Configuration Management: Lawful Intercept Service

Overview

ATTENTION
This document contains an overview of new features and functionality for SN07. All procedural information can be found in the *DMS-100 Family North American Translations Guide*, 297-8021-350.

Lawful Intercept allows operating companies to monitor calls made and received by a switch-based subject and deliver the monitored information to authorized law enforcement agencies (LEA). A *subject* is defined as equipment, facilities, or services of an end user whose incoming, outgoing, and redirected communications is to be accessed and delivered to law enforcement agencies pursuant of a court order or lawful authorization. For more details, refer to *Lawful Intercept*, NN10190-113.

Note: In North American markets, Lawful Intercept is also known as CALEA (Communications Assistance for Law Enforcement Act).

Pre-requisites

A subject must be connected to the same switch where the United States Network Broadcast Delivery (USNBD) feature is located for LEAs to have access to the subject communications For more information, refer to *Lawful Intercept*, NN10190-113.

Intended audience

This document is for support staff that have a good understanding of traditional DMS 100/250/500 translations. The data tables used to do call processing in a Succession Network are essentially the same tables used in DMS translations.

Glossary of terms

The table below lists the terms and acronyms commonly used in this document.

Term	Expansion
AUD	Audio Controller
BCT	Bearer Channel Tandeming
CALEA	Communications Assistance for Law Enforcement Act
CC	Central Control
CCC	Call Content Channels
CCR	Call Content Resource
DCE	Data Communications Equipment
DNA	Data Network Address
DPN	Data Packet Network
DPT	Dynamic Packet Trunk
DTE	Data Terminal Equipment
GWC	Gateway Controller
IOC	Input/Output Controller
IOM	Input/Output Modules
ISUP	ISDN user part
LEA	Law Enforcement Agencies
MDC	Message and Device Controller
MPC	Multiprotocol Controller
MPCLINK	Multiprotocol Controller Link
PEC	Product Equipment Code
PVC	Permanent Virtual Circuit

Term	Expansion
RTS	Return To Service
SERVORD	Service Order System
SERVSINV	Server Subtending Node Inventory
SP	Service Provider
SVC	Switched Virtual Circuit
TDM	Time Division Multiplex
USNBD	United States Network Broadcast Delivery

Supplementary information

The following list references translation or datafill information that do not appear in this document:

- *ATM/IP Configuration Management*, NN10276-500
- *Lawful Intercept*, NN10190-113
- *USNBD Feature Guide*, 297-9801-300
- *DMS-100 Family North American Translations Guide*, 297-8021-350
- *Succession Networks Operational Configuration: Data Schema Reference*, NN10324-509
- *DMS-100 Family North American Customer Data Schema Reference Manual*, 297-8021-351
- *Office Parameters Reference Manual*, 297-8001-855
- *Network Management System Reference*, 297-1001-453
- *Succession SN07 OSS (ATM and IP) Advance Feature Guide*, PLN-07AT-OSS
- *Succession Fault Management Logs Reference*, NN10275-909
- *Succession Performance Management Operational Measurements Reference*, NN10264-709

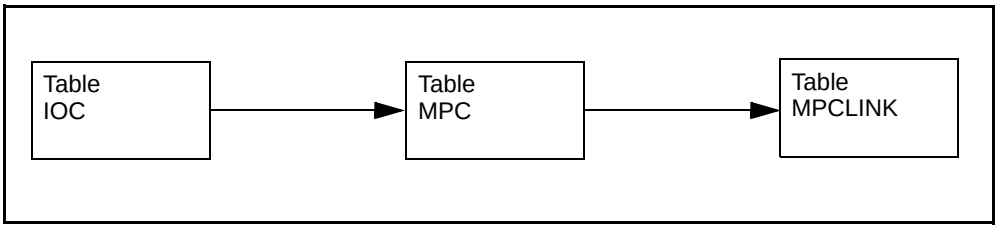
The following documents list the other translation service documents available in this Succession release:

- *Configuration Management: Enhanced* 911 Service, NN10343-501
- *Configuration Management: Government Emergency Telephone Service*, NN10341-501

Associated data tables for configuring Lawful Intercept

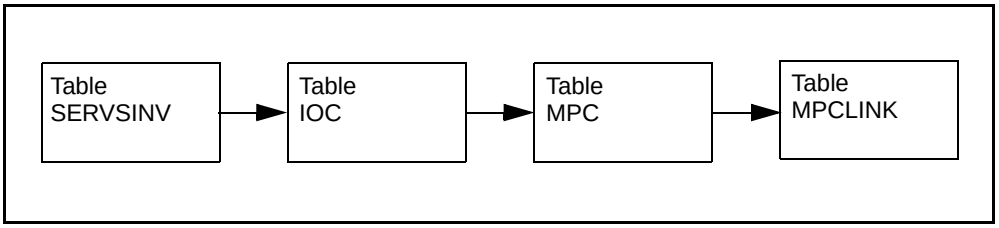
The following flowchart shows the tables required to configure Lawful Intercept in TDM offices, in order of datafill.

Datafill order for Lawful Intercept: TDM



The following flowchart shows the tables required to configure Lawful Intercept for Succession offices, in order of datafill.

Datafill order for Lawful Intercept: Succession



The following descriptions of the tables also are in order of datafill.

Table SERVSINV

Table SERVSINV (Server Subtending Node Inventory) contains the names of the server subtending nodes and their associated gateways. The subtending nodes are the Audio Controller (AUD), Dynamic Packet Trunk (DPT), and the Bearer Channel Tandeming (BCT). A BCT node requires an AUD node that is datafilled against the same gateway controller (GWC).

Table SERVSINV supports the following commands:

- ADD (add)
- DEL (delete)
- CHA (change) (supported only for the AUD node)

For information on datafilling the table, refer to the description of table SERVSINV in the data schema reference documentation (NN10324-509).

Datafill example for table SERVSINV

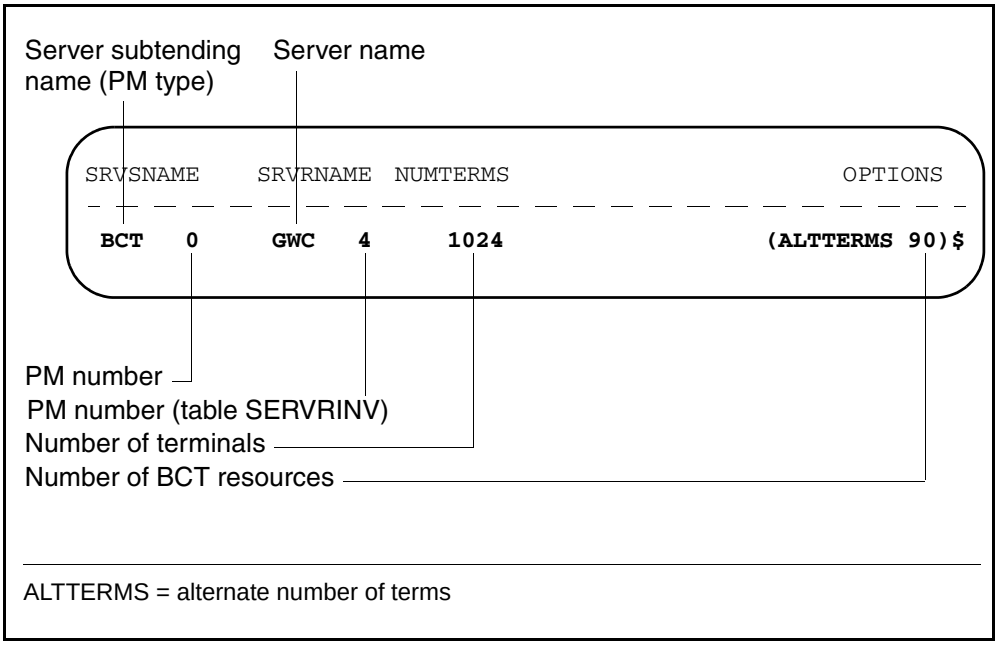


Table IOC

Table IOC (Input/Output Controller) contains assignment data for

- IOCs and messaging
- message and device controller (MDC) modules with
  - — product engineering code (PEC) NT2X76AA or BA
  - — IOC modules NT1X61AA or AB
  - — input/output modules (IOM) NTFX30AA

For information on datafilling the table, refer to the description of table IOC in the data schema reference documentation (NN10324-509).

Datafill example for table IOC

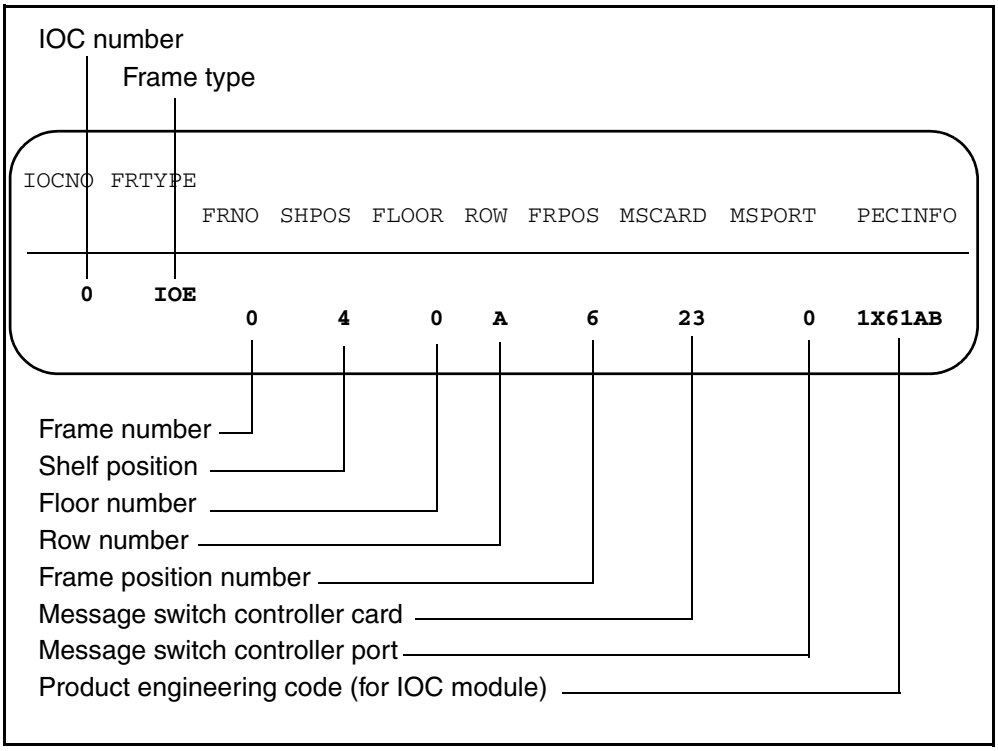


Table MPC

Table MPC (Multiprotocol Controller) contains the values to implement the MPC on the DMS switch, and identifies the MPC card hardware to the DMS central control (CC). The table requires one entry or tuple for each MPC. Each entry contains:

- an index number for the MPC
- the number of the IOC shelf where the card resides
- the card circuit number
- the PEC
- the identification (ID) for the preferred download file

The device that contains the download file can appear before tuple entry in the MPC. The device can appear in a list before the first manual download. In each case, a subsequent download or return to service (RTS) normally succeeds and does not list the download file.

For information on datafilling the table specifically for Lawful Intercept, refer to the description of table MPC in Appendix B of the *USNBD Feature Guide*, 297-9801-300. For more information on datafilling the table generally, refer to the description of table MPC in the data schema reference documentation (NN10324-509).

Datafill example for table MPC

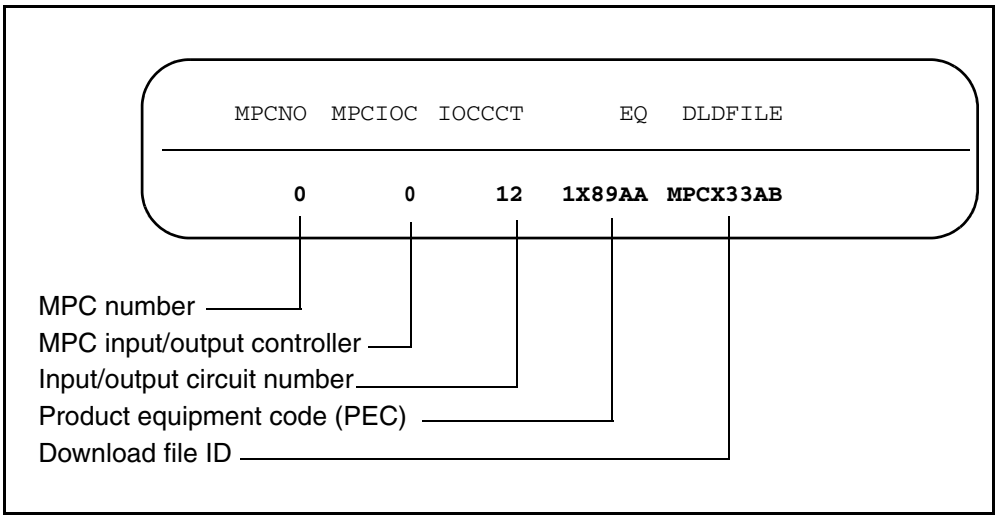


Table MPCLINK

Table MPCLINK (Multiprotocol Controller Link) specifies link and protocol information for cards entered in table MPC. Use table MPCLINK to enter a valid MPC link definition and protocol combination, and subsequent group of protocol-specified fields.

Protocol support ensures that links and conversations are established and maintained. Table MPCLINK supports the applications of

- the 1980 and 1984 ITU X.25 layered protocol and asynchronous communications in the MPC.
- the previous X25ORIG (BX25) protocol

For information on datafilling the table specifically for Lawful Intercept, refer to the description of table MPCLINK in Appendix B of the *USNBD Feature Guide*, 297-9801-300. For more information on datafilling the table generally, refer to the description of table MPCLINK in the data schema reference documentation (NN10324-509).

The protocol selection must correspond to the download file that table MPC specifies, and determines how table MPCLINK is datafilled. The following datafill example assumes a protocol of X2584.

Datafill example for table MPCLINK

```
LINKKEY LINKALM
PROTCLDAT
-------------------------------------------------------------------
28  2     Y
X2584 0 55 (SVCS2WAY 100)(L2WINDOW 7)(L2MODULO MOD8)(L3WINDOW 2)
(L3MODULO MOD8) (NODETYPE DTE) (CLKSRCE EXTERNAL) (L3DATA P256) $
(SVCDNA 0000911) $
```

Protocol selection

Associated office parameters

The parameters in the following table must be activated (by a USNBD administrator) to enable specific USNBD functional capability on an office-wide basis. For more information about these parameters, refer to the *USNBD Feature Guide*, 297-9801-300. To activate these parameters, refer to the respective procedures in *Lawful Intercept*, NN10190-113.

Parameter	Description
HELDMON	Held Conference monitoring
TRIG_LOGS	Trig Log generation
TEST_CALL_BILLNO	Test call billing number

Service activation

Lawful Intercept is not activated by SERVORD (Service Order System).

Translation process

Lawful Intercept uses standard translations for call content channels (CCC) as datafilled in the procedure "Adding an agency" in *Lawful Intercept*, NN10190-113.

Supporting information for Lawful Intercept

Release applicability

SN06 and up

Limitations and restrictions

The following parameters in table MPCLINK that apply to the X.25 protocols must be datafilled to correspond to the circuit subscription for DATAPAC or the host data packet networks (DPN):

- local data network address (DNA)
- number of permanent and switched virtual circuits (PVC and SVC)
- packet window size

Because the parameters must correspond exactly to subscription requirements, it is important to be familiar with the requirements of features that use the MPC, as well as the circuit subscriptions or the environment in which they operate. Configure cards and links in tables MPC and MPCLINK to conform to the needs of higher-level applications.

ATTENTION

If fields PARM=L2WINDOW and PARM=L3WINDOW (for all protocols), then field SIZE must be set to the same value at both the data terminal equipment (DTE) and data communications equipment (DCE) ends of the data link. Otherwise, call processing errors, malfunctions and lost revenue could occur.

Feature interactions

The Lawful Intercept feature does not affect the functionality of any of the features with which it interacts. The ISDN user part (ISUP) Call Control Channels feature introduced in NA015 requires the Agency Separator feature to associate the call content resource (CCR) with an agency.

When creating a surveillance profile:

- If a subject with an active surveillance on the line is a POTS subscriber and orders a feature for the line, the line type can change from POTS to RES. The change from POTS to RES takes down the surveillance, and the surveillance setup must be performed again.
- The service provider (SP) and LEA determine the number of CCRs, depending on the subject feature profile. For example, if the subject has redirection features, such as those in the following table, an additional CCR is required to increase the probability of delivering all call content. If Held Conference Monitoring is enabled on the switch, one additional CCR is required to deliver all call content.

Feature	Description
CFB	Call Forward Busy
CFDA	Call Forward Don't Answer
CFU	Call Forward Universal
CXR	Call Transfer
U3WC	Universal Three-Way Calling

Billing impact

The Lawful Intercept feature does not affect billing. Dedicated lines used as CCCs do not produce billing records. Switched-access lines support remote billable connection to an agency's recording device. Billing is performed on the basis of call type, which generates a call code 006 (Station Paid) for any toll call toward the agency.

When generating billing records for the switched ISUP CCC calls, the billing number specified for the agency is used as the billing number. For TEST calls, the number specified in the USNBD office-wide parameter TEST_CALL_BILLNO is used as the billing number.

Station Message Detail Recording

The use of Lawful Intercept does not affect Station Message Detail Recording (SMDR).

End-user interaction

The use of Lawful Intercept is transparent to the end user.