N
TEI_TYPE:
> DTEI
TSPID:
> 9
EKTS:
> N
OPTION:
> PVC
VERSION:
> FUNCTIONAL
ISSUE:
> 2
OPTION:
> SLBRI
OPTION:
> $
```

Example of the SLBRI option in no-prompt mode

```
> SLT $ ISDN 200 ADD BRAFS NI2 N 64 N DTEI 9 N PVC FUNCTIONAL 2
SLBRI $
```

SLBRI - Single-line BRI (continued)

The following is an example of the SLBRI option. This example uses the NEW command.

Example of the SLBRI option in prompt mode

```
> NEW
SONUMBER:      NOW  99  5 27 PM
> $
DN:
> 4164631099
LCC_ACC:
> ISDNKSET
GROUP:
> COMKODAK
SUBGRP:
> 0
NCOS:
> 0
KEY:
> 1
RINGING:
> Y
LTG:      0
>
LEN_OR_LTID:
> ISDN 999
SLBRI_LATTRKEY:
> 400
OPTKEY:
> $
```

Example of the SLBRI option in no-prompt mode

```
> NEW $ 4164631099 ISDNKSET COMKODAK 0 0 1 Y ISDN999 400 $
```

SLBRI - Single-line BRI (continued)

Prompts

The following table provides the system prompts for the SLBRI option.

Input prompts for the SLBRI option (Sheet 1 of 4)

Prompt	Valid input	Explanation
CS	Y, N, 2B, NI2	Designates circuit-switched service.
DN_OR_LEN	Refer to DN and LEN_OR_LTID in table Prompts in Chapter 2 for information on valid inputs.	DN or LEN of the line. In the case of a multiple appearance directory number (MDN) line, or multiline hunt (MLH) or distributed line hunt (DLH) members, if a DN is specified, the user is prompted for the LEN. If the LEN is entered, the user is not prompted for the DN.
DEFLTERM	Y, N	Defines the LTID as a non-initializing terminal. A default logical terminal provides a default service profile for a non-initializing terminal on the interface.
EKTS	Y, N	Electronic key telephone set. Note: Only a Basic Rate Access Functional Set (BRAFS) with dynamic TEI can be an EKTS set.
FUNCTION	ADD, REM, ATT, DET	The action required by the service order (add, remove, attach, and detach).
GROUP	alphanumeric (up to 8 characters beginning with a letter)	Used with the IBN LCC; CLLI of an IBN customer group. Identifies the customer group for this ACD group.

SLBRI - Single-line BRI (continued)**Input prompts for the SLBRI option (Sheet 2 of 4)**

Prompt	Valid input	Explanation
ISSUE	0, 1, 2	The protocol issued for the logical terminal. Enter one of the following values: <ul style="list-style-type: none"> • 0 = Stimulus, MFT, and ETSI • 1 = Bellcore functional • 2 = when protocol variant control feature is present
KEY	1-1023	Line hunt overflow route index that identifies the overflow route.
LCC_ACC	Refer to table Line class codes in Chapter 2 for information on valid inputs.	Agent class code of the service to be established, modified, or deleted.
LEN_OR_LTID	Refer to LEN_OR_LTID in table Prompts in Chapter 2 for information on valid inputs.	LEN or LTID of the DN to be changed.
LINEATTR	alphanumeric string (maximum of 32 characters)	Key into table LINEATTR.
LTCLASS	BRAFS	Logical terminal class. Class of logical terminal based on the type of messaging exchanged between the terminal and the ISDN switch. Enter BRAFS.
LTID	Refer to LTID in table Prompts in Chapter 2 for information on valid inputs.	Logical terminal identifier.

SLBRI - Single-line BRI (continued)**Input prompts for the SLBRI option (Sheet 3 of 4)**

Prompt	Valid input	Explanation
LTG	0-255	Line treatment group (LTG) member; it is used to calculate the line attribute index when the DN and the LCC are insufficient to find an appropriate index. LTG is prompted for in conjunction with LCC.
MAXKEYS	2 to 64	Maximum number of feature activators (keys) on a logical terminal used for circuit-switched service.
NEW_LTG	0-255	New LTG.
NCOS	0-255	Network class of service for IBN lines, trunks, or attendant consoles. Defines a set of abilities or restrictions that allows or denies calls.
OPTION	SLBRI	Options installed on the terminal.
OPTKEY	1-69 for business set; 1, 2, 3,4, or 7 for data unit	Identifies a key to which an option is assigned.
PS	N, B, D	Packet-switched service. Enter one of the following values: <ul style="list-style-type: none"> • N = no packet service • B = packet service on a B-channel • D = packet service on the D-channel
RATEAREA	alphanumeric string (maximum of 16 characters)	Key into table RATEAREA.

SLBRI - Single-line BRI (continued)

Input prompts for the SLBRI option (Sheet 4 of 4)

Prompt	Valid input	Explanation
RING	Y, N	Specifies if the user requires a ring from a telephone speaker with an audible call waiting tone from the handset. Appears when the user changes the RINGING option on an established multiline set DN.
SET_ATTRIBUTE	SLBRI	Options to add on the terminal.
SLBRI	Y, N	Designates an ISDN BRI LTID as a single-line BRI.
SUBGRP	0-7	Subgroup of a customer group to which a station or DN belongs.
TEI_TYPE	DTEI, UATEI, UNATEI STEI	Terminal endpoint identifier type. Enter one of the following values: <ul style="list-style-type: none"> • DTEI = dynamic TEI • UATEI = user-assigned TEI • UNATEI = user or network assigned NIT • STEI = static TEI <p>Note: User-assigned dynamic TEI applies only to circuit-switched terminals.</p>
TSPID	1 to 18 digits	Terminal service profile identifier.
VERSION	FUNCTIONAL, ETSI (Europe)	The version of the protocol used by the BRAFS terminal.
XLAPLAN	alphanumeric string (up to 16 characters)	Key into table XLAPLAN.

SLBRI to line class code compatibility

For ISDN, the only valid line class code is ISDNKSET.

SLBRI - Single-line BRI (end)

Assignability

The following functionalities apply to this option:

- set functionality: yes
- subset functionality: no
- DN functionality: no
- key functionality: no

Option prerequisites

There are no prerequisites for this option.

Notes

The operating company cannot change the SLBRI option on an existing LTID using the SLT command with the CHA subcommand. The following error message displays:

```
SLBRI option can only be changed by editing tables  
LTDEF and KSETLINE using table control.
```

To change the SLBRI option on an existing LTID, the operating company must use table control to update tables LTDEF and KSETLINE.

Feature identification

Functionality: NI000060, LOC00025, BAS00003

Feature number: AF7198, AU3249, AU3279

SUPPRND - Redirecting Number Privacy for ISDN CFW

Description

The SUPPRND option controls the presentation status (delivery or suppression) of the redirecting DN for unconditional, busy, and no-answer redirections. This delivery or suppression of the redirecting DN is the presentation status. SERVORD option SUPPRND on the redirecting DN determines its presentation status of allowed or restricted.

When you use the ADO command to add this option to a DN, you must enter a value of yes or no for three values, which correspond to a redirection type, of suppress RND: unconditional, busy, and no answer. The unconditional SUPPRND value is for line redirections caused by call forward universal (CFU), call forward intragroup (CFI), and call forward fixed (CFF). For line redirections, the busy SUPPRND value is for redirections caused by call forward busy (CFB). For trunk redirections, the busy value is for redirections caused by CFB, line overflow to DN (LOD), line overflow to route (LOR), and key short hunt (KSH) overflow. For line and trunk redirections, the no-answer SUPPRND value is for redirections caused by call forward no answer (CFD).

Note: As a default, the Calling Number Delivery (CND) SUPPRESS option determines the presentation status when the SUPPRND option is not on the redirecting DN.

You can add this option to the following DNs with the ADO command:

- an existing primary or secondary DN
- a pilot of a multiline hunt (MLH) group
- a pilot of a distributed line hunt (DLH) group
- a pilot or a member of a KSH group
- a pilot or a member of a directory number hunt (DNH) group
- a multiple appearance directory number (MADN) call appearance call handling (CACH) controller
- a MADN single call appearance (SCA) primary member
- a voiceband information (VI) or circuit-mode data (CMD) call appearance of a single DN
- a VI or CMD call appearance of a shared DN

Add this option to a new DN with the NEW command. Remove this option with the OUT and DEO commands. Use the CHF command to change the SUPPRND values after you add this option to a DN. Use the DEL command to delete the option from a DNH group. See the “Notes” section for command restrictions.

SUPPRND - Redirecting Number Privacy for ISDN CFW (continued)

Example

An example of the SUPPRND option in prompt mode follows.

Example of the SUPPRND option in prompt mode

```
>new
SONUMBER: NOW 96 7 1 PM
>
DN:
>6755000
LCC:
>isdnkset
GROUP:
>bnr
SUBGRP:
>0
NCOS:
>0
SNPA:
>619
KEY:
>1
RINGING:
>y
LATANAME:
>lata1
LTG: 0
>
LEN_OR_LTID:
>isdn 20
OPTKEY:
>1
OPTION:
>supprnd
NETNAME:
>private
SUPPRND_UNCOND:
>y
SUPPRND_BUSY:
>y
SUPPRND_NO_ANS:
>y
NETNAME:
>$
OPTKEY:
>$
```

SUPPRND - Redirecting Number Privacy for ISDN CFW (continued)

An example of the SUPPRND option in no-prompt mode follows.

Example of the SUPPRND option in no-prompt mode

```
>new $ 6755000 isdnkset bnr 0 0 619 1 y lata1 isdn 20 1 supprnd private
y y y $ $
```

Prompts

The table that follows provides the system prompts for the SUPPRND option.

Input prompts for the SUPPRND option (Sheet 1 of 2)

Prompt	Correct input	Explanation
OPTION	SUPPRND	The Suppress RND option, which controls the redirecting DN delivery or suppression for unconditional, busy, and no-answer redirections.
NETNAME	Alphanumeric (up to 32 characters)	The logical network name, which must be in table NETNAMES
SUPPRND_UNCOND	Y or N	The suppression value for unconditional redirections, which CFU, CFF, and CFI cause. A value of Y means suppress the redirecting DN for unconditional redirections; N means do not suppress.

SUPPRND - Redirecting Number Privacy for ISDN CFW (continued)

Input prompts for the SUPPRND option (Sheet 2 of 2)

Prompt	Correct input	Explanation
SUPPRND_BUSY	Y or N	The suppression value for busy redirections, which CFB causes for lines; or which CFB, LOD, LOR, and KSH cause for trunks. A value of Y means suppress the redirecting DN for busy redirections; N means do not suppress.
SUPPRND_NO_ANS	Y or N	The suppression value for no-answer redirections, which CFD causes for lines and trunks. A value of Y means suppress the redirecting DN for no-answer redirections; N means do not suppress.

SUPPRND to line class code compatibility

The only line class code that option SUPPRND applies to is ISDNKSET.

Assignability

The functionalities that follow apply to this option:

- set functionality: no
- subset functionality: no
- DN functionality: yes
- key functionality: no

Option prerequisites

There are no prerequisites for this option.

Notes

The notes that follow apply to the SUPPRND option:

- This option applies to PVC Functional Issue 2 terminals only.
- You can assign this option to an ISDN pilot of a hunt group only. If the pilot has this option, the hunt group DN does not display when the pilot redirects a call (if SUPPRND is Y for the redirection type). If you remove the pilot

SUPPRND - Redirecting Number Privacy for ISDN CFW (end)

from the group, SERVORD removes this option from the respective hunt group DN tuple in table DNATTRS.

- You can assign this option to the MADN group controller only. When the controller has this option, the MADN group DN does not display when the primary member redirects a call (if SUPPRND is Y for the redirection type). If you remove the controller from the group, SERVORD removes this option from the respective MADN group tuple in table DNATTRS.
- This option applies to all call appearances of a shared DN, no matter what call type. You must first remove all DN call appearances before SERVORD will remove this option and update table DNATTRS. You can also use the DEO command to remove the option.
- This option applies to both DN appearances of a single DN, regardless of call type. SUPPRND applies to both DN appearances of a single DN with two call appearances (one VI and one CMD). Remove the DN with the SERVORD OUT command to remove this option from table DNATTRS. You can also use the DEO command to remove the option.
- You cannot add this option to an Additional Functional Call (AFC) key.
- You cannot use the EST or the ADD commands to add this option to a hunt group.
- You cannot use the CHF command to change this option on a non-pilot member of a MADN, MLH, or DLH group on a shared DN. Use the CHF command only on the pilot DN, which has this option, to change the SUPPRND values.
- You cannot use the DEO command to delete this option from a non-pilot member of a MADN, MLH, or DLH group on a shared DN. Use the DEO command only on the pilot DN, which has this option, to delete it.
- The DEL command, when used to remove an MLH or DLH group member, does not remove this option from the hunt DN.

Feature identification

Functionality: Redirecting Number Privacy for ISDN Call Forward

Feature number: A59005918

TERML - Terminal limit

Description

The TERML option specifies the number of non-initializing terminals (NIT) that can be supported by a National ISDN 2 (NI-2) or packet-only default logical terminal (LTID). This option is valid only if the NI-2 or packet-only LTID is defined to be a default LTID.

Example

The following SERVORD example shows how an NI-2 circuit-switched service default LTID is defined using the SLT (set up logical terminal) ADD command. The number of NITs supported by the logical terminal is restricted to 5 with the TERML option.

Example of the TERML option in prompt mode

```

> SLT
SONUMBER:    NOW 96 7 1 PM
> (CR)
LTID:
> ISDN 100
FUNCTION:
> ADD
LTCLASS:
> BRAFS
CS:
> NI2
PS:
> N
MAXKEYS:
> 64
DEFLTERM:
> Y
OPTION:
> TERML
LIMIT:
> 5
OPTION:
> $

```

Example of the TERML option in no-prompt mode

```

> SLT $ ISDN 100 ADD BRAFS NI2 N 64 Y TERML 5 $

```


TERML - Terminal limit (continued)**Prompts**

The following table provides the system prompts for the TERML option.

Input prompts for the TERML option (Sheet 1 of 2)

Prompt	Valid input	Explanation
CS	NI2, N	Defines an NI-2 default LTID.
DEFLTERM	Y	Identifies an LTID as a default LTID. The value of N is disallowed.
FUNCTION	ADD, CHA	The action required by the service order.
LIMIT	1-8	Default terminal limit. Enter the number of NITs that can be supported on an NI-2 default LTID. A value of 1 is the only valid entry for a packet-only NIT.
LTCLASS	BRAFS	Class of logical terminal based on the type of messaging exchanged between the terminal and the ISDN switch.
LTID	Refer to LTID in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	The logical terminal identifier.
MAXKEYS	2 to 64	The maximum number of feature activators (keys) on a logical terminal used for circuit-switched service.

TERML - Terminal limit (continued)

Input prompts for the TERML option (Sheet 2 of 2)

Prompt	Valid input	Explanation
OPTION	TERML	The default logical terminal limit option.
PS	N = no packet service B = packet service on a B-channel D = packet service on the D-channel D_Dyn = dynamic TEI for D-channel packet-only NITs	Packet-switched service. Define a dynamic TEI integrated NIT by CS = NI2 and PS = D. Define a dynamic TEI packet-only NIT by CS = N and PS = D_Dyn. Define a static TEI D-channel terminal by CS = N and PS = D. Note: Set the DEFLTERM prompt to Y to define a terminal as a NIT.

TERML to line class code compatibility

This option only applies to the line class code of ISDNKSET.

Assignability

The following functionalities apply to this option:

- set functionality: yes
- subset functionality: no
- DN functionality: no
- key functionality: no

Option prerequisites

There are no prerequisites for this option.

Notes

The TERML option restricts the number of NITs that can be associated with an LTID. In effect, this translates to the number of NITs that the LTID can call process. The TERML option does not restrict the number of terminal endpoint identifiers (TEI) that can exist on the loop in a layer 2 mode.

TERML - Terminal limit (end)

Feature identification

Functionality: NI000051, NI000052

Feature number: AF6641, AF6788

TRANSFER - Conference and call-to-call transfer

Description

The TRANSFER parameter is a sub-option of the Flexible Calling (FC) option. The TRANSFER sub-option allows a Flexible Calling (FC) subscriber to establish the following types of transfers:

- conference transfers, where remaining conferees continue to be connected to each other after the controller exits
- call-to-call transfers, where a party from one non-conference call is transferred to another party from another non-conference call

The TRANSFER sub-option is not provisionable on pre-NI-2 terminals.

Example

The following example shows the ADO command when it is used to add the TRANSFER sub-option on key 11 of DN 555-1234. In this example, the FC option has already been provisioned. The TRANSFER sub-option can be included as part of the initial FC ADO input, or it can be added later as an ADO entry.

Example of the TRANSFER sub-option in prompt mode

```
>ADO
SONUMBER: NOW 97 07 15 AM
>(CR)
DN_OR_LEN:
>5551234
OPTKEY:
>11
OPTION:
>TRANSFER
TRANSFER_TYPE:
>EXP
CXFERTYP:
>CTALL
OPTKEY:
>$
```

TRANSFER - Conference and call-to-call transfer (continued)

Example of the TRANSFER sub-option in no-prompt mode

>ADO \$ 5551234 11 TRANSFER EXP CTALL \$

Prompts

The following table provides the system prompts for the TRANSFER option.

Input prompts for the TRANSFER option (Sheet 1 of 2)

Prompt	Valid input	Explanation
DN_OR_LEN	Refer to DN and LTID in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	Enter the line's DN or LTID. For an MDN line or for MLH/DLH hunt members, if a DN is specified, the user is prompted for the LTID. If the LTID is entered, the user is not prompted for the DN.
CXFERTYP	<p>CTINC Transfer incoming calls. The conference must be intergroup and the addon calls must be intragroup.</p> <p>CTOUT Transfer incoming and outgoing calls. The conference must be intergroup and the addon calls must be intragroup.</p> <p>CTINTRA Transfer incoming and outgoing calls. The conference can be intergroup or intragroup and the addon calls must be intragroup.</p> <p>CTALL Transfer all types of calls. The conference and the addon calls can be intragroup or intergroup.</p> <p>CUSTOM Customize the type of call transfer.</p>	The type of call transfer available for an individual line.

TRANSFER - Conference and call-to-call transfer (continued)

Input prompts for the TRANSFER option (Sheet 2 of 2)

Prompt	Valid input	Explanation
OPTION	TRANSFER Refer to table Line service options in the "Service order tables" section of this manual for a list of other valid inputs. Note: TRANSFER is a sub-option of FC and must be entered after FC.	Option(s) associated with a service to be established, modified, or deleted. A maximum of 20 options can be specified in a single command.
OPTKEY	1 to 64	Key associated with the option.
SONUMBER	Refer to SONUMBER in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	The unique number of the service order to be entered.
TRANSFER_TYPE	NCT = No Call Transfer EXP= Explicit Transfer only IMP= Implicit Transfer Note: If implicit TRANSFER is assigned to a feature key, both implicit and explicit transfers are allowed.	Transfer invocation types associated with the option.

TRANSFER to line class code compatibility

This option only applies to the line class code of ISDNKSET.

Assignability

The following functionalities apply to this option:

- set functionality: yes
TRANSFER can be assigned as implicit (IMP) or explicit (EXP)
- subset functionality: no
- DN functionality: yes
TRANSFER can be assigned as implicit (IMP) or no call transfer (NCT)
- key functionality: no

TRANSFER - Conference and call-to-call transfer (end)

Option prerequisites

The FC option must be assigned before TRANSFER.

Notes

If TRANSFER is being assigned to a feature key, the key number must be greater than the feature key number assigned to FC.

The terminal's LT Access Privilege (in table LTDEF) must be: NI2. (LT Class=BRAFS; Circuit Switch Access Privilege = NI2).

Implicit TRANSFER can be assigned through SERVORD with either a feature key or a directory number (DN) key.

When implicit TRANSFER is assigned to a feature key, the subscriber can use both implicit and explicit TRANSFER.

When explicit TRANSFER is assigned to a feature key, the subscriber can only use explicit TRANSFER.

All other restrictions that apply to XFER also apply to TRANSFER.

Feature identification

Functional Group Ordering Code: NI000051

Feature number: AF6603

TSPID - Terminal service profile identifier

Description

The Free Format Service Profile Identifier (SPID) feature provides SERVORD functionality for provisioning logical terminal identifier (LTID) option terminal SPID (TSPID). LTID TSPID is necessary for initializing basic rate interface functional signalling (BRIFS) LTIDs. The SERVORD functionality includes a prompt for ADD (add) and CHA (change). The SERVORD functionality enforces option TSPID for all initializing BRIFS LTIDs. This functionality blocks option TSPID from basic rate access Meridian feature transparency (BRAMFT) LTIDs.

LTID option TSPID is not compatible with option SPID suffix (SPIDSEFX), static terminal endpoint identifier (STEI), or default logical terminal (DEFLTERM). This feature removes option SPIDSEFX for BRIFS LTIDs.

TSPID is not available as an ADD option. To add TSPID for BRIFS LTIDs, you use the set logical terminal (SLT) ADD command. When you enter a dynamic terminal endpoint identifier (TEI) (DTEI, UATEI, or UNATEI), the system prompts for TSPID. You can modify the TSPID value by using the SLT CHA command.

Example

The following is an example of the TSPID option.

TSPID - Terminal service profile identifier (continued)

Example of the TSPID option

```

>SLT
SONUMBER:      NOW  97  6 17 PM
>
LTID:
>ISDN 1
FUNCTION:
>ADD
LTCLASS:
>BRAFS
CS:
>NI2
PS:
>N
MAXKEYS:
>32
DEFLTERM:
>N
TEI_TYPE:
>DTEI
TSPID:
>6137235011
EKTS:
>N
OPTION:
>PVC
VERSION:
>FUNCTIONAL
ISSUE:
>2
OPTION:
>$

```

Prompts

The following table provides the system prompt for the TSPID option.

Input prompts for the TSPID option

Prompt	Correct Input	Explanation
TSPID	1 to 18 digits	Terminal service profile identifier option, which is used to initialize BRIFS LTIDs. Use this option with the Free Format SPID feature.

TSPID - Terminal service profile identifier (end)

TSPID to line class code compatibility

For ISDN, the only valid line class code is ISDNKSET.

Assignability

The following functionalities apply to this option:

- set functionality: no
- subset functionality: no
- DN functionality: no
- key functionality: no

Option prerequisites

You must assign LTID option DTEI, UATEI, or UNATEI to BRIFS LTIDs to assign LTID option TSPID.

Feature identification

Functionality: NI000060

Feature number: AF7240

VI - Voiceband information

Description

Voiceband Information (VI) is a line option for a 2B fully initializing terminal (FIT) or a 2B non-initializing terminal (NIT). The VI option can only be assigned to line class code ISDNKSET.

Example

The following example shows use of the NEW command to add the VI option.

VI - Voiceband information (continued)

Example of the NEW command used to add VI and the VI LPIC option to a 2B FIT in the prompt mode

```
> NEW
SONUMBER:  NOW 96 7 1 PM
>(CR)
DN:
> 6755000
LCC:
> ISDNKSET
GROUP:
> IBNTST
SUBGRP:
> 0
NCOS:
> 0
SNPA:
> 619
KEY:
> 1
RINGING
>Y
LATNAME:
> LATA1
LTG:
> 0
LEN_OR_LTID
> ISDN 20
OPTKEY:
>1
OPTION:
>VI
VI_PIC:
>CARR1
VI_LPIC:
>CARR1
VI_LPIC-CHOICE:
Y
OPTKEY:
$
```

Example of the NEW command used to add VI and the VI LPIC option to a 2B FIT in the no-prompt mode

```
>NEW 6755000 ISDNKSET IBNTST 00619 1 Y LATA1 0 ISDN 20 1 VI
CARR1 CARR1 Y $
```

VI - Voiceband information (continued)

The following example shows use of the NEW command to add the VI option.

Example of the NEW command used to add the VI option to a 2B FIT in the prompt mode

```

> NEW
SONUMBER: NOW 97 7 1 pm
> (CR)
DN:
> ISDNKSET
GROUP:
> IBNTST
SUBGRP:
> 0
NCOS:
> 0
SNPA:
> 619
KEY:
> 1
RINGING:
> Y
LATANAME:
> LATA1
LTG:
> 0
OPTKEY
> 1
OPTION:
> VI
VI PIC
> CARR1
VI_LPIC
> CARR2
VI_LPIC_CHOICE
> Y
OPTKEY:
> $

```

Example of the NEW command used to add the VI option to a 2B FIT in the no-prompt mode

```

>NEW 6755000 ISDNKSET IBNTST 00619 1 Y LATA1 0 ISDN 20 1 VI
CARR1 CARR2 Y $

```

VI - Voiceband information (continued)

Prompts

The following table provides the system prompts for the VI option.

Input prompts for the VI option (Sheet 1 of 3)

Prompt	Valid input	Explanation
DN		Directory number The DN associated with the service to be established.
LCC	ISDNKSET	Line class code The line class code ISDNKSET is the only valid LCC for Voiceband information.
GROUP	1 to 16 alphanumeric characters	Group The name of an IBN customer group.
SUBGRP	0 to 7	Subgroup of a customer group to which a station or DN belongs.
NCOS	0 to 255	The NCOS FOR IBN lines, trunks, or attendant consoles; defines a set of capabilities or restrictions that allows or denies calls.
SNPA	3-digit number	Service numbering plan area The service numbering plan area name.
KEY	1 to 69	Key The number associated with the physical key set to which the DN is assigned.

VI - Voiceband information (continued)

Input prompts for the VI option (Sheet 2 of 3)

Prompt	Valid input	Explanation
RINGING	Y or N	<p>Ringling</p> <p>Specifies whether a ring from a telephone speaker is required in addition to the call-waiting tone heard from the handset.</p>
LATANAME	Alphanumeric	<p>The local access and transport area (LATA) name associated with the originator of the call.</p>
LTG	0 to 256	<p>Line treatment group.</p> <p>A number that allows the translator to distinguish between customer lines with the same LCC, but different screening and routing patterns.</p>
LEN_OR_LTID	1 to 8 alphanumeric digits, a space, and a terminal number (1 to 1022)	<p>Logical terminal identifier.</p> <p>An LTID consists of a logical terminal group (LTGRP) name and a terminal number</p>
OPTKEY	1 to 69	<p>Option key</p> <p>The numerals associated with the option.</p>
OPTION	VI	<p>Option</p> <p>The option(s) associated with a service to be established, modified, or deleted. A maximum of 20 options can be specified in a single command. Enter the Voiceband information option.</p>

VI - Voiceband information (continued)

Input prompts for the VI option (Sheet 3 of 3)

Prompt	Valid input	Explanation
VI PIC	\$ or any valid name from table OCCNAME	Voiceband information primary interLATA carrier The Voiceband information primary interLATA carrier name.
VI LPIC	\$ or any valid name from table OCCNAME	Voiceband information primary interLATA carrier The Voiceband information primary intraLATA carrier name.
VI LPICCHOICE	Y or N (default is N)	Casual access calling is allowed.

VI to line class code compatibility

The VI option can only be assigned to LCC ISDNKSET

Assignability

The following functionalities apply to this option:

- set functionality: no
- subset functionality: no
- DN functionality: yes
- key functionality: yes

Option prerequisites

There are no prerequisites for this option.

Notes

The following notes apply to VI:

- If the user does not specify either option VI or CMD when adding a DN to an LTID through the use of the NEW or EST commands, both options are assigned.
- The ADO and DEO commands can be used to add or delete either the VI or CMD option if the other remains assigned to the line.
- If options VI and CMD are added to a DN, the user must add option AFC to enable both call types to be accessed simultaneously.

VI - Voiceband information (end)

Feature identification

Functionality: NI00050

Feature number: AF6441

Functionality: NI00051

Feature number: AF6645

XFER - Transfer a conference call

Description

The XFER option allows a user to transfer a conference call with more than two members. The conference controller can leave the conference while the other two parties remain connected. This option is used with the FC option.

The XFER option is provisionable only on pre-NI-2 terminals.

Example

The following example shows the ADO command when it is used to add the XFER option on key 14 of DN 234-5432.

Example of the XFER option in prompt mode

```
>ADO
SONUMBER:  NOW 92 12 08 AM
>(CR)
DN_OR_LEN:
>2345432
OPTKEY:
>9
OPTION:
>FC
CONFSIZE:
>3
OPTKEY:
>14
OPTION:
>XFER
CXFERTYP:
>CTINTRA
OPTKEY:
>$
```

Example of the XFER option in no-prompt mode

```
>ADO $ 2345432 9 FC 3 14 XFER CTINTRA $
```

XFER - Transfer a conference call (continued)

Prompts

The following table provides the system prompts for the XFER option.

Input prompts for the XFER option (Sheet 1 of 3)

Prompt	Valid input	Explanation
DN_OR_LEN	Refer to DN and LTID in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	Enter the line's DN or LTID. For an MDN line or for MLH/DLH hunt members, if a DN is specified, the user is prompted for the LTID. If the LTID is entered, the user is not prompted for the DN.
CONFSIZE	3	The maximum number of calls supported on a conference call.
CXFERTYP	<p>CTINC Transfer incoming calls. The conference must be intergroup and the addon calls must be intragroup.</p> <p>CTOUT Transfer incoming and outgoing calls. The conference must be intergroup and the addon calls must be intragroup.</p> <p>CTINTRA Transfer incoming and outgoing calls. The conference can be intergroup or intragroup and the addon calls must be intragroup.</p> <p>CTALL Transfer all types of calls. The conference and the addon calls can be intragroup or intergroup.</p> <p>CUSTOM Customize the type of call transfer.</p>	The type of call transfer available for an individual line.

XFER - Transfer a conference call (continued)

Input prompts for the XFER option (Sheet 2 of 3)

Prompt	Valid input	Explanation
OPTION	Refer to table Line service options in the "Service order tables" section of this manual for a list of valid inputs.	Option(s) associated with a service to be established, modified, or deleted. A maximum of 20 options can be specified in a single command.
OPTKEY	1 to 69	Key associated with the option.
ORGINTER	<p>AC = The addon calls are to the attendant.</p> <p>INTER = The addon calls are intergroup.</p> <p>INTRA = The addon calls are intragroup.</p> <p>TRATER = The addon calls are intragroup or intergroup.</p> <p>NOCXFER = Call transfer is not allowed.</p>	The conference is intergroup and the controller is the originator of the call.
ORGINTRA	<p>AC = The addon calls are to the attendant.</p> <p>INTER = The addon calls are intergroup.</p> <p>INTRA = The addon calls are intragroup.</p> <p>TRATER = The addon calls are intragroup or intergroup.</p> <p>NOCXFER = Call transfer is not allowed.</p>	The conference is intragroup and the controller is the originator of the call.
SONUMBER	Refer to SONUMBER in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	The unique number of the service order to be entered.

XFER - Transfer a conference call (continued)

Input prompts for the XFER option (Sheet 3 of 3)

Prompt	Valid input	Explanation
TRMINTER	AC = The addon calls are to the attendant.	The conference is intergroup and the controller is the terminator of the call.
	INTER = The addon calls are intergroup.	
	INTRA = The addon calls are intragroup.	
	TRATER = The addon calls are intragroup or intergroup.	
	NOCXFER = Call transfer is not allowed.	
TRMINTRA	AC = The addon calls are to the attendant.	The conference is intragroup and the controller is the terminator of the call.
	INTER = The addon calls are intergroup.	
	INTRA = The addon calls are intragroup.	
	TRATER = The addon calls are intragroup or intergroup.	
	NOCXFER = Call transfer is not allowed.	

XFER to line class code compatibility

For ISDN, the only valid line class code is ISDNKSET.

Assignability

The following functionalities apply to this option:

- set functionality: no
- subset functionality: yes
- DN functionality: no
- key functionality: no

Option prerequisites

The FC option must be assigned before XFER.

XFER - Transfer a conference call (end)

Notes

The XFER option must be assigned to a higher key than the FC option.

Feature identification

Functionality: NTX755AA, NTX755AB, NTX755AC

Feature number: AG1301

5 Packet service options

Optional services on the DMS PH include closed user groups (CUG), distributed line hunt (DLH) and multiline hunt (MLH) groups, and permanent virtual circuits (PVC). In addition, the user has the option of changing data network address (DNA), link access procedure balanced (LAPB), and link access procedure on the D-channel (LAPD) service parameters associated with packet terminals.

This chapter provides a basic definition of CUG and PVC optional services as implemented on the DMS PH, and provides examples of how to add, modify, and delete these optional services using `SERVORD`. This chapter also explains how to change DNA, LAPB, and LAPD service parameters. For information on DLH/MLH groups, refer to the chapter "Service order options."

In all cases, the basic service has to be configured before any service option can be added to that DN.

CUG - Closed user groups

Description

A closed user group (CUG) consists of a group of data terminal equipment (DTE) whose members have access only to specified resources. Access to the group from external users is similarly restricted. An example of a CUG would be a group of terminals set up in a university that have access only to certain mainframes on that site. The terminals would be assigned to a CUG whose users could not access offsite mainframes or other terminals. As well, the CUG could be configured to exclude users from outside the group.

CUGs are defined using two keys:

- a data network identification code (DNIC), a four-digit code that identifies the network that owns the CUG. A CUG can have members from different networks. This code is an identifier only; it does not indicate the actual CUG "location."
- an interlock code (ITLK), a five-digit code (0 to 65535) that identifies the CUG within the network.

The following SERVORD commands apply to CUGs:

- ADDPH—add a DN to a CUG
- CHAPH—change CUG parameters INCALLS and OUTCALLS
- DELPH—remove a DN from a CUG

Example

The following example shows the ADDPH command used to add CUGs. In this example, two CUGs are added to the DN; the first one is preferred. One is CUG 2345; the other is CUG 5678.

CUG - Closed user groups (continued)

Example of the CUG option in prompt mode

```
SO :
>ADDPH
SONUMBER: NOW 93 4 7 PM
>(CR)
LTID:
>ISDN
LTNUM:
>50
ADD_OPTION:
>CUG
CUGNUM:
>2345
CUGINDEX:
>0
DNASPEC:
>6136211234
CUG_PARM:
>CUGTYP
CUG_TYP:
>I
CUGDNIC:
>3333
CUG_PARM:
>PCUG
PCUG:
>Y
CUG_PARM:
>$
ADD_OPTION:
>CUG
CUGNUM:
>5678
CUGINDEX:
>2
DNASPEC:
>6136211234
CUG_PARM:
>CUGTYP
CUGTYP:
>I
CUGDNIC:
>3333
CUG_PARM:
>$
ADD_OPTION:
>$
```

CUG - Closed user groups (continued)

Example of the CUG option in no-prompt mode

```
>ADDPH $ ISDN 50 CUG 2345 0 6136211234 CUGTYP I 3333  
PCUG Y $ CUG 5678 2 6136211234 CUGTYP I 3333 $ $
```

The following example shows the DELPH command used to remove the CUG from the logical terminal identified as ISDN 52.

Example of the CUG option in prompt mode

```
SO:  
>DELPH  
SONUMBER:    NOW 93 10 9 PM  
>(CR)  
LTID:  
>ISDN  
LTNUM:  
> 52  
DEL_OPTION:  
>CUG  
CUGINDEX:  
>4  
DNASPEC:  
>6137277960  
NPI:  
>E164  
DEL_OPTION:  
>$
```

Example of the CUG option in no-prompt mode

```
DELPH $ ISDN 52 CUG 4 6137277960 E164 $
```

CUG - Closed user groups (continued)

Prompts

The following table provides the system prompts for the CUG option.

Input prompts for the CUG option (Sheet 1 of 2)

Prompt	Valid input	Explanation
ADD_OPTION	CUG	Option(s) associated with a service to be established or modified.
CHA_OPTION	CUG	Option(s) associated with a service to be modified.
CUGINDEX	0 to 99	The index number associated with this CUG on this DN. Updates CUGIDX field in table CUGINFO.
CUGNUM	0 to 65535	The number of the closed user group. Part of the key for table CUGINFO (ITLK field).
CUG_PARM	Refer to table Closed user group parameters in the "Service order tables" section of this manual for information on valid inputs.	The CUG parameters you wish to change. Enter the parameter name and, when prompted with that name, enter the value.
DEL_OPTION	CUG	Option(s) associated with a service to be deleted.
DNASPEC	1 to 15 digits	The data network address with which an option is being associated.
LTID	Refer to LTID in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	The logical terminal identifier.
LTNUM	1-1022	Logical terminal number

CUG - Closed user groups (end)

Input prompts for the CUG option (Sheet 2 of 2)

Prompt	Valid input	Explanation
NPI	E164	The numbering plan to which the DNASPEC belongs.
SONUMBER	Refer to SONUMBER in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	The unique number of the service order to be entered.

CUG to line class code compatibility

For ISDN, the only valid line class code is ISDNKSET.

Assignability

The following functionalities apply to this option:

- set functionality: yes
- subset functionality: no
- DN functionality: no
- key functionality: no

Option prerequisites

There are no prerequisites for this option.

Notes

Attempts to use the CDN (change DN) command to change a DN that has the CUG option assigned are blocked. The following error message displays:

```
DN currently has CUG definedRemove CUG with DELPH  
command before using CDN command.
```

Feature identification

Functionality: NTXP47AA

Feature number: AJ1836

Functionality: NTXP75AA

Feature number: AL2289

DNA - Data network address

Description

DNA parameters are changed using the CHAPH command in SERVORD. Following the DNA_PARM prompt, enter the parameter name and when prompted with that name, enter the value. Each CHAPH command can change up to 20 parameters. If more than 20 parameter changes are needed, a second CHAPH command is required.

The following DNA parameters can be changed by the CHAPH command while a call is up. The changes do not affect the current call, but do affect the next call.

- INONLY
- INNPRC
- OUTONLY
- OUT
- INFAST
- OUTACCESS
- INACCESS
- RPOAPDNIC
- EXPLRPOA

If NI000050 is set to IDLE, the LTID must be detached before modifying the following DNA parameters:

DTCA, IDTCA, ODTCA

- RECVTPT
- SENDTPT

NDPS, IMPS, OMPS

- RECVPKT
- SENDPKT

NDWS, IPLWS, OPLWS

- RXWDW
- TXWDW

DNA - Data network address (continued)

Example

The following example shows the use of the CHAPH command to change the field RECVTPT to 6 for DN 6136217777.

Example of the DNA option in prompt mode

```
>CHAPH
SONUMBER: NOW 91 12 7 PM
>(CR)
LTID:
>ISDN
LTNUM:
>50
CHA_OPTION:
>DNA
DNASPEC:
>6136217777
NPI:
>E164
DNA_PARM:
>RECVTPT
RECVTPT:
>6
DNA_PARM:
>$
CHA_OPTION:
>$
```

Example of the DNA option in no-prompt mode

```
>CHAPH $ ISDN 50 DNA 6136217777 E164 RECVTPT 6 $ $
```

DNA - Data network address (continued)

Prompts

The following table provides the system prompts for the DNA option.

Input prompts for the DNA option

Prompt	Valid input	Explanation
CHA_OPTION	DNA	Option(s) associated with a service to be modified.
DNA_PARM	Refer to table Data network address parameters in the "Service order tables" section of this manual for information on valid inputs.	The DNA parameters you wish to change. Enter the parameter name and, when prompted with that name, enter the value.
DNASPEC	1 to 15 digits	The data network address with which an option is being associated.
LTID	Refer to LTID in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	The logical terminal identifier.
LTNUM	1-1022	Logical terminal number
NPI	E164	Numbering plan indicator. Specifies the numbering plan to which the DNASPEC belongs.
SONUMBER	Refer to SONUMBER in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	The unique number of the service order to be entered.

DNA to line class code compatibility

For ISDN, the only valid line class code is ISDNKSET.

Assignability

The following functionalities apply to this option:

- set functionality: no
- subset functionality: no

DNA - Data network address (end)

- DN functionality: yes
- key functionality: no

Option prerequisites

There are no prerequisites for this option.

Notes

There are no notes for this option.

Feature identification

Functionality: NTXP75AA

Feature number: AL2289

LAPB - Link access procedure balanced

Description

LAPB parameters are changed using the SETPH command in SERVORD. Following the LAPB_PARM prompt, enter the parameter name and, when prompted with that name, enter the value.

LAPB parameters cannot be changed if the LTID is mapped in table LTMAP. If the terminal is attached to a LEN, the terminal must first be detached from its LEN using the SLT DET command before using the SETPH command.

Example

ISDN 44 identifies a logical terminal with PB service defined. The following example changes four of the LAPD parameters to values other than the defaults (as defined in table LAPB parameters in the "Service order tables" section of this manual).

The LCNs are set in ascending order from 700. The number of LCNs is set to 200. The number of PVCs is set to 50.

Example of the LAPB option in prompt mode

```
SO:
>SETPH
SONUMBER:  NOW 93 07 08 AM
>(CR)
LTID:
>ISDN 44
LAPB_PARM:
>LCNBASE
LCNBASE:
>700
LAPB_PARM:
>NUMLCN
NUMLCN:
>200
LAPB_PARM:
>NUMPVC
NUMPVC:
>50
LAPB_PARM:
$
```

LAPB - Link access procedure balanced (continued)

Example of the LAPB option in no-prompt mode

```
>SETPH $ ISDN 44 LCNBASE 700 NUMLCN 200 NUMPVC 50 $
```

Prompts

The following table provides the system prompts for the LAPB option.

Input prompts for the LAPB option

Prompt	Valid input	Explanation
LAPB_PARM	Refer to table LAPB parameters in the "Service order tables" section of this manual for information on valid inputs.	The LAPB parameter. Enter the parameter name and, at the prompt, enter the value.
LTID	Refer to LTID in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	The logical terminal identifier.
SONUMBER	Refer to SONUMBER in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	The unique number of the service order to be entered.

LAPB to line class code compatibility

For ISDN, the only valid line class code is ISDNKSET.

Assignability

The following functionalities apply to this option:

- set functionality: yes
- subset functionality: no
- DN functionality: no
- key functionality: no

Option prerequisites

There are no prerequisites for this option.

Notes

Tables DNCHNL and DNCTINFO cannot be updated if the LTID has been mapped in table LTMAP.

LAPB - Link access procedure balanced (end)

Feature identification

Functionality: NTXP75AA

Feature number: AL2289

LAPD - Link access procedure on the D-channel

Description

LAPD parameters are changed using the SETPH command in SERVORD. Following the LAPD_PARM prompt, enter the parameter name and, when prompted with that name, enter the value.

LAPD parameters cannot be changed if the LTID is mapped in table LTMAP. If the terminal is attached to a LEN, the terminal must first be detached from its LEN using the SLT DET command before using the SETPH command.

Example

ISDN 55 identifies a logical terminal with D service defined. The following example changes four of the LAPD parameters to values other than the defaults (as defined in table LAPD parameters in the "Service order tables" section of this manual).

The LCNs are set in ascending order from 400. The number of LCNs is set to 30. The number of PVCs is set to 5.

Example of the LAPD option in prompt mode

```
SO:
>SETPH
SONUMBER: NOW 93 07 08 AM
>(CR)
LTID:
>ISDN 55
LAPD_PARM:
>LCNBASE
LCNBASE:
>400
LAPD_PARM:
>NUMLCN
NUMLCN:
>30
LAPD_PARM:
>NUMPVC
NUMPVC:
>5
LAPD_PARM:
>$
```

LAPD - Link access procedure on the D-channel (continued)

Example of the LAPD option in no-prompt mode

```
>SETPH $ ISDN 55 LCNBASE 400 NUMLCN 30 NUMPVC 5 $
```

Prompts

The following table provides the system prompts for the LAPD option.

Input prompts for the LAPD option

Prompt	Valid input	Explanation
LAPD_PARM	Refer to table LAPD parametrs in the "Service order tables" section of this manual for information on valid inputs.	The LAPD parameter. Enter the parameter name and, enter the value.
LTID	Refer to LTID in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	The logical terminal identifier.
SONUMBER	Refer to SONUMBER in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	The unique number of the service order to be entered.

LAPD to line class code compatibility

For ISDN, the only valid line class code is ISDNKSET.

Assignability

The following functionalities apply to this option:

- set functionality: yes
- subset functionality: no
- DN functionality: no
- key functionality: no

Option prerequisites

There are no prerequisites for this option.

Notes

Tables DNCHNL and DNCTINFO cannot be updated if the LTID has been mapped in table LTMAP.

LAPD - Link access procedure on the D-channel (end)

Feature identification

Functionality: NTXP75AA

Feature number: AL2289

PVC - Permanent virtual circuits

Description

A PVC is a permanent (logical) connection between two endpoints on a network. For administrative purposes, one terminal is called the master end and the other is called the slave end.

With the DMS PH, an endpoint can be one of the following:

- an X.25 interface represented by
 - a DN
 - a channel type B or D
 - an LCN
- an X.75/X.75' interface represented by
 - a CLI
 - a trunk member (MEMB)
 - an LCN

Three types of PVCs may exist on an ISDN switch:

- line-to-line PVC (two X.25 endpoints)
- line-to-trunk PVC (one X.25 endpoint and one X.75/X.75' endpoint)
- trunk-to-trunk PVC (two X.75/X.75' endpoints)

For each PVC endpoint, the field NPVC in tables DNCHNL or X75INFO must be datafilled to support the required number of PVCs.

A single PVC can be configured only between endpoints on the same node. To configure a PVC between endpoints on different nodes in the same administration, or across different administrations, a series of PVCs must be set up across the network.

If NI000050 is set to IDLE, the master endpoint must be detached before modifying the following PVC parameters. If NI000050 is set to ON, only a forced release (FRLS) of the master endpoint is required.

- MRECVPKT
- MRECVTPT
- MRECVWDW
- MSENDPKT

PVC - Permanent virtual circuits (continued)

- MSENDTPT
- MSENDWDW

Example

For a line-to-line PVC, the SETPH command is used to change the values of the X.25 parameters NUMLCN and NUMPVC as required.

The following example shows the SETPH command used to change the NUMPVC parameter associated with LTID PKT 69. The same step is required for the other PVC endpoint.

Note: The sum of NUMPVC, NUMOVC, and NUMIVC cannot exceed the value of NUMLCN.

Example of the PVC option in prompt mode

```
SO:
>SETPH
SONUMBER:   NOW 91 12 4 PM
>(CR)
LTID:
>PKT 69
LAPD_PARM:
>NUMPVC
NUMPVC:
>2
LAPD_PARM:
>$
```

Example of the PVC option in no-prompt mode

```
>SETPH $ PKT 69 NUMPVC 2 $
```

The following example shows the ADDPH command used to add a PVC to the logical terminal identified as PKT 69.

PVC - Permanent virtual circuits (continued)

Example of the PVC option in prompt mode

```
SO:
>ADDPH
SONUMBER:   NOW 91 12 4 PM
>(CR)
LTID:
>PKT 69
ADD_OPTION:
>PVC
ORIGDNA:
>6137428069
ORIGLCN:
>1
RESPDNA:
>6137277960
RESPLCN:
>3
PVC_PARM:
>$
ADD_OPTION:
>$
```

Example of the PVC option in no-prompt mode

```
>ADDPH $ PKT 69 PVC 6137428069 1 6137277960 3 $ $
```

The following example shows the CHAPH command used to modify an existing PVC on the logical terminal identified as PKT 69. In this example, the master send and receive throughput classes are changed to 3.

PVC - Permanent virtual circuits (continued)

Example of the PVC option in prompt mode

```
SO:
>CHAPH
SONUMBER:    NOW 92 11 7 PM
>(CR)
LTID:
>PKT 69
CHA_OPTION:
>PVC
ORIGDNA:
>6137428069
ORIGNPI:
>E164
ORIGLCN:
>1
RESPDNA:
>6137277960
RESPNPI:
>E164
RESPLCN:
>3
PVC_PARM:
>MSENDTPT
MSENDTPT:
>3
PVC_PARM:
>MRECVTPT
MRECVTPT:
>3
PVC_PARM:
>$
CHA_OPTION:
>$
```

Example of the PVC option in no-prompt mode

```
>CHAPH $ PKT 69 PVC 6137428069 E164 1 6137277960 E164 3
MSENDTPT 3 MRECVTPT 3 $ $
```

The following example shows the DELPH command used to remove the PVC from the logical terminal identified as PKT 69.

PVC - Permanent virtual circuits (continued)

Example of the PVC option in prompt mode

```

SO:
>DELPH
SONUMBER:   NOW 93 10 3 PM
>(CR)
LTID:
>PKT 69
DEL_OPTION:
>PVC
ORIGDNA:
>6137428069
ORIGNPI:
>E164
ORIGLCN:
>1
RESPDNA:
>6137277960
RESPNPI:
>E164
RESPLCN:
>3
DEL_OPTION:
>$

```

Example of the PVC option in no-prompt mode

```
>DELPH $ PKT 69 PVC 6137428069 E164 1 6137277960 E164 3 $
```

Prompts

The following table provides the system prompts for the PVC option.

Input prompts for the PVC option (Sheet 1 of 2)

Prompt	Valid input	Explanation
ADD_OPTION	PVC	Option(s) associated with a service to be established or modified.
CHA_OPTION	PVC	Option(s) associated with a service to be modified.
DEL_OPTION	PVC	Option(s) associated with a service to be deleted.

PVC - Permanent virtual circuits (continued)

Input prompts for the PVC option (Sheet 2 of 2)

Prompt	Valid input	Explanation
LTID	Refer to LTID in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	The logical terminal identifier.
ORIGDNA	DN, or CLLI and member for X.75 endpoint.	Specifies the originating DN. This is the location that is billed.
ORIGLCN	1 to 1024	Specifies the logical channel number of the originating service.
ORIGNPI	X121 or E164	The NPI of the originating service.
PVC_PARM	Refer to table Permanent virtual circuit parameters in the "Service order tables" section of this manual for information on valid inputs.	The PVC parameters you wish to change. Enter the parameter name and when prompted with that name, enter the value.
RESPDNA	DN, or CLLI and member for X.75 endpoint.	Specifies the responding DN. The originating and responding DNs cannot be the same. This DN is the slave of the PVC and is the location that is not billed.
RESPLCN	1 to 1024	Specifies the logical channel number of the responding device.
RESPNPI	X121 or E164	The NPI of the responding service.
SONUMBER	Refer to SONUMBER in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	The unique number of the service order to be entered.

PVC to line class code compatibility

For ISDN, the only valid line class code is ISDNKSET.

PVC - Permanent virtual circuits (end)

Assignability

The following functionalities apply to this option:

- set functionality: yes
- subset functionality: no
- DN functionality: no
- key functionality: no

Option prerequisites

There are no prerequisites for this option.

Notes

The following notes apply to option PVC:

- SERVORD cannot be used to set up trunk-to-trunk PVCs.
- Billing of PVCs is normally at the master end, and is only effective when the master is an X.25 endpoint.
- The LTID must be detached from the LEN before changing PVC parameters.
- Attempts to use the CDN (change DN) command to change a DN that has the PVC option assigned are blocked. The following error message displays:

```
DN currently has PVC definedRemove PVC with DELPH
command before using CDN command.
```

Feature identification

Functionality: NTXP47AA

Feature number: AJ1836

Functionality: NTXP75AA

Feature number: AL2289

6 Service order query commands

Introduction

Query commands consist of a command name followed by a series of parameters. Operating companies use query commands to display the characteristics of telephone lines. The information received through query commands simplifies service order preparation. For example, entering the query command QDN (for query directory number) and a directory number gives a user information about the hardware and software associated with the DN of a line.

Query commands

The line data base (LDB) query commands are used to

- determine the status (working or unassigned) of a DN
- determine the status (working or unassigned) of an LEN
- identify the parameters associated with a working line

The commands can be executed at any level of the user interface. No commands are needed to enter or leave the query mode, so a user logged on at a user interface position can immediately enter a query command.

Either the prompt or no-prompt mode can be used. A dollar sign (\$) indicates that the user is finished entering data for a parameter or accepts the default parameter. The user can then confirm, reject, or edit the input just as for service order commands.

Entering query commands in no-prompt mode

In no-prompt mode, query commands and required parameters are entered by the user. If an error occurs, the DMS switch reverts to the prompt mode, beginning where the invalid parameter was entered.

For more information, refer to the *DMS-100 Family Commands Reference Manual*, 297-1001-822.

Entering query commands in prompt mode

To enter query commands in the prompt mode

1. Log on at a valid input device.
2. Enter one of the commands shown below in table Query commands.
3. Refer to table Query command prompts in this section for an explanation of the prompts and data to be entered. If an incorrect parameter is entered, the system prompts for the correct information.
4. Upon entry of a valid parameter, the DMS switch displays the next prompt. The DMS switch continues to prompt until all necessary parameters are entered.
5. When all parameters are entered, the DMS switch displays or prints the order. The DMS switch sometimes requires the user to enter Y (accept the command), N (reject), or E (edit).

The following table lists all the query commands applicable to ISDN. A subset of these commands is detailed in this chapter. For information on the other query commands, refer to the *SERVORD Reference Manual*.

Table 6-1 Query commands (Sheet 1 of 2)

Command	Description
QBB	Query Bb channel
QCOUNTS	Query counts - Queries and resets the link level and packet level protocol and protocol abnormality counts for a particular X.25 or X.75 interface.
QDCH	Query D-channel handler (DCH)
QDN	Query individual line data
QDNSU	Obtain a summary of unassigned DNs
QDNWRK	Obtain a summary of assigned DNs
QGRP	Query a call pickup or long speed call users' group
QHA	Obtain a detailed listing of assigned hardware
QHASU	Obtain a summary of LEN hardware assigned and software unassigned
QHU	Obtain a summary of LEN hardware unassigned
QIT	Query ISDN terminals
QLEN	Query line data related to a given LEN
QLENWRK	Obtain a summary of working (hardware assigned and software assigned) LENs

Table 6-1 Query commands (Sheet 2 of 2)

Command	Description
QLOAD	Obtain a summary of LEN assignments by line class code
QLOOP	Lists all the LTIDs on the posted ISDN line.
QLT	Query logical terminals
QPHF	Query PHF - Displays information about how a particular XSG is configured.
QSCONN	Displays information on a P-side link on an ISDN XPM.
QX75	Query X.75 special connections to the DMSPH.

Query command prompts

The following table lists the query command prompts and the appropriate data to be entered for each prompt.

Table 6-2 Query command prompts (Sheet 1 of 5)

Prompt	Valid input	Explanation
BD_OPT	DCH, ISG, LTC, LGC, RCCI, ALL	The PM for which Bd connection information is requested.
CHANNEL	1 to 31	The DCH or ISG channel number.
channel_number	1 to 24	The dedicated Bb channel number.
CHNL	1 to 31, except ISLC (B1, B2)	The ISG, XSG, or ISLC channel.
chnl number	1 to 31	The XSG channel number.
circuit_number	0 to 19	The circuit number of the peripheral module.
clli	1 to 8 alphanumeric characters	The CLLI name as defined in table CLLI.
count level	LINK, PACKET, ALL	Specifies the type of information to be retrieved from the XLIU
DCH_ISG	DCH, ISG	The PM for which the number of LTIDs is displayed.
DCHNO	0 to 255	The DCH number
Directory_Number or dn num	Seven digits	The directory number

6-4 Service order query commands

Table 6-2 Query command prompts (Sheet 2 of 5)

Prompt	Valid input	Explanation
DN_LTID_OR_I SDNAMA_GRP	Refer to DIRECTORY_NUMBER, LTID, and ISDNAMA_GRP in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	The DN, LTID, or ISDNAMA group.
DN_OR_LEN	Refer to DN and LEN_OR_LTID in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	Enter the line's DN or LEN.
extrkrm	0 to 9999	The external trunk number as datafilled in table TRKMEM.
frame	0 to 511	The LCMI or LCME frame number
GRP_TYPE	CPU, SCU, ISDNAMA, MDN, GIC, HNT, KSH, RESSCU, FTRGRP, FTRKEYS	The type of group to be queried.
ISGNO	0 to 255	The ISG number
LEN_OR_LTID	Refer to LEN_OR_LTID in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	The LTID associated with a service to be established, modified, or deleted.
lgc_number	0 to 255	The LGC number
local chnl num	0 to 31	The specific channel on the XSG
ltc_number	0 to 255	The LTC number
LTGRP or ltgrp	1 to 8 alphanumeric digits	The logical terminal group
LTNUM or ltnum	1 to 1022	The logical terminal number
member	0 to 9999	The CLLI member
node_type	LGC, LTC, or RCCI to specify a particular peripheral CHL to specify a particular channel ALL to specify all Bb channel connections	The type of Bb channel connection
object type	XSG, CHNL, LTID, CLLI, DN, or X75	The type of object for which you require information

Table 6-2 Query command prompts (Sheet 3 of 5)

Prompt	Valid input	Explanation
OPT	LGC, LTC, RCCI	The PM for which information on loops with connections through the DS30A is requested.
OPTION	DCH, ISG, LTC, LGC, RCCI, LCMI, LCME, LINK, ALL	The PM for which BRA connection information is requested.
OUTPUT_FOR MAT	BRIEF, FULL	The output format of the command.
PARAMETER_ TYPE	<p>The following input is valid:</p> <ul style="list-style-type: none"> • none - parameter_type is omitted to specify that all appropriate parameters and their values are displayed for packet-switched service. The default value is none. • CS - to display all circuit-switched parameters and their values, including the parameters common to all service types • PS - to display all packet-switched parameters and their values, including the parameters common to all service types • DC - to display only the direct-call parameters and their values, including the parameters common to all service types • PVC - to display the permanent-virtual-circuit parameters and their values, including the parameters common to all service types 	Parameter to display

Table 6-2 Query command prompts (Sheet 4 of 5)

Prompt	Valid input	Explanation
PARAMETER_TYPE(continued)	The following input is valid (continued): <ul style="list-style-type: none"> • DNA - to display only the data-network-address parameters and their values, including the parameters common to all service types • CUG - to display only the closed-user-group parameters and their values, including the parameters common to all service types 	Parameter to display
PMCKTNO	0 to 19, except SRCC and RCC2 (0 to 47)	The PM circuit number
PMCKTTS	1 to 24, except TMS (1 to 31)	The specific PM circuits
pmname	TMS, SMU, SMA, SRCC, RCC2, RCCI, DTCl, DTC, LGC, or LTC	The name of the PM
PMNO or PM_NO	0 to 511, except TMS (0 to 255)	The PM number
PM_NUMBER	0 to 255, except XSG (0 to 749)	The PM number
PSPort_number	0 to 19	The port number on the LGC, LTC, or RCCI
PORT NUMBER	0 to 19 for PS0 to 15 for CS	The port number
PORT SIDE	PS or CS	The P-side or C-side port on the PM
QUERY_TYPE	FREE When Type_LTID = Bd, the unused LTID slots (statistical multiplexing ratio minus the number of LTIDs mapped) are displayed. When Type_LTID = BRA, the command displays the DCH channels with TDM connections to linecard slots which are not equipped with working ISDN lines.	Optional parameter for the Bd and BRA connection parameters.
rcci_number	0 to 255	The RCCI number

Table 6-2 Query command prompts (Sheet 5 of 5)

Prompt	Valid input	Explanation
scsel	DS1, XSGCHNL, ISLC, RCUL, DS0T, D30, DCHCHNL, or ST	The special connection selector specifying the type of endpoint you want to query.
selection	LTID, CLLI, XSG	The type of object for which you require information.
SELECTOR	XSG, SEG, NET, or any type of ISDN XPM	The type of connection you wish to query.
SITE	HOST	The PM site
Type_LTID	Bd, BRA, LTID When Bd or BRA is entered, information on these channels is displayed. When LTID is specified, the number of LTIDs on a DCH or an ISG is displayed.	The type of query
unit	0 to 9	The LCMI or LCME unit number
XSGNO, xsg number or xsg num	0 to 749	The number of the XSG as defined in table XSGDEF

QBB - Query Bb channels

Description

The QBB command displays all relevant information associated with ISDN B-channel connections for high-speed packet service. With the DMS packet handler, the XSG parameter is used to display Bb connections to a particular XSG. The information displayed is the XSG and channel number.

Example 1

The following example shows the QBB command when it is used to query LTC 0.

Example of the QBB command in prompt mode

```
>QBB
Enter: node_type/CHL/XSG
>LTC
Enter: ltc_number
> 0
INFORMATION ON ISDN BB-CHANNELS

PM      NO  CKT  CH          LEN      B_CH
LTC     0   4    9  HOST 10 0 00 01      B2
LTC     0   4   10  HOST 10 0 00 02      B1
LTC     0   4   11  HOST 10 0 00 13      B2
LTC     0   4   12  HOST 10 1 00 02      B1
```

Example of the QBB command in no-prompt mode

```
>QBB LTC 0
```

Example 2 (NA014 and up)

The following example shows the QBB command used with the XSG parameter when there is no call present for a DN with the On-demand B-channel (ODB) option assigned. If there is no ODB call present, the B-CH associated with the LEN supporting the DN with the ODB option will display "NOT CONNECTED TO PHF." In this case, the channel number displayed is 0.

QBB - Query Bb channels (continued)**Example of MAP display for QBB command when there is no ODB call**

```

>QBB XSG 100

      INFORMATION ON ISDN BB-CHANNELS

      PM      NO CKT CH      LEN      B-CH
XSG  XSG    100  3      ISDN 00 0 10 00  B2
XSG  XSG    100 11      ISDN 00 0 00 01  B1
XSG  XSG    100 12      ISDN 00 0 10 00  B2
XSG  XSG    100 13      ISDN 00 0 08 05  B2
XSG  XSG    100 14      ISDN 00 0 01 20  B2
XSG  XSG    100 15      ISDN 00 0 08 00  B2
XSG  XSG    100  0      ISDN 00 0 10 01  NOT CONNECTED TO PHF
XSG  XSG    100  0      ISDN 00 0 10 10  NOT CONNECTED TO PHF

```

Example 3 (NA014 and up)

The following example shows the QBB command used with the XSG parameter when there is a call present for a DN with the ODB option assigned. If there is an ODB call present, the B-CH associated with the LEN supporting the DN with the ODB option will display "ODB." In this case, the range for the channel number is 1 to 31.

Example of MAP display for QBB command when there is an ODB call

```

>QBB XSG 100

      INFORMATION ON ISDN BB-CHANNELS

      PM      NO CKT CH      LEN      B-CH
XSG  XSG    100  3      ISDN 00 0 10 00  B2
XSG  XSG    100 11      ISDN 00 0 00 01  B1
XSG  XSG    100 12      ISDN 00 0 10 00  B2
XSG  XSG    100 13      ISDN 00 0 08 05  B2
XSG  XSG    100 14      ISDN 00 0 01 20  B2
XSG  XSG    100 15      ISDN 00 0 08 00  B2
XSG  XSG    100 16      ISDN 00 0 10 01  ODB
XSG  XSG    100  0      ISDN 00 0 10 10  NOT CONNECTED TO PHF

```

Help information

The help query command can be used to determine the syntax of the QBB command, as illustrated below.

QBB - Query Bb channels (continued)

Example of help for the QBB command

```

CI:
>Q QBB
QBB--- Query connections of ISDN Bb_channels
Parms: <node type/CHL/XSG>{LTC <ltc_number> {0 TO 255},
                                LGC <lgc_number> {0 TO 255},
                                RCCI <rcci_number> {0 TO 255},
                                PLGC <plgc_number> {0 TO 255},
                                PRCC <prcc_number> {0 TO 255},
                                PDTc <pdtc_number> {0 TO 255},
                                XSG <xsg_number> {0 to 749}
    
```

Prompts

The following table lists the prompts for the QBB command in alphabetical order.

Input prompts for the QBB command

Prompt	Valid input	Explanation
channel_number	1 to 24	The dedicated Bb channel number
circuit_number	0 to 19	The circuit number of the peripheral module
lgc_number	0 to 255	The LGC number
ltc_number	0 to 255	The LTC number
node_type	LGC, LTC, or RCCI to specify a particular peripheral CHL to specify a particular channel ALL to specify all Bb channel connections	The type of Bb channel connection
rcci_number	0 to 255	The RCCI number
xsg_number	0 to 749	The xsg number

QBB - Query Bb channels (end)

Notes

When the QBB command is entered, the following information is displayed:

- peripheral module (PM) number of the peripheral module
- circuit number (CKT) of the peripheral module
- channel number to which the Bb channel is assigned
- LEN associated with the peripheral module
- B-channel number

QCOUNTS - Query protocol counts

Description

The QCOUNTS command is used to display and reset Layer 2 and Layer 3 protocol and protocol abnormality counts for a particular X.25 LTID or X.75 interface. The command provides an instantaneous snapshot of protocol performance associated with a logical terminal, X.75 trunk, or specific XSG. The information displayed includes link level counts, packet level counts, link level protocol abnormality counts, packet level protocol abnormality counts, and the date and time that the counts were last reset.

The logical channel number (LCN) parameter was added to the QCOUNTS command in NA014 by feature 59018020, Communication Assistance for Law Enforcement Act—Packet Provisioning, Intercept, and Delivery. The LCN parameter makes the DMS compliant with the 1994 Communication Assistance for Law Enforcement Act (CALEA), public law 103-404. This law requires that telephone switch manufacturers assist law enforcement agencies in the lawful electronic surveillance of traffic over the network. The addition of the LCN parameter makes the DMS switching system compliant with CALEA technical standard J-STD-025. The US Network Broadcast Delivery (USNBD) feature makes the DMS compliant with the CALEA regulations.

The LCN parameter is designed to accept the entry of Law Enforcement Agency (LEA) logical terminal identifiers (LTID) and LCNs. Using the LTID option with an LEA LTID and LCN allows the user to obtain operational measurement (OM) information for the corresponding permanent virtual circuit (PVC) connection and virtual link. This applies to cases where the PVC, virtual link, and the LEA DN are all in the same switching system. Using the CLLI option with the CLLI member number and the LCN of the LEA end allows the collection of OM information in cases where the LEA DN is located in a different switching system.

QCOUNTS - Query protocol counts (continued)

The QCOUNTS command provides the following options:

- With the XSG parameter, displays information about a specific XSG.

```
>QCOUNTS XSG xsg_number optional_parameter
```

- With the LTID parameter, displays information about a specific LAPB or LAPD logical terminal.

```
>QCOUNTS LTID ltgrp ltnum count_level count_level_type
optional_parameter
```

- With the CLLI parameter, displays information about a specific X.75 trunk.

```
>QCOUNTS CLLI clli extrknm count_level count_level_type
optional_parameter
```

The following optional parameters can be used with the XSG parameter:

- CHNL—a specific XSG channel
- RESET—reset the counts

The following optional parameter can be used with the LTID and CLLI parameters:

- RESET—reset the counts

Example

The following example shows the QCOUNTS command used to query and reset the link level counts and reset the counts for the logical terminal identified as PKT 111.

QCOUNTS - Query protocol counts (continued)

Example of the QCOUNTS command in prompt mode

```

>QCOUNTS
Enter: selection [reset]
> LTID
Enter: ltgrp  ltnum  count level [reset]
>PKT 111 LINK RESET

          LAYER 2 PROTOCOL AND ABNORMALITY COUNTS
          -----

Frames Received:
  I:          0  RR:          0  RNR:          0  SABME:          0
  DM:         0  DISC:        0  UA:          0  FRMR:          0

Frames Transmitted:
  I:          0  RR:          0  RNR:          0  SABME:          36
  DM:         0  DISC:        0  UA:          0  FRMR:          0

Rejects Received:          0  Rejects Transmitted:          0

MANAGEMENT DATA LINK ERRORS:
-----
Unsolicited Supervisory Response:          0
Peer Re-establishment (SABME):             0
Unsolicited DM Response (F set):           0
Unsolicited DM Response (F clear):         0
Unsolicited UA Response (F set):          0
Unsolicited UA Response (F clear):        0
Unsuccessful Re-transmission (SABME):      9
Unsuccessful Re-transmission (DISC):       0
Unsuccessful Re-transmission (STATUS):     0
Receipt of FRMR Response:                  0
Receipt of Unimplemented Frame:            0
Receipt of Information Field not Permitted: 0
Receipt of Wrong Size Frame:              0
N201 Error:                               0
N(r) Error:                               0

Counts last reset: 1993/11/13 11:44:37

```

Note: If the date and time of the last reset cannot be retrieved, the following is displayed: Counts last reset: unknown.

Example of the QCOUNTS command in no-prompt mode

```
>QCOUNTS LTID PKT 111 LINK RESET
```

QCOUNTS - Query protocol counts (continued)

Help information

The help query command can be used to determine the syntax of the QCOUNTS command, as illustrated below.

Example of help for the QCOUNTS command

```

CI:
>Q QCOUNTS
Command to query and reset protocol and protocol abnormality counts for
OSI levels 1, 2 and 3 of the X.25 and X.75 protocols.
Parms: <selection> {LTID <ltgrp> STRING
                    <ltnum> {1 TO 1022}
                    <count level> {LINK,
                                    PACKET,
                                    ALL,
                                    LCN <lcn number. {0 to 2048}}
CLLI <clli> STRING
    <extrkrm> {0 to 9999}
    <count level> {LINK,
                  PACKET,
                  ALL,
                  LCN <lcn number> {0 to 2048}}
XSG <xsg number> {0 to 749}
    <xsg level> {BRD,
                CHNL <chnl number> {1 to 31}
                OVLD}}
[<reset> {RESET,
          RESETNODISP}}

```

Prompts

The following table lists the prompts for the QCOUNTS command in alphabetical order.

Input prompts for the QCOUNTS command (Sheet 1 of 2)

Prompt	Valid input	Explanation
chnl number	1 to 31	The XSG channel number.
clli	1 to 16 alphanumeric characters	The CLLI name as defined in table CLLI.
count level	LINK—retrieve link level counts from the XLIU PACKET—retrieve packet level counts from the XLIU ALL—retrieve protocol and protocol abnormality counts for Layers 2 and 3 from the XLIU	The type of information to be retrieved from the XLIU.

QCOUNTS - Query protocol counts (continued)

Input prompts for the QCOUNTS command (Sheet 2 of 2)

Prompt	Valid input	Explanation
extrknm	0 to 9999	The external trunk number as datafilled in table TRKMEM.
ltgrp	1 to 8 alphanumeric characters	The name of the logical terminal group as defined in table LTGRP.
ltnum	1 to 1022	The number of the logical terminal.
selection	LTID, CLLI, XSG, LCN	The type of object for which you require information.
LCN number	0 to 2048	The logical channel number to be queried.
xsg number	0 to 749	The number of the XSG as defined in table XSGDEF.

Examples of the QCOUNTS command using the LCN parameter

The following figure shows an example of the MAP display for the QCOUNTS LTID command used with the LCN parameter. All counts of receive ready (RR), receive not ready (RNR), Data and Reset packets received and transmitted are done in reference to the virtual finite state machine (FSM) or interception access point. The packets received are the ones received by the virtual FSM from the remote LEA side. The packets transmitted are the ones transmitted to the remote LEA side.

QCOUNTS - Query protocol counts (continued)

Example of MAP display for QCOUNTS LTID command used with the LCN parameter

```

>QCOUNTS LTID PKT 12 LCN 1
      LAYER 3 PROTOCOL COUNTS
      -----
Packets Received:
  VC,PVC:      0 RR:      0 RNR:   0 Data:   0
Packets Transmitted:
  VC,PVC:      0 RR:      0 RNR:   0 Data:   0
Virtual Call Attempts:
  Setup:       0 Originating: 0 Terminating: 0
Unsuccessful Virtual Call Attempts:
  Blocking:    0 Denied:     0
  Clearing:    0 Overload:    0
      LAYER 3 PROTOCOL ABNORMALITY COUNTS
      -----
Restart Packets:
  Sent:        0 Received:    0
Reset Packets:
  Sent:        0 Received:    0
Clear Packets:
  Sent:        0 Received:    0
Diagnostic Packets:
  Sent:        0 Received:    0
      LAYER 3 SERVICE DISRUPTION COUNTS
      -----
Reset Packets Transmitted:  0
Clear Packets Transmitted:  0

      LAYER 3 OVERLOAD COUNTS
      -----
Dynamic Window Congestion:
  Local:      0 Remote:      0
Packets dropped due to Layer 3 congestion:
  Link:       0 VC:          0
Packets dropped due to:
  Layer 2:    0 RNR:         0
Layer 3 link queue congestion:      0
VC_Q Congestion                    0
  
```

The following figure shows an example of the MAP display for the QCOUNTS CLI command used with the LCN parameter.

QCOUNTS - Query protocol counts (continued)

Example of MAP display for QCOUNTS CLLI command used with the LCN parameter

```
>QCOUNTS CLLI PL1X750G LCN 1
                LAYER 3 PROTOCOL COUNTS
                -----
Packets Received:
  VC,PVC:      0 RR:      0 RNR:   0 Data:   0
Packets Transmitted:
  VC,PVC:      0 RR:      0 RNR:   0 Data:   0
Virtual Call Attempts:
  Setup:       0 Originating: 0 Terminating: 0
Unsuccessful Virtual Call Attempts:
  Blocking:    0 Denied:    0
  Clearing:    0 Overload:   0
                LAYER 3 PROTOCOL ABNORMALITY COUNTS
                -----
Restart Packets:
  Sent:        0 Received:    0
Reset Packets:
  Sent:        0 Received:    0
Clear Packets:
  Sent:        0 Received:    0
Diagnostic Packets:
  Sent:        0 Received:    0
                LAYER 3 SERVICE DISRUPTION COUNTS
                -----
Reset Packets Transmitted:    0
Clear Packets Transmitted:    0
                LAYER 3 OVERLOAD COUNTS
                -----

Dynamic Window Congestion:
  Local:    0 Remote: 0
Packets dropped due to Layer 3 congestion:
  Link:    0 VC:    0
Packets dropped due to:
  Layer 2: 0 RNR:    0
  Layer 3 link queue congestion: 0

VC_Q Congestion    0
```


QCOUNTS - Query protocol counts (end)

Notes

The following notes apply to the logical channel number (LCN) parameter added to the QCOUNTS in NA014.

Note: If the user enters a non-LEA LTID or CLLI with the QCOUNT command LCN option, the following error message displays:

Error: QCOUNTS DISPLAY WITH LCN IS VALID FOR VIRTUAL LINKS ONLY

QDCH - Query D-channel handler

Description

The QDCH command displays D-channel handler (DCH) connections or ISDN service group (ISG) information. The following connection types are supported:

- LTID — specifies the number of LTIDs on a DCH
- BRA — specifies connection information for BRA channels
- Bd — specifies connection information for Bd channels

Example

The following examples show the various uses of the QDCH command and applicable parameters.

Querying Bd connections on DCH 24 channel 28

The following example shows the QDCH command when it is used to query a specific Bd channel in DCH 24.

Example of the QDCH command in prompt mode

```
>QDCH
Enter: Type_LTID
>Bd
Enter: BD_OPT [QUERY_TYPE]
>DCH
Enter: DCHNO [CHANNEL] [QUERY_TYPE]
>24 28
ISG Bd CHANNEL INFORMATION

DCH ISG   CHNL  OTHER Endpoint
-----
24  24     28   DS1    LTC 1 16 5
```

Example of the QDCH command in no-prompt mode

```
>QDCH Bd DCH 24 28
```

Querying Bd connections on DCH 24

The following example shows the QDCH command when it is used to query all the Bd channels in DCH 24.

QDCH - Query D-channel handler (continued)

Example of the QDCH command in prompt mode

```

>QDCH
Enter: Type_LTID
>Bd
Enter: BD_OPT [QUERY_TYPE]
>DCH
Enter: DCHNO [CHANNEL] [QUERY_TYPE]
> 24
ISG Bd CHANNEL INFORMATION

DCH ISG CHNL  Other      Endpoint
-----
24  24   28   DS1      LTC 1 16 5
24  24   29   DS1      LTC 1 17 5
24  24   30   DS1      LTC 1 16 6
24  24   31   DS1      LTC 1 17 6
4 DCH BD channels datafilled in DCHINV.  Four connected.

```

Example of the QDCH command in no-prompt mode

```
>QDCH Bd DCH 24
```

Querying all Bd connections

The following example shows the QDCH command when it is used to query all the Bd channels in an office. This example is abridged.

QDCH - Query D-channel handler (continued)

Example of the QDCH command in prompt mode

```
>QDCH
Enter: Type_LTID
>Bd
Enter: BD_OPT [QUERY_TYPE]
>ALL
ISG Bd CHANNEL INFORMATION

DCH   ISG CHNL Other Endpoint
-----
24    24   28  DS1    LTC 1 16 5
24    24   29  DS1    LTC 1 17 5
24    24   30  DS1    LTC 1 16 6
24    24   31  DS1    LTC 0 17 6
5     5    26  DS1    LGC 0 16 1
5     5    27  DS1    LGC 0 16 2
5     5    28  DS1    LGC 0 16 3
5     5    29  DS1    LGC 0 16 4
5     5    30  DS1    LGC 0 16 5
5     5    31  DS1    LGC 0 16 6
254  254   24  DS1    LGC 0 17 1
254  254   25  DS1    LGC 0 17 2
254  254   26  DS1    LGC 0 17 3
254  254   27  DS1    LGC 0 17 4
254  254   28  DS1    LGC 0 17 5
254  254   29  DS1    LGC 0 17 6
.....
32 Bd channels are datafilled in this office,
32 with SPECCONN connections.
The Bd channel information display is complete.
```

Example of the QDCH command in no-prompt mode

```
>QDCH Bd ALL
```

Querying BRI connections in DCH 254 channel 1

The following example shows the QDCH command when it is used to query a specific BRI channel in DCH 254.

QDCH - Query D-channel handler (continued)

Example of the QDCH command in prompt mode

```

>QDCH
Enter: Type_LTID
>BRA
Enter: OPTION
>DCH
Enter: DCHNO [CHANNEL] [QUERY_TYPE]
>254 1
ISG BRA CHANNEL INFORMATION

DCH  ISG  CHNL          LEN
-----
254  0    1    HOST 40 1 05 04    BX25AB
                        HOST 40 1 10 04    BX25AB

```

If the channels were associated with 2B1Q lines, the card code displayed in this example would be BX27AA.

Example of the QDCH command in no-prompt mode

```
>QDCH BRA DCH 254 1
```

Querying BRI connections in a DCH

The following example shows the QDCH command when it is used to query all the BRI channels in DCH 219. This example is abridged.

QDCH - Query D-channel handler (continued)**Example of the QDCH command in prompt mode**

```

>QDCH
Enter: Type_LTID
>BRA
Enter: OPTION
>DCH
Enter: DCHNO [CHANNEL] [QUERY_TYPE]
>219
For a DCH with no channels connected:
27 BRA channels datafilled in DCHINV, 0 connected.

For a DCH with channels connected:
ISG BRA CHANNEL INFORMATION

DCH ISG CHNL          LEN
-----
219 0   1   HOST 55 0 00 00  BX27AA
          HOST 55 0 00 01  BX27AA
          HOST 55 0 00 02  BX27AA
219 0   2   HOST 55 0 02 00  BX27AA
          HOST 55 0 03 00  BX27AA
          HOST 55 0 02 01  BX27AA
          .
          .
          .
219 0   23  HOST 55 0 08 00  BX27AA
          HOST 55 0 08 01  BX27AA
219 0   24  HOST 55 0 10 00  BX27AA
          HOST 55 0 09 00  BX27AA

```

Example of the QDCH command in no-prompt mode

```
>QDCH BRA DCH 219
```

Querying all BRI connections not connected to lines on an LCMI

The following example shows the QDCH command when it is used to display DCH channels with TDM connections to LCMI line card slots that are not equipped with WORKING ISDN loops. This example is abridged.

QDCH - Query D-channel handler (continued)

Example of the QDCH command in prompt mode

```

>QDCH
Enter: Type_LTID
>BRA
Enter: OPTION
>ALL FREE
ISG  BRA CHANNEL INFORMATION

DCH  ISG CHNL          LEN
-----
2    1   3      HOST 10 1          2
2    1   4      HOST 10 1          2
2    1   7      HOST 10 1          3
4    2   1      RCSC 00 1          3
4    2   2      RCSC 00 1          3
4    2   3      RCSC 00 1          3
4    2   4      RCSC 00 1          2
...
BRA channels datafilled in this office:  159
Channels with TDM connections to linecard slots: 16
Connected channels with DCH resources fully allocated:53
BRA channel information display complete.
  
```

Example of the QDCH command in no-prompt mode

```
> QDCH BRA ALL FREE
```

Querying BRI D-channels not used by WORKING ISDN loops on an LCME

The following example shows the QDCH command when it is used to display DCH channels that are not yet mapped to a TDM group. This example is abridged.

QDCH - Query D-channel handler (continued)

Example of the QDCH command in prompt mode

```
>QDCH
Enter: Type_LTID
>BRA
Enter: OPTION
>DCH
Enter: DCHNO [CHANNEL] [QUERY_TYPE]
>3 FREE
ISG BRA CHANNEL INFORMATION

DCH  ISG  CHNL          LEN
-----
  3   1   3  HOST 10 1    2
  3   1   4  HOST 10 1    2
  3   1   7  HOST 10 1    3
27 BRA channels datafilled in ISGDEF, 8 connected
```

Example of the QDCH command in no-prompt mode

```
>QDCH BRA DCH 3 FREE
```

Querying ISDN loops on an LCME with DCH resources allocated

The following example shows the QDCH command when it is used to display ISDN loops on an LCME with DCH resources allocated. This example is abridged.

QDCH - Query D-channel handler (continued)

Example of the QDCH command in prompt mode

```

>QDCH
Enter: Type_LTID
>BRA
Enter: OPTION
>LCME
Enter: frame
>21
Enter: unit
>1
ISDN loops on this LCDI with DCH resources allocated.
DCH BRA CHANNEL INFORMATION

```

LEN	CARD	DCH	ISG	CH
HOST 21 1 00 01	BX27AA	0	0	0
HOST 21 1 00 07	BX27AA	0	0	0
HOST 21 1 06 01	BX27AA	1	1	0
HOST 21 1 07 01	BX27AA	1	1	0
HOST 21 1 09 01	BX27AA	2	2	0
HOST 21 1 19 01	BX27AA	3	3	0
HOST 21 1 22 01	BX27AA	4	4	0
HOST 21 1 22 03	BX27AA	4	4	0
HOST 21 1 23 00	BX27AA	4	4	0
HOST 21 1 23 01	BX27AA	4	4	0
HOST 21 1 23 02	BX27AA	5	5	0
HOST 21 1 23 03	BX27AA	5	5	0
HOST 21 1 23 04	BX27AA	5	5	0
HOST 21 1 23 05	BX27AA	5	5	0
HOST 21 1 23 06	BX27AA	6	6	0

Example of the QDCH command in no-prompt mode

```
>QDCH BRA LCME 21 1
```

Querying the number of LTIDs on an ISG

The following example shows the QDCH command when it is used to display the number of LTIDs on an ISG.

QDCH - Query D-channel handler (continued)

Example of the QDCH command in prompt mode

```
>QDCH
Enter: Type_LTID
>LTID
Enter: DCH_ISG
> ISG
Enter: ISGNO [QUERY_TYPE]
> 0
There are 47 LTIDs datafilled against this ISG.
```

Example of the QDCH command in no-prompt mode

```
>QDCH LTID ISG 0
```

Help information

The help query command can be used to determine the syntax of the QDCH command, as illustrated below.

Example of help for the QDCH command

```
CI:
>Q QDCH
QDCH--- Query ISDN DCH channels and LTIDs
BRA : Query FREE or connected BRA D channels.
      displays LENSs If connected channels are queried.
-----
LCMI information for all BRA DCH channels on the LCMI.
LCME information for all BRA DCH channels on the LCME.
RDT  information for all BRA DCH channels on the RDT.
RCU  information for all BRA DCH channels on the RCU.
ALL  All BRA DCH channels in the office.
ISDN LGC/ISDN LTC/RCCI/ISDN PRCC/ISDN SMU/ISDN RCO2 SMA
      All BRAs on this XPM.
LINK information for all BRA DCH channels on the DS30A
      link of ISDN LTC, ISDN LGC, RCCI, ISDN PRCC, ISDN RCO2,
      or on the DS1 link of SMA or ISDN SMU.
DCH  specifies the DCH to be queried.
      .
      .
      .
```

QDCH - Query D-channel handler (continued)**Prompts**

The following table lists the input prompts for the QDCH command in alphabetical order.

Input prompts for the QDCH command (Sheet 1 of 2)

Prompt	Valid input	Explanation
BD_OPT	DCH, ISG, LTC, LGC, RCCI, PRCC, PLGC, SMA, ALGC, RCC2, SRCC, RCO2, SMU, ARCC, XSG, ALL	The PM for which Bd connection information is requested.
CHANNEL	1 to 31	The DCH or ISG channel number.
DCH_ISG	DCH, ISG	The PM for which the number of LTIDs is displayed.
DCHNO	0 to 255	The DCH number.
frame	0 to 511	The LCMI or LCME frame number.
ISGNO	0 to 255	The ISG number.
OPT	LTC, LGC, RCCI, PRCC, PLGC, SMA, ALGC, RCC2, SRCC, RCO2, SMU, ARCC, ALL	The PM for which information on loops with connections through the DS30A is requested.
OPTION	DCH, ISG, LTC, LGC, RCCI, PRCC, PLGC, SMA, ALGC, RCC2, SRCC, RCO2, SMU, ARCC, LCMI, LCME, RCU, RDT, LINK, ALL	The PM for which BRA connection information is requested.
PM_NO	0 to 255	The PM number.
PSPort_number	0 to 19	The port number on the LGC, LTC, or RCCI.
QUERY_TYPE	FREE When Type_LTID = Bd, the unused LTID slots (statistical multiplexing ratio minus the number of LTIDs mapped) are displayed. When Type_LTID = BRA, the command displays the DCH channels with TDM connections to linecard slots which are not equipped with working ISDN lines.	Optional parameter for the Bd and BRA connection parameters.
SITE	HOST	The PM site.

QDCH - Query D-channel handler (end)

Input prompts for the QDCH command (Sheet 2 of 2)

Prompt	Valid input	Explanation
Type_LTID	Bd, BRA, LTID When Bd or BRA is entered, information on these channels is displayed. When LTID is specified, the number of LTIDs on a DCH or an ISG is displayed.	The type of query.
unit	0 to 9	The LCMI or LCME unit number.

Notes

When the QDCH command is entered, the following information is displayed:

When the connection is specified as Bd:

- PM number
- channel or unit number
- PM type
- DS-1 endpoint
- number of Bd channels datafilled in the office
- number of Bd channels connected

When the connection is specified as BRA:

- DCH or ISG number
- channel
- line equipment number
- line card number
- number of BRI channels datafilled in the office
- channels with TDM connections to linecard slots
- connected channels with DCH or ISG resources fully allocated

QDN - Query directory number

Description

The QDN command retrieves information about the hardware and software associated with a directory number (DN).

Example

The following examples show the various uses of the QDN command and applicable parameters.

Querying an unassigned DN

The following example shows the QDN command when it is used to query an unassigned DN.

Example of the QDN command in prompt mode (querying an unassigned DN)

```
>QDN
  DIRECTORY_NUMBER
>7214111
  DN:      7214111
  TYPE:    UNASSIGNED
  SNPA:    613
```

Example of the QDN command in no-prompt mode (querying an unassigned DN)

```
>QDN 7214111
```

Querying a single DN

The following example shows the QDN command when it is used to query a single DN in which the logical terminal identifier (LTID) is a member of the VI associated group (AG) 2.

QDN - Query directory number (continued)

Example of the QDN command in prompt mode, unique 7-digit DN

```
>QDN
DIRECTORY_NUMBER
>7214112
-----
DN: 7214112
TYPE: SINGLE PARTY LINE
SNPA: 613 SIG: N/A LNATTIDX: N/A
LTID: ISDN 99
LTCLASS: BRAFS
AGA:2 AG_VI
LINE CLASS CODE: ISDNKSET
KEY: 1
CUSTGRP: BNRCARK SUBGRP: 0 NCOS: 0 RING: Y
OPTIONS:
SFC VI $ N CMD BOTH $ N
CRBL 10
```

Example of the QDN command in no-prompt mode, unique 7-digit DN

```
>QDN 7214112
```

Example of the QDN command in prompt mode, 10-digit DN

```
>QDN
DIRECTORY_NUMBER
>9197214112
-----
DN: 7214112
TYPE: SINGLE PARTY LINE
SNPA: 613 SIG: N/A LNATTIDX: N/A
LTID: ISDN 99
LTCLASS: BRAFS
AGA:2 AG_VI
LINE CLASS CODE: ISDNKSET
KEY: 1
CUSTGRP: BNRCARK SUBGRP: 0 NCOS: 0 RING: Y
OPTIONS:
SFC VI $ N CMD BOTH $ N
CRBL 10
```

QDN - Query directory number (continued)

Example of the QDN command in no-prompt mode, 10-digit DN

```
>QDN 9197214112
```

Example of the QDN command in prompt mode, duplicate 7-digit DN

```
>QDN
DIRECTORY_NUMBER
>7214112
This Local DN is not Unique.
Please use the Full National DN.
-----
>9197214112
DN: 7214112
TYPE: SINGLE PARTY LINE
SNPA: 613 SIG: N/A LNATTIDX: N/A
LTID: ISDN 99
LTCLASS: BRAFS
AGA:2 AG_VI
LINE CLASS CODE: ISDNKSET
KEY: 1
CUSTGRP: BNRCARK SUBGRP: 0 NCOS: 0 RING: Y
OPTIONS:
SFC VI $ N CMD BOTH $ N
CRBL 10
```

Example of the QDN command in no-prompt mode, duplicate 7-digit DN

```
>QDN 7214112
This Local DN is not Unique.
Please use the Full National DN.
-----
```

Querying a multiple appearance DN

The following example shows the QDN command when it is used to query a multiple appearance DN.

QDN - Query directory number (continued)

Example of the QDN command in prompt mode, querying a multiple appearance DN

```
>QDN
DIRECTORY_NUMBER
>7214113
DN: 7214113
TYPE: MULTIPLE APPEARANCE DIRECTORY NUMBER
SNPA: 613 SIG: N/A LNATTIDX: N/A
LTID: ISDN 29
PRIMARY LTID: ISDN 29
LINE CLASS CODE: ISDNKSET
KEY: 1
CUSTGRP: BNRCARK SUBGRP: 0 NCOS: 1 RING: Y
MADN SCA INFO - TYPE: SCA PRIMARY: Y
OPTIONS:
NONE
MADN MEMBER INFO:
    ISDN 29
```

Example of the QDN command in no-prompt mode, querying a multiple appearance DN

```
>QDN 7214113
```

Querying a DN with the ODB option

The following example shows the QDN command when it is used to query an ISDN BRI DN with the option On-demand B-channel (ODB). This example applies to software release NA014 and up.

Example of the QDN command in prompt mode, querying ISDN BRI DN with ODB option

```
>QDN
DIRECTORY_NUMBER
>613556546
DN: 5556546
TYPE: SINGLE PARTY LINE
SNPA: 613 SIG: N/A LNATTIDX: N/A
LTID: NI2 100
LTCLASS: BRAFS
LINE CLASS CODE: ISDNKSET
KEY: 8
CUSTGRP:LONS634 SUBGRP: 0 NCOS: 0 RING: N
OPTIONS:
ODB
```

QDN - Query directory number (continued)

Example of the QDN command in no-prompt mode, querying ISDN BRI DN with ODB option

```
>QDN 6135556546
```

Querying a DN with the ODB option

The following example shows the QDN command when it is used to query an ISDN BRI DN in single DN configuration with the option ODB. This example applies to software release NA014 and up.

Example of the QDN command in prompt mode querying ISDN BRI DN in single DN configuration with ODB option

```
>QDN
  DIRECTORY_NUMBER
>6135556785
  DN: 5556785
  CALLTYPE: VI-CMD
  TYPE: SINGLE PARTY LINE
  SNPA: 613      SIG: NA  LNATTIDX: N/A
  LTID: NI2 100
  LTCLASS: BRAFS
  LINE CLASS CODE: ISDNKSET
  KEY: 1
  CUSTGRP: LONS634  SUBGRP: 0  NCOS: 0  RING: Y
  OPTIONS:
  SFC VI $ $ N CMD BOTH $ $ N
  AFC
  CRBL 1 1  NDNAP 2

  CALLTYPE: PMD-ODB
  TYPE: SINGLE PARTY LINE
  SNPA: 613      SIG: N/A  LNATTIDX: N/A
  LTID: NI2 100
  LTCLASS: BRAFS
  LINE CLASS CODE: ISDNKSET
  KEY: 8
  CUSTGRP: LONS634  SUBGRP: 0  NCOS: 0  RING: N
  OPTIONS:
  ODB
```

Example of the QDN command in no-prompt mode, querying ISDN BRI DN in single DN configuration with ODB option

```
>QDN 6135556785
```

QDN - Query directory number (continued)

Querying a DN with the PROVLLC and PROVCGS options

The following example shows the QDN command when it is used to query a DN with the PROVLLC and PROVCGS options.

Example of the QDN command in prompt mode (querying a DN with the PROVLLC and PROVCGS options)

```
>QDN
DIRECTORY_NUMBER
>7225040
DN:      7225040
TYPE:    SINGLE PARTY LINE
SNPA:    613    SIG:    N/A    LNATTIDX: N/A
LTID:    FUNC      13
LTCLASS: BRAFS
LINE CLASS CODE: ISDNKSET
KEY:     1
CUSTGRP: COMKODAK  SUBGRP: 0  NCOS: 0  RING: Y
OPTIONS:
MSB
RAG PRK EBO SFC PROVLLC VBINFO CMDATA PROVCGS VBINFO
CMDATA CFU N $ I $ AFC AUD SCS FC 3 XFER CTALL DROP
CPU 0 FUNC 13 $
```

Example of the QDN command in no-prompt mode (querying a DN with the PROVLLC and PROVCGS options)

```
> QDN 7225040
```

Querying a DN with the ISDNAMA option

The following example shows the QDN command when it is used to query a DN with the ISDNAMA option.

QDN - Query directory number (continued)

Example of the QDN command in prompt mode (querying a DN with the ISDNAMA option)

```

>QDN
DIRECTORY_NUMBER
> 7225040
DN: 7225040
TYPE: SINGLE PARTY LINE
SNPA: 613 SIG: N/A LNATTIDX: N/A
LTID: FUNC 13
LTCLASS: BRAFS
LINE CLASS CODE: ISDNKSET
KEY: 1
CUSTGRP: COMKODAK SUBGRP: 0 NCOS: 0 RING: Y
OPTIONS:
MSB
RAG PRK EBO SFC ISDNAMA VBINFO ISDNGRP1 CMDATA ISDNGRP2
CFU N $ I $ AFC AUD SCS FC 3 XFER CTALL DROP
CPU 0 FUNC 13 $

```

Example of the QDN command in no-prompt mode (querying a DN with the ISDNAMA option)

```
>QDN 7225040
```

Querying a packet shared DN

The following example shows the output of the QDN command when it is used to query an ISDN packet shared DN.

QDN - Query directory number (continued)

Example of the QDN command (querying a packet shared DN)

```
> QDN 7227363
-----
DN:          7227363
CALLTYPE: VI
TYPE: PILOT OF DNH HUNT GROUP
SNPA: 613   SIG: N/A   LNATTIDX: N/A
HUNT GROUP: 101       HUNT MEMBER: 0
LTID: ISDN      763
LTCLASS: BRAFS
LINE CLASS CODE:   ISDNKSET
KEY: 3
CUSTGRP:          COMKODAK SUBGRP: 0 NCOS: 0 RING: Y
DNGRPS OPTIONS:
NETNAME: NETK2K
NAME:            KODAK7
OPTIONS:
MSB
RAG PRK LNR SFC EBO NAME NETK2K DNH
SCL 0 L50 CFU N $I $LVM CPU 0 ISDN 760 $FC 6 XFER CTALL DROP

GROUP OPTIONS:
CIR PILOT
MEMBER INFO:
  1          6137227463

CALLTYPE: PMD
TYPE: PILOT OF MLH HUNT GROUP
SNPA: 613   SIG: N/A   LNATTIDX: N/A
HUNT GROUP: 0       HUNT MEMBER: 0
LTID: PKT      999
LTCLASS: BRAFS
LINE CLASS CODE:   ISDNKSET
KEY: 1
CUSTGRP:          COMKODAK SUBGRP: 0 NCOS: 0 RING: N
OPTIONS:
NONE
GROUP OPTIONS:
RCVD
MEMBER INFO:
  1          6137227463
```

Default Service DNs

In the NA009 release, the Provisioning Support for Default Service feature modifies the QDN command output to identify Default Service DNs.

QDN - Query directory number (continued)

Default Service provides limited voice service for ISDN basic rate interface (BRI) lines in conditions when voice service is not otherwise available. As a minimum, Default Service works with regional Bell operating company (RBOC) test equipment supporting the voiceband information (VI) call type. The operating company can expand Default Service so that customers with voice terminals can call emergency, LEC repair, or service numbers. Each switch can have only one Default Service DN.

The following example shows the QDN command used to query a Default Service DN (621-1111).

Example of the QDN command in prompt mode (querying a Default Service DN)

```

> QDN
  DIRECTORY_NUMBER
> 6211111
DN:      6211111
TYPE: DEFAULT SERVICE DIRECTORY NUMBER ***RESERVED FOR
SPECIAL USAGE***
SNPA: 613  SIG: N/A  LNATTIDX: N/A
LINE EQUIPMENT NUMBER:      *****
LINE CLASS CODE:  NLCC
CARDCODE: NIL_CC  GND: Y  PADGRP: NPDGP  BNV: NL  MNO: Y
CARDTYPE:
DATA-ABOVE-VOICE MATE LINE: *****
DATA-ABOVE-VOICE MATE LINE: *****

```

Example of the QDN command in no-prompt mode (querying a Default Service DN)

```

> QDN 6211111
DN:      6211111
TYPE: DEFAULT SERVICE DIRECTORY NUMBER ***RESERVED FOR
SPECIAL USAGE***
SNPA: 613  SIG: N/A  LNATTIDX: N/A
LINE EQUIPMENT NUMBER:      *****
LINE CLASS CODE:  NLCC
CARDCODE: NIL_CC  GND: Y  PADGRP: NPDGP  BNV: NL  MNO: Y
CARDTYPE:
DATA-ABOVE-VOICE MATE LINE: *****
DATA-ABOVE-VOICE MATE LINE: *****

```

QDN - Query directory number (continued)

Querying a DN with the SLBRI option

The following example shows the QDN command used to display SLBRI information for the queried DN on an LTID. The QDN command output lists the SLBRI_LATTR (line attribute index) value in the SLBRI LATTR field.

Example of the QDN command in prompt mode (querying a DN with the SLBRI option)

```
> QDN
DIRECTORY_NUMBER:
> 7235101
DN:      7235101
TYPE: SINGLE PARTY LINE
SNPA: 613   SIG: N/A   LNATTIDX: N/A
LTID: ISDN 1
LTCLASS: BRAFS
LINE CLASS CODE: ISDNKSET
SLBRI LATTR: 3
KEY: 1
CUSTGRP:  BNR SUBGRP: 0  NCOS: 0 RING: Y
OPTIONS:
SFC VI $ $ N CMD BOTH $ $ N
CRBL 2 2 AFC 2
```

Example of the QDN command in no-prompt mode (querying a DN with the SLBRI option)

```
> QDN 7235101
```

Help information

The help query command can be used to determine the syntax of the QDN command, as illustrated below.

Example of help for the QDN command

```
CI:
>Q QDN
COMMAND QDN : QUERY DIRECTORY NUMBER
COMMAND FORMAT : QDN <DIRECTORY NUMBER>
```

QDN - Query directory number (continued)

Prompts

The system prompt for the QDN command is shown in the following table.

Input prompt for the QDN command

Prompt	Valid input	Explanation
DIRECTORY_ NUMBER	7 digits	The DN to be queried.

Notes

The following notes apply to the QDN command:

- Only the applicable information displays, depending on whether the DN is assigned and whether it is a hunt group of a multiple appearance directory number (MADN) group member.
- When the QDN command is entered, the following information displays:
 - the DN that is queried
 - the type of DN
 - the service numbering plan area (SNPA)
 - the LTID and group number
 - the line class code (LCC), which is always ISDNKSET
 - the activator key number (KEY)
 - the customer group information
 - the network class of service (NCOS)
 - MADN information (if applicable)
 - options assigned
 - hunt group information (DN TYPE = HUNT)
 - MADN member information (DN TYPE = MADN)
 - LTID associated group assignment (AGA) number and call type (if assigned)
- In the NA008 release, the ISDN Packet Shared DN feature (AF6777) enhances the QDN command when querying ISDN shared DNs. QDN output shows information about LTIDs sharing a DN with different call types and options.

Note: NA008 functionality affects only the output of QDN; there are no changes to the input parameters.

QDN - Query directory number (end)

- In the NA009 release, the BRI in RES feature enhances the QDN command to display SLBRI information for the queried DN on an LTID. The enhanced QDN command also displays the SLBRI_LATTR (line attribute index) value in the SLBRI LATTR field of the command output.
- In the NA009 release, this tool displays line option LSPAO.
- If the operating company enters a seven-digit DN and the office code exists in multiple SNPAs, the system will display an error message. A reprompt will occur.

QDNSU - Query software unassigned DNs

Description

The QDNSU command obtains a detailed or summary listing of all software unassigned directory numbers (DN).

Example

The following example shows the QDNSU command when it is used to obtain a summary listing of unassigned DNs. The range of DNs queried is 621-1050 through 621-1100. The type of treatment queried is ANCT (machine intercept).

Example of the QDNSU command in prompt mode

```

> QDNSU
  DIRECTORY_NUMBER_RANGE: ALL
> R
  FROM_DN:
> 6211050
  TO_DN:
> 6211100
  TREATMENT: UNDT
> ANCT
  SUMMARY_OR_DETAILS: S
> S
  COMMAND AS ENTERED
  QDNSU R 6211050 6211100 ANCT S
  ENTER Y TO CONFIRM, N TO REJECT OR E TO EDIT
> Y
  WARNING: QUERIES OF ALL DNS OR QUERIES OF A LARGE RANGE
  OF DNS MAY RUN FOR 30 MINUTES OR MORE BEFORE PRODUCING
  ANY OUTPUT

```

Example of the QDNSU command in no-prompt mode

```
> QDNSU R 6211050 6211100 ANCT S
```

Default Service DNs

In the NA009 release, the Provisioning Support for Default Service feature modifies the QDNSU command output to identify Default Service DNs.

The QDNSU command output includes the Default Service DN when the R (range of DNs) and D (detailed printout) options are specified.

QDNSU - Query software unassigned DNs (continued)

The command output omits the Default Service DN when the R and S (summary printout) options are specified.

The command output also omits the Default Service DN when the following options are specified:

- ALL (all DNs) option with D option
- ALL option with S option

Default Service provides limited voice service for ISDN basic rate interface (BRI) lines in conditions when voice service is not otherwise available. As a minimum, Default Service works with regional Bell operating company (RBOC) test equipment supporting the voiceband information (VI) call type. The operating company can expand Default Service so that customers with voice terminals can call emergency, LEC repair, or service numbers. Each switch can have only one Default Service DN.

The following example shows the QDNSU command used to obtain a detailed listing of unassigned DNs. The command queries a range of DNs from 621-1110 to 621-1120, and includes all treatment types. The command output identifies DN 621-1111 as a Default Service DN.

QDNSU - Query software unassigned DNs (continued)

Example of the QDNSU command in prompt mode

```
> QDNSU
DIRECTORY_NUMBER_RANGE: ALL
> R
FROM_DN:
> 6211110
TO_DN:
> 6211120
TREATMENT: UNDT
> (CR)
SUMMARY_OR_DETAILS: S
> D
COMMAND AS ENTERED
QDNSU R 6211110 6211120 UNDT 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 FROM 6211110 TO 6211120
6211110 BLDN
6211111 BLDN ***DEFSVC DN: RESERVED FOR SPECIAL USAGE***
6211112 BLDN
6211113 BLDN
6211114 BLDN
6211115 BLDN
6211116 BLDN
6211117 BLDN
6211118 BLDN
6211119 BLDN
6211120 BLDN
TOTAL COUNT OF UNASSIGNED DN FROM 6211110 TO 6211120: 10
```

QDNSU - Query software unassigned DNs (continued)

Example of the QDNSU command in no-prompt mode

```
> QDNSU R 6211110 6211120 UNDT D
COMMAND AS ENTERED
QDNSU R 6211110 6211120 UNDT 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 FROM 6211110 TO 6211120
6211110 BLDN
6211111 BLDN ***DEFSVC DN: RESERVED FOR SPECIAL USAGE***
6211112 BLDN
6211113 BLDN
6211114 BLDN
6211115 BLDN
6211116 BLDN
6211117 BLDN
6211118 BLDN
6211119 BLDN
6211120 BLDN
TOTAL COUNT OF UNASSIGNED DN FROM 6211110 TO 6211120: 10
```

Help information

The following example provides help information about the QDNSU command.

```
> HELP QDNSU
COMMAND QDNSU: QUERY DIRECTORY NUMBERS SOFTWARE
UNASSIGNED
COMMAND FORMAT:
QDNSU <DIRECTORY NUMBER RANGE><TREATMENT><SUMMARY OR
DETAIL>
```

QDNSU - Query software unassigned DNs (end)

Prompts

The system prompts for the QDNSU command are shown in the following table.

Input prompts for the QDNSU command

Prompt	Valid input	Explanation
DIRECTORY_ NUMBER_ RANGE	R, ALL, R nnnnnnn nnnnnnn	The range of DNs to be queried, where R prompts you to set a range, ALL queries every DN, and R and the two series of seven digits represent the starting and final DNs of the range to be queried.
FROM_DN	7 digits	First DN in a range (R) of DNs being queried.
TO_DN	7 digits	Last DN in a range (R) of DNs being queried.
TREATMENT	BLDN = blank DN ANCT = machine intercept TRBL = trouble intercept OPRT = operator intercept UNDT = all treatments	The type of treatment to be queried. The treatment type defaults to UNDT. Treatments are defined in the data schema section of the <i>Translations Guide</i> .
SUMMARY_OR_ DETAILS	S = summary printout (provides a total count of the DNs in the specified range) D = detailed printout (provides the same information as S, but individually lists the unassigned DNs)	The type of printout required. Defaults to S (summary printout).

Notes

If a detailed printout (D) is requested for a large range of DNs, 30 minutes or more processing time may be required before a printout is produced.

QDNWRK - Query working (assigned) DNs

Description

The QDNWRK command generates a detailed or summary printout of working (assigned) directory numbers (DN). When the user specifies an option, only DNs with that option are included in the output. When no option is specified (by entering "\$", the option default), all DNs in the specified range are included. Only one option or no option can be specified.

Example

The following sample output shows the enhanced QDNWRK output for Meridian Digital Centrex (MDC) lines. The sample output shows trigger group OFFICETRIG is provisioned as the office-wide trigger group. The second line (REM4 00 0 01 23) is an MDC line and a member of the customer group COMKODAK. The Advanced Intelligent Network (AIN) trigger group CUSTTRIG is subscribed for the customer group and the office-wide subscription.

QDNWRK - Query working (assigned) DNs (continued)

Example of the enhanced QDNWRK output for MDC lines

```

REPORT ON WORKING LINE EQUIPMENT NUMBERS
FROM      6137225031 TO      6137225032
          LCC ALL              OPTION ALL
-----
DN:       7225031
TYPE: SINGLE PARTY LINE
SNPA: 613  SIG: N/A  LNATTIDX: N/A
LINE EQUIPMENT NUMBER:  HOST 00 1 02 08
LINE CLASS CODE:  M5112 SET
KEY: 1
CUSTGRP:          COMKODAK SUBGRP: 0  NCOS: 0  RING: Y
CARDCODE: 6X21AC  GND: N  PADGRP: PPHON  BNV: NL MNO: Y
PM NODE NUMBER   :    74
PM TERMINAL NUMBER :    73
OPTIONS:
3WC MCH RAG PRK EBO
DND 1 CFU N $ I $ CFB N 25032 A $ CBI CFD N 25032 A $ CDI SCS AAB
CUSTOMER GROUP OPTIONS
ACTIVE UNIVERSAL FEATURES
IDND UNIVA
OFFICE OPTIONS:
AIN OFFICETRIG
-----
DN:       7225032
TYPE: SINGLE PARTY LINE
SNPA: 613  SIG: N/A  LNATTIDX: N/A
LINE EQUIPMENT NUMBER:  REM4 00 0 00 24
LINE CLASS CODE:  M5312 SET
KEY: 1
CUSTGRP:          COMKODAK SUBGRP: 0  NCOS: 0  RING: Y
CARDCODE: 6X21AC  GND: N  PADGRP: PPHON  BNV: NL MNO: Y
PM NODE NUMBER   :    81
PM TERMINAL NUMBER :    25
OPTIONS:
MCH EBO
DND 1
FTRGRP OPTIONS: PFGROUP1
AAB INSPECT MSB $ PRK RAG 3WC CFB P $ I $ CBI CFD P $ I $ CDI CFU N $ I $
PF USER GENERAL LANG ENGLISH SCS
CUSTOMER GROUP OPTIONS
ACTIVE UNIVERSAL FEATURES
IDND UNIVA
OFFICE OPTIONS:
AIN OFFICETRIG
-----
TOTAL COUNT OF WORKING DN FROM      6137225031 TO      6137225032:    2

```

The following examples show the prompting and command syntax for querying DNs using CM.

QDNWRK - Query working (assigned) DNs (continued)

CM SERVORD examples

The following examples show how to obtain a summary of assigned DNs using CM SERVORD. The range of DNs queried is 621-1200 through 621-1300. The LCC of DNs queried is 1FR. The DNs queried have the DGT option.

Example of the QDNWRK command in prompt mode

```

> QDNWRK
  DIRECTORY_NUMBER_RANGE: ALL
> R
  FROM_DN:
> 6211200
  TO_DN:
> 6211300
  AGENT OR LINE_CLASS_CODE: NLCC
> 1FR
  OPTION:
> DGT
  SUMMARY_OR_DETAILS: S
> S
  OPTION:
> $
  COMMAND AS ENTERED
QDNWRK R 6211200 6211300 AFR DGT$ S
  ENTER Y TO CONFIRM, N TO REJECT OR E TO EDIT
> Y
  WARNING: QUERIES OF ALL DNS OR QUERIES OF A LARGE RANGE
  OF DNS MAY RUN FOR 30 MINUTES OR MORE BEFORE PRODUCING
  ANY OUTPUT
  REPORT ON WORKING DIRECTORY NUMBERS
  FROM 6211200 TO 6211300
      LCC      1FR      OPTION      DGT
  TOTAL COUNT OF WORKING DN FROM 6211200 TO 6211300: 4

```

Example of the QDNWRK command in no-prompt mode

```
> QDNWRK R 6211200 6211300 1FR DGT S $
```

Default Service DNs

In the NA009 release, the Provisioning Support for Default Service feature modifies the QDNWRK command output to identify Default Service DNs.

QDNWRK - Query working (assigned) DNs (continued)

The QDNWRK command output includes the Default Service DN when the R (range of DNs) and D (detailed printout) options are specified.

The command output omits the Default Service DN when the R and S (summary printout) options are specified.

The command output also omits the Default Service DN when the following options are specified:

- ALL (all DNs) option with D option
- ALL option with S option

Default Service provides limited voice service for ISDN basic rate interface (BRI) lines in conditions when voice service is not otherwise available. As a minimum, Default Service works with regional Bell operating company (RBOC) test equipment supporting the voiceband information (VI) call type. The operating company can expand Default Service so that customers with voice terminals can call emergency, LEC repair, or service numbers. Each switch can have only one Default Service DN.

The following example shows the QDNWRK command used to obtain a detailed listing of working DNs. The command queries a range of DNs from 621-1110 through 621-1120, and includes all line class codes. The command output identifies DN 621-1111 as a Default Service DN.

QDNWRK - Query working (assigned) DNs (continued)

Example of the QDNWRK command in prompt mode

```
> QDNWRK
DIRECTORY_NUMBER_RANGE: ALL
> R
FROM_DN:
> 6211110
TO_DN:
> 6211120
AGENT OR LINE_CLASS_CODE: NLCC
> (CR)
OPTION:
> $
SUMMARY_OR_DETAILS: S
> D
COMMAND AS ENTERED
QDNWRK R 6211110 6211120 NLCC $ D
ENTER Y TO CONFIRM, N TO REJECT OR E TO EDIT
> Y
REPORT ON WORKING DIRECTORY NUMBERS
FROM 6136211110 TO 6136211120
      LCC ALL           OPTION ALL
-----
DN:      6211111
TYPE: DEFAULT SERVICE DIRECTORY NUMBER ***RESERVED FOR
SPECIAL USAGE***
SNPA: 613   SIG: N/A   LNATTIDX: N/A
LINE EQUIPMENT NUMBER: *****
LINE CLASS CODE:      NLCC
CARDCODE: NIL_CC   GND: Y   PADGRP: NPDGP   BNV: NL   MNO: Y
CARDTYPE:
DATA-ABOVE-VOICE MATE LINE: *****
DATA-ABOVE-VOICE MATE LINE: *****
-----
TOTAL COUNT OF WORKING DN FROM      6136211110 TO
6136211120:      0
```

QDNWRK - Query working (assigned) DNs (continued)

Example of the QDNWRK command in no-prompt mode

```

> QDNWRK R 6211110 6211120 NLCC $ D
COMMAND AS ENTERED
QDNWRK R 6211110 6211120 NLCC $ D
ENTER Y TO CONFIRM, N TO REJECT OR E TO EDIT
> Y
REPORT ON WORKING DIRECTORY NUMBERS
FROM 6136211110 TO 6136211120
   LCC ALL           OPTION ALL
-----
DN:      6211111
TYPE: DEFAULT SERVICE DIRECTORY NUMBER ***RESERVED FOR
SPECIAL USAGE***
SNPA: 613   SIG: N/A   LNATTIDX: N/A
LINE EQUIPMENT NUMBER: *****
LINE CLASS CODE:      NLCC
CARDCODE: NIL_CC   GND: Y   PADGRP: NPDGP   BNV: NL   MNO: Y
CARDTYPE:
DATA-ABOVE-VOICE MATE LINE: *****
DATA-ABOVE-VOICE MATE LINE: *****
-----
TOTAL COUNT OF WORKING DN FROM      6136211110 TO
6136211120:      0

```

The following examples show non-unique DNs submitted to query.

Note: The complete command must be re-entered with a ten-digit DN for NXX instances. Other SERVORD commands prompt to re-enter the ten-digit DN within the command. QDNWRK requires re-entry of the complete command with a ten-digit DN.

QDNWRK - Query working (assigned) DNs (continued)

Example of the QDNWRK command in prompt mode, duplicate NXX DNs

```
>QDNWRK
  DIRECTORY_NUMBER_RANGE: ALL
>R
  FROM_DN:
>6215000
  TO_DN:
>6216000
  AGENT OR LINE_CLASS_CODE: NLCC
>NLCC
  OPTION:
>SDN
  SUMMARY_OR_DETAILS: S
>D
  COMMAND AS ENTERED
  QDNWRK R 6215000 6216000 NLCC(SDN)$D
  ENTER Y TO CONFIRM, N TO REJECT OR E TO EDIT
>Y
  THIS LOCAL DN IS NOT UNIQUE: 6215000
  PLEASE USE THE FULL NATIONAL DN.
>
```

Example of the QDNWRK command in no-prompt mode, duplicate NXX DNs

```
>QDNWRK R 6215000 6216000 NLCC SDN $ D
```

Help information

The following example provides help information about the QDNWRK command.

```
> HELP QDNWRK
  COMMAND QDNWRK: QUERY WORKING DIRECTORY NUMBERS
  COMMAND FORMAT:
  QDNWRK <DIRECTORY NUMBER RANGE><LCC><OPTION><SUMMARY OR
  DETAIL>
```

QDNWRK - Query working (assigned) DNs (continued)

Prompts

The system prompts for the QDNWRK command are shown in the following table.

Input prompts for the QDNWRK command (Sheet 1 of 2)

Prompt	Valid input	Explanation
DIRECTORY_ NUMBER_RANGE	R, ALL, R nnnnnnnn nnnnnnnn where R prompts you to set a range, and ALL and A query every DN	The range of DNs to be queried.
FROM_DN	Up to 15 digits	First DN in a range (R) of DNs being queried.
TO_DN	Up to 15 digits	Last DN in a range (R) of DNs being queried.
AGENT OR LINE_CLASS_ CODE: NLCC	Refer to the "Line class code" table in Chapter 2 for a list of valid LCCs. Defaults to all line class codes (NLCC).	For CM SERVORD, the line class code of the service to be queried.

QDNWRK - Query working (assigned) DNs (continued)**Input prompts for the QDNWRK command (Sheet 2 of 2)**

Prompt	Valid input	Explanation
OPTION	<p>Refer to the "Line service options" table in Chapter 2 for a list of valid inputs. If one option is entered, only data on lines with the specified option is printed out.</p> <p>If a \$ character is entered, the printout includes all options. When the option is entered in the no prompt mode the option must be delimited by the \$ character.</p>	QDNWRK and QLENWRK commands only.
SUMMARY_OR_DETAILS	<p>S = Specifies a summary printout. Produces a total count of the DNs or LENs being queried.</p> <p>D = Specifies a detailed printout. Provides the same information as S, plus other details, including:</p> <ul style="list-style-type: none"> • DN queried • type of DN • LEN associated with the DN • LCC or ACC • signaling type • line attribute index • line inventory data • option information <p>Defaults to S.</p>	The type of printout required.

QDNWRK - Query working (assigned) DNs (end)

Notes

The following notes apply to the QDNWRK command:

- A working DN is a DN that has an line equipment number (LEN) associated with it or assigned to it. DNs that are software assigned but do not have an intercept or are not associated with a DN are not displayed.
- If a user requests a detailed (D) printout for a large range of DNs, 30 minutes or more processing time may be required before a printout is produced.
- Enter only one option.
- In no-prompt mode, enter a \$ character after the option.
- In the NA008 release, the AIN Enhancements to QLEN/QDN feature (AU2366) adds the following additional functionality to QDNWRK:
 - ability to display the AIN trigger group subscribed for the office
 - ability to display AIN trigger group assignments for the customer group line

Note: AIN is the only option that appears in the customer group options list. This does not indicate that other options are not subscribed to the queried customer group line.

NA008 Enhancements enable command QDNWRK to display office-wide and customer group-wide AIN subscriptions that apply to the queried line or lines. When the queried line is not supported for originating or terminating triggers, the AIN subscriptions are not displayed.

NA008 functionality affects only the output of QDNWRK. There are no changes to the input parameters.

QGRP - Query group

Description

The QGRP (query group) command produces a printout of all the members or controller of a specified group. Valid entries include Call Pickup (CPU) groups, ISDN Automatic Message Accounting (ISDNAMA) groups, and Speed Calling User (SCU) groups.

For NA008, ISDN Packet Shared DN (AF6777) enhances the QGRP command to provide information on shared directory numbers (DN). With ISDN Packet Shared DN, a single DN can be assigned to both a voiceband information/circuit mode data (VI/CMD) call type and a packet mode data (PMD) call type. For shared DNs, the QGRP command displays information about both hunt groups and call types.

Note: ISDN Packet Shared DN only affects the output of QGRP when issued to hunt groups. If the QGRP command is issued to a MADN group there is no change in the displayed information.

Example

The following examples show the various uses of the QGRP command and applicable parameters.

Querying call pickup group ISDN 1

The following example shows the QGRP command when it is used to display CPU group ISDN 1.

Example of the QGRP command in prompt mode

```
> QGRP
GRP_TYPE:
> CPU
LEN_OR_LTID:
> ISDN 1
LINKLEN ISDN 1 KEY 1      7221212
          ISDN 1 KEY 2      7221214
          ISDN 2 KEY 1      7221216
          ISDN 3 KEY 1      7221218
          ISDN 4 KEY 1      7221220
The number of members in the CPU GROUP is 5.
```

Example of the QGRP command in no-prompt mode

```
>QGRP CPU ISDN 1
```


QGRP - Query group (continued)**Querying an intercom group for ISDN LTIDs**

The following example shows the QGRP command when it is used to display a group intercom (GIC) that contains ISDN LTIDs.

Example of the QGRP command in prompt mode

```

> QGRP
GRP_TYPE:
> GIC
LEN_OR_LTID:
> NTI 4
KEY:
> 5

GIC GROUP
-----

HOST      00  0  12  06      KEY 5  MEMBER 04
NTI              25      KEY 5  MEMBER 25
NTI              35      KEY 5  MEMBER 35
NTI              45      KEY 5  MEMBER 45
NTI              55      KEY 5  MEMBER 55
NTI              65      KEY 5  MEMBER 65
NTI              75      KEY 5  MEMBER 75
NTI              10      KEY 5  MEMBER 10
NTI              20      KEY 5  MEMBER 20
MTI              30      KEY 5  MEMBER 30
NTI              40      KEY 5  MEMBER 40
NTI              50      KEY 5  MEMBER 50
NTI              60      KEY 5  MEMBER 60
NTI              70      KEY 5  MEMBER 70

The number of members in the GIC GROUP NTIGIC is 14

```

Example of the QGRP command in no-prompt mode

```
> QGRP GIC NTI 40 5
```

Querying a speed calling user group

The following example shows the QGRP command when it is used to display an SCU group.

QGRP - Query group (continued)

Example of the QGRP command in prompt mode

```
> QGRP
GRP_TYPE:
> SCU
LEN_OR_LTID:
> FUNC 1
CONTROLLER: ISDN 1
The number of members in the SCU GROUP is 1.
```

Example of the QGRP command in no-prompt mode

```
> QGRP SCU FUNC 1
```

Querying ISDN signaling capabilities by specifying a DN

The following example shows the QGRP command when it is used to query ISDN signaling capabilities. A brief response is requested.

Example of the QGRP command in prompt mode

```
> QGRP
GRP_TYPE:
> ISDNAMA
DN_LTID_OR_ISDNAMA_GRP:
>6215910 BRIEF
ISDNAMA INFORMATION

DN          CT          GROUP NAME
6215910    VBINFO        DECKER
6215910    CMDATA        ILK
The number of members in the ISDNAMA GROUP is 2.
```

Example of the QGRP command in no-prompt mode

```
>QGRP ISDNAMA 6215910 BRIEF
```

Querying ISDN signaling capabilities by specifying an LTID

The following example shows the QGRP command when it is used to query ISDN signaling capabilities. A full response is requested.

QGRP - Query group (continued)

Example of the QGRP command in prompt mode

```

>QGRP
GRP_TYPE:
>ISDNAMA
DN_LTID_OR_ISDNAMA_GRP:
>6215910 FULL
ISDNAMA INFORMATION

DN      CT      GROUP NAME      SERVICES
6215910 VBINFO      DECKER      (CGS) (CDS) $
6215910 CMDATA      ILK
The number of members in the ISDNAMA GROUP is 2.

```

Example of the QGRP command in no-prompt mode

```
>QGRP ISDNAMA 6215910 FULL
```

Querying ISDN signaling capabilities by specifying a group

The following example shows the QGRP command when it is used to query ISDN signaling capabilities. A full response is requested.

Example of the QGRP command in prompt mode

```

> QGRP
GRP_TYPE:
>ISDNAMA
DN_LTID_OR_ISDNAMA_GRP
>DECKER FULL
ISDNAMA GROUP

NAME:      DECKER
SERVICES:  (CGS) (CDS) $

DN      CT
613 621 5910  VBINFO
613 621 5911  VBINFO
613 621 5931  VBINFO
613 621 5931  CMDATA
The number of members in the ISDNAMA GROUP is 4.

```

QGRP - Query group (continued)

Example of the QGRP command in no-prompt mode

```
>QGRP ISDNAMA DECKER FULL
```

Querying ISDN shared DN by specifying a HNT group

The following sample output is of the QGRP command using the HNT option after the implementation of feature AF6777. The DN is shared with terminals using call types voice information (VI) circuit mode data (CMD) and packet mode data (PMD). When the QGRP HNT command is issued with the directory number (DN), the members of both hunt groups are displayed whether the DN is a pilot or member. The QGRP command issued with LTID would display only the hunt group associated with the key.

Example of Enhanced QGRP Output with HNT option

```
>qgrp hnt 7227354

CALLTYPE: VI
DNH HUNT GROUP #100
-----
PILOT:      ISDN      754      KEY 3 DN 7227354
           ISDN      754      KEY 4 DN 7227454
HUNT options <CIR> apply to this HUNT GROUP.
The number of members in the HUNT GROUP is 2.

CALLTYPE: PMD
MLH HUNT GROUP #1
-----
PILOT:      PKT       998      KEY 1 DN 7227354
           PKT       999      KEY 1 DN 7428998

No HUNT options apply to this HUNT GROUP.
The number of members in the HUNT GROUP is 2.
```

Example of the QGRP HNT command in no-prompt mode

```
>QGRP HNT 7227354
```

Help information

The help query command can be used to determine the syntax of the QGRP command, as illustrated below.

QGRP - Query group (continued)**Example of help for the QGRP command**

```

CI:
>Q QGRP
QGRP CPU <LINE EQUIPMENT NUMBER>
QGRP SCU <LINE EQUIPMENT NUMBER>
QGRP QBS <LINE EQUIPMENT NUMBER> <KEY>
QGRP MDN <DIRECTORY NUMBER OR LINE EQUIPMENT NUMBER> <KEY>
QGRP GIC <LINE EQUIPMENT NUMBER> <KEY>
QGRP HNT <DIRECTORY NUMBER OR LINE EQUIPMENT NUMBER> <KEY>
QGRP KSH <DIRECTORY NUMBER OR LINE EQUIPMENT NUMBER>
QGRP FTRGRP <DIRECTORY NUMBER OR LINE EQUIPMENT NUMBER OR FEATURE GROUP>
<BRIEF_OR_FULL>
QGRP GIAC <LINE EQUIPMENT NUMBER> <KEY>
QGRP FTRKEYS < FEATURE TEMPLATE >
QGRP ISDNAMA <DIRECTORY NUMBER OR LOGICAL TERMINAL ID OR ISDNAMA GROUP>
<BRIEF_OR_FULL>
QGRP RESSCU <LINE EQUIPMENT NUMBER> (USED FOR RES LINES)

```

Prompts

The following table lists the input prompts for the QGRP command.

Input prompts for the QGRP command

Prompt	Valid input	Explanation
DN_LTID_OR_I SDNAMA_GRP	Refer to DIRECTORY_ NUMBER, LTID, and ISDNAMA_GRP in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	The DN, LTID, or ISDNAMA group.
GRP_TYPE	CPU, SCU, ISDNAMA, MDN, GIC, HNT, KSH, RESSCU, FTRGRP, FTRKEYS, OBS, GIAC	The type of group to be queried.
LEN_OR_LTID	Refer to LEN_OR_LTID in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	The LTID associated with a service to be established, modified, or deleted.

QGRP - Query group (end)

Notes

When the QGRP command is entered, the following information is displayed:

- the LTID of the link and the key number
- the LTID of the members and the key numbers

QIT - Query ISDN terminals

Description

The QIT command displays packet provisioning information for terminals on the Data Packet Network (DPN) packet handler (PH). These logical terminal identifiers (LTID) are defined in table PHINFO. The QIT command is the primary command for packet-switched service with the DPN PH. Use the QLT (query logical terminal) command for circuit-switched service.

If an LTID is provisioned on the DMS PH, an entry will not exist for it in table PHINFO. The QIT command generates an error message if it is used to query logical terminals connected to the DMS PH.

Example

The following examples show the various uses of the QIT command and applicable parameters.

Querying a circuit-switched service

The following is an example of the QIT command. This example shows the QIT command when it is used to query a circuit-switched service.

QIT - Query ISDN terminals (continued)

Example of the QIT command in prompt mode

```
> QIT
Enter: LTGRP
> ISDN
Enter: LTNUM [PARAMETER_TYPE] [OUTPUT_FORMAT]
> 645 CS
LTID: ISDN 645
DPN GROUP NO: 5
LTCLASS: BRAFS
EKTS: N CACH:N
SLBRI: N
BEARER SERVICES ALLOWED: VOICE DEFAULT LOGICAL TERMINAL:N
CS: Y PS: N
ELN: N
VERSION:
TSPID:
LEN: HOST 00 00 00 03 TEI: DYNAMIC
GROUP: COMKODAK SUBGRP: 0 NCOS:0
LINE CLASS CODE: ISDNKSET
MAXKEYS: 25
OPTIONS:
RLS EBO SFC AFC 3WC
  KEY      DN
  ---      --
  1        DN          7221234

  KEY      FEATURE
  ---      -
  2        AFC
  3        AFC
  6        EBO
  11       3WC
  24       RLS
```

Example of the QIT command in no-prompt mode

```
> QIT ISDN 645 CS
```

Querying a packet-switched service

The following example shows the QIT command when it is used to query a packet-switched service. A brief response is requested.

QIT - Query ISDN terminals (continued)

Example of the QIT command in prompt mode

```
> QIT
Enter: LTGRP
> ISDN
Enter: LTNUM [PARAMETER_TYPE] [OUTPUT_FORMAT]
> 73 DC BRIEF
LTID: ISDN 73
DPN GROUP NO: 1
LTCLASS: BRAFS
CS: Y PS: D
DCH: 5 DCH Bd CHANNEL: 25
LEN: HOST 40 01 22 00 TEI: 1
STATUS: OK CONNTYPE: ATT
DS1: LTCI 4 3 4
AM: AM3 PI: 3 PORT: 1

DC
—
ORIGDNA: 01101320 RESPDNA: 01101370
ORIGLCN: 7 TPTSEND: 3 TPTRECV: 3
PKTSEND: 128
PKTRECV: 128 RPOAFAX Y RPOADNIC: 839
```

Example of the QIT command in no-prompt mode

```
> QIT ISDN 73 DC BRIEF
```

Querying an ISDN terminal for SLBRI

The following example shows the QIT command when it is used to display SLBRI (single-line BRI) information for an ISDN terminal.

QIT - Query ISDN terminals (continued)

Example of the QIT command in prompt mode

```
> QIT
Enter: LTGRP
> NI2
Enter: LTNUM
> 1
LTID: NI2      1
SNPA: 613
DIRECTORY NUMBER: 7235101
LT GROUP NO: 15
LTCLASS:  BRAFS      DEFAULT LOGICAL TERMINAL: N
EKTS:  N   CACH:  N
SLBRI:  Y
CS: NI2 PS: N
ELN: N
VERSION: FUNCTIONAL  ISSUE: 2
LEN: HOST 01 1 14 02  TEI: DYNAMIC
CUSTGRP:      BNR SUBGRP: 0  NCOS: 0  RING: Y
LINE CLASS CODE: ISDNKSET
MAXKEYS: 64
OPTIONS:
SFC VI $ $ N CMD BOTH $$  N KSMOH
ACOU 2 2 CRBL 3 3

  KEY      DN
  ---      --
    1      DN      7235101

  KEY      FEATURE
  ---      -
    1      ACOU 1 1
    1      CRBL 3 3
    1      DBC DBC_SP
    2      AFC DBC_SP
    3      AFC DBC_SP
    24     RLS
```

Example of the QIT command in no-prompt mode

```
> QIT NI2 1
```

QIT - Query ISDN terminals (continued)

Help information

The help query command can be used to determine the syntax of the QIT command, as shown in the following example.

Example of help for the QIT command

```

CI:
> Q QIT
COMMAND: Query ISDN Terminal
Parms: <LTGRP> STRING
       <LTNUM> {1 TO 1022}
       [<PARAMETER TYPE>... {CS,
                             PS,
                             LINK,
                             DNA,
                             DC,
                             PVC,
                             CUG}]
       [<OUTPUT FORMAT> {BRIEF}]

```

Prompts

The system prompts for the QIT command are shown in the following table.

Input prompts for the QIT command (Sheet 1 of 2)

Prompt	Valid input	Explanation
LTGRP	1 to 8 alphanumeric digits	The logical terminal group.
LTNUM	1 to 1022	The logical terminal number.
OUTPUT_FORMAT	BRIEF, FULL	The output format of the command.

QIT - Query ISDN terminals (continued)**Input prompts for the QIT command (Sheet 2 of 2)**

Prompt	Valid input	Explanation
PARAMETER_ TYPE	CS, PS, DC, PVC, DNA, CUG	<p>The parameters to display. Enter one of the following values:</p> <ul style="list-style-type: none"> • none - parameter_type is omitted to specify that all appropriate parameters and their values are displayed for packet-switched service. The default value is none. • CS - to display all circuit-switched parameters and their values, including the parameters common to all service types • PS - to display all packet-switched parameters and their values, including the parameters common to all service types <p>The parameters to display (continued). Enter one of the following values:</p> <ul style="list-style-type: none"> • DC - to display only the direct-call parameters and their values, including the parameters common to all service types • PVC - to display the permanent-virtual-circuit parameters and their values, including the parameters common to all service types • DNA - to display only the data-network-address parameters and their values, including the parameters common to all service types • CUG - to display only the closed-user-group parameters and their values, including the parameters common to all service types

QIT - Query ISDN terminals (end)

Notes

When the QIT command is entered, the following information is displayed for all service types:

- LTID
- LT group and LTCLASS of the terminal
- access services provided by the terminal
- number of the ISG and DCH, and the ISG Bd channel number associated with the terminal
- LEN and TEI

For circuit-switched service, the QIT display includes the following:

- bearer service restrictions
- EKTS information
- maximum number of keys
- hunt of MADN group information

For packet-switched service, the QIT display includes the following:

- line status and connection information
- the DS-1 link to the packet handler
- packet handler termination data: the AM number, and the PI slot and port in the AM

In the NA009 release, the BRI in RES feature enhances the QIT command to display SLBRI information for the queried ISDN terminal.

QLEN - Query line equipment number

Description

The QLEN command produces a printout of line data related to a specified line equipment number (LEN). In NA0008 additional information is displayed when querying LENs attached to National ISDN 2 (NI-2) terminals with two B-channels and one D-channel (2BD) capability.

Example

The following examples show the various uses of the QLEN command and applicable parameters.

Querying an ISDN LEN with no logical terminal

The following example shows the QLEN command when it is used to query an ISDN LEN with no logical terminal.

Example of the QLEN command in prompt mode

```
> QLEN
DN OR LEN:
> 0 0 0 3
LEN:  HOST 0 0 0 3
DCH:  10
CARDCODE: 8X73AA  PADGRP: NPAD
PM NODE NUMBER:      81
PM TERMINAL NUMBER:  09
```

Example of the QLEN command in no-prompt mode

```
> QLEN 0 0 0 3
```

Querying an ISDN LEN

The following example shows the QLEN command when it is used to query an ISDN LEN to list all logical terminal identifiers (LTID) associated with the LEN. In NA0008 additional information is displayed when querying LENs attached to National ISDN 2 (NI-2) terminals with two B-channels and one D-channel (2BD) capability.

QLEN - Query line equipment number (continued)

Example of the QLEN command in prompt mode

```

> QLEN
DN OR LEN:
> 21 1 9 0
LEN: HOST 22 0 13 3
ISG:2 DCH:19 ISG BRA CHANNEL:16
CARDCODE: BX27AA PADGRP: NPDGP
PM NODE NUMBER: 37
PM TERMINAL NUMBER: 212

TEI      LTID      CS  PS  BCH/DCH Bd
----      -
1        ISDN 15    Y  D   30
USER     ISDN 16    Y  D   -
2        ISDN 103  N  D   0
3        ISDN 104  N  D   0
4        ISDN 105  N  D   0
DYNAMIC                      NI2 200 NI2 D ISG Bd: 28

```

Example of the QLEN command in no-prompt mode

```
> QLEN 21 1 9 0
```

Querying a LEN associated with an NI-2 LTID

The following example shows the QLEN command when it is used to query a LEN associated with a National ISDN 2 (NI-2) LTID.

Example of the QLEN command in prompt mode

```

> QLEN 1 0 0 4
-----
LEN: HOST 01 0 00 04
ISG: 0 DCH: 0 ISG BRA CHANNEL: 1
CARDCODE: BX27AA PADGRP: NPDGP
PM NODE NUMBER: 34
PM TERMINAL NUMBER: 5

TEI      LTID      CS  PS  BCH/ISG Bd
----      -
DYNAMIC ISDN 802  NI2 N   -

```

QLEN - Query line equipment number (continued)

Example of the QLEN command in no-prompt mode

```
> QLEN 1 0 0 4
```

Help information

The help query command can be used to determine the syntax of the QLEN command, as illustrated below.

Example of help for the QLEN command

```
CI :  
> Q QLEN  
COMMAND QLEN : QUERY LINE EQUIPMENT NUMBER  
COMMAND FORMAT :  
QLEN <DN_LEN_TYPE>
```

Prompts

The following table lists the input prompt for the QLEN command.

Input prompt for the QLEN command

Prompt	Valid input	Explanation
DN_OR_LEN	Refer to DN or LEN_OR_LTID in table Prompts in the "Service order tables" section of this manual for information on valid inputs.	Enter the line's DN or LEN.

Notes

- Only the applicable information is printed out, depending on whether the LEN is assigned or not.
- If the DN of a distributed line hunt (DLH) or multiline hunt (MLH) group is specified, the LEN information output is that of the pilot member. If the

QLEN - Query line equipment number (end)

DN is of a multiple appearance directory number (MADN), the output is that of the primary member.

- When the QLEN command is entered, the following information is displayed:
 - LEN
 - DCH (D-channel handler) associated with the line
 - DCHBRA channel—the TDM BRI channel number on the DCH which carries the D-channel messages for that line
 - card information (CARDCODE, PADGRP)
 - peripheral module node number
 - peripheral module terminal number
 - number of nailed-up B-channels
 - terminal endpoint identifiers (TEI) and corresponding LTID

Note: The TEI field displays the TEI value for static TEIs, DYNAMIC for dynamic TEIs, or USER for user-assigned dynamic TEIs.

- access services provided by the LT, where
 - CS is circuit switching

Note: A CS value of NI2 indicates that the logical terminal is NI-2 compliant.

- PS is packet switching
- B-channel number or DCH Bd channel number (packet data)

QLOOP - Query an ISDN line

Description

The QLOOP command displays all LTIDs, DNs, and TEIs associated with a posted ISDN line. For B-channel packet terminals, the specific B channel is displayed rather than the TEI.

The QLOOP command is available at the LTPISDN level of the maintenance and administration position command interpreter (MAPCI). To access the LTPISDN level, type the following command at a MAP terminal:

```
>MAPCI ;MTC ;LNS ;LTP ;LTPISDN
```

At the LTPISDN level of the MAP, you must post an ISDN line before executing the QLOOP command. To post a line, enter the following:

```
>POST L site frame_no shelf_no logical_drawer_no  
line_circuit_no
```

Once you have posted a line, use the QLOOP command to display the information for that line.

Example

The following example shows how to access the LTPISDN level of the MAPCI, post a line, and use the QLOOP command used to query ISDN line HOST 67 1 1 21.

QLOOP - Query an ISDN line (continued)**Example of the QLOOP command in prompt mode**

```

>MAPCI;MTC;LNS;LTP;LTPISDN

LTPISDN
  POST          DELQ          BUSYQ          PREFIX

  LCC PTY RNG  ....LEN.....  DN   STA F S LTA  TE  RESULT

LTPISDN:

>

>POST L HOST 67 1 1 21

LTPISDN
  POST          DELQ          BUSYQ          PREFIX

  LCC PTY RNG  ....LEN.....  DN   STA F S LTA  TE  RESULT
  ISDN LOOP   HOST 67 1 01 21   742 8038 LO

  POST L HOST 67 1 1 21

>

>QLOOP

QLOOP
  LTID          TEI   ASSOCIATED DNs
  =====
  PKT 38        1   742 8038
  PKT 39        2   742 8039
  PKT 11        *B1* 742 8011

```

Example of the QLOOP command in no-prompt mode

```

>MAPCI;MTC;LNS;LTP;LTPISDN;POST L HOST 67 1 1 21;QLOOP

```

Help information

The help query command can be used to determine the syntax of the QLOOP command, as illustrated below. In this example, the help query command was entered on the command line at the LTPISDN level of the MAP.

QLOOP - Query an ISDN line (end)

Example of help for the QLOOP command

Q QLOOP
The QLOOP command will perform a query on the ISDN loop in the control position and will display all LTIDs, TEIs, and DNSs associated with it. There is only one command syntax for the QLOOP command.

The QLOOP command is only valid for the following terminals: ISDN lines

To view a QLOOP syntax, POST a terminal the QLOOP command is valid for.

>Q QLOOP

Prompts

There are no prompts for the QLOOP command.

Notes

There are no notes for this command.

QLT - Query logical terminal

Description

The QLT command queries a logical terminal. Use the QIT (Query ISDN terminal) command for packet-switched service. Refer to QLT-Query ISDN Terminals in this document.

In NA014, feature 59013267, On-demand B-channel X.25 Packet Mode Data—Provisioning, Data Distribution Manager, and XLIU enhanced the QLT command so that the QLT command display includes call type PMD-ODB.

In NA012, feature 59006435, Echo Station X.25 Loopback Testing, enhanced the QLT command so that the QLT display for an Echo Station LTID shows the XSG to which the Echo Station LTID is mapped instead of a line equipment number (LEN).

In NA011, feature AF7585, PRI with Semipermanent Packet, provides X.25 primary rate B-channel packet services to meet National ISDN 2 (NI-2) requirements. This feature allows operating company personnel to assign a B-channel on the PRI T1 link from the customer premises equipment (CPE) to the packet handler.

In NA011, feature AF7485, DN Call Appearance Key Independence, improved the QLT command. With this feature, the QLT command displays the Number of DN Appearances (NDNAP) value for the LTID on an NI-2 terminal. The NDNAP value does not apply to Multiple Appearance Directory Number (MADN) DNs.

In NA009, feature AF7240, Automated SPID and Free Format SPID, enhanced the QLT command. The QLT command includes the Free Format Terminal Service Profile Identifier (TSPID) value for initializing Basic Rate Interface Functional Signaling (BRIFS) logical terminal identifiers (LTID).

In NA009, feature AF7198, BRI in RES, enhanced the QLT command to display SLBRI (single-line BRI) information for the queried LTID.

In NA008, feature AF6782, ISDN Packet Single DN, enhanced the QLT command. With ISDN Packet Single DN, the QLT command displays additional information about circuit-switched (CS) and packet-switched (PS) services and their associated keys when they share a single DN on a terminal. CS services indicate voiceband information (VI) or circuit mode data (CMD) or both, and packet service indicates packet mode data (PMD). In addition, the QLT command with AF6782 displays customer group information for the PMD call type that is associated with the single DN.

QLT - Query logical terminal (continued)

Example

The following examples show the various uses of the QLT command and applicable parameters.

Query on an X.25 PRI LTID

The following example shows the QLT command when operating company personnel use it to query an X.25 PRI LTID.

Example of the QLT command in prompt mode

```
> QLT
ENTER: LTGRP
> PKT
ENTER: LT NUM
> 5
LTID: PKT    5
SNPA: 613
DIRECTORY NUMBER: 5551105
LT GROUP NO: 8
LTCLASS: BRAFS DEFAULT LOGICAL TERMINAL: N
EKKTS: N CACHL N
CS: N PS: B
DSO:LTC 1 3 1
CUSTGRP: LONS634 SUBGRP: 0 NCOS: 0 RING: N
LINE CLASS CODE: ISDNKSET
MAXKEYS: 12
OPTIONS:
  NONE

  KEY   DN
  --   --
    1   DN   6135551105

  KEY   FEATURE
  --   -
  NONE
```

Example of the QLT command in no-prompt mode

```
> QLT PKT 5
```

QLT - Query logical terminal (continued)

Query an unattached logical terminal

The following example shows the QLT command when it is used to query unattached logical terminal ISDN 99.

Example of the QLT command in prompt mode

```
> QLT
Enter: LTGRP
> ISDN
Enter: LTNUM
> 99
LTID: ISDN 99
LT GROUP NO: 0
LTCLASS: BRAFS
CS: Y PS: D TEI: USER
```

Example of the QLT command in no-prompt mode

```
> QLT ISDN 99
```

Query an attached logical terminal with CS service

The following example shows the QLT command when it is used to query logical terminal ISDN 15, which provides circuit switching.

QLT - Query logical terminal (continued)**Example of the QLT command in prompt mode**

```

> QLT
Enter: LTGRP
> ISDN
Enter: LTNUM
> 15
LTID: ISDN 15
SNPA: 613
DIRECTORY NUMBER: 5211010
LT GROUP NO: 0
LTCLASS: BRAFS
DEFAULT LOGICAL TERMINAL :N
EKTS: Y CACH: Y
SLBRI:N
BEARER SERVICE ALLOWED: VBD
CS: Y PS: N
VERSION: FUNCTIONAL ISSUE: 0
LEN: HOST 22 0 13 03 TEI: USER
CUSTGRP: ISDNTATS1 SUBGRP: 0 NCOS: 0 RING: Y
LINE CLASS CODE: ISDNKSET
MAXKEYS: 64
OPTIONS:
SFC
    KEY          DN
    ---          --
    1            DN 6135211010
    KEY          FEATURE
    ---          -
    24          RLS

```

Example of the QLT command in no-prompt mode

```
> QLT ISDN 15
```

Query an attached logical terminal with CS and PS service on a single DN

The following example shows the QLT command when it is used to query logical terminal ISDN 15, which provides circuit-switched VI and packet-switched PMD service on the same DN but on separate keys on a terminal.

QLT - Query logical terminal (continued)

Example of the QLT command in prompt mode

```

> QLT
Enter: LTGRP
> ISDN
Enter: LTNUM
> 15
LTID: ISDN 15
SNPA: 613
DIRECTORY NUMBER: 5211010
LT GROUP NO: 0
LTCLASS: BRAFS DEFAULT LOGICAL TERMINAL: N
EKTS: Y CACH: Y
SLBRI: N
BEARER SERVICE RESTRICTIONS: N/A
CS: Y PS: N
VERSION: FUNCTIONAL ISSUE: 2
SLBRI: N
SPID-SUFFIX: 04
LEN: HOST 22 0 13 03 TEI: DYNAMIC
CUSTGRP: ISDNTATS1 SUBGRP: 0 NCOS: 0 RING: Y
LINE CLASS CODE: ISDNKSET
MAXKEYS: 64
OPTIONS:
SFC RAG PRK LNR
  KEY      DN      CALLTYPE
  ---      --
  1        DN      6135211010 VI
  3        DN      6135211010 PMD
PMD CUSTGRP: ISDNTATS1: SUBGRP: 0 NCOS: 0 RING: 0
  KEY      FEATURE
  ---      -
  1 AFC
  1 AUD N STD

```

Example of the QLT command in no-prompt mode

```
> QLT ISDN 15
```

Query an attached logical terminal with B-channel packet switching

The following example shows the QLT command when it is used to query logical terminal ISDN 101, which provides B-channel packet switching.

QLT - Query logical terminal (continued)

Example of the QLT command in prompt mode

```
> QLT
Enter: LTGRP
> ISDN
Enter: LTNUM
> 101
LTID: ISDN 101
SNPA: 613
DIRECTORY NUMBER: 7428101
LT GROUP: 8
LTCLASS: BRAFS DEFAULT LOGICAL TERMINAL: N
EKTS:N CACH: N
CS: N PS: B
BCH: B1
LEN: HOST 0 0 0 4 TEI: 4
  KEY      DN
  ---      --
    1      DN      6137428101
```

Example of the QLT command in no-prompt mode

```
> QLT ISDN 101
```

Query an attached functional logical terminal

The following example shows the QLT command when it is used to query a functional logical terminal.

QLT - Query logical terminal (continued)**Example of the QLT command in prompt mode**

```

> QLT
Enter: LTGRP
> ISDN
Enter: LTNUM
> 160
LTID: ISDN 160
SNPA: 705
DIRECTORY NUMBER: 9683142
LT GROUP NO: 0
LTCLASS: BRAFS DEFAULT LOGICAL TERMINAL:N
EKTS: Y CACH: N
SLBRI:N
BEARER SERVICE ALLOWED: VOICE
CS: Y PS: N
VERSION: FUNCTIONAL ISSUE: 1
SPID-SUFFIX: 13
LEN: HOST 07 0 21 06 TEI: DYNAMIC
LINE CLASS CODE: ISDNKSET
MAXKEYS: 32
OPTIONS:
RAG PRK EBO MSB $ SFC NAME S1705IBN ISDN160 + (CR)

CFU Y 3143 I 1 CPU 0 ISDN 154 1 FC 6 PRL PVR XFER CTALL
DROP

```

KEY	DN			
1	DN	7059683142		
3	MDN	7059683190	SCA	PRIMARY
8	GIC	1	GROUP1	SMDR

KEY	FEATURE				
1	AFC				
7	ICM ISDN 161	7	Y	Y	
15	CFU Y				3143 I 1
16	CPU 9 ISDN	154		1	
17	FC 6				
18	MSB \$				
19	EBO				
20	RAG				
21	PRL				
22	PRV				
23	PRK				
26	XFER				CTALL
27	DROP				

QLT - Query logical terminal (continued)

Example of the QLT command in no-prompt mode

```
> QLT ISDN 160
```

Query an Echo Station LTID

The following example shows the QLT command when it is used to query an Echo Station LTID.

Example of the QLT command in prompt mode used on Echo Station LTID

```
>QLT
ENTER:LTGRP
>CGP
ENTER:LT NUM
>401
LTID:CGP 401
SNPA:919
DIRECTORY NUMBER:7545401
LT GROUP:6
LTCLASS:BRAFS DEFAULT LOGICAL TERMINAL:N
EKTS:N CACH:N
SLBRI:N
CS:N PS:B
XSG:100 ECHO STATION
CUSTGRP: CGP SUBGRP:0 NCOS:1 RING:N
LINE CLASS CODE:ISDNKSET
MAXKEYS:18
OPTIONS:
NONE

KEY      DN
---      --
1        DN      9197545401
```

Example of the QLT command in no-prompt mode used on Echo Station LTID

```
>QLT CGP 401
```

Query an attached MFT logical terminal

The following example shows the QLT command when it is used to query a Meridian feature transparency (MFT) terminal.

QLT - Query logical terminal (continued)

Example of the QLT command in prompt mode

```

> QLT
Enter: LTGRP
> MFT
Enter: LTNUM
> 10
LTID: MFT 10
SNPA: 613
DIRECTORY NUMBER: 7224950 (NON-UNIQUE)
LT GROUP NO: 3
LTCLASS: BRAMFT
CS: Y PS: N TEI: STATIC
CUSTGRP: COMKODAK SUBGRP: 0 NCOS: 0 RING: Y
LINE CLASS CODE: ISDNKSET
MAXKEYS: 10
OPTIONS:
MSBI $ ACDNR

KEY      DN
---      --
1        DN 7224950  INCALLS ACDGRP99 99 FORCING Y 5555

KEY      DN
2        MSBI $
3        ACDNR

```

Example of the QLT command in no-prompt mode

```
> QLT MFT 10
```

Query an attached logical terminal with the PROVLLC and PROVCGS options

The following example shows the QLT command when it is used to query a logical terminal with the PROVLLC (low-layer compatibility) and PROVCGS (calling party subaddress) options.

QLT - Query logical terminal (continued)

Example of the QLT command in prompt mode

```

> QLT
Enter: LTGRP
> ISDN
Enter: LTNUM
> 171
LTID: ISDN          171
SNPA: 705
DIRECTORY NUMBER: 9683170
LT GROUP NO: 0
LTCLASS: BRAFS  DEFAULT LOGICAL TERMINAL: N
EKTS: Y  CACH: N
SLBRI:N
BEARER SERVICE ALLOWED:  VOICE
CS: Y PS: N
VERSION: FUNCTIONAL  ISSUE: 2
SLBRI:N
SPID-SUFFIX: 13
LEN: HOST 07 1 08 02  TEI: DYNAMIC
CUSTGRP: S17059683BIBN  SUBGRP: 1  NCOS: 0  RING: Y
LINE CLASS CODE: ISDNKSET
MAXKEYS: 64
OPTIONS:
RAG PRK LNR MSB $ SFC PROVLLC VBINFO NAME S1705IBN + (CR)
ISDN171 PROVCGS VBINFO CPU 0 FUNC 154 1 SCS SCL 0 L50 FC 6

KEY          DN
---          --
  1          DN      7059683170
  2          DN      7059683172

KEY          FEATURE
---          -
  4          PRK
  5          CPU      0 ISDN      154      1
  6          SCS
  7          SCL      0 L50
  8          MSB $
  9          FC       6
 10          RAG

```

Example of the QLT command in no-prompt mode

```
> QLT ISDN 171
```

QLT - Query logical terminal (continued)

Query an attached logical terminal that is a member of an MLH group

The following example shows the QLT command when it is used to query a logical terminal that is a member of a multiline hunt (MLH) group.

Example of the QLT command in prompt mode

```

> QLT
Enter: LTGRP
> ISDN
Enter: LTNUM
> 6
LTID: ISDN 6
SNPA: 613
DIRECTORY NUMBER: 6215905 (NON-UNIQUE)
LT GROUP NO: 0
LTCLASS: BRAFS
CS: Y PS: N
SLBRI:N
VERSION: FUNCTIONAL ISSUE: 2
LEN: HOST 01 1 01 02 TEI: 2
CUSTGRP: COMKODAK SUBGRP: 0 NCOS: 0 RING: Y
LINE CLASS CODE: ISDNKSET
MAXKEYS: 64
TYPE: MEMBER OF MLH HUNT GROUP
HUNT GROUP: 88 HUNT MEMBER: 1
OPTIONS:
NONE
  KEY      DN
  ---      --
  1        DN          6136215905

  KEY      FEATURE
  ---      -
  24      RLS
PILOT LEN: ISDN 5
GROUP OPTIONS:
RCVD

```

Example of the QLT command in no-prompt mode

```
> QLT ISDN 6
```

Query an NI-2 logical terminal

The following example shows the QLT command when it is used to query a National ISDN 2 (NI-2) compliant logical terminal.

QLT - Query logical terminal (continued)

Example of the QLT command in prompt mode

```
> QLT
Enter: LTGRP
> ISDN
Enter: LTNUM
> 802
LTID: ISDN 802
SNPA: 613
DIRECTORY NUMBER: 7235599
LT GROUP NO: 0
LTCLASS: BRAFS  DEFAULT LOGICAL TERMINAL: N
SLBRI: N
EKTS: N  CACH: N
CS: NI2  PS: N
ELN: N
AGA:6 AG_CMD
AGA:4 AG_VI
VERSION: FUNCTIONAL ISSUE: 2
TSPID: 1234
LEN: HOST 01 0 00 20 TEI: DYNAMIC
CUSTGRP:      BNR  SUBGRP: 0 NCOS: 0 RING: Y
LINE CLASS CODE: ISDNKSET
MAXKEYS: 64
OPTIONS:
SFC VI $ N CMD BOTH $ N
CRBL 1 0 NDNAP 1
CUSTOMER GROUP OPTIONS:
AIN AUTOCDP
OFFICE OPTIONS:
AIN LNPOFFICE

  KEY      DN
  ---      ---
    1      DN      6137235599

  KEY      FEATURE
  ---      -
    1      CRBL 1 0
    1      DBC DBC_SP
    1      NDNAP 1
```

Example of the QLT command in no-prompt mode

```
> QLT ISDN 802
```


QLT - Query logical terminal (continued)

Query an NI-2 logical terminal with MADN CACH

The following example shows the QLT command when it is used to query a National ISDN 2 (NI-2) compliant logical terminal with the Multiple Appearance Directory Number (MADN) option. The MADN call type is Call Appearance Call Handling (CACH).

QLT - Query logical terminal (continued)

Example of the QLT command in prompt mode

```

> QLT
Enter: LTGRP
> NI2
Enter: LTNUM
> 381
LTID: NI2      381
SNPA: 613
DIRECTORY NUMBER: 7235123      (NON-UNIQUE)
LT GROUP NO: 15
LTCLASS: BRAFS  DEFAULT LOGICAL TERMINAL: N
EKTS: Y  CACH: Y
SLBRI: N
CS: NI2  PS: N  TEI: DYNAMIC
ELN: N
VERSION: FUNCTIONAL ISSUE: 2
TSPID: 613723512301
CUSTGRP:      BNR  SUBGRP: 0  NCOS: 0  RING: Y
LINE CLASS CODE: ISDNKSET
MAXKEYS: 32
MADN MEMBER INFO:
  NI2          380
  NI2          381
  NI2          382
  NI1          380
  NI1          381
  NI1          382
OPTIONS:
MSB $ SFC VI $ $ N
ACB NOAMA 1 CRBL 1 1 NDNAP 2 AFC 5 SCS
  KEY  DN                      CALLTYPE
  ---  --                      -
  1    MDN      6137235123  VI    CACH CA 1 NULL
  2    MDN      6137235123  VI    CACH CA 2 NULL
  3    MDN      6137235123  VI    CACH CA 3 NULL
  4    DN        6137235123  VI & CMD

  KEY  FEATURE
  ---  -
  1    ACB NOAMA 1
  4    CRBL 1 1
  4    DBC  DBC_SP
  4    NDNAP 2
  5    AFC  DBC_SP
  7    MSB $
  8    SCS

```

QLT - Query logical terminal (continued)

Example of the QLT command in no-prompt mode

```
> QLT NI2 381
```

Query an SLBRI LTID

The following example shows the QLT command when it displays SLBRI information for the queried LTID.

Example of the QLT command in prompt mode

```
> QLT
Enter: LTGRP
> NI2
Enter: LTNUM
> 1
LTID: NI2      1
SNPA: 613
DIRECTORY NUMBER: 7235101
LT GROUP NO: 15
LTCLASS:  BRAFS      DEFAULT LOGICAL TERMINAL: N
EKTS:  N  CACH:  N
SLBRI:  Y
CS: NI2 PS: N
ELN: N
VERSION: FUNCTIONAL  ISSUE: 2
LEN: HOST 01 1 14 02  TEI: DYNAMIC
CUSTGRP:      BNR SUBGRP: 0  NCOS: 0  RING: Y
LINE CLASS CODE: ISDNKSET
MAXKEYS: 64
OPTIONS:
SFC VI $ $ N CMD BOTH $ $ N KSMOH
ACOU 2 2 CRBL 3 3 NDNAP 3
  KEY      DN
  ---      --
    1      DN      6137235101

  KEY      FEATURE
  ---      -
    1      ACOU 1 1
    1      CRBL 3 3
    1      DBC DBC_SP
    1      NDNAP 3
    2      AFC DBC_SP
    3      AFC DBC_SP
    24     RLS
```

QLT - Query logical terminal (continued)

Example of the QLT command in no-prompt mode

```
> QLT NI2 1
```

Query a packet-only NIT with dynamic TEI

The following example shows the QLT command when it displays terminal limit and TEI information for the queried LTID.

Example of the QLT command in prompt mode

```
> QLT
Enter: LTGRP
> PKT
Enter: LTNUM
> 104
LTID: PKT 104
SNPA: 613
DIRECTORY NUMBER: 6211340
LT GROUP NO: 8
LTCLASS: BRAFS      DEFAULT LOGICAL TERMINAL: Y
EKTS: N   CACH: N
TERML: 1
CS: N   PS: D_DYN   TEI: UNATEI
ELN: N
KEY      DN
----
1        DN      6211340
```

Example of the QLT command in no-prompt mode

```
> QLT PKT 104
```

Query an LTID with ODB DNs

The following example shows the QLT command when it is used to query an LTID with ODB DNs. The call type for the ODB DNs displays as PMD-ODB. This example applies to software release NA014 and up.

QLT - Query logical terminal (continued)**Example of QLT command used with an LTID with ODB DNs in prompt mode**

```

>QLT
ENTER: LTGRP
>NI2
ENTER: LTNUM
>100
LTID:NI2 100
SNPA: 613
DIRECTORY NUMBER: 5556789
LT GROUP NO: 3
LTCLASS: BRAFS          DEFAULT LOGICAL TERMINAL: N
EKTS: N      CACH: N
SLBRI: N
CS: NI2     PS: D      TEI: DYNAMIC
ELN: N
VERSION: FUNCTIONAL     ISSUE: 2
TSPID: 6135556745
CUSTGRP: LONS634
LINE CLASS CODE: ISDNKSET
MAXKEYS: 64
OPTIONS:
CRBL 1 1 NDNAP 2 AFC 5 SFX VI $ $ N CMD BOTH $ $ N

KEY          DN          6135556785  VI-CMD
----          --          -
1            DN          6135556785  PMD-ODB
4            DN          6135556785  PMD-ODB
8            DN          6135556546  PMD-ODB

KEY          FEATURE
----          -
1            CRBL 1 1
1            DBC      DBC_SP
1            NDNAP   2
2            AFC      DBC_SP

```

Example of QLT command used with an LTID with ODB DNs in no-prompt mode

```
>QLT NI2 100
```

Help information

The help query command can be used to determine the syntax of the QLT command, as shown in the following example.

QLT - Query logical terminal (continued)

Example of help for the QLT command

```

CI:
> Q QLT

COMMAND:  Query Logical Terminal
Parms:  <LTGRP> STRING
        <LTNUM> {1 TO 1022}

```

Prompts

The following table lists the input prompts for the QLT command.

Input prompts for the QLT command

Prompt	Valid input	Explanation
LTGRP	1 to 8 alphanumeric digits	The logical terminal group name.
LTNUM	1 to 1022	The logical terminal number.

Notes

When the QLT command is entered, the following information is displayed:

- the logical terminal that is queried
- LTCLASS of terminal
- bearer service allowed
- access services provided by the logical terminal, where
 - CS is circuit switching

Note: A CS value of NI2 indicates that the logical terminal is NI-2 compliant.

- PS is packet switching
- D-channel handler (DCH) number associated with the logical terminal
- DCH Bd channel number connected to the logical terminal

QLT - Query logical terminal (end)

- line equipment number (LEN) and terminal endpoint identifier (TEI) associated with the logical terminal

Note: The TEI field displays the TEI value for static TEIs, DYNAMIC for dynamic TEIs, or USER for user-assigned dynamic TEIs.

- SPIDSFY for MFT, if present
- TSPID for BRAFS, if present
- service profile identifier (SPID), electronic key telephone service (EKTS), and dynamic TEI information
- number of non-initializing terminals (NIT) that can be supported by an NI-2 compliant logical terminal (displayed in the TERML field)
- associated group assignment (AGA) information, including the number and the call type for every DN/CT that AGA applies to
- customer group information for primary DN
- line class code
- maximum number of keys on the logical terminal
- hunt group information (DN type = HUNT). In addition, with feature AF6782, ISDN Packet Single DN, the QLT command displays customer group information for the PMD call type that is associated with the single DN.
- MADN member information (DN type = MADN)
- DN and feature information
- number of calls permissible against an SFC DN
- With feature AF6782, ISDN Packet Single DN, feature information for terminals with both PS and CS service displays VI/CMD or PMD and DN associations.
- SLBRI information for the queried LTID
- LSPAO line option

Note: Only applicable information is displayed, depending on whether the logical terminal is assigned, and whether a DN on the logical terminal is a hunt group or MADN group member.

QPHF - Query packet handler facility

Description

The QPHF command displays information about how a particular X.25 signaling group (XSG) is configured. The DMS packet handler (PH) keeps a representation of its provisioning data in a structure called a management information tree (MIT). The MIT consists of object types such as XSGs, channels, directory numbers (DN), protocol version control (PVC), and X.75 links. The QPHF command displays information about how the MIT is configured and what the parameters are for each object.

The QPHF command provides the following options:

- With the XSG parameter, displays information specific to the XSG and indicates which channels are connected to it.

```
>QPHF XSG xsg_number
```

- With the CHNL parameter, displays high-level data link control (HDLC) channel information, and indicates which links are connected to that channel.

```
>QPHF CHNL xsg_num local_chnl_num
```

- With the LTID parameter, displays information about link level parameters for a particular X.25 terminal and indicates what DNs are supported by the terminal. The logical terminal's associated channel and XSG are also displayed. In NA008, the terminal endpoint identifier (TEI) is not available for National ISDN 2 (NI-2) terminals with two B-channels and one D-channel (2BD) capability. The actual TEI type: dynamic, user assigned, or network assigned is displayed.

```
>QPHF LTID ltgrp ltnum
```

- With the CLLI parameter, displays information about link level and packet level parameters associated with a particular packet trunk. This command also queries which, if any, PVCs are connected to the trunk, and which, if any, closed user groups (CUG) it belongs to. The trunk's associated channel and XSG are also displayed.

```
>QPHF CLLI clli member
```

- With the DN parameter, displays information about packet level parameters associated with a particular DN. This command also queries which, if any, PVCs are connected to the DN, and which, if any, CUGs it

QPHF - Query packet handler facility (continued)

belongs to. The DNs associated logical terminal channel and XSG are also displayed.

```
>QPHF DN dn_num
```

- With the X75 parameter, displays information about packet level parameters associated with a particular packet trunk.

```
>QPHF X75 clli member
```

Examples 1

The following examples show the different uses of the QPHF command and applicable parameters for non-On-demand B-channel (ODB) calls.

Query an X.25 PRI LTID using QPHF LTID

The following example shows the QPHF LTID command when it is used to query an X.25 PRI LTID.

QPHF - Query packet handler facility (continued)

Example of the QPHF LTID display on an X.25 PRI LTID in prompt mode

```
>QPHF
Enter: object type
>LTID
Enter: ltgrp
>PRA
Enter: ltnum
>100

                LINK INFORMATION
                -----
                TYPE: X.25 B          LTID: PRA:100

MAPPING
-----
CHANNEL: 6 X.25 PRI
XSG: 106
DN: 9197545100, KEY: 1
CLLI, MEMBER, PKTPRICLLI 1

CALL INFORMATION
-----
pvc:                0 call
svc:                0 call
incoming svc:      0 call
outgoing svc:      0 call

Layer 3 link status: down
>
```

Example of the QPHF LTID option in no-prompt mode

```
> QPHF LTID PRA 100
```

Query an X.25 PRI LTID using QPHF XSG

The following example shows the QPHF XSG command when it is used to query an X.25 PRI LTID.

QPHF - Query packet handler facility (continued)

Example of the QPHF XSG display for PRI with Semipermanent Packet in prompt mode

```

>QPHF
Enter: object type
>XSG
Enter: xsg num [all options]
>106

                XSG INFORMATION
                -----
XSG EXT INDEX: 106   CURRENT NUMBER OF LINKS: 10
XLIU INDEX: 106     MAXIMUM NUMBER OF CHANNELS: 12
XSG 106 IS AVAILABLE FOR USE BY AUTO RESOURCE
ASSIGNMENT

MAPPING
-----
CHANNEL:  1 X.25 PB
CHANNEL:  2 X.25 PB
CHANNEL:  3 X.25 BD
CHANNEL:  4 X.75 B
CHANNEL:  5 X.75 B
CHANNEL:  6 X.25 PRI
>

```

Example of the QPHF LTID option in no-prompt mode

```
> QPHF XSG 106
```

Query an X.25 PRI LTID using QPHF CHNL

The following example shows the QPHF CHNL command when it is used to query an X.25 PRI LTID.

QPHF - Query packet handler facility (continued)

Example of the QPHF CHNL display for a nailed-up PRI B channel in prompt mode

```
>QPHF
Enter: object type
>CHNL
Enter: xsg num
>106
Enter: local chnl num
>6

                CHANNEL INFORMATION
                -----
CHANNEL TYPE: X.25 PRI          RATE: 64 KB

MAPPING
-----
XSG: 106
LTID: PRA 100
>
```

Example of the QPHF LTID option in no-prompt mode

```
>QPHF CHNL 106 6
```

Query an X.25 PRI LTID using QPHF CLLI

The following example shows the QPHF CLLI command when it is used to query an X.25 PRI LTID.

QPHF - Query packet handler facility (continued)

Example of the QPHF CLLI command on an X.25 PRI CLLI in prompt mode

```
>QPHF
Enter: object type
>CLLI
Enter: clli member
>PKTPRICLLI 1

                LINK INFORMATION
                -----
                TYPE: X.25 B          LTID: PRA 100

MAPPING
-----
CHANNEL:  5  X.25 PRI
XSG: 106
DN:  9197545100, KEY: 1

CALL INFORMATION
-----
pvc:                0 call
svc:                0 call
incoming svc:      0 call
outgoing svc:      0 call

Layer 3 link status: down
>
```

Example of the QPHF CLLI option in no-prompt mode

```
>QPHF CLLI PKTPRICLLI 1
```

Query an X.25 PRI LTID using QPHF DN

The following example shows the QPHF DN command when used to query an X.25 PRI LTID.

QPHF - Query packet handler facility (continued)

Example of the QPHF DN command on an X.25 PRI DN in prompt mode

```
>QPHF
Enter: object type
>DN
Enter: dn num
> 9197545100

                DN INFORMATION (B channel)
                -----

NUI: NO   FSA: NO   RCA:NO   TCN: NO   ICB: NO
FCPN: NO  RPOAB: NO LCP: NO  CUGS: MO  OCB: NO
SLCN 1    NPVC: 0   NOWI 0   NNRC: 511 NOWO: 0
NDPS: NO  LLFSQ:   MOD8 N2: 3   T3:5
LLWS: 7   IMPS: 12 8   OMPS: 128T1: 20   T2: 2
N1: 2120 DTCA: NO  IDTCA: 9600 ODTCA: 9600
IPLWS: 2  OPLWS: 2  PLSQ:MOD8NDWS: NO
ICS: NO

MAPPING
-----
LTID: PRA 100
CHANNEL: 1 X.25 PRI
XSG: 106
>
```

Example of the QPHF DN option in no-prompt mode

```
>QPHF DN 9197545100
```

Query an XSG 300 using QPHF XSG

The following example shows the QPHF command when it is used with the XSG parameter to query XSG 300.

QPHF - Query packet handler facility (continued)

Example of the QPHF command in prompt mode

```

>QPHF
Enter: object type
>XSG
Enter: xsg num [all option]
>300

                                XSG INFORMATION
                                -----

XSG EXT INDEX: 300      CURRENT NUMBER OF LINKS: 11
XLIU INDEX: 300        MAXIMUM NUMBER OF CHANNELS: 12

MAPPING
-----
CHANNEL:  1  X.25 PB
CHANNEL:  2  X.25 PB
CHANNEL:  3  X.25 PB
CHANNEL:  4  X.25 PB
CHANNEL:  5  X.25 PB
CHANNEL:  6  X.25 Bd

```

Example of the QPHF command in no-prompt mode

```
>QPHF XSG 300
```

Query an LTID with NI-2 2BD capability using QPHF LTID

The following example shows the QPHF command when it is used with the LTID parameter to query an LTID with NI-2 2BD capability.

QPHF - Query packet handler facility (continued)

Example of the QPHF command in prompt mode

```
>QPHF
ENTER: object type
>LTID
ENTER: ltgrp
>PKT
ENTER: ltnum
>512

LINK INFORMATION
-----

TYPE: X.25 D LTID: PKT 512

SAPI 16 TEI: USER

MAPPING
-----
CHANNEL: 6 X.25 BD
XSG: 100
DN: 6137281595, KEY:2

CALL INFORMATION
-----
PVC: 0 CALL
SVC: 0 CALL
INCOMING SERVICE: 0 CALL
OUTGOING SERVICE: 0 CALL

LAYER 3 LINK STATUS: DOWN
```

Example of the QPHF command in no-prompt mode

```
>QPHF LTID PKT 512
```

Examples 2

The following examples show the MAP display for the QPHF command used with the Echo Station feature. These examples apply to software release NA012 and up.

QPHF - Query packet handler facility (continued)

Query an Echo Station DN using QPHF DN command

The QPHF DN command displays the packet handler information for a DN. The MAP display includes the information on the data entered for the Echo Station DN and call type in table DNCTINFO and the associated LTID. There is no channel display for Echo Station DNs. The string “ECHO STATION” displays instead of a channel display next to the XSG number as shown in the following figure.

Example of QPHF DN command in prompt mode for Echo Station DN

```

>QPHF
ENTER:object type
>DN
ENTER: dn
>5551001
      DN INFORMATION (B Channel)
      -----
NUI: NO FSA: NO RCA: NO TCN: NO ICB: NO
FCPN: NO RPOAB: NO LCP: NO CUGS: NO OCB: NO
SLCN: 1 NPVC:    0 NOWI: 0 NNRC:    1 NOWO: 0
NDPS: NO LLFSQ: N/A N2: N/A T3: N/A
LLWS: N/A IMPS: 128 OMPS: 128 T1: N/A T2: N/A
N1: N/A DTCA: NO IDTCA: 64000 ODTCA: 64000
IPLWS: 2 OPLWS:    2 PLSQ: MOD8 NDWS: NO
ICS: NO

MAPPING
-----
LTID: PKT 100
XSG: 100 ECHO STATION
TIMEOUT: NO MINUTES:N/A

CUG INFORMATION
-----

TYPE: X25 DN:6135551001
DNIC: 2525 INTERLOCK: 0 IAB: NO OAB: YES INDEX: 0

```

Example of QPHF DN command in no-prompt mode for Echo Station DN

```
>QPHF DN 5551001
```

If an Echo Station LTID is not mapped to an XSG, the message “Unable to provide mapping for Echo Station Link” displays as shown in the following figure.

QPHF - Query packet handler facility (continued)

Example of QPHF DN command in prompt mode for unmapped Echo Station DN

```
>QPHF
ENTER:object type
>DN
ENTER: dn
>5551001
      DN INFORMATION (B Channel)
      -----
NUI: NO FSA: NO RCA: NO TCN: NO ICB: NO
FCPN: NO RPOAB: NO LCP: NO CUGS: NO OCB: NO
SLCN: 1 NPVC:    0 NOWI: 0 NNRC:    1 NOWO: 0
NDPS: NO LLFSQ: N/A N2: N/A T3: N/A
LLWS: N/A IMPS: 128 OMPS: 128 T1: N/A T2: N/A
N1: N/A DTCA: NO IDTCA: 64000 ODTCA: 64000
IPLWS:  2 OPLWS:    2 PLSQ: MOD8 NDWS: NO
ICS: NO

MAPPING
-----
LTID: PKT 201
Unable to provide mapping for Echo Station Link
```

Query an Echo Station LTID using QPHF LTID command

The following example shows the MAP display for the QPHF LTID command used on an Echo Station LTID. The permanent virtual circuit (PVC) and outgoing PVC does not display for an Echo Station LTID.

QPHF - Query packet handler facility (continued)

Example of the QPHF LTID command in prompt mode for Echo Station LTID

```

>QPHF
ENTER: object type
>LTID
ENTER: ltgrp
>PKT
ENTER: ltnum
>100

                LINK INFORMATION
                -----
                TYPE: X.25      LTID: PKT 100

MAPPING
-----
XSG: 100 ECHO STATION
TIMEOUT: NO MINUTES: N/A
DN: 6135551001, KEY 1

CALL INFORMATION
-----
SVC:          0 call
incoming svc: o call

Layer 3 link status: down

```

Example of the QPHF LTID command in no-prompt mode for Echo Station LTID

```
>QPHF LTID PKT 100
```

Query an XSG mapped to an Echo Station LTID using QPHF XSG command

The following figure shows the MAP display when using the QPHF XSG command to query an XSG that has Echo Station LTID mapped to it. If there is no mapping for an Echo Station LTID to an XSG, the message “Unable to provide mapping for echo Station Link” displays.

QPHF - Query packet handler facility (continued)

Example of the QPHF XSG command in prompt mode for Echo Station mapping

```
>QPHF
ENTER: object type
>xsg
ENTER: xsg num
>100

                        XSG INFORMATION
                        -----

XSG EXT INDEX: 100   CURRENT NUMBER OF LINKS: 8
XLIU INDEX: 0       MAXIMUM NUMBER OF CHANNELS: 30
XSG 100 IS AVAILABLE FOR USE BY AUTO RESOURCE ASSIGNMENT
NUMBER OF ECHO STATION: 1

MAPPING
-----
CHANNEL: 1 X.25 PB
CHANNEL: 2 X.25 PB
CHANNEL: 3 X.25 PB
CHANNEL: 4 X.25 PB
CHANNEL: 5 X.25 Bd
CHANNEL: 6 X.25 Bd
CHANNEL: 7 X.25 Bd
LTID: PKT 100 ECHO STATION
```

Example of the QPHF XSG command in no-prompt mode for Echo Station mapping

```
>QPHF XSG 100
```

QPHF - Query packet handler facility (continued)

Example of the QPHF XSG command in prompt mode for Echo Station mapping

```
>QPHF
ENTER: object type
>xsg
ENTER: xsg num
>100

                                XSG INFORMATION
                                -----

XSG EXT INDEX: 100   CURRENT NUMBER OF LINKS: 8
XLIU INDEX: 0       MAXIMUM NUMBER OF CHANNELS: 30
XSG 100 IS AVAILABLE FOR USE BY AUTO RESOURCE ASSIGNMENT
NUMBER OF ECHO STATION: 1

MAPPING
-----
CHANNEL: 1 X.25 PB
CHANNEL: 2 X.25 PB
CHANNEL: 3 X.25 PB
CHANNEL: 4 X.25 PB
CHANNEL: 5 X.25 Bd
CHANNEL: 6 X.25 Bd
CHANNEL: 7 X.25 Bd
LTID: PKT 100 ECHO STATION
```

The following figure shows the MAP display when using the QPHF XSG command to query an XSG that does not have an Echo Station LTID mapped to it.

QPHF - Query packet handler facility (continued)

Example of the QPHF XSG command in prompt mode for Echo Station without mapping, only child is present

```
>QPHF
ENTER: object type
>xsg
ENTER: xsg num
>100

                        XSG INFORMATION
                        -----

XSG EXT INDEX: 100   CURRENT NUMBER OF LINKS: 8
XLIU INDEX: 0       MAXIMUM NUMBER OF CHANNELS: 30
XSG 100 IS AVAILABLE FOR USE BY AUTO RESOURCE ASSIGNMENT
NUMBER OF ECHO STATION: 1

MAPPING
-----
CHANNEL: 1 X.25 PB
CHANNEL: 2 X.25 PB
CHANNEL: 3 X.25 PB
CHANNEL: 4 X.25 PB
CHANNEL: 5 X.25 Bd
No Echo Station Links mapped.
```

The following figure shows an example of the MAP display when the QPHF XSG command is used when there is no channel child present. Only the Echo Station is present.

QPHF - Query packet handler facility (continued)

Example of the QPHF XSG command in prompt mode for Echo Station without mapping; no channel child, only Echo Station is present

```
>QPHF
ENTER: object type
>xsg
ENTER: xsg num
>102

                        XSG INFORMATION
                        -----

XSG EXT INDEX: 102   CURRENT NUMBER OF LINKS: 8
XLIU INDEX: 0       MAXIMUM NUMBER OF CHANNELS: 30
XSG 100 IS AVAILABLE FOR USE BY AUTO RESOURCE ASSIGNMENT
NUMBER OF ECHO STATION: 4

MAPPING
-----
No Physical Channels mapped.
LTID: PKT 601
LTID: PKT 201
LTID: PKT 301
LTID: PKT 401
```

Query XSGs using the QPHF XSG ALL command

The following figure shows an example of the MAP display when the QPHF XSG ALL command is used with the Echo Station feature.

QPHF - Query packet handler facility (continued)

Example of the QPHF XSG ALL command in prompt mode used with the Echo Station feature

```
>QPHF
ENTER: object type
>xsg
ENTER: xsg num
>100 all
                MAPPINGS FOR XSG 100
                -----
CHANNEL: 1 LTID: PKT 5 DN: 6135551105
                No active call(s) on this LTID.
CHANNEL: 2 LTID: PKT 6 DN: 6135551106
                No active call(s) on this LTID.
CHANNEL: 6
CHANNEL: 7 LTID: PKT 3 DN: 6135551103
                No active call(s) on this LTID.
CHANNEL: 8 LTID: PKT 4 DN: 6135551104
                No active call(s) on this LTID.
ECHO DATA:LTID: PKT 100 DN:6135551022
                No active call(s) on this LTID.
```

Example of the QPHF XSG ALL command in no-prompt mode used with the Echo Station feature

```
>QPHF XSG 100 ALL
```

The following figure shows an example of the MAp display when using the QPHF XSG ALL command when the Echo station is unmapped and only the channel child is present.

QPHF - Query packet handler facility (continued)

Example of the QPHF XSG ALL command in prompt mode used when the Echo Station is unmapped, only the channel child is present

```

>QPHF
ENTER: object type
>xsg
ENTER: xsg num
>102 all
                MAPPINGS FOR XSG 102
                -----

CHANNEL: 8 LTID: PKT 4 DN: 6135551104
                No active call(s) on this LTID.

CHANNEL: 9 CLLI, member: X75LTC114OG 1
                No active call(s) on this trunk.

CHANNEL: 10 LTID: PKT 6 DN: 613555110
                No active call(s) on this LTID.

CHANNEL:11

CHANNEL:12
                No Echo Station Links mapped.

```

The following figure shows an example of the MAP display when using the QPHF XSG ALL command when there is no channel mapping and only the Echo Station is present.

Example of the QPHF XSG ALL command in prompt mode used when there is no channel mapping, only the Echo Station is present

```

>QPHF
ENTER: object type
>xsg
ENTER: xsg num
>102 all
                MAPPINGS FOR XSG 102
                -----

                No Physical Channels mapped,
ECHO DATA: LTID:PKT 601 DN:6135557706
                No active call(s) on this LTID.
ECHO DATA: LTID:PKT 201 DN:6135557702
                No active call(s) on this LTID
ECHO DATA: LTID:PKT 301 DN:6135557703.
                No active call(s) on this LTID.
ECHO DATA: LTID:PKT 401 DN:6135557704
                No active call(s) on this LTID.

```

QPHF - Query packet handler facility (continued)

Examples 3

The following examples show the different uses of the QPHF command and applicable parameters for On-demand B-channel (ODB) X.25 packet mode data calls. These examples apply to software release NA014 and up.

Query an X.25 BRI ODB LTID using QPHF LTID command

The following example shows the QPHF LTID command when it is used to query an X.25 BRI LTID associated with ODB DNs. Information displays for each of the X.25 B LINK objects created for the ODB DNs along with X.25 D link information.

QPHF - Query packet handler facility (continued)

Example of QPHF LTID command in prompt mode used with an ODB LTID

```

>QPHF
ENTER: OBJECT TYPE
>LTID
ENTER: LTGRP
>NI2
ENTER: LTNUM
>100

                                LINK INFORMATION
                                -----
                                TYPE: X.25 B    LTID: NI2 100

MAPPING
-----
CHANNEL: 32 X.25 B
XSG: 100
DN: 6135550205, KEY: 5
CALL INFORMATION
-----
pvc:          0 call
svc:          0 call
incoming svc: 0 call
outgoing svc: 0 call

Layer 3 link status: up
                                TYPE: X.25    LTID: NI2 100

MAPPING
-----
CHANNEL: 16 X.25 B
XSG: 100
DN: 6135550210, KEY: 10
CALL INFORMATION
-----
pvc:          0 call
svc:          1 call
incoming svc: 0 call
outgoing svc: 0 call

Layer 3 link status: up
                                TYPE: X.25 D  LTID: NI2 100
                                SAPI: 16     TEI: DYNAMIC

MAPPING
-----
CHANNEL: 1 X.25 Bd
XSG: 100
DN: 6135550207, Key: 7
CALL INFORMATION
-----
pvc:          0 call
svc:          0 call
incoming svc: 0 call
outgoing svc: 0 call
Layer 3 link status: up

```

QPHF - Query packet handler facility (continued)

Example of QPHF LTID command in no-prompt mode used with an ODB LTID

```
>QPHF LTID NI2 100
```

Query an XSG using QPHF CHNL when ODB call has not started

The following example shows the QPHF CHNL command when it is used on an XSG when there is no active ODB call on any of its channels.

Example of QPHF CHNL command with no ODB call in prompt mode

```
>QPHF
Enter: object type
>CHNL
Enter: xsg num
>100
Enter: local chnl num
>0

This is a ODB Channel
and is not physically connected to PHF.
```

Example of QPHF CHNL command with no ODB call in no-prompt mode

```
>QPHF CHNL 100 0
```

Query an XSG using QPHF CHNL when ODB call has started

The following example shows the QPHF CHNL command when it is used on an XSG when there is an ODB call active on one of its channels.

QPHF - Query packet handler facility (continued)

Example of the QPHF CHNL command with an ODB call in prompt mode

```
>QPHF
Enter: object type
>CHNL
Enter: xsg num
>100
Enter: local chnl num
>16

                CHANNEL INFORMATION
                -----
                CHANNEL TYPE X.25 B      RATE: 64 KB

MAPPING
-----
XSG: 100
LTID: NI2 201
```

Example of the QPHF CHNL command with an ODB call in no-prompt mode

```
>QPHF CHNL 100 16
```

Query an XSG using QPHF DN

The following example shows the QPHF command when used with the DN parameter. The display shows information about the X.25 B parameters for the ODB DN. The ODB DN is able to make packet mode calls using the X.25 B channel.

QPHF - Query packet handler facility (continued)

Example of the QPHF DN command used with an ODB DN in prompt mode

```
>QPHF
Enter: object type
>DN
Enter: dn num
>6135556546

                DN INFORMATION (B Channel)
                -----
NUI:  NO   FSA:  NO   RCA:  NO   TCN:  NO   ICB: NO
FCPN: NO   RPOAB: NO   LCP:  NO   CUGS: NO   OCB: NO
SLCN: 1   NPVC:  0   NOWI:  0   NNRC:  1   NOWO: 0
NDPS: NO   LLFSQ: MOD8 N2:   3   T3:   5
LLWS: 7   IMPS: 128   OMPS: 128  T1:   20  T2:   2
N1:   2120 DTCA: NO   IDCTA:64000
IPLWS:2   OPLWS: 2   PLSQ: MOD8  NDWS: NO
MAPPING
-----
LTID: NI2 100
CHANNEL: 16 X.25 B
xsg:100
```

Example of the QPHF DN command used with an ODB DN in no-prompt mode

```
>QPHF DN 6135556546
```

Query an XSG using QPHF XSG when ODB call has not started

The following example shows the QPHF command when it is used with the XSG parameter to query XSG 100. XSG 100 supports links to an LTID associated with DNs with the On-demand B-channel (ODB) option. The XSG channel type associated with the ODB DN displays as X.25 B. If there is no active call, the channel number displayed is 0.

QPHF - Query packet handler facility (continued)

Example of the QPHF XSG command in prompt mode with no ODB call

```

>QPHF
Enter: object type
>XSG
Enter: xsg num [all option]
>100

                XSG INFORMATION
                -----

XSG EXT INDEX:100      CURRENT NUMBER OF LINKS: 13
XLIU INDEX: 0         MAXIMUM NUMBER OF CHANNELS: 30
XSG 100 IS AVAILABLE FOR USE BY AUTO RESOURCE ASSIGNMENT
NUMBER OF ECHO STATION: 0
NUMBER OF ODB LINKS: 2

MAPPING
-----
CHANNEL: 1  X.25 Bd
CHANNEL: 2  X.25 Bd
CHANNEL: 3  X.25 PB
CHANNEL: 4  X.25 PB
CHANNEL: 5  X.25 Bd
CHANNEL: 6  X.25 Bd
CHANNEL: 7  X.25 Bd
CHANNEL: 8  X.25 Bd
CHANNEL: 9  X.75 B
CHANNEL: 10 X.75 B
CHANNEL: 11 X.25 PB
CHANNEL: 12 X.25 PB
CHANNEL: 13 X.25 PB
CHANNEL: 14 X.25 PB
CHANNEL: 15 X.25 PB
CHANNEL: 0  X.25 B
CHANNEL: 0  X.25 B

No Echo Station Links mapped.

```

Example of the QPHF XSG command in no-prompt mode with no ODB call

```
>QPHF XSG 100
```

Query an XSG using QPHF XSG when ODB call has started

The following example shows the QPHF command used with the XSG parameter to query XSG 100. XSG 100 supports links to an LTID associated with DN(s) with the On-demand B-channel (ODB) option. The XSG channel type associated with the ODB DN displays as X.25 B. If there is an active call, the channel number displayed is in the range of 1 to 31.

QPHF - Query packet handler facility (continued)

Example of the QPHF XSG command in prompt mode with ODB call

```
>QPHF
Enter: object type
>XSG
Enter: xsg num [all option]
>100

          XSG INFORMATION
          -----

XSG EXT INDEX:100          CURRENT NUMBER OF LINKS: 13
XLIU INDEX: 0             MAXIMUM NUMBER OF CHANNELS: 30
XSG 100 IS AVAILABLE FOR USE BY AUTO RESOURCE ASSIGNMENT
NUMBER OF ECHO STATION: 0
NUMBER OF ODB LINKS: 2

MAPPING
-----
CHANNEL: 1  X.25 Bd
CHANNEL: 2  X.25 Bd
CHANNEL: 3  X.25 PB
CHANNEL: 4  X.25 PB
CHANNEL: 5  X.25 Bd
CHANNEL: 6  X.25 Bd
CHANNEL: 7  X.25 Bd
CHANNEL: 8  X.25 Bd
CHANNEL: 9  X.75 B
CHANNEL: 10 X.75 B
CHANNEL: 11 X.25 PB
CHANNEL: 12 X.25 PB
CHANNEL: 13 X.25 PB
CHANNEL: 14 X.25 PB
CHANNEL: 15 X.25 PB
CHANNEL: 16 X.25 B
CHANNEL: 0  X.25 B

No Echo Station Links mapped.
```

Example of the QPHF XSG command in no-prompt mode with ODB call

```
>QPHF XSG 100
```

Query an XSG using QPHF XSG ALL when ODB call has not started

The QPHF XSG command used with the ALL parameter displays a list of all the LTIDS and DNs connected to each of the mapped channels. The display also shows information on whether a particular call has an active call. If there is no active ODB call, the display shows: "No active call(s) on this LTID." If

QPHF - Query packet handler facility (continued)

there is no active ODB call on the LTID, the XSG channel number that displays is 0.

Example of the QPHF XSG 100 ALL command in prompt mode with no ODB call

```

>QPHF
Enter object type:
>XSG
Enter xsg num [all option]
>100 ALL

                                MAPPINGS FOR XSG 100
                                -----
CHANNEL: 1  LTID: NI2 201 DN: 6135550201 DN: 6135550205
             No active call(s) on this LTID.
             LTID: NI2 203 DN: 6135550206
             No active call(s) on this LTID.
CHANNEL: 2  LTID: NI2 202 DN: 6135550202 DN: 6135550204
             No active call(s) on this LTID.
CHANNEL: 3  LTID: PKT 101 DN: 6135550101
             No active call(s) on this LTID.
CHANNEL: 4  LTID: PKT 102 DN: 6135550102
             1 active call(s) on this LTID.
CHANNEL: 5
CHANNEL: 6  LTID: PKT 1 DN: 6135551001
             No active call(s) on this LTID.
CHANNEL: 7  LTID: PKT 4 DN: 6135551004
             No active call(s) on this LTID.
CHANNEL: 8  LTID: PKT 3 DN: 6135551003
             No active call(s) on this LTID.
CHANNEL: 9
CHANNEL: 10
CHANNEL: 11 LTID: PKT 103 DN: 6135550103
             No active call(s) on this LTID.
CHANNEL: 12 LTID: PKT 104 DN: 6135550104
             No active call(s) on this LTID.
CHANNEL: 13 LTID: PKT 105 DN: 6135550105
             1 active call(s) on this LTID.
CHANNEL: 14 LTID: PKT 106 DN: 6135550106
             No active call on this LTID.
CHANNEL: 15 LTID: PKT 107 DN: 6135550107
             No active call(s) on this LTID.
CHANNEL: 0  LTID: NI2 100 DN: 6135556546
             No active call(s) on this LTID:
CHANNEL: 0  LTID: NI2 101 DN: 6135556789
             No active call(s) on this LTID.

No Echo Station Links mapped.

```

Example of the QPHF XSG ALL command in no-prompt mode with no ODB call

```
>QPHF XSG 100 ALL
```

QPHF - Query packet handler facility (continued)

Query an XSG using QPHF XSG ALL when ODB call has started

The QPHF XSG command used with the ALL parameter displays a list of all the LTIDS and DNs connected to each of the mapped channels. The display also shows information on whether a particular call has an active call. If there is an active ODB call, the display shows: “1 active call(s) on this LTID.” If there is an active ODB call on the LTID, the XSG channel number that displays is in the range of 1 to 31.

QPHF - Query packet handler facility (continued)**Example of the QPHF XSG 100 ALL command in prompt mode with ODB call**

```

>QPHF
Enter object type:
>XSG
Enter xsg num [all option]
>100 ALL

                                MAPPINGS FOR XSG 100
                                -----
CHANNEL: 1  LTID: NI2 201 DN: 6135550201 DN: 6135550205
             No active call(s) on this LTID.
             LTID: NI2 203 DN: 6135550206
             No active call(s) on this LTID.
CHANNEL: 2  LTID: NI2 202 DN: 6135550202 DN: 6135550204
             No active call(s) on this LTID.
CHANNEL: 3  LTID: PKT 101 DN: 6135550101
             No active call(s) on this LTID.
CHANNEL: 4  LTID: PKT 102 DN: 6135550102
             1 active call(s) on this LTID.

CHANNEL: 5
CHANNEL: 6  LTID: PKT 1 DN: 6135551001
             No active call(s) on this LTID.
CHANNEL: 7  LTID: PKT 4 DN: 6135551004
             No active call(s) on this LTID.
CHANNEL: 8  LTID: PKT 3 DN: 6135551003
             No active call(s) on this LTID.

CHANNEL: 9
CHANNEL: 10
CHANNEL: 11 LTID: PKT 103 DN: 6135550103
             No active call(s) on this LTID.
CHANNEL: 12 LTID: PKT 104 DN: 6135550104
             No active call(s) on this LTID.
CHANNEL: 13 LTID: PKT 105 DN: 6135550105
             1 active call(s) on this LTID.
CHANNEL: 14 LTID: PKT 106 DN: 6135550106
             No active call on this LTID.
CHANNEL: 15 LTID: PKT 107 DN: 6135550107
             No active call(s) on this LTID.
CHANNEL: 16 LTID: NI2 100 DN: 6135556546
             1 active call(s) on this LTID:
CHANNEL: 0  LTID: NI2 101 DN: 6135556789
             No active call(s) on this LTID.

No Echo Station Links mapped.

```

Example of the QPHF XSG ALL command in no-prompt mode with ODB call

```

>QPHF XSG 100 ALL

```

QPHF - Query packet handler facility (continued)

Help information

The help query command can be used to determine the syntax of the QPHF command, as illustrated below.

Example of help for the QPHF command

```

CI:
>Q QPHF
Queries objects in MIT for data.
Parms: <object type> {XSG <xsg num> {0 TO 749}
                [<all option> {ALL}],
                CHNL <xsg num> {0 TO 749}
                <local chnl num> {1 TO 31},
                LTID <ltgrp> STRING
                <ltnum> {1 TO 1022},
                CLLI <clli> STRING
                <member> {0 TO 9999},
                DN <dn num> STRING,
                X75 <clli> STRING
                <member> {0 TO 9999}}
                PH,
                ARA

```

Prompts

The following table lists the prompts for the QPHF command in alphabetical order.

Input prompts for the QPHF command (Sheet 1 of 2)

Prompt	Valid input	Explanation
clli	1 to 8 alphanumeric characters	The CLLI name.
dn num	7 to 10 digit DN	The directory number.
local chnl num	1 to 31	The specific channel on the XSG.
ltgrp	1 to 8 alphanumeric characters	The name of the logical terminal group as defined in table LTGRP.
ltnum	1 to 1022	The number of the logical terminal.
member	0 to 9999	The CLLI member.

QPHF - Query packet handler facility (end)

Input prompts for the QPHF command (Sheet 2 of 2)

Prompt	Valid input	Explanation
object type	XSG, CHNL, LTID, CLLI, DN, or X75	The type of object for which you require information.
xsg num	0 to 749	The number of the XSG as defined in table XSGDEF.

Notes

The QPHF command indicates the amount of traffic associated with a particular logical link by displaying the number of calls (PVC or SVC) that are active when the command is executed. This is useful for determining the effects of maintenance action on services.

QSCONN - Query special connections

Description

The QSCONN command displays information on special connections for ISDN XPMs. With the DMS packet handler, QSCONN can also be used to identify special connections associated with a specific XSG, and to display all special connections through the network.

In software release NA014 and up, the QSCONN does not apply to the On-demand B-channel (ODB) option, since there are no entries in table SPECCONN for ODB connections.

The QSCONN command provides the following options:

- With XPM parameters, displays special connections associated with a particular port on an ISDN XPM.

```
>QSCONN pm_type pm_number port_side port_number
```

- With the XSG parameter, displays all special connections associated with a particular XSG.

```
>QSCONN XSG xsg_number
```

- With the SEG parameter, displays the status of all segments of a special connection associated with an endpoint defined in table SPECCONN.

```
>QSCONN SEG specconn_endpoint
```

- With the NET parameter, displays all special connections through the network.

```
>QSCONN NET
```

Example

The following example shows the QSCONN command used with XPM parameters. Information is displayed for P-side port 12 on LTC 1.

QSCONN - Query special connections (continued)

Example of the QSCONN command in prompt mode

```

> QSCONN
Enter: SELECTOR
> LTC
Enter: PM NUMBER PORT SIDE
> 1
Enter: PORT SIDE
> PS
Enter: PORT NUMBER
> 12

Special Connections on link LTC 1 P-side port 12:

```

ENDPT1	ENDPT2	CONTYPE	STATUS	P-SIDE		C-SIDE	
				PORT	CHNL	PORT	CHNL
XSGCHNL 3 18	HOST 67 1 15 12 B1	Con	Act	12	01	12	11
XSGCHNL 3 19	HOST 67 1 15 12 B2	Con	Act	12	02	12	12
XSGCHNL 302 5	HOST 67 1 14 14 B1	Con	PMB	12	03	10	19
XSGCHNL 303 5	HOST 67 1 14 14 B2	Con	PMB	12	04	10	20
XSGCHNL 5 4	HOST 67 1 15 18 B1	Con	PMB	12	05	12	15
HOST 67 1 08 26	ISGCHNL 202 4	Con	Act	12	06	15	14
HOST 67 1 08 28							
HOST 67 1 08 30							
HOST 67 1 09 16							

Example of the QSCONN command in no-prompt mode

```
>QSCONN LTC 1 PS 12
```

The following example shows the QSCONN command used with the XSG parameter to query all of the special connections on XSG 332.

QSCONN - Query special connections (continued)

Example of the QSCONN command in prompt mode

```

>QSCONN
Enter: SELECTOR
> XSG
Enter: PM NUMBER
> 332

Special Connections on XSG 332:

      ENDPT1          ENDPT2          CONTYPE STATUS  P-SIDE    C-SIDE
                                PORT CHNL PORT CHNL
-----
XSGCHNL 332 1      HOST 67 1 08 08 B1  Con   PMB    **   01   00   20
XSGCHNL 332 2      HOST 67 1 08 08 B2  Con   PMB    **   02   01   20
XSGCHNL 332 3      HOST 67 1 08 10 B1  Con   PMB    **   03   02   20
XSGCHNL 332 4      HOST 67 1 08 10 B2  Con   PMB    **   04   03   20
4 SPECCONN entries for XSG 332.
    
```

Example of the QSCONN command in no-prompt mode

```
>QSCONN XSG 332
```

The following example shows the QSCONN command used with the SEG parameter to query all the segments of the special connection associated with endpoint DS1 LTC 10 5 9.

Example of the QSCONN command in prompt mode

```

> QSCONN
Enter: SELECTOR
> SEG
Enter: scsel
> DS1
Enter: pm name
> LTC
Enter: LTCNO LTCKTNO LTCKTTS
>10 5 9

SEG  ENDPOINT1          ENDPOINT2          CONTYPE STATUS
-----
0  DS1 LTC  10 5 9      XPM_CSIDE LTC  10 7 10  Con   PMB
1  XPM_CSIDE LTC  10 11 1  XPM_PSIDE LTC  10 1 14  Con   PMB
2  LCM_CSIDE 2 14      ISLC HOST 67 0 07 03 B2 Con   PMB
    
```

QSCONN - Query special connections (continued)

Example of the QSCONN command in no-prompt mode

```
>QSCONN SEG DS1 LTC 10 5 9
```

The following example shows the QSCONN command used with the SEG parameter to query all the segments of the special connection associated with endpoint XSG 2, channel 3.

Example of the QSCONN command in prompt mode

```
> QSCONN
Enter: SELECTOR
> SEG
Enter: scsel
> XSGCHNL
Enter: XSGNO CHNL
> 2 3
```

SEG	ENDPOINT1	ENDPOINT2	CONTYPE	STATUS
0	XSGCHNL 2 3	XPM_CSIDE NIU 1 0 9	Con	Act
1	JNET 1 20 9	JNET 3 59 27	Con	Act
2	XPM_CSIDE LTC 1 13 27	XPM_PSIDE LTC 1 10 13	Con	Act
3	LCM_CSIDE 0 13	ISLC HOST 67 1 00 09 B1	Con	Act

Example of the QSCONN command in no-prompt mode

```
>QSCONN SEG XSGCHNL 2 3
```

The following example shows the QSCONN command used with the NET parameter to query all the special connections through the network.

QSCONN - Query special connections (continued)

Example of the QSCONN command in prompt mode

```

>QSCONN
Enter: SELECTOR
>NET

Special Connections on JNET :
Pathend headers: P = network pair
                  L = network link
                  C = network channel

      ENDPT1          ENDPT2          CONTYPE STATUS   PATHEND1   PATHEND2
                                P     L     C     P     L     C
-----
XSGCHNL  1 1   HOST 67 1 01 20 B1   Con   Act    1  20   1    3  59  18
XSGCHNL  2 1   HOST 67 1 01 21 B1   Con   Act    1  51   8    3  59  19
XSGCHNL  2 2   HOST 67 1 01 22 B1   Con   Act    3  39   8    3  59  20
XSGCHNL  1 2   HOST 67 1 01 23 B1   Con   Act    3  16   1    3  59  21
XSGCHNL  4 1   HOST 67 1 01 24 B1   Con   Act    1  51  24    3  59  22
XSGCHNL  3 1   HOST 67 1 01 16 B1   Con   Act    1  20  17    3  59  23
XSGCHNL  3 2   HOST 67 1 01 18 B1   Con   Act    3  16  17    3  59  24
-----
xxx network segment entries were found in table SPECCONN.

```

Example of the QSCONN command in no-prompt mode

```
>QSCONN NET
```

Help information

The help query command can be used to determine the syntax of the QSCONN command, as illustrated below.

QSCONN - Query special connections (continued)

Example of help for the QSCONN command

```

CI:
>Q QSCONN

QSCONN - QUERY SPECIAL CONNECTION FACILITY
-----
% EXAMPLES:                                     %
%                                     (pside/    %
% QSCONN (pmtyp) (pmno)  cside) (portno)      %
% QSCONN LTC      10    ps      10            %
%                                     %
% QSCONN (XSG) (XSG number)                   %
% QSCONN XSG 10                                %
%                                     %
% QSCONN (network)                             %
% QSCONN NET                                    %
%                                     %
% QSCONN (segment) (an endpoint from Table Speconn) %
% QSCONN SEG      ds1 ltc 10 5 9              %
-----
Parms: <SELECTOR> {LTC <PM NUMBER> {0 TO 255}
          <PORT SIDE> {PS <PORT NUMBER> {0 TO 19},
          CS <PORT NUMBER> {0 TO 15}},
          LGC <PM NUMBER> {0 TO 255}
          <PORT SIDE> {PS <PORT NUMBER> {0 TO 19},
          CS <PORT NUMBER> {0 TO 15}},
          RCCI <PM NUMBER> {0 TO 255}
          <PORT SIDE> {PS <PORT NUMBER> {0 TO 19},
          CS <PORT NUMBER> {0 TO 15}},
          .
          .
          .

```

Prompts

The following table lists the prompts for the QSCONN command in alphabetical order.

Input prompts for the QSCONN command (Sheet 1 of 2)

Prompt	Valid input	Explanation
CHNL	1 to 31, except ISLC (B1, B2)	The ISG, XSG, or ISLC channel.
PMCKTNO	0 to 19, except SRCC and RCC2 (0 to 47)	The PM circuit number.

QSCONN - Query special connections (end)

Input prompts for the QSCONN command (Sheet 2 of 2)

Prompt	Valid input	Explanation
PMCKTTS	1 to 24, except TMS (1 to 31)	The specific PM circuits.
pm_name	TMS, SMU, SMA, SRCC, RCC2, RCCI, DTCL, DTC, LGC, or LTC	The name of the PM.
PMNO	0 to 511, except TMS (0 to 255)	The PM number.
PM NUMBER	0 to 255, except XSG (0 to 749)	The PM number.
PORT NUMBER	0 to 19 for PS0 to 15 for CS	The port number.
PORT SIDE	PS or CS	The P side or C side port on the PM.
scsel	DS1, XSGCHNL, ISLC, RCUL, DS0T, D30, DCHCHNL, or ST	The special connection selector specifying the type of endpoint you want to query.
SELECTOR	XSG, SEG, NET, or any type of ISDN XPM	The type of connection you wish to query.
XSGNO	0 to 749	The XSG number as defined in table XSGDEF.

Notes

There are six possible connection types (CONTYPE):

- PEND—pending
- RES—reserved
- CON—connected
- CONAB—AB signaling
- TIMED—timed
- TIMAB—timed AB

There are five possible segment status values (STATUS):

- PMB—PM busy
- INACT—inactive
- ACT—active
- MTC—maintenance
- NOINTG—no integrity

QX75 - Query X.75 connections

Description

The QX75 command displays information for the specified XSG that is associated with the X75 special connections to the DMS packet handler. The information displayed is the XSG and point, the carrier peripheral module, and the CLLI name and member.

Example

The following example shows the QX75 command when it is used to query XSG 1.

Example of the QX75 command in prompt mode

```

> QX75
Next par is: <xsg> {XSG <xsg num> {0 TO 749}}
Enter: <xsg>
> XSG
Next par is: <xsg num> {0 TO 749}
Enter: <xsg num>
> 1

```

XSG	ENDPT	CARRIER	CLLI, MEMBER
XSG	1 7	DTC 1 2 2	RPOA7777E164 1
XSG	1 8	DTC 1 2 5	RPOA8888E164 2
XSG	1 9	DTC 1 2 7	PKTLCLINE164 5
XSG	1 10	LTC 11 6 8	PKTLCLOUTE164 6
XSG	1 11	DTC 1 2 9	RPOA3333E164 1
XSG	1 12	DTC 1 2 10	RPOA4444E164 2
XSG	1 13	LTC 11 0 18	PKTLCLINE164 7
XSG	1 14	LTC 11 1 19	PKTLCLOUTE164 8
XSG	1 15	LTC 11 0 20	RPOA3333E164 3
XSG	1 16	LTC 11 0 21	RPOA4444E164 4
XSG	1 19	LTC 91 1 1	LTC91RCC21X75P 1
XSG	1 20	LTC 91 1 2	LTC91RCC21X75P 2

Example of the QX75 command in no-prompt mode

```

>QX75 XSG 1

```

Help information

The following example provides help information about the QX75 command.

QX75 - Query X.75 connections (end)

>HELP QX75

This command queries X75 special connections to the DMSPH for the specified XSG

Prompts

The following table lists the prompts for the QX75 command in alphabetical order.

Input prompts for the QX75 command

Prompt	Valid input	Explanation
xsg	XSG	constant
xsg num	0 to 749	The XSG number

7 Appendix A: Examples of complete procedures

This chapter contains examples of complete procedures commonly performed using SERVORD. The following procedures are described:

1. Changing service from circuit to packet
2. Removing a logical terminal and its associated DN
3. Changing parameters EKTS, LTCLASS, MAXKEYS, and TEI_TYPE
4. Establishing a hunt group for packet terminals
5. Provisioning an existing packet terminal as a member of a hunt group
6. Introduced in NA008, ISDN Packet Shared DN (AF6777) permits the sharing of a DN with different call types over multiple terminals on the DMS-100.
7. Introduced in NA008, ISDN Packet Single DN (AF6782) allows the use of the same directory number (DN) for packet mode (PMD) or voice interface (VI) and circuit mode data (CMD) call appearances on Fully Initializing Terminals (FIT) called integrated terminals (IT). ITs use only one terminal end point identifier (TEI) for all call types. With ISDN Packet Single DN, end users can establish PMD and VI/CMD calls independently and simultaneously from or to the same DN on an IT. This capability is datafilled as two B-channel and one D-channel (2BD) provisioning. On an IT, the call types would be represented as different appearances of the DN on separate keys.
8. Introduced in NA014, On-demand B-channel X.25 Packet Mode Data—Provisioning, Data Distribution Manager, and XLIU (59013267) permits the user to originate packet-mode calls over a user-initiated B-channel connection to a packet handler (PH). On-demand B-channel Packet Mode Data provisioning is supported only on NI2 2BD terminals. The On-demand B-channel capability requires provisioning of option ODB on a DN associated with an unmapped NI2 2BD LTID. Only the NEW command can be used to provision a DN with option ODB. The DMS software does not allow using SERVORD commands, ADD, ADO, ADDPH, CHF, DEO, EST, and SETPH with option ODB. Option ODB

allows the sharing of a B-channel between VI, CMD, and PMD call types. Option ODB allows the use of the B-channel for speech and circuit-switched data calls when it is not being used for B-channel packet-mode data calls.

Note: With ISDN Packet Shared DN and ISDN Packet Single DN two OUT commands are necessary to remove service from a DN that is shared.

Example 1: Changing service from circuit to packet

A terminal with a call appearance (CAP) on key 1 and DN 847-6000 is assigned LTID ISDN 32. This terminal has circuit-switching bearer capability of 56-kbit/s data and is changed to B-channel packet switching. The following steps must be performed:

1. Remove the CAP using the OUT command.
2. Detach the logical terminal from the LEN using the SLT DET command.
3. Remove the LTID from the access information tables using the SLT REM command.
4. Define the logical terminal as B-channel packet switching using the SLT ADD command.
5. Reattach the logical terminal to a LEN using the SLT ATT command.

Removing the CAP

The following SERVORD example shows how the QLT command is used to find out which key has call appearance.

Figure 7-1 SERVORD example for QLT command in prompt mode

```
>QLT ISDN 32
LTID: ISDN 32
CS: Y PS: N
LTCLASS: BRAFS
LEN: HOST 0 0 0 9 TEI: 5
CUSTGRP: PNB SUBGRP: 0 NCOS: 1
LINE CLASS CODE: ISDNKSET
MAXKEYS: 32
OPTIONS: NONE
      KEY      DN
      ---      --
      1        8476000
      KEY      FEATURE
      ---      -
      1        BC 56KDATA
      24       RLS
```


The following SERVORD example shows how the OUT command is used to remove the CAP on key 1.

Figure 7-2 SERVORD example for OUT command in prompt mode

```
SO:
> OUT
SONUMBER:  NOW 86 09 26 AM
> (CR)
DN:
> 8476000
LEN_OR_LTID:
> ISDN 32
INTERCEPT_NAME:
> BLDN
```

Figure 7-3 SERVORD example for OUT command in no-prompt mode

```
> OUT $ 8476000 ISDN 32 BLDN
```

Detaching the logical terminal from the LEN

The following SERVORD example shows how the SLT DET command is used to detach LTID ISDN 32 from the LEN.

Figure 7-4 SERVORD example for SLT DET command in prompt mode

```
SO:
> SLT
SONUMBER:  NOW 86 09 26 AM
> (CR)
LTID:
> ISDN 32
FUNCTION:
> DET
```

Figure 7-5 SERVORD example for SLT DET command in no-prompt mode

```
> SLT $ ISDN 32 DET
```

Removing the LTID

The following SERVORD example shows how the SLT REM command is used to remove LTID ISDN 32 from the information tables.

Figure 7-6 SERVORD example for SLT REM command in prompt mode

```
SO:
> SLT
SONUMBER: NOW 86 09 26 AM
> (CR)
LTID:
> ISDN 32
FUNCTION:
> REM
```

Figure 7-7 SERVORD example for SLT REM command in no-prompt mode

```
> SLT $ ISDN 32 REM
```

Defining the logical terminal as B-channel packet

The following SERVORD example shows how the SLT ADD command is used to define LTID ISDN 32 as a B-channel packet-switching device.

Figure 7-8 SERVORD example for SLT ADD command in prompt mode

```
SO:
> SLT
SONUMBER: NOW 86 09 26 AM
> (CR)
LTID:
> ISDN 32
FUNCTION:
> ADD
LTCLASS:
> BRAFS
CS:
> N
PS:
> B
```

Figure 7-9 SERVORD example for SLT ADD command in no-prompt mode

```
> SLT $ ISDN 32 ADD N B
```

Attaching the logical terminal to a LEN

The following SERVORD example shows how the SLT ATT command is used to attach LTID ISDN 22 to LEN 0 0 0 9.

Figure 7-10 SERVORD example for SLT ATT command in prompt mode

```

SO:
> SLT
SONUMBER: NOW 86 09 26 AM
> (CR)
LTID:
> ISDN 32
FUNCTION:
> ATT
LEN:
> 0 0 0 9
OPTION:
> PHLINK
XSG:
> 300
OPTION:
> BCH
BCH:
> B1

```

Figure 7-11 SERVORD example for SLT ATT in no-prompt mode

```
> SLT $ ISDN 32 ATT 0 0 0 9 PHLINK LTC 4 10 2 BCH B1
```

Note: Additional datafill is necessary for the DPN-100 packet handler to set up packet service to or from the DS-1 channel connected to LTC 4 10 2. For the DMS packet handler, specify an XSG at the XSG prompt.

Example 2: Removing a logical terminal and its associated DN

An ISDN terminal has three CAPs on keys 1, 2, and 3. Its LTID is ISDN 12. To remove this terminal and its associated DN, the following steps must be performed:

1. Remove each CAP, one at a time.
2. Detach the LT from the LEN and TEI.
3. Remove the LT.

Removing the CAPs

The following SERVORD example shows how the OUT command is used to remove the CAP on key 3. Repeat this procedure to remove the CAP on keys 1 and 2.

Figure 7-12 SERVORD example for OUT command in prompt mode

```
SO:
> OUT
SONUMBER:  NOW 86 09 26 AM
> (CR)
DN:
> 5494002
LEN_OR_LTID:
> ISDN 12
INTERCEPT_NAME:
> BLDN
```

Figure 7-13 SERVORD example for OUT command in no-prompt mode

```
> OUT $ 5494002 ISDN 12 BLDN
```

Detaching the logical terminal from the LEN and TEI

The following SERVORD example shows how the SLT DET command is used to detach LTID 12 from the LEN and TEI.

Figure 7-14 SERVORD example for SLT DET command in prompt mode

```
SO:
> SLT
SONUMBER:  NOW 86 09 26 AM
> (CR)
LTID:
> ISDN 12
FUNCTION:
> DET
```

Figure 7-15 SERVORD example for SLT DET command in no-prompt mode

```
> SLT $ ISDN 12 DET
```

Removing the LTID

The following SERVORD example shows how the SLT REM command is used to remove LTID ISDN 12.

Figure 7-16 SERVORD example for SLT REM command in prompt mode

```

SO:
> SLT
SONUMBER:  NOW 86 09 26 AM
> (CR)
LTID:
> ISDN 12
FUNCTION:
> REM

```

Figure 7-17 SERVORD example for SLT REM command in no-prompt mode

```

> SLT $ ISDN 12 REM

```

The loop located on an LCME can be moved from its current ISG to another ISG or to a specific channel on another ISG.

Example 3: Changing parameters EKTS, LTCLASS, MAXKEYS, and TEI_TYPE

The provisionable parameters EKTS, LTCLASS, MAXKEYS, and TEI_TYPE are dependent on other provisioned parameters. Therefore, the table editor should not be used to change these parameters since no error and consistency checking occurs. To change these parameters, perform the following steps:

1. Detach the logical terminal from the LEN and the TEI using the SLT DET command.
2. Remove the service associated with the DN and LTID using the OUT command.
3. Remove the LTID from the access information tables using the SLT REM command.
4. Change the LTID parameters as required using the SLT ADD command.
5. Reestablish service and assign the DN using the NEW command.
6. Reattach the logical terminal to the LEN using the SLT ATT command.

Detaching the logical terminal from the LEN and TEI

The following SERVORD example shows how the SLT DET command is used to detach LTID FUNC 11 from the LEN and TEI.

Figure 7-18 SERVORD example for SLT DET command in prompt mode

```
SO:
> SLT
SONUMBER:  NOW 92 10 30 AM
> (CR)
LTID:
> FUNC 11
FUNCTION:
> DET
```

Figure 7-19 SERVORD example for SLT DET in no-prompt mode

```
> SLT $ FUNC 11 DET
```

Removing service associated with the DN and LTID

The following SERVORD example shows how the OUT command is used to remove service associated with DN 621-5861 and LTID FUNC 11.

Figure 7-20 SERVORD example for OUT command in prompt mode

```
SO:
> OUT
SONUMBER:  NOW 92 10 30 AM
> (CR)
DN:
> 6215861
LEN_OR_LTID:
> FUNC 11
INTERCEPT_NAME:
> BLDN
```

Figure 7-21 SERVORD example for OUT command in no-prompt mode

```
> OUT $ 6215861 FUNC 11 BLDN
```

Removing the LTID from the information tables

The following SERVORD example shows how the SLT REM command used to remove LTID FUNC 11 from the access information tables.

Figure 7-22 SERVORD example for OUT command in prompt mode

```
SO:
> SLT
SONUMBER:  NOW 92 10 30 AM
> (CR)
LTID:
> FUNC11
FUNCTION:
> REM
```

Figure 7-23 SERVORD example for OUT command in no-prompt mode

```
> SLT $ FUNC 11 REM
```

Changing the parameters associated with the LTID

Once the previous three steps have been completed, the provisionable parameters associated with the LTID are redefined using the SLT ADD command. The parameters EKTS, LTCLASS, MAXKEYS, and TEI_TYPE can be changed at this point. The following example defines a circuit-switched, functional logical terminal with an LTID of FUNC 11, a dynamic TEI set, and a protocol version and issue of FUNCTIONAL 1.

Figure 7-24 SERVORD example for SLT ADD command in prompt mode

```
SO:
> SLT
SONUMBER:  NOW 92 10 30 AM
> (CR)
LTID:
> FUNC 11
FUNCTION:
> ADD
LTCLASS:
> BRAFS
CS:
> Y
PS:
> N
MAXKEYS:
> 64
TEI_TYPE:
> DTEI
ABS:
> NOPMD
ABS:
> $
EKTS:
> N
OPTION:
> SPIDSFX
SPID_SUFFIX:
> 11
OPTION:
> PVC
VERSION:
> FUNCTIONAL
ISSUE:
> 1
OPTION:
> $
```

Figure 7-25 SERVORD example for SLT ADD in no-prompt mode

```
> SLT $ FUNC 11 ADD BRAFS Y N 64 DTEI NOPMD $ N SPIDSFX
11 PVC FUNCTIONAL 1 $
```

Reestablishing service and assigning the DN

The following SERVORD example shows how the NEW command is used to define a new CAP with DN 621-5861 and LTID FUNC 11. The line is

associated with key 1 and the options AFC, LNR, XFER, DROP, and RLS are added.

Figure 7-26 SERVORD example for NEW command in prompt mode

```
SO:
> NEW
SONUMBER:  NOW 92 10 30
> (CR)
DN:
> 6215861
LCC:
> ISDNKSET
GROUP:
> IBNTST
SUBGRP:
> 0
NCOS:
> 0
SNPA:
> 613
KEY:
> 1
RINGING:
> Y
LATANAME:
> NILLATA
LTG:
> 0
LEN_OR_LTID:
> FUNC 11
OPTKEY:
> 1
OPTION:
> AFC
NUMCALLS:
> 1
```

Figure 7-27 SERVORD example for NEW command in prompt mode (continued)

```
OPTKEY:  
> 1  
OPTION:  
> LNR  
OPTKEY:  
> 7  
OPTION:  
> AFC  
NUMCALLS:  
> 1  
OPTKEY:  
> 8  
OPTION:  
> XFER  
CXFERTYP:  
> CTALL  
OPTKEY:  
> 9  
OPTION:  
> DROP  
OPTKEY:  
> 24  
OPTION:  
> RLS  
OPTKEY:  
> $
```

Figure 7-28 SERVORD example for NEW command in no-prompt mode

```
> NEW $ 6215861 ISDNKSET IBNTST 0 0 613 1 Y NILLATA 0 FUNC  
11 1 AFC 1 1 LNR 1 1 7 AFC 1 8 XFER CTALL 9 DROP 24 RLS $
```

Reattaching the logical terminal to the LEN

The following SERVORD example shows how the ATT function of the SLT command is used to reattach the logical terminal FUNC 11 to LEN 2 1 8 3.

Figure 7-29 SERVORD example for SLT ATT command in prompt mode

```

SO:
> SLT
SONUMBER:  NOW 92 10 30 AM
> (CR)
LTID:
> FUNC 11
FUNCTION:
> ATT
LEN:
> 2 1 8 3
OPTION:
> $

```

Figure 7-30 SERVORD example for SLT ATT command in no-prompt mode

```

> SLT $ FUNC 11 ATT 2 1 8 3 $

```

Example 4: Establishing a hunt group for packet terminals

Use this procedure to initially set up a multiline hunt (MLH) or distributed line hunt (DLH) group for packet terminals. This example assumes that neither the pilot LTID nor member LTIDs have been created; that is, there are no existing logical terminals to be associated with the hunt group.

For information on provisioning an existing terminal as a member of a hunt group, refer to example 5.

The following steps are required to set up a DLH/MLH hunt group for packet terminals:

1. Create a new LTID for the hunt group pilot using the SLT ADD command.
2. Establish the hunt group by specifying the pilot DN using the EST command.
3. Create new LTIDs for the hunt group members using the SLT ADD command.
4. Assign DN's to each hunt group member using the NEW command.
5. Add the members to the hunt group using the ADD command.

6. Attach the pilot LTID to a LEN using the SLT ATT command. (If the terminal is a B-channel packet device, use the PHLINK option to establish the nailed-up connection in table SPECCONN.)
7. Attach each member LTID to a LEN using the SLT ATT command. (If the terminals are B-channel packet devices, use the PHLINK option to establish the nailed-up connections in table SPECCONN.)

Creating a new LTID for the hunt group pilot

The following SERVORD example shows how the SLT ADD command is used to create LTID ISDN 800. D-channel packet service is specified. For this example, ISDN 800 represents the hunt group pilot.

Figure 7-31 SERVORD example for SLT ADD command in prompt mode

```
>SLT
SONUMBER:      NOW  93  8 27 AM
> (CR)
LTID:
> ISDN 800
FUNCTION:
> ADD
LTCLASS:
> BRAFS
CS:
> N
PS:
> D
```

Figure 7-32 SERVORD example for SLT ADD command in no-prompt mode

```
> SLT $ ISDN 800 ADD BRAFS N D
```

Establishing the hunt group by specifying the pilot DN

The following SERVORD example shows how the EST command is used to establish an MLH group, assign it a pilot DN of 753-4000, and associate the DN with the pilot LTID, ISDN 800. The hunt group size is specified as three.

Figure 7-33 SERVORD example for EST command in prompt mode

```

>EST
SONUMBER:      NOW  93  8 26 AM
> (CR)
GROUPTYPE:
> MLH
HNTGNUMBER:
> 999
PILOT_DN:
> 7534000
LCC:
> ISDNKSET
GROUP:
> COMKODAK
SUBGRP:
> 0
NCOS:
> 0
SNPA:
> 613
KEY:
> 1
RINGING:
> N
PILOT_LEN:
> ISDN 800
MEM_LEN:
> $
OPTION:
> $
GROUPSIZE:
> 3

```

Figure 7-34 SERVORD example for EST command in no-prompt mode

```

> EST $ MLH 999 7534000 ISDNKSET COMKODAK 0 0 613 1 N
ISDN 800 $ $ 3

```

Creating a new LTID for the first hunt group member

The following SERVORD example shows how the SLT ADD command is used to create LTID ISDN 900. D-channel packet service is specified. For this example, ISDN 900 represents the first hunt group member.

Figure 7-35 SERVORD example for SLT ADD command in prompt mode

```
>SLT
SONUMBER:      NOW  93  8 26 AM
> (CR)
LTID:
> ISDN 900
FUNCTION:
> ADD
LTCLASS:
> BRAFS
CS:
> N
PS:
> D
```

Figure 7-36 SERVORD example for SLT ADD command in no-prompt mode

```
> SLT $ ISDN 900 ADD BRAFS N D
```

Creating a new LTID for the second hunt group member

The following SERVORD example shows how the SLT ADD command is used to create LTID ISDN 901. D-channel packet service is specified. For this example, ISDN 901 represents the second hunt group member.

Figure 7-37 SERVORD example for SLT ADD command in prompt mode

```
>SLT
SONUMBER:      NOW  93  8 26 AM
> (CR)
LTID:
> ISDN 901
FUNCTION:
> ADD
LTCLASS:
> BRAFS
CS:
> N
PS:
> D
```

Figure 7-38 SERVORD example for SLT ADD in no-prompt mode

```
> SLT $ ISDN 901 ADD BRAFS N D
```

Assigning a DN to the first hunt group member

The following SERVORD example shows how the NEW command is used to assign a DN to LTID ISDN 900.

Note: All members of the packet hunt group must belong to the same customer group. A DN can appear in one hunt group only.

Figure 7-39 SERVORD example for NEW command in prompt mode

```
>NEW
SONUMBER:      NOW  93  8 26 AM
> (CR)
DN:
> 7534001
LCC:
> ISDNKSET
GROUP:
> COMKODAK
SUBGRP:
> 0
NCOS:
> 0
SNPA:
> 613
KEY:
> 1
RINGING:
> N
LEN_OR_LTID:
> ISDN 900
OPTKEY:
> $
```

Figure 7-40 SERVORD example for NEW command in no-prompt mode

```
> NEW $ 7534001 ISDNKSET COMKODAK 0 0 613 1 N ISDN 900 $
```

Assigning a DN to the second hunt group member

The following SERVORD example shows how the NEW command is used to assign a DN to LTID ISDN 901.

Figure 7-41 SERVORD example for NEW command in prompt mode

```
>NEW
SONUMBER:      NOW  93  8 26 AM
> (CR)
DN:
> 7534002
LCC:
> ISDNKSET
GROUP:
> COMKODAK
SUBGRP:
> 0
NCOS:
> 0
SNPA:
> 613
KEY:
> 1
RINGING:
> N
LEN_OR_LTID:
> ISDN 901
OPTKEY:
> $
```

Figure 7-42 SERVORD example for NEW command in no-prompt mode

```
> NEW $ 7534002 ISDNKSET COMKODAK 0 0 613 1 N ISDN 901 $
```

Adding the two members to the hunt group

The following SERVORD example shows how the ADD command is used to add the two LTIDs to the hunt group. The member LTIDs (ISDN 900 and ISDN 901) are associated with the pilot LTID (ISDN 800).

Figure 7-43 SERVORD example for ADD command in prompt mode

```

>ADD
SONUMBER:      NOW  93  8 26 AM
> (CR)
GROUPTYPE:
> MLH
LINK_LEN:
> ISDN 800
KEY:
> 1
MEM_LEN:
> ISDN 900
KEY:
> 1
MEM_LEN:
> ISDN 901
KEY:
> 1
MEM_LEN:
> $
OPTION:
> $
GROUPSIZE:    3
> (CR)

```

Figure 7-44 SERVORD example for ADD command in no-prompt mode

```

> ADD $ MLH ISDN 800 1 ISDN 900 1 ISDN 901 1 $ $ $

```

Attaching the pilot LTID to a LEN, and specifying a TEI

The following SERVORD example shows how the SLT ATT command is used to attach LTID ISDN 800 to LEN HOST 12 0 0 12.

Note: For D-channel packet terminals, you must specify a TEI. If the terminal is a B-channel packet device, use the PHLINK option to establish the nailed-up connection in table SPECCONN.

Figure 7-45 SERVORD example for SLT ATT command in prompt mode

```
>SLT
SONUMBER:      NOW  93  8 26 AM
> (CR)
LTID:
> ISDN 800
FUNCTION:
> ATT
LEN:
> HOST 12 0 0 12
OPTION:
> TEI
TEI:
> 23
OPTION:
> $
```

Figure 7-46 SERVORD example for SLT ATT command in no-prompt mode

```
> SLT $ ISDN 800 ATT HOST 12 0 0 12 TEI 23 $
```

Attaching the first hunt group member to a LEN and specifying a TEI

The following SERVORD example shows how the SLT ATT command is used to attach LTID ISDN 900 to LEN HOST 12 0 0 12.

Figure 7-47 SERVORD example for SLT ATT command in prompt mode

```
>SLT
SONUMBER:      NOW  93  8 26 AM
> (CR)
LTID:
> ISDN 900
FUNCTION:
> ATT
LEN:
> HOST 12 0 0 12
OPTION:
> TEI
TEI:
> 24
OPTION:
> $
```

Figure 7-48 SERVORD example for SLT ATT command in no-prompt mode

```
> SLT $ ISDN 900 ATT HOST 12 0 0 12 TEI 24 $
```

Attaching the second hunt group member to a LEN, and specifying a TEI

The following example shows how the SLT ATT command is used to attach LTID ISDN 901 to LEN HOST 12 0 0 12.

Figure 7-49 SERVORD example for SLT ATT command in prompt mode

```
>SLT
SONUMBER:      NOW  93  8 26 AM
> (CR)
LTID:
> ISDN 901
FUNCTION:
> ATT
LEN:
> HOST 12 0 0 12
OPTION:
> TEI
TEI:
> 25
OPTION:
> $
```

Figure 7-50 SERVORD example for SLT ATT command in no-prompt mode

```
> SLT $ ISDN 901 ATT HOST 12 0 0 12 TEI 25 $
```

Example 5: Provisioning an existing packet terminal as a member of a hunt group

Use this procedure to assign an existing packet terminal to a multiline hunt (MLH) or distributed line hunt (DLH) group. This example assumes that the hunt group has been established, and that an existing working terminal needs to be added.

For information on initially setting up a hunt group, refer to example 4.

The following steps are required to assign an existing packet terminal to an MLH/DLH group:

1. If the terminal is a B-channel packet device, query the link information for the LTID using the QPHF command. Note the XSG.
2. Detach the terminal from the LEN using the SLT DET command.
3. Add the terminal to the hunt group using the ADD command.
4. Reattach the terminal to a LEN using the SLT ATT command. (If the terminal is a B-channel packet device, use the PHLINK option to reestablish the nailed-up connection in table SPECCONN.)

Querying the link information for the LTID

The following example shows how the QPHF command is used to query the link information for LTID ISDN 32. The QPHF command provides the XSG mapping information required when you reattach a B-channel packet terminal.

Figure 7-51 SERVORD example for QPHF command in prompt mode

```

>QPHF LTID ISDN 32
                                LINK INFORMATION
                                -----
                                TYPE: X.25 B           LTID: ISDN 32

MAPPING
-----
CHANNEL:  4  X.25 PB
XSG: 4
DN: 6135020201, KEY: 1

CALL INFORMATION
-----

pvc:                0 calls
svc:                0 calls
incoming svc:       0 calls
outgoing svc:       0 calls

```

Detaching the logical terminal from the LEN

The following example shows how the SLT DET command is used to detach LTID ISDN 32 from the LEN.

Figure 7-52 SERVORD example for SLT DET command in prompt mode

```

SO:
> SLT
SONUMBER: NOW 86 09 26 AM
> (CR)
LTID:
> ISDN 32
FUNCTION:
> DET

```

Figure 7-53 SERVORD example for SLT DET command in no-prompt mode

```

> SLT $ ISDN 32 DET

```

Adding the logical terminal to the hunt group

The following example shows how the ADD command is used to add the LTID to the hunt group. The new member LTID (ISDN 32) is associated with the pilot LTID (ISDN 800). The hunt group size is increased from 3 to 4.

Figure 7-54 SERVORD example for ADD command in prompt mode

```

>ADD
SONUMBER:      NOW 93 8 26 AM
> (CR)
GROUPTYPE:
> MLH
LINK_LEN:
> ISDN 800
KEY:
> 1
MEM_LEN:
> ISDN 32
KEY:
> 1
MEM_LEN:
> $
OPTION:
> $
GROUPSIZE:    3
> 4

```

Figure 7-55 SERVORD example for ADD command in no-prompt mode

```
> ADD $ MLH ISDN 800 1 ISDN 32 1 $ $ 4
```

Reattaching the LTID to a LEN (B-channel packet terminal)

The following example shows how the SLT ATT command is used to attach LTID ISDN 32 to LEN HOST 12 0 0 12. This example assumes that ISDN 32 is defined as a B-channel packet terminal.

Note: You must reestablish the nailed-up connections for B-channel packet terminals. Use the original XSG displayed with the QPHF command.

Figure 7-56 SERVORD example for SLT ATT command in prompt mode

```
>SLT
SONUMBER:      NOW  93  8 26 AM
> (CR)
LTID:
> ISDN 32
FUNCTION:
> ATT
LEN:
> HOST 12 0 0 12
OPTION:
> PHLINK
XSG:
> 4
OPTION:
> BCH
BCH:
> B1
```

Figure 7-57 SERVORD example for SLT ATT command in no-prompt mode

```
> SLT $ ISDN 32 ATT HOST 12 0 0 12 PHLINK 4 BCH B1 $
```

Reattaching the LTID to a LEN (D-channel packet terminal)

The following example shows how the SLT ATT command is used to attach LTID ISDN 33 to LEN HOST 12 0 0 12. This example assumes that ISDN 33 is defined as a D-channel packet terminal.

Note: You must specify a TEI for D-channel packet terminals.

Figure 7-58 SERVORD example for SLT ATT command in prompt mode

```

>SLT
SONUMBER:      NOW  93  8 26 AM
> (CR)
LTID:
> ISDN 33
FUNCTION:
> ATT
LEN:
> HOST 12 0 0 12
OPTION:
> TEI
TEI:
> 26
OPTION:
> $

```

Figure 7-59 SERVORD example for SLT ATT command in no-prompt mode

```

> SLT $ ISDN 33 ATT HOST 12 0 0 12 TEI 26 $

```

Example 6: Provisioning Packet Shared DN to two terminals with different switching capabilities.

SERVORD examples for adding FuncName

The following SERVORD example shows how a terminal with CS capabilities is added to an LTID.

Figure 7-60 Example of the SLT ADD command in prompt mode adding first terminal with CS capabilities

```
>SLT
SONUMBER:  JUL 97 07 08 AM
>(CR)
LTID:
>ISDN 20
FUNCTION:
>ADD
LTCLASS:
>BRAFS
CS:
>Y
PS:
>N
MAXKEYS:
64:
DEFLTERM:
>N
TEI_TYPE:
>DTEI
EKTS:
>N
OPTION:
>PVC
VERSION:
>FUNCTIONAL
ISSUE:
>2
OPTION:
>$
```

Figure 7-61 Example of the SLT ADD command in no-prompt mode adding first terminal with CS capabilities

```
>SLT ISDN 20 ADD BRAFS Y N 64 N DTEI N PVC FUNCTIONAL 2
```

The following SERVORD example shows how a terminal with PS capabilities is added to an LTID.

Figure 7-62 Example of the SLT ADD command in prompt mode adding second terminal with PS capabilities

```
>SLT
SONUMBER: JUL 97 07 08 AM
>(CR)
LTID:
>ISDN 30
FUNCTION:
>ADD
LTCLASS:
>BRAFS
CS:
>N
PS:
>D
OPTION:
>$
```

Figure 7-63 Example of the SLT ADD command in no-prompt mode adding second terminal with PS capabilities

```
>SLT $ ISDN 30 ADD BRAFS N D $
```

The following SERVORD example shows how a NEW DN is assigned to an existing LTID with CS service.

Figure 7-64 Example of the NEW command in prompt mode associating DN and key on first ISDN terminal

```
>NEW
SONUMBER: JUL 97 07 08 AM
>(CR)
DN:
>7235116
LCC_ACC:
>ISDNKSET
GROUP:
>CUSTB
SUBGRP:
>1
NCOS:
> 0
SNPA:
> 613
KEY:
> 1
RINGING:
>Y
LTANAME:
>NILLATA
LTG:
>ISDN 20
OPTKEY:
> $
```

Figure 7-65 Example of the NEW command in no-prompt mode associating DN and key on first ISDN terminal

```
>NEW $ 7235116 ISDNKSET CUSTB 1 0 613 1 Y NILLATA ISDN 20 $
```

The following SERVORD example shows how a NEW DN is assigned to an existing LTID with PS service.

Figure 7-66 Example of the NEW command in prompt mode associating DN and key on second ISDN terminal

```

>NEW
SONUMBER: JUL 97 07 08 AM
>(CR)
DN:
>7235116
LCC_ACC:
>ISDNKSET
GROUP:
>CUSTB
SUBGRP:
>1
NCOS:
> 0
SNPA:
> 613
KEY:
> 1
RINGING:
>N
LTANAME:
>NILLATA
LTG:
>ISDN 30
>$

```

Figure 7-67 Example of the NEW command in no-prompt mode associating DN and key on second ISDN terminal

```

>NEW $ 7235116 ISDNKSET CUSTB 1 0 613 1 N NILLATA ISDN 30 $

```

SERVORD examples for SLT ATT command

The following two examples show the SERVORD SLT ATT command attaching an existing LTID to a LEN assigned to the same DN on separate terminals.

Figure 7-68 Example of the SLT ATT command in prompt mode attaching LEN to first terminal with CS capabilities

```
>SLT
SONUMBER: JUL 97 07 08 AM
>(CR)
LTID:
>ISDN 20
FUNCTION:
>ATT
LEN:
>HOST 12 0 0 12
OPTION:
>$
```

Figure 7-69 Example of the SLT ATT command in no-prompt mode attaching LEN to first terminal with CS capabilities

```
>SLT $ ISDN 20 ATT HOST 12 0 0 12 $
```

Figure 7-70 Example of the SLT ATT command in prompt mode attaching LEN to second terminal with PS capabilities

```
>SLT
SONUMBER: JUL 97 07 08 AM
>(CR)
LTID:
>ISDN 30
FUNCTION:
>ATT
LEN:
>HOST 12 0 0 12
OPTION:
>TEI
TEI
>1
OPTION:
>$
```

Figure 7-71 Example of the SLT ATT command in no-prompt mode attaching LEN to second terminal with PS capabilities

```
>SLT $ ISDN 20 ATT HOST 12 0 0 12 TEI 1 $
```

Scenarios

The following SERVORD commands share a DN between a CS LTID and a PS LTID.

```
>SLT $ ISDN 101 ADD BRAFS Y N 64 N DTEI $ N PVC FUNCTIONAL 2 $
```

```
>SLT $ ISDN 102 ADD BRAFS N D
```

```
>NEW $ 723500 ISDNKSET IBNTST 0 0 613 1 Y NILLATA 0 ISDN 101 $
```

```
>NEW $ 723500 ISDNKSET IBNTST 0 0 613 1 N NILLATA 0 ISDN 102 $
```

```
>SLT $ ISDN 101 ATT HOST 12 0 0 12 $
```

```
>SLT $ ISDN 102 ATT HOST 12 0 0 12 TEI 1 $
```

The following SERVORD commands share a DN between a CS LTID and a hunt group pilot LTID with PS service.

```
>SLT $ ISDN 101 ADD BRAFS Y N 64 N DTEI $ N PVC FUNCTIONAL 2 $
```

```
>SLT $ ISDN 102 ADD BRAFS N D
```

```
>NEW $ 7235000 ISDNKSET IBNTST 0 0 613 1 Y NILLATA 0 ISDN 101 $
```

```
>EST $ MLH 100 7235000 ISDNKSET IBNTST 0 0 613 1 N NILLATA 0  
ISDN 102 $ $ 5
```

```
>SLT $ ISDN 101 ATT HOST 12 0 0 12 $
```

```
>SLT $ ISDN 102 ATT HOST 12 0 0 12 TEI 1 $
```

```
>ADD $ MLH ISDN 102 1 $ $ $
```

The reverse order of adding a DN as pilot DN to the hunt group PS LTID first and then to the CS LTID is also supported. Use these steps for sharing a DN among pilot DN of hunt group CS LTID and a PS LTID. The applicable hunt groups for CS terminals are DNH, DLH, PRH, and MLH and for PS terminals DLH and MLH.

The following SERVORD commands provide sharing of a DN between a PS LTID and a hunt group CS LTID (as DNH hunt group member DN).

```
>SLT $ ISDN 102 ADD BRAFS Y N 64 N DTEI $ N PVC FUNCTIONAL 2 $
```

```
>SLT $ ISDN 101 ADD BRAFS N D
```

```
>EST $ DNH 100 7235000 ISDNKSET IBNTST 0 0 613 1 Y NILLATA 0  
ISDN 102 $ $ 5
```

```
>NEW $ 7235005 ISDNKSET IBNTST 0 0 613 1 N NILLATA 0 ISDN 101 $
```

```
>SLT $ ISDN 102 ATT HOST 12 0 0 12 $
```

```
>SLT $ ISDN 101 ATT HOST 12 0 0 12 TEI 1 $
```

The reverse order of adding a DN to the packet LTID first and then as member of the Hunt Circuit LTID is also supported.

In the existing SERVORD system, it is possible to add 20 hunt group members with one ADD command. The same is supported in this feature.

The following SERVORD commands remove service for a shared DN

```
>SLT $ ISDN 100 DET
```

```
>SLT $ ISDN 101 DET
```

```
>OUT $ 7235000 ISDN 100 BLDN
```

```
>OUT $ 7235000 ISDN 101 BLDN
```

```
>SLT $ ISDN 101 REM
```

```
>SLT $ ISDN 100 REM
```

Example 7: Provisioning Packet Single DN to two keys with different switching capabilities on a terminal.

The following examples shows the SERVORD prompts used to add an NI2 terminal capable of supporting ISDN Packet Single DN on a line.

SERVORD example for adding NI2 terminal

The following SERVORD example shows how an NI2 terminal with 2BD capabilities is added.

Figure 7-72 Example of the SLT ADD command in prompt mode—adding NI2 terminal with the capability to handle 2BD call type

```

>SLT
SONUMBER: JUL 97 07 08 AM
>(CR)
LTID:
>ISDN 20
FUNCTION:
>ADD
LTCLASS:
>BRAFS
CS:
>NI2
PS:
>D
MAXKEYS:
64:
DEFLTERM:
>N
TEI_TYPE:
>DTEI
EKTS:
>Y
OPTION:
>PVC
VERSION:
>FUNCTIONAL
ISSUE:
>2
OPTION:
>$

```

Figure 7-73 Example of the SLT ADD command in no-prompt mode adding NI2 terminal

```
>SLT$ ISDN 20 ADD BRAFS NI2 D 64 N DTEI Y PVC FUNCTIONAL 2
```

Note: The PVC option is the default on NI2 terminals if no PVC option is entered.

SERVORD examples for adding ISDN Packet Single DN, and associating different call types to keys on an NI2 terminal

Both PMD and (VI or CMD) service are assigned to the same DN and different keys on a terminal. Assigning a DN and key on the terminal without PMD call type defined will default to VI service.

Figure 7-74 Example of the NEW command in prompt mode associating DN and key on NI2 terminal no call type option identified. SERVORD assigns voice interface (VI) as default

```

>NEW
SONUMBER: JUL 97 07 08 AM
>(CR)
DN:
>7235116
LCC_ACC:
>ISDNKSET
GROUP:
>CUSTB
SUBGRP:
>1
NCOS:
> 0
SNPA:
> 613
KEY:
> 7
RINGING:
>Y
LTANAME:
>NILLATA
LTG:
>ISDN 20
OPTKEY:
> $
ENTER Y TO CONFIRM, N TO REJECT OR E TO EDIT
> Y
*** WARNING ***
call type NOT ENTERED FOR DN, DEFAULT VOICE WILL BE
USED.

```

Figure 7-75 Example of the NEW command in no-prompt mode associating DN and key on NI2 terminal with no call type

```

>NEW $ 7235116 ISDNKSET CUSTB 1 0 613 7 N NILLATA ISDN 20 $

```

Note: Because no call type option was entered the following default tuple will be created in table KSETLINE.

(ISDN 20 7 DN Y 7235116 CUSTB 1 0 613 VI)

Figure 7-76 Example of the NEW command in prompt mode associating DN and key on NI2 terminal with call type PMD

```

>NEW
SONUMBER:  JUL 97 07 08 AM
>(CR)
DN:
>7235116
LCC_ACC:
>ISDNKSET
GROUP:
>CUSTB
SUBGRP:
>1
NCOS:
> 0
SNPA:
> 613
KEY:
> 7
RINGING:
>N
LTANAME:
>NILLATA
LTG:
>ISDN 20
OPTKEY:
> 7
OPTION:
> PMD
OPTKEY:
>$

```

Figure 7-77 Example of the NEW command in no-prompt mode-associating DN and key on NI2 terminal with call type PMD

```

>NEW $ 7235116 ISDNKSET CUSTB 1 0 613 7 N NILLATA ISDN 20 7 PMD $

```

Note: If call type PMD option is assigned to another key on the terminal, the following error message will be issued.

```

*** ERROR - INCONSISTENT DATA ***DN CANNOT BE SHARED AMONG TWO
KEYS OF THE SAME CALL TYPE

```

Figure 7-78 Example of the NEW command in prompt mode-associating DN and key on NI2 terminal with call type VI

```

>NEW
SONUMBER: JUL 97 07 08 AM
>(CR)
DN:
>7235116
LCC_ACC:
>ISDNKSET
GROUP:
>CUSTB
SUBGRP:
>1
NCOS:
> 0
SNPA:
> 613
KEY:
> 1
RINGING:
>N
LTANAME:
>NILLATA
LTG:
>ISDN 20
OPTKEY:
> 1
OPTION:
> VI
VI_PIC:
>C521
VI_LPIC:
>C522
VI_LPIC_CHOICE:
>Y
OPTKEY:
>$

```

Figure 7-79 Example of the NEW command in no-prompt mode-associating DN and key on NI2 terminal with call type VI

```

>NEW NOW 97 7 08 08 AM 7235116 ISDNKSET CUSTB 1 0 613 1 N
NILLATA ISDN 20 1 VI C521 C522 Y$

```

Figure 7-80 Example of the NEW command in prompt mode-associating DN and key on NI2 terminal with call type CMD

```
>NEW
SONUMBER: JUL 97 07 08 AM
>(CR)
>7235116
LCC_ACC:
>ISDNKSET
GROUP:
>CUSTB
SUBGRP:
>1
NCOS:
> 0
SNPA:
> 613
KEY:
> 7
RINGING:
>N
LTANAME:
>NILLATA
LTG:
>ISDN 20
OPTKEY:
> 7
OPTION:
> CMD
CMD_RATE:
>64
CMD_PIC:
>C521
CMD_LPIC:
>C522
CMD_LPIC_CHOICE:
>Y
```

Figure 7-81 Example of the NEW command in no-prompt mode-associating DN and key on 2BD terminal with call type CMD

```
>NEW $ 7235116 ISDNKSET CUSTB 1 0 613 7 N NILLATA ISDN 20 7 CMD
64 C521 6522 Y $
```

Figure 7-82 Example of the NEW command in prompt mode associating DN and key 1 on NI2 terminal with call type PMD

```

>NEW
SONUMBER:  JUL 97 07 08 AM
>(CR)
DN:
>7235116
LCC_ACC:
>ISDNKSET
GROUP:
>CUSTB
SUBGRP:
>1
NCOS:
> 0
SNPA:
> 613
KEY:
> 1
RINGING:
>N
LTANAME:
>NILLATA
LTG:
>ISDN 20
OPTKEY:
> 1
OPTION:
> PMD
OPTKEY:
>$

```

Figure 7-83 Example of the NEW command in no-prompt mode-associating DN and key 1 on 2BD terminal with call type PMD

```

>NEW $ 7235116 ISDNKSET CUSTB 1 0 613 1 N
NILLATA ISDN 20 1 PMD $

```

Note: If call type PMD option is assigned to key one on the terminal the following error message will be issued.

```

*** ERROR - INCONSISTENT DATA ***LINE OPTION PMD CANNOT BE ON
KEY 1.

```

Figure 7-84 Example of the EST command in prompt mode establishing DN 7235116 as DLH hunt group pilot on LTID ISDN 20, key 18 for PMD call type.

```

>EST
SONUMBER: JUL 97 07 08 AM
>(CR)
GROUPTYPE:
>DLH
PILOT_DN:
>7235116
LCC_ACC:
>ISDNKSET
GROUP:
>CUSTB
SUBGRP:
>1
NCOS:
> 0
SNPA:
> 613
KEY:
> 18
RINGING:
>N
LATANAME:
>NILLATA
LTG:
>ISDN 20
PILOT_LEN:
>$
OPTION:
> PMD
GROUPSIZE:
> 2

```

Figure 7-85 Example of the EST command in no-prompt mode-establishing DN 7235116 as DLH hunt group pilot on LTID ISDN 20, key 18 for PMD call type.

```

>EST $ DLH 7235116 ISDNKSET CUSTB 1 0 613 1 N
NILLATA ISDN 20 $ PMD 2$

```

Scenarios

The following set of SERVORD commands will add an NI2 type LTID, associate CS service CMD with DN 7235116 and key 1, and associate PS service PMD with DN 7235116 and key 7. This command set activates 2BD service and FuncName.

Figure 7-86 Example of the SLT ADD command in no-prompt mode—adding NI2 terminal with 2BD capabilities

```
>SLT NOW 97 7 26 AM ISDN 20 ADD BRAFS NI2 D 64 N DTEI Y PVC
FUNCTIONAL 2
```

Figure 7-87 Example of the NEW command in no-prompt mode—associating DN and key 1 on 2BD terminal with call type CMD

```
>NEW NOW 97 7 08 08 AM 7235116 ISDNKSET CUSTB 1 0 613 1 N
NILLATA ISDN 20 1 CMD 64 C521 6522 Y $
```

Figure 7-88 Example of the NEW command in no-prompt mode—associating DN and key 7 on 2BD terminal with call type PMD

```
>NEW NOW 97 7 08 08 AM 7235116 ISDNKSET CUSTB 1 0 613 7 N
NILLATA ISDN 20 7 PMD $
```

The following set of SERVORD commands remove a DN from service. On LTID ISDN 20, packet switched (PS) PMD call type is defined on key 2 and circuit switched (CS) CMD call type is defined on key 1. One OUT command is used to remove the PMD service on ISDN 20, key 2. The DN will remain in service with only the CMD call type on key 1. If a second OUT command is issued to ISDN 20 key 1, the DN will be removed from service.

Note: In prompt mode, the OUT command will issue a prompt for the key number of the service to be removed.

Figure 7-89 Example of the OUT command in no-prompt mode—removing DN 7235116 PMD call type service on LTID ISDN 20, key 2

```
>OUT 7235116 ISDN 20 BLDN 2
```

Figure 7-90 Example of the OUT command in no-prompt mode—removing DN 7235116 CMD call type service on LTID ISDN 20, key 1

```
>OUT 7235116 ISDN 20 BLDN 1
```

Note: The following error message will be issued if the OUT command is issued to an integrated terminal without specifying the key.

```
*** ERROR - INCONSISTENT DATA ***INTEGRATED TERMINAL. ENTER
KEY VALUE.
```

Example 8: Provisioning On-demand B-channel Packet Mode Data service

The following example shows the SERVORD prompts used to add an NI2 2BD terminal capable of supporting ODB DNs.

SERVORD example for adding an LTID for an NI2 terminal

The following SERVORD shows how on an LTID capable of supporting ODB DNs along with a D-packet DN is added.

Figure 7-91 Example of the SLT ADD command in prompt mode—adding an NI2 2BD LTID capable of supporting ODB DNs along with a D-packet DN

```

>SLT
SONUMBER: MAY 0 05 10 PM
>(CR)
LTID:
>NI2 400
FUNCTION:
>ADD
LTCLASS:
>BRAFS
CS:
>NI2
PS:
>D
MAKEKEYS:
>64
DEFLTERM:
>N
TEI-TYPE:
>DTEI
TSPID:
>6135554000
EKTS:
>N
OPTION:
>$
    
```

Figure 7-92 Example of the SLT ADD command in no-prompt mode—adding an NI2 2BD LTID capable of supporting ODB DNs along with a D-packet DN

```
>SLT$ NI2 400 ADD BRAFS NI2 D 64 N DTEI 6135554000 N $
```

SERVORD examples for using the NEW command to add ODB and D-packet DNs when ODB DN is on key 1

The following are examples of using the NEW command to add ODB and D-packet DNs. When key 1 is provisioned as a ODB DN, a second ODB DN can be assigned to any other key. An optional PMD DN can also be provisioned on a vacant key.

Figure 7-93 Example of the NEW command in prompt mode used to assign an ODB DN to key 1 of an NI2 2BD terminal

```

>NEW
SONUMBER:    NOW 0 5 10 PM
>(CR)
DN:
>6135551000
LCC_ACC:
>ISDNKSET
GROUP:
>LONS634
SUBGRP:
>0
NCOS:
>0
SNPA:
>613
KEY:
>1
RINGING:
>N
LTG: 0
>(CR)
LEN_OR_LTID:
>NI2 400
OPTKEY:
>1
OPTION:
>ODB
OPTION:
>$

```

Figure 7-94 Example of the NEW command in no-prompt mode used to assign an ODB DN to key 1 of an NI-2 2BD terminal

```

>NEW $ 6135551000 ISDNKSET LONS634 0 0 613 1 N 0 NI2 400 1 ODB $

```

Figure 7-95 Example of the NEW command in prompt mode—used to assign an ODB DN to key 5 of an NI-2 2BD terminal

```
>NEW
SONUMBER:    NOW 0 5 10 PM
>(CR)
DN:
>6135551000
LCC_ACC:
>ISDNKSET
GROUP:
>LONS634
SUBGRP:
>0
NCOS:
>0
SNPA:
>613
KEY:
>5
RINGING:
>N
LTG: 0
>(CR)
LEN_OR_LTID:
>N12 400
OPTKEY:
>5
OPTION:
>ODB
OPTION:
>$
```

Figure 7-96 Example of the NEW command in no-prompt mode—used to assign an ODB DN to key 5 of an NI-2 2BD terminal

```
>NEW $ 6135551000 ISDNKSET LONS634 0 0 613 5 N 0 N12 400 5 ODB $
```

Figure 7-97 Example of the NEW command in prompt mode—used to assign a PMD DN to key 10 of an ISDN BRI terminal

```

>NEW
SONUMBER:    NOW 0 5 10 PM
>(CR)
DN:
>6135551000
LCC_ACC:
>ISDNKSET
GROUP:
>LONS634
SUBGRP:
>0
NCOS:
>0
SNPA:
>613
KEY:
>10
RINGING:
>N
LTG: 0
>(CR)
LEN_OR_LTID:
>N12 400
OPTKEY:
>10
OPTION:
>PMD
OPTION:
>$

```

Figure 7-98 Example of the NEW command in no-prompt mode— used to assign a PMD DN to key 10 of an ISDN BRI terminal

```

>NEW $ 6135551000 ISDNKSET LONS634 0 0 613 10 N 0 N12 400 10 PMD $

```

SERVORD examples for adding ODB and D-packet DNs when a voice DN is on key 1

When provisioning a voice DN on key 1, the DMS software allows the user to provision ODB and PMD (D-packet) DNs on any other key. The following figure shows examples of using the NEW command in no-prompt mode to provision voice DN, keys 4 and 10, with ODB DNs and key 20 with a PMD DN.

Figure 7-99 Example of the NEW command in no-prompt mode used to assign a voice DN to key 1, ODB DNs to keys 4 and 10, and a PMD DN to key 20 of an ISDN BRI terminal

```
>NEW $ 5554001 ISDNKSET LONS634 0 0 613 1 Y 0 NI2 400 $  
>NEW $ 5554002 ISDNKSET LONS634 0 0 613 4 N 0 NI2 400 4 ODB $  
>NEW $ 5554003 ISDNKSET LONS634 0 0 613 10 N 0 NI2 400 10 ODB $  
>NEW $ 5554004 ISDNKSET LONS634 0 0 613 20 N 0 NI2 20 PMD $
```

SERVORD examples adding an ODB DN shared with call types other than PMD in a single DN configuration

The DMS software allows the sharing of an ODB DN with DN call types other than PMD in both single configuration. The following figure shows examples using the SERVORD SLT ADD and NEW commands in no-prompt mode to assign a shared DN for VI-CMD and ODB service. The VI-CMD service is assigned to key 1 and the ODB service is assigned to key 5 of the ISDN BRI terminal.

Figure 7-100 Examples of SERVORD commands used in no-prompt mode to provision a shared ODB DN in a single DN configuration

```
>SLT $ NI2 600 ADD BRAFS NI2 D 64 N DTEI 6135556000 N $  
>NEW $ 5556001 ISDNKSET LONS634 0 0 613 1 0 NI2 600 $  
>NEW $ 5556001 ISDNKSET LONS634 0 0 613 5 N 0 NI2 600 5 ODB $
```

SERVORD examples for adding an ODB DN shared with call types other than PMD in a shared DN configuration

The DMS software allows the sharing of an ODB DN with DN call types other than PMD on a different LTID in a shared configuration. The following figure shows examples using the SERVORD SLT ADD command in no-prompt mode to establish two separate LTIDs. The figure also shows the NEW commands in no-prompt mode used to assign the shared DN to each of the two LTIDs. The VI-CMD service is assigned to key 1 and the ODB service is assigned to key 5 of the ISDN BRI terminal.

Figure 7-101 Examples of SERVORD commands used in no-prompt mode to provision an ODB DN in a shared DN configuration

```
>SLT $ NI2 700 ADD BRAFS NI2 D 64 N DTEI 6135557000 N $  
>SLT $ NI2 900 ADD BRAFS NI2 D 64 N DTEI 6135559000 N $  
>NEW $ 5557001 ISDNKSET LON634 0 0 613 1 Y 0 NI2 700 $  
>NEW $ 5557001 ISDNKSET LON634 0 0 613 5 N 0 NI2 900 5 ODB $
```

SERVORD examples for using the SLT ATT command to attach an LTID provisioned with ODB DNs to a LEN

When attaching an ODB LTID to a LEN, the user must specify the XSG to which it should be connected. The following are the four different ways in which the user can use the SLT ATT command to attach an LTID provisioned with ODB and D packet DNs on it to a LEN:

- specify no options
- specify the PHLINK option only
- specify the DCHCHNL option only
- specify both the PHLINK and DCHCHNL options

SERVORD example for using the SLT ATT command with no options specified to attach an ODB LTID to a LEN

If the user does not specify any option, the XSG for the ODB DNs is chosen by the automatic resource assignment (ARA). The channel to which the LEN is connected is chosen from the entries in table SPECCONN. The following figure shows an example of using the SLT ATT command with no option specified to attach an ODB LTID to a LEN.

Figure 7-102 Example of the SLT ATT command used without options in prompt mode to attach an ODB LTID to a LEN

```
>SLT
SONUMBER:  NOW 0 5 10 PM
>(CR)
LTID:
>NI2 400
FUNCTION:
>ATT
LEN:
>ISDN 00 0 10 00
OPTION:
>$
COMMAND AS ENTERED:
SLT NOW 0 5 10 PM NI2 400 ATT ISDN 00 0 10 00 $
ENTER Y TO CONFIRM, N TO REJECT OR E TO EDIT
>Y
```

Figure 7-103 Example of the SLT ATT command used without options in no-prompt mode to attach an ODB LTID to a LEN

```
>SLT $ NI2 400 ATT ISDN 0 0 10 0 $
```

SERVORD example for using the SLT ATT command with the PHLINK option to attach an ODB LTID to a LEN

If the user specifies the PHLINK option, the XSG chosen for the ODB DN is the one specified by the user. The XSG selected for D packet DN depends on the entries datafilled in table SPECCONN. The following figure shows an example of using the SLT ATT command with the PHLINK option to attach an ODB LTID to a LEN.

Figure 7-104 Example of the SLT ATT command used with the PHLINK option in prompt mode to attach an ODB LTID to a LEN

```

>SLT
SONUMBER:  NOW 0 5 10 PM
>(CR)
LTID:
>NI2 400
FUNCTION:
>ATT
LEN:
>ISDN 00 0 10 00
OPTION:
>PHLINK
XSG:
>100
OPTION:
>$
COMMAND AS ENTERED:
SLT NOW 0 5 10 PM NI2 400 ATT ISDN 00 0 10 00 PHLINK 100 $
ENTER Y TO CONFIRM, N TO REJECT OR E TO EDIT
>Y

```

Figure 7-105 Example of the SLT ATT command used with the PHLINK option in no-prompt mode to attach an ODB LTID to a LEN

```

>SLT $ NI2 400 ATT ISDN 0 0 10 0 PHLINK 100 $

```

SERVORD example for using the SLT ATT command with the DCHCHNL option to attach an ODB LTID to a LEN

If the user specifies the DCHCHNL option, the XSG chosen for the ODB DNs is the one. The XSG selected for D packet DNs is done automatically using ARA. The following figure shows an example of using the SLT ATT command with the DCHCHNL option to attach an ODB LTID to a LEN.

Figure 7-106 Example of the SLT ATT command used with the DCHCHNL option in prompt mode to attach an ODB LTID to a LEN

```
>SLT
SONUMBER:  NOW 0 5 10 PM
>(CR)
LTID:
>NI2 400
FUNCTION:
>ATT
LEN:
>ISDN 00 0 10 00
OPTION:
>DCHCHNL
DCHCHNL:
>30
OPTION:
>$
COMMAND AS ENTERED:
SLT NOW 0 5 10 PM NI2 400 ATT ISDN 00 0 10 00 DCHCHNL 30 $
ENTER Y TO CONFIRM, N TO REJECT OR E TO EDIT
>Y
```

Figure 7-107 Example of the SLT ATT command used with the PHLINK option in no-prompt mode to attach an ODB LTID to a LEN

```
>SLT $ NI2 400 ATT ISDN 0 0 10 0 DCHCHNL 30 $
```

SERVORD example for using the SLT ATT command with both the PHLINK and the DCHCHNL options to attach an ODB LTID to a LEN

If the user specifies the PHLINK and DCHCHNL options, the XSG chosen for the ODB DNs is the one specified by the user. The XSG selected for the D-packet DNs depends on the entry in table SPECCONN for the specified Bd channel. The following figure shows an example of using the SLT ATT command with the PHLINK and DCHCHNL options to attach an ODB LTID to a LEN.

Figure 7-108 Example of the SLT ATT command used with the PHLINK and DCHCHNL options in prompt mode to attach an ODB LTID to a LEN

```

>SLT
SONUMBER:  NOW 0 5 10 PM
>(CR)
LTID:
>NI2 400
FUNCTION:
>ATT
LEN:
>ISDN 00 0 10 00
OPTION:
>PHLINK
XSG:
>100
OPTION:
>DCHCHNL
DCHCHNL:
>30
COMMAND AS ENTERED:
SLT NOW 0 5 10 PM NI2 400 ATT ISDN 00 0 10 00 (PHLINK 100)
(DCHCNHL 30) $
ENTER Y TO CONFIRM, N TO REJECT OR E TO EDIT
>Y

```

Figure 7-109 Example of the SLT ATT command used with the PHLINK and DCHCHNL options in no-prompt mode to attach an ODB LTID to a LEN

```

>SLT $ NI2 400 ATT ISDN 0 0 10 0 (PHLINK 100) (DCHCHNL 30) $

```

8 List of terms

2B1Q

Two binary one quaternary. The interface standard for ISDN basic rate interface (BRI) transmission between the network and the network termination 1 (NT1) as defined by the American National Standards Institute (ANSI).

access module (AM)

The unit that provides access to the network modules (NM) of a digital packet network switching system from a local end user packet data line or the digital interworking unit (DIU).

access privilege (AP)

A term used to define bearer services for an ISDN logical terminal. Nortel Networks currently defines four APs: B (circuit-switched voice and data), D (low-speed packet data), PB (high-speed packet-switched data), and BD (circuit-switched voice and low-speed packet-switched data).

access termination (AT)

The functional term to describe the part of the exchange termination which terminates the access interfaces (BRI and PRI). It defines the access privileges of the terminals on an interface, and provides the terminals on an interface with access to ISDN circuit- and packet-switching services.

agent

See telephony agent.

AM

See access module (AM).

AMA

See automatic message accounting (AMA).

AP

See access privilege (AP).

Automatic message accounting (AMA)

An automatic recording system that documents all the necessary billing data of end user-defined long distance calls.

basic rate access functional set (BRAFS)

An ISDN set that uses functional signaling. The Meridian M5317T is the BRAFS for Nortel Networks. *See also* functional signaling.

basic rate access key set (BRAKS)

An ISDN set that uses stimulus signaling. The Meridian M2317T is the BRAKS for Nortel Networks. *See also* functional signaling, stimulus signaling.

basic rate interface (BRI)

A type of access to ISDN service provided by a set of time-division multiplexed digital channels of information, including two B-channels, one D-channel, and one or more maintenance channels, often described as 2B (channels) + D (channel). A BRI is typically used on lines between customer premises and a central office switch. Formerly known as basic rate interface (BRA).

BC

See bearer capability (BC).

B-channel

A 64-kbit/s digital bidirectional channel used by ISDN for carrying either circuit-switched voice or data, or packet-switched data.

Bb

A B sub-b channel. A 64-kbit/s channel carrying multiplexed B-channel data packets to the packet handler. *See also* B-channel.

Bd

A B sub-d channel. A DS-0 channel that carries low-speed, packet-switched data statistically multiplexed from up to 64 different sources. Bd is one of 24 channels on a DS-1 facility between the ET and the PH.

bearer capability (BC)

A characteristic associated with a directory number (DN) to indicate the type of call (voice or data) and the rate of transmission that is allowed. Bearer capability is also an information element that is carried in the setup message for functional signaling to indicate the type of call (voice or data) and the rate of transmission required (for ISDN). *See also* authorized call type, bearer services.

bearer services

Characteristic that is associated with a logical terminal (service profile) in functional signaling. It offers a pool of bearer capabilities to a logical terminal. Also called authorized call type.

Bell Communications Research (Bellcore)

A group responsible for coordinating Bell operating company projects and setting guidelines for a switching system.

Bellcore

See Bell Communications Research (Bellcore).

BIC

See bus interface card (BIC).

B-packet

Packet data that is transmitted over a B-channel.

BRAFS

See basic rate access functional signalling (BRAFS).

BRAS

See basic rate access key set (BRAS).

BRAMFT

basic rate access Meridian functional signalling (BRAMFT).

BRI

See basic rate interface (BRI).

bus interface card (BIC)

A hardware interface that connects two 32-channel digroups to a maximum of 64 line cards. This card is located in the drawer of the line concentrating module (LCM).

B-voice

A pulse code modulated voice signal carried on a B-channel.

calling line identification (CLI)

In data transmission, a feature provided by the network that allows a called terminal to be notified by the network of the address from which the call has originated. Screening of CLI is performed during call setup only.

call processing

The software that handles the processes involved in setting up connections through the DMS-100 Family network between calling and called parties.

call reference

This identifies the call on the local ISDN interface to which the message applies. Stimulus call control messages have dummy call references because the network controls the call. Functional call control messages are used by the ISDN terminal to distinguish between call appearances of the same directory number, and to selectively control a number of simultaneous calls (for example, an active call, calls on hold, calls waiting).

call type

See authorized call type *and* bearer services.

CCC

See central control complex (CCC).

CCITT

See Consultative Committee on International Telephony and Telegraphy (CCITT).

CCS7

See Common Channel Signaling 7 (CCS7).

central control complex (CCC)

The part of the DMS-100 Family switch that contains all the current control (CC) functions including the central message controller (CMC), CPU, program store (PS), and data store (DS).

central office (CO)

A switching office (SO) arranged for terminating end user lines and provided with switching equipment and trunks for establishing connections to and from other SOs. Also known as a local office.

CLI

See calling line identification (CLI).

Common Channel Signaling 7 (CCS7)

A digital message-based network signaling standard, defined by the CCITT, that separates call signaling information from voice channels so that interoffice signaling is exchanged over a separate signaling link.

CDTE

ISDN cabinetized digital trunk equipment

central side (C-side)

The side of a node that faces away from the peripheral modules (PM) and toward the central control (CC). Also known as control side. *See also* peripheral side (P-side).

channel supervision message (CSM)

A message received and transmitted continuously on each connected voice channel of a peripheral module. The CSM contains a connection data byte, which includes the channel supervision bit, and an integrity byte, which issues call path integrity.

circuit-switched network

Synonym for the telephone network.

CLGE

ISDN cabinetized line group equipment

CLMI

Cabinetized line module ISDN

CO

See central office (CO).

Consultative Committee on International Telephony and Telegraphy (CCITT)

The CCITT is one of the four permanent groups within the International Telecommunication Union (ITU). The CCITT is responsible for studying technical, operating, and tariff questions. This organization also prepares recommendations relating to telephony and telegraphy, including data and program services.

CPE

See customer premises equipment (CPE).

CS-data

Circuit-switched data carried on B-channel

C-side

See central side (C-side).

CSM

See channel supervision message (CSM).

customer premises equipment (CPE)

Equipment, such as ISDN terminals, that is located on the customer's premises.

data link layer

Layer 2 in the open systems interconnection (OSI) model that is used to create logical links between ISDN terminals and the services they access. The datalink layer provides error-free, sequenced messaging over a channel.

data network address (DNA)

A number that accesses a terminal on the packet-switched network.

data network identification code (DNIC)

For ISDN, a code that is used in packet switching to identify the network being addressed.

data packet network (DPN)

A packet-switched networking system that is manufactured by Nortel Networks.

data store (DS)

One of the two distinct elements of a DMS-100 memory, DS is part of the central control complex (CCC). It contains transient information for each call as well as customer data and office parameters. The other main element of a DMS-100 memory is program store (PS). *See also* program store (PS), protected store (PROT).

D-call control

Call control information that is carried on the D-channel and used to establish, maintain, or clear a voice or circuit-switched data call on a B-channel of an ISDN.

DCC

See digroup control card (DCC).

DCH

See D-channel handler (DCH).

D-channel

For BRI, the D-channel is a 16 kbit/s, bi-directional channel. A D-channel carries call control messages between a terminal on an ISDN interface and the

exchange termination. These call control messages are used to set up, maintain, or clear a circuit-switched call on a B-channel. The D-channel also carries low-speed packet data between a terminal on an ISDN interface and a terminal in the packet data network. For PRI, the D-channel is a 64 kbit/s, bi-directional channel. *See also* Bd channel, BRI, PRI.

D-channel handler (DCH)

A card in an ISDN line group controller (LGCI) or in an ISDN line trunk controller (LTCI) that provides the primary interface to all D-channels. The DCH also performs Q.921 LAPD layer 2 processing. The DCH is assigned to an ISDN loop and receives or sends messages on the signaling/packet data channel.

digital interworking unit (DIU)

The unit in a digital packet network switch that converts B-channel and D-channel data packets received in a DS-1 format from the ISDN access controller to a VR-35 format that is suitable for the access module. For packets being sent in the opposite direction, the DIU performs the reverse conversion.

digroup control card (DCC)

A circuit that makes up part of the line concentrating module (LCM) unit control complex. DCC provides eight DS30A ports for connection to the network in the host LCM or to the host interface equipment (HIE) shelf in the remote line concentrating module (RLCM).

direct memory access (DMA)

A device for moving blocks of continuous data to and from memory at a high rate.

directory number (DN)

The full complement of digits required to designate a end user's station within one numbering plan area (NPA)—usually a three-digit central office code followed by a four-digit station number.

DIU

See digital interworking unit (DIU).

DMA

See direct memory access (DMA).

DMS PH

DMS packet handler

DN

See directory number (DN).

DNA

See data network address (DNA).

DNIC

See data network identification code (DNIC).

D-packet

Packet data carried on the D-channel between the packet handler and an ISDN terminal.

DPN

See data packet network (DPN).

DS

See data store (DS).

DS-0

A protocol for data transmission that is used to represent one channel in a 24-channel DS-1 trunk.

DS-1

A closely specified bipolar pulse stream with a bit rate of 1.544 Mbit/s. It is the standard signal used to interconnect Nortel Networks digital systems. The DS-1 signal carries 24 DS-0 information channels of 64 kbit/s each.

DS30 link

1. A 10-bit, 32-channel, 2.048-Mbit/s speech-signaling and message-signaling link as used in the DMS-100 Family. 2. The protocol by which DS30 links communicate.

DS30A link

A 32-channel transmission link between the line concentrating module and controllers in the DMS-100 Family. DS30A is similar to DS30, though intended for use over shorter distances.

DTCI

See ISDN digital trunk controller (DTCI).

DTCOi

See ISDN digital trunk controller offshore (DTCOi).

DTEI

See ISDN digital trunk equipment frame (DTEI).

E.164

The public network numbering plan in accordance with CCITT Recommendation E.164.

EAEO

See equal access end office.

EISP

See enhanced ISDN signaling preprocessor (EISP).

EKTS

See electronic key telephone service (EKTS).

electronic key telephone service (EKTS)

A set of services for ISDN voice terminals on a basic rate interface. EKTS provides shared directory numbers (DN), multiple DNs for each service profile, and conference and intercom calling.

end office (EO)

A switching office (SO) arranged for terminating end user lines and provided with trunks for establishing connections to and from other SOs. *See also* central office (CO).

enhanced ISDN signaling preprocessor (EISP)

Provides call control messaging and D-channel handler maintenance functions, similar to the ISP, but with memory upgrade from 1 Mbyte to 4 Mbyte, clock speed upgrade from 16 MHz to 20 MHz, and data bus upgrade from a 16 bit width to 32 bits.

enhanced line concentrating module (LCME)

A dual-unit peripheral module that terminates ISDN 2B1Q U-type lines, ISDN S/T-type lines, plain ordinary telephone service (POTS), electronic business sets (EBS), and Datapath lines. LCME also provides access to the ISDN B-, D-, and M-channels. The LCME supports 480 POTS, EBS, or ISDN U- lines, or 240 Datapath or S/T- lines.

enhanced service provider (ESP)

A third-party vendor that supplies value-added services to the end user.

enhanced services test unit (ESTU)

A stand-alone test unit that performs metallic and digital line tests at remote or host sites for ISDN services.

EO

See end office (EO).

equal access end office

A central office that provides access to several long distance carriers.

ESP

See enhanced service provider (ESP).

ESTU

See enhanced services test unit (ESTU).

ET

See exchange termination (ET).

ETSI

European Telecommunications Standards Institute

exchange termination (ET)

The functional name for the component of the ISDN that serves as the access termination for BRI and PRI interfaces, and provides circuit-switched services to the ISDN switch.

F-bus

See frame transport bus.

feature indicator (FI)

A device that indicates the state or condition of a call when using a supplementary service on an ISDN stimulus terminal with circuit-switched service.

FI

See feature indicator (FI).

foreign exchange (FX)

A service that allows a telephone or a PBX to be served by a distant central office (CO), rather than by the CO in the immediate geographical area.

frame transport bus (F-bus)

An eight-bit bus that provides data communications between a local message switch (LMS) and the link interface units that are provisioned in a link peripheral processor (LPP). To ensure readability, two load-sharing F-buses are provided in an LPP. Each F-bus is dedicated to one of the two LMSs. *See also* link interface module.

functional signaling

An intelligent terminal in which call control functions are shared between the switch and the terminal.

FX

See foreign exchange (FX).

HFP

HDLC frame processor

HIE

See host interface equipment (HIE).

high-level data link control

The channel by which high-level control messages from the central control are carried between the digital carrier module and remote line modules.

host interface equipment (HIE) shelf

In the remote line concentrating module (RLCM) frame, this shelf provides interface circuits between the host office and the RLCM.

IBERT

See integrated bit error rate test (IBERT).

IEC

Inter-exchange carrier

initial program load (IPL)

The initialization procedure that causes a computer operating system to start operation.

integrated bit error rate test (IBERT)

A test that a MAP operator uses with an IBERT card to test the transmission quality of a selected data line. The card resides in the line drawer of a line concentrating module and generates the bit stream for an IBERT.

integrated services access (ISA)

Uses call setup messages and dialed digits to permit access to public and private network services through one bidirectional common access facility. ISA provides the capability to support multiple call types (such as PUBLIC, PRIVATE, OUTWATS, INWATS, FX, and TIE) on a single trunk.

integrated services digital network (ISDN)

A set of standards proposed by the CCITT to establish compatibility between the telephone network and various data terminals and devices. ISDN is a communications network that provides access to voice, data, and imaging services from a single type of connector.

inter-LATA

Telecommunications services, revenues, and functions that originate in one local access and transport area (LATA) and terminate either outside that LATA or inside another LATA.

International Standards Organization (ISO)

The organization responsible for creating a seven-layer protocol model for a data communications network.

intra-LATA

Telecommunication services, revenues, and functions that originate in one local access and transport area (LATA) and terminate either outside that LATA or inside another LATA.

IPL

See initial program load.

ISA

See integrated services access (ISA).

ISDN

See integrated services digital network (ISDN).

ISDN access controller

A frame used to support ISDN access between a DMS and voice and packet services.

ISDN digital trunk controller (DTCI)

A dual-unit peripheral module that provides access for ISDN primary rate interface to a digital private branch exchange (PBX). The DTCI provides call control for PRI functional signaling, and performs functions similar to the

LGC, including D-channel handling and processing, and maintenance and diagnostics.

ISDN digital trunk controller offshore (DTCOi)

A peripheral module (PM) that connects DS30 links from the network with digital trunk circuits with ISDN.

ISDN digital trunk equipment (DTEI) frame

A frame containing up to two dual-shelf ISDN digital trunk controllers.

ISDN line

The physical part of a basic rate interface (BRI) that connects the terminals to the network termination (NT1).

ISDN line concentrating array (LCAI)

A shelf in the ISDN line concentrating module (LCME). It contains four physical line drawers. The LCME consists of two line concentrating arrays, which operate in a load sharing mode with mutual takeover capability.

ISDN line concentrating equipment (LCEI)

A single-bay equipment frame containing two LCMEs.

ISDN line group controller (LGCI)

A peripheral module that connects DS30 links from the network.

ISDN line trunk controller (LTCI)

A peripheral module that is a combination of the line group controller and the digital trunk controller, and provides all of the services offered by both.

ISDN service group (ISG)

Defines the services that a D-channel handler (DCH) provides and their allocation to the channels within the DCH. ISG allows hardware-independent access to service-related functions at the MAP. The ISG MAP level provides a view of the services and the DCH MAP level provides a view of the hardware.

ISDN signaling preprocessor (ISP)

Provides call control messaging and D-channel handler maintenance functions.

ISDN switch

A DMS switch configured to provide ISDN services. Its main functional components are the exchange termination and the packet handler.

ISDN terminal

A digital telephone or personal computer that is connected to a customer premises loop which forms part of a BRI.

ISDN U-line card (U-ISLC)

An ISDN line card which terminates the U-loop in the enhanced line concentration module (LCME). When a U-ISLC is used, the network termination 1 (NT1) situated on customer premises acts as the network termination. Synonymous with ISLC and U-line card.

ISDN user part (ISUP)

A CCS7 message-based signaling protocol which acts as a transport carrier for ISDN services. The ISUP provides the functionality within a CCS7 network for voice and data services.

ISG

See ISDN service group (ISG).

ISLC

See ISDN U-line card (ISLC).

ISO

See International Standards Organization (ISO).

ISP

See ISDN signaling preprocessor (ISP).

ISUP

See ISDN user part (ISUP).

kbit/s

See kilobits per second (kbit/s).

kilobits per second (kbit/s)

A bit rate expressed in thousands of bits per second.

LAPB

See link access procedure balanced (LAPB).

LAPD

See link access procedure on the D-channel (LAPD).

LATA

See local access and transport area (LATA).

L-bus

A bi-directional link that acts as the interface between the bus interface card and the line card in an enhanced line concentrating module (LCME).

LC

See line circuit (LC).

LCAI

See ISDN line concentrating array (LCAI).

LCC

See Line Class Code (LCC).

LCEI

See ISDN line concentrating equipment (LCEI).

LCM

See line concentrating module (LCM).

LCME

See enhanced line concentrating module (LCME).

LD

See line drawer (LD).

LEN

See line equipment number (LEN).

LGC

See line group controller (LGC).

LGCI

See ISDN line group controller (LGCI).

LIM

See link interface module.

line circuit (LC)

A hardware device that provides an interface between end user lines and the digital switch. Each end user line has a dedicated line circuit. *See also* line drawer (LD).

Line Class Code (LCC)

An alphanumeric code that identifies the class of service assigned to a line.

line concentrating module (LCM)

A peripheral module which interfaces the line trunk controller or line group controller and up to 640 end user lines, using two to six DS30A links.

line drawer (LD)

A hardware entity located in the LCME that contains line circuit cards.

line equipment number (LEN)

A seven-digit function-reference used to identify line circuits.

line group controller (LGC)

A peripheral module that connects DS30 links from the network to the LCME.

line trunk controller (LTC)

A peripheral module that is a combination of the line group controller and the digital trunk controller, and provides all the services offered by both.

link access procedure balanced (LAPB)

X.25 layer 2 access protocol that is used with links established on a B-channel. LAPB supports a single data link that operates with a fixed, single-byte address convention between the ISDN terminal and the network.

link access procedure on the D-channel (LAPD)

ISDN access protocol (layer 2 Q.921) that is used with links established on a D-channel.

link interface module (LIM)

A peripheral module that controls messaging between link interface units (LIU) in a link peripheral processor (LPP). The LIM also controls messages between the LPP and the DMS-bus. An LIM consists of two local message switches (LMS) and two frame transport buses (F-bus). One LMS normally operates in a load sharing mode with the other LMS. This ensures LIM reliability in the event of an LMS failure because each LMS has adequate capacity to carry the full message load of an LPP. Each LMS uses a dedicated F-bus to communicate with the LIUs in the LPP.

link interface unit (LIU)

A peripheral module that processes messages entering and leaving a link peripheral processor through an individual signaling data link. *See also* CCS7 link interface unit 7.

link peripheral processor (LPP)

The DMS SuperNode equipment frame for DMS-STP that contains two types of peripheral modules: an LIM and an LIU. For DMS-STP applications, CCS7 link interface units 7 (LIU7) are used in the LPP. *See also* link interface module.

LIU

See link interface unit (LIU).

local access and transport area (LATA)

A geographic area within which an operating company may offer telecommunications-related services. *See also* inter-LATA and intra-LATA.

logical terminal (LT)

The datafilled instance of an abstract terminal that is provided with a subset of the features and services (service profile) datafilled in the access termination for the abstract terminal.

logical terminal identifier (LTID)

The unique identifier that is assigned to a logical terminal when it is datafilled in the ISDN access termination.

LPP

See link peripheral processor (LPP).

LTC

See line trunk controller (LTC).

LTCI

See ISDN line trunk controller (LTCI).

LTID

See logical terminal identifier (LTID).

maintenance trunk module (MTM)

In a trunk module equipment (TME) frame, a peripheral module (PM) that is equipped with test and service circuit cards and contains special buses to

accommodate test cards for maintenance. The MTM provides an interface between the DMS-100 Family digital network and the test and service circuits.

MAP

The maintenance and administration position. MAP is a group of components that provides a user interface between operating company personnel and the DMS-100 Family systems. A MAP consists of a visual display unit and keyboard, a voice communications module, test facilities, and MAP furniture. MAP is a trademark of Nortel Networks.

Mbit/s

See megabits per second (Mbit/s).

M-channel

A 16-kbit/s, bi-directional, U-loop channel used to transfer maintenance information between the NT1 and the exchange termination.

megabits per second (Mbit/s)

Expresses the rate of transmission of serial data bits in a time-division multiplexed frame format.

MTM

See maintenance trunk module (MTM).

NAS

See network administration system (NAS).

network administration system (NAS)

A stand-alone computer that is involved in operation, administration, and maintenance for integrated services digital network (ISDN) services. The NAS uses data on service and system operation to generate files that contain information on alarms, accounting, billing, and network operation.

network interface unit

A DMS SuperNode application specific unit (ASU) that provides channelized access for F-bus resident link interface units (LIU) using a channel bus (C-bus). The NIU resides in a link peripheral processor (LPP) frame.

network layer

Layer 3 in the OSI model. In ISDN, the network layer is used to send call control messages.

network modules (NM)

The basic building block of the DMS-100 Family switches. The NM accepts incoming calls and uses connection instructions from the central control complex (CCC) to connect the incoming calls to the appropriate outgoing channels. Network module controllers control the activities in the NM.

network termination 1 (NT1)

Access point for basic rate interface to ISDN. This component is situated on customer premises and is typically located between the terminals and the exchange termination. An NT1 is required when ISDN lines are terminated by U-line cards.

NIU

See network interface unit.

NT1

See network termination 1 (NT1).

NTP

Nortel Networks Publication

ODB

See on-demand B-channel (ODB)

On-demand B-channel (ODB)

Starting with the NA014 software release, NI2 ISDN BRI DN's provisioned with the option ODB have the functionality of being able to initiate packet mode data calls on a B-channel. When not being used for packet-mode data, the B-channel can be shared by VI, CMD, and PMD call types.

open system interconnection (OSI)

A 7-layer protocol model for communications networks developed by the International Standards Organization and adopted by the Consultative Committee on International Telephony and Telegraphy (CCITT) for an Integrated Services Digital Network (ISDN).

OSI

See open system interconnection (OSI).

packet handler (PH)

The CCITT term for the component of an ISDN switch that provides packet switching services.

PCM

See pulse code modulation (PCM).

PCM30 digital trunk controller (PDTC)

A digital trunk interface that has the hardware configuration of an international digital trunk controller (IDTC) but runs the software of a digital trunk controller (DTC).

PCM30

A 32-channel 2.048-Mbit/s speech-signaling and message-signaling link used in international trunks.

PDTC

See PCM30 digital trunk controller (PDTC).

peripheral module (PM)

A generic term referring to all hardware modules of DMS-100 Family systems that provide interfaces with external line, trunk, or service facilities. A PM contains peripheral processors, which perform local routines, thus relieving the load on the central processing unit.

peripheral side (P-side)

The side of a node facing away from the central control and towards the peripheral modules. *See also* central side (C-side).

permanent virtual circuit (PVC)

A continuously available virtual path between remote applications and DMS applications. The PVC eliminates the need to establish a circuit on an each call basis.

per trunk signaling (PTS)

Conventional telephony method, which multiplexes a call's control signals with voice or data over the same trunk.

PH

See packet handler (PH).

PM

See peripheral module (PM).

point-of-use power supply (PUPS)

The type of power supply used for an enhanced line concentrating module (LCME). It provides 5V power supply for ISDN line cards. There is one PUPS for each line drawer.

PPSN

See public packet-switched network (PPSN).

PRI

See primary rate interface (PRI).

primary rate interface (PRI)

An interface that carries nB+D channels over a PCM30 digital facility (generally 30B+D for ETSI PRI). PRI is used to link private networking facilities, such as private branch exchanges (PBX), local area networks (LAN), and host computers with a standardized architecture acting as the bridge between private switching equipment and the public network. Formerly known as primary rate access (PRA).

product engineering code

An 8-character code that provides a unique identification for each marketable product manufactured by Nortel Networks.

program store (PS)

In a DMS-100 switch, programmed instructions for the various procedures required to perform processing, administration, and maintenance. Program store is one of the two distinct elements of a DMS-100 memory. The other main element is data store. *See also* data store (DS), protected store (PROT).

PROT

See protected store (PROT).

protected store (PROT)

In a DMS-100 switch, store type (program or data) that must be explicitly unprotected before any write operation and protected again afterward. This type of store remains allocated and its contents remain intact over all restarts except initial program load (IPL). Protected store is used to hold the office database and translation data equipment configurations. *See also* data store (DS), program store (PS).

PS

See program store (PS).

PSDS

See public switched data service (PSDS).

P-side

See peripheral side (P-side).

PTS

See per trunk signaling (PTS).

public packet switched network (PPSN)

Any common carrier network designed to carry data in the form of packets between public users.

public switched data service (PSDS)

Any common carrier network designed to switch data, not necessarily in packet form, between public users.

pulse code modulation (PCM)

Representation of an analog waveform by coding and quantizing periodic samples of the signal, so that each element of information consists of a binary number representing the value of the sample.

PUPS

See point-of-use power supply (PUPS).

PVC

See permanent virtual circuit (PVC).

Q.921

The CCITT recommendation that defines protocols at the datalink layer.

Q.931

The CCITT recommendation that defines protocols for circuit-switched call control at the network layer.

remote line concentrating module (RLCM)

An equipment frame that provides an interface between two to six DS-1 links (from the line group controller LGC) at the host office) and up to 640 end user lines (connected locally). An RLCM is equipped with one line concentrating module (LCM), a remote maintenance module (RMM), and a host interface equipment (HIE) shelf.

remote maintenance module (RMM)

A peripheral module (PM) with a configuration similar to that of the maintenance trunk module (MTM). An RMM accommodates up to 12 service and test cards.

RLCM

See remote line concentrating module (RLCM).

RMM

See remote maintenance module (RMM).

SAPI

See service access point identifier (SAPI).

service access point identifier (SAPI)

Identifier that is used by datalink layer (layer 2) protocol to define the type of service allowed to an ISDN terminal.

signaling processor (SP)

The interface between a master processor and the control circuits in the line-side of a line module. Through the SP, the line circuits, ringing multiplexers, programmable ringing generators, and the activity circuit are controlled, and their status reported.

SO

See switching office (SO).

SP

See signaling processor (SP).

S/T bus

An eight-wire bus (of which only four wires are used to transmit and receive messages) that connects terminals to the NT1 for access to the ISDN. Also known as an S/T-interface and an S/T-loop. Formerly known as a T-bus.

stimulus signaling

For ISDN call control, stimulus signaling mode messages for call control are sent by the terminal to the network as a direct result of actions by the terminal user. Terminals that use stimulus signaling have little local intelligence and are driven by the network. These terminals do not keep records of call states. *See also* functional signaling.

S/T-interface

CCITT name for the S/T-bus.

S/T-line card

An ISDN line card that terminates the S/T-bus in the LCME. When S/T-line cards are used, the U-interface and the NT1 are not required. The exchange termination acts as a network termination. *See also* U-line card.

switching office (SO)

A node in the Common Channel Signaling 7 (CCS7) network that originates and terminates signaling messages related to the set up and take down of associated ISDN user part (ISUP) trunks.

TA

See terminal adapter (TA).

telephony agent

Any kind of line, trunk, or special service circuit that performs a telephony function. *See also* agent.

terminal adapter

A device with associated software that allows a personal computer to connect to a Nortel Networks ISDN terminal.

TME

See trunk module equipment (TME) frame.

trunk module equipment (TME) frame

A frame containing one or more trunk modules (TM), maintenance trunk modules (MTM), or office alarm units (OAU).

U-interface

The CCITT term for a U-loop. *See also* U-loop.

U-line card

ISDN line card that terminates the U-loop in the LCME. When U-line cards are used, the NT1, situated on customer premises, acts as the network termination.

U-loop

The portion of a BRI that connects an NT1 to an ISDN line concentrating module or an enhanced line concentrating module (LCME). *See also* U-interface.

unified processor (UP)

A processor that replaces the master processor (MP), signaling processor (SP), and the memory cards associated with these processors.

universal terminal adapter (UTA)

A device with associated software that allows non-ISDN devices such as personal computers to connect to a Nortel Networks ISDN line.

UP

See unified processor.

VC

See virtual circuit.

virtual circuit

In packet switching, a network facility used for transferring data between those data stations emulating physically-connected stations.

X.31

CCITT recommendation for support of terminal equipment by ISDN

X.121

CCITT standard for data network address

XMS-based peripheral module (XPM)

The generic name for peripheral modules (PM) that use the Motorola 68000 microprocessor. An XPM has two processors in a hot-standby configuration: a master processor (MP) and a signaling processor (SP).

XPM

See XMS-based peripheral module (XPM).

XPM Plus

XMS-based peripheral module that uses enhanced hardware and software

DMS-100 Family

ISDN SERVORD

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Product Documentation-Dept. 3423
Nortel Networks
PO Box 13010
RTP, NC 27708-3010
Telephone: 1-877-662-5669
Electronic mail: cits@nortelnetworks.com

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