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DMS-10/DMS-100

DMS Glenayre Integration

Service Implementation Guide

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NORTEL

NORTHERN TELECOM

DMS-10/DMS-100 Family

Glenayre Integration

Service Implementation Guide

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About this document

This document describes the integration of the DMS-10 and DMS-100 switches with the Glenayre Modular Voice Platform (MVP) voice mail system. The integration of these systems provides a robust Central Office voice mail platform supporting Public Carrier Networks customer needs for reselling voice mail service to their customers.

Publication history

December 1998

Preliminary Release 01.01. NA010. First release of this document.

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1.0 Glenayre product overview

1.1 Purpose of this document

The purpose of this document is to provide a comprehensive overview on how to implement and integrate the Glenayre voice mail system into the DMS-100 and DMS-10 switches. The document covers installation of the Modular Voice Platform and datafill required in the DMS-100 and DMS-10. Datafill of some of the generic translations, e.g. DMS-100 and Signal Transfer Point (STP) signaling system seven (CCS7) translations, is beyond the scope of this document.

1.2 Purpose of this application

The purpose of this application is to provide a high reliable, feature rich voice mail system that can be integrated into existing DMS-100 and DMS-10 products with no required design changes. In addition, this application provides the operating company with a cost effective product that provides additional revenue stream from voice mail services as well as from the product's outdialing capability (outgoing toll revenue).

1.3 Scope of this document

The DMS switches and Glenayre MVP voice mail are proven products utilized in the DMS/Glenayre application. This document concentrates on the integration between the DMS switch and the MVP voice and MVP voice mail. In the majority of the descriptions, the DMS switches and the MVP are considered as entities at either end of the integration.

This document is not designed to replace existing Northern Telecom Practices (NTPs) which may be required as references.

1.4 Service Description

The MVP is a multi-application, multi-media enhanced services platform. The suite of standard applications supported today range from basic call answering and voice messaging to Fax messaging, voice dialing, and single number service. Every standard application has numerous features, which make up that application.

1.5 Attributes and Functionalities

The MVP offers the service provider the tools necessary to customize voice mail applications by defining the combination of features, which will constitute the service to be offered. Simply defining unique combinations of features can create variations of the same application. The Glenayre MVP Class of Service and Feature Restriction structures are completely programmable and provide service definitions for large groups of subscribers. The subscriber profile provides for customization on a subscriber-by-subscriber basis. Further customization is made possible by:

1 Support for three unique mailbox numbers per account, and the ability to assign different applications to each number

2 Multiple keypad support and the ability to modify these keypads

3 Customizable prompting and service branding

4 Programmable user tutorials

5 Support for multiple prompt languages

1.6 Product Overview

The DMS Glenayre Integration Project is concentrated on productizing the necessary elements (SW, HW, and processes) for the support of the Glenayre MVP voice mail. The goal is to provide voice services utilizing the MVP with the DMS switches.

The MVP is a multi-application, multi-media enhanced services platform. The suite of standard applications supported today range from basic call answering and voice messaging to Fax messaging, voice dialing, and single number service.

1.7 Description of the Integrations

There are four integration methods for the MVP voice mail to the DMS switches. The DMS switches will be discussed in each section of this document as two distinct switches. The first discussion in each section will be for the DMS-100 Switch Group (100, 200, 250 and 500). The second discussion will be for the DMS-10.

1.7.1 DMS-100 Functionality Decisions

In all configurations the DMS-100 must have a Station Message Desk Interface (SMDI) link to the MVP. The SMDI on the DMS-100 is the NT1X89 card located in the input output controller (IOC) shelf. Specific requirements for the SMDI link are outlined in the SMDI section.

In all MVP configurations the DMS-100 must also be configured with a Universal Call Distribution (UCD) group with a minimum of one member (even if all paths to and from the MVP use trunk groups). The subscriber's phone will be forwarded to the UCD when voice mail is activated. If the

DMS-100 MVP interface is a trunk, the UCD will be configured to overflow route to the trunk, if the call isn't answered within (1) second. If the DMS-MVP interface is a trunkline, the UCD lines will be connected to a channel bank which is connected to the MVP. Directory Hunber Hunt (DNH) datafill is a software design requirement in order to link the calling line information to the SMDI link. The associated UCD lines do not need to be wired out, if using T1/trunking arrangment, or populated with a line card.

Interfaces from the DMS-100 to the MVP (inbound) include Signaling System Seven (CCS7) T1 interfaces (requiring an associated CCS7 "A" or "F" link), multi-frequency (MF) trunking T1 interfaces, and channel bank/T1 (using the associated UCD ground start lines wired to a channel bank). The MVP supports both a T1 channelized "A" or "F" link interface or a V.35 interface.

Interfaces from the MVP to the DMS-100 (outbound) include Signaling System Seven (CCS7) T1 interface (requiring an associated CCS7 "A" or "F" link) or multi-frequency (MF) trunking. Limitation Note: Outbound calls using CCS7 "F" link associated trunks must terminate on the local DMS-100. Outbound calls using CCS7 "A" link/signal transfer point (STP) associated trunks do not have the above limitation.

1.7.1.1 SMDI Signaling for MVP Incoming Integration

SMDI signaling passes signaling information ("A" and "B" party information, call result, etc.) to the MVP over a dedicated RS-232 port. In addition to the normal signaling information, the SMDI connection passes trunking information for MF trunking connections to the MVP system (i.e. what trunk the call is coming in over). The MVP then uses this information to process the call to the correct mailbox. The MVP uses the SMDI link to send commands to the DMS-100 to set and cancel message waiting on the subscriber's phone. This can be stutter dial tone or a message waiting light depending on what is provided by the DMS-100. Since this information does not accompany the call on the inbound line, this type of signaling is referred to as "out of band signaling".

1.7.1.1.1 SMDI Connections

SMDF connections are required for both DMS-100 CCS7 & MF trunking. If the MVP is located more than fifty (50) feet from the DMS-100 1X89 circuit pack (SMDF Interface), a set of lease line modems would be required. If the MVP is connected to multiple central offices, then a separate SMDI link would be connected to each CO unless the CO's utilized Network Message Service (NMS) software in conjunction with CCS7. This software load provides enhanced SMDI where only one SMDI link is required to service multiple COs.

1.7.1.2 CCS7 Signaling for MVP Incoming Integration

Like SMDI, CCS7 Signaling is a digital, out of band signaling format. One MVP CCS7 Central Processing Unit (CPU) module supports two links ("F" link or "A" link). Two CCS7 CPU modules provide support for up to four links. Redundant links can be independent or configured on individual CPU's. There are two possible physical links for the CCS7 signaling. They are Extracted Data Channel (from the T1 span), and V.35. The Extracted Data Channel uses one Time Division Multiplexing (TDM) channel on the T1 span for signaling, and must be ordered from the Telco and configured on the MVP. The V.35 link can either be directly connected to the switch (if they are colocated) or can be connected over a 64 KB modem with a dedicated line. Currently, Glenayre supports several different configurations of the CCS7 protocol which include:

- CCITT ISUP
- CCITT TUP
- ANSI ISUP
- Country specific variants

1.7.1.2.1 CCS7 Physical connections (DMS-100)

In the DMS-100 switch environment, T1 trunks are directly connected to the MVP. In a multiple CO environment, a CCS7 "F" link and separate trunk group would be required for each CO unless there is an STP (Signal Transfer Point) available. If an STP is available, one CCS7 "A" link and one trunk group would be needed for all of the COs. A separate SMDI link is required to send message waiting set and cancel commands to the DMS-100. If the MVP is connected to multiple central offices, an SMDI link would be connected to each CO unless the CO's have Network Message Service (NMS) software loaded.

1.7.1.3 MVP to DMS-100 MF IBNTI Outgoing Trunks

IBNTI trunks are MF type Centrex trunks used for outdialing from the MVP. They can provide calls to a local calling area, long distance with equal access or a dedicated long distance carrier for all subscribers. 800/888 access is also available with this type of trunk group. Automatic Message Accounting (AMA) records are generated on the DMS-100.

- CCITT ISUP
- CCITT TUP
- ANSI ISUP
- Country specific variants

In a multiple CO environment, it is not necessary to have a trunk group for each CO. However, if billing records on the DMS-100 are to be used, it is up to the service provider and their billing company to decide if they are needed.

1.7.1.4 CCS7 MVP to DMS-100 Outgoing trunks

CCS7 Signaling is a digital, out of band signaling two-way format. The MVP can utilize the CCS7 ISUP trunk as an outgoing only or two-way. If CCS7 F links are used, MVP outbound calls are limited to the central office connected directly to the MVP. If A links are used, the MVP can make outgoing calls to any destination.

Currently Glenayre supports several different configuraitons of the CCS7 protocol which include:

- CCITT ISUP
- CCITT TUP
- ANSI ISUP
- Country specific variants

1.7.2 DMS-10 Functionality Decisions

1.7.2.1 SMDI Signaling for Incoming Integration

SMDI signaling passes signaling information ("A" and "B" party information, call result, etc.) to the MVP over a dedicated RS-232 port. In addition to the normal signaling information, the SMDI connection passes trunking information to the MVP system (i.e. what trunk the call is coming in over). The MVP then uses this information to process the call to the correct mailbox. The MVP uses the SMDI link to send commands to the DMS-10 switch to set and cancel message waiting on the subscriber's phone. This can be stutter dial tone or a message waiting light depending on what is provided by the DMS-10 switch. Since this information does not accompany the call on the inbound line this type of signaling is referred to as "out of band signaling".

1.7.2.1.1 SMDI Physical Connections (DMS-10)

An SMDI link from the DMS-10 NT3T80BA card is connected to a MVP RS-232 port. If the MVP is located more than fifty (50) feet from the DMS-10 3T80BA board, then a set of lease line modems would be required. If the MVP is connected to multiple central offices, then a separate SMDI link would be connected to each CO unless the CO's had Network Message Service (NMS) software loaded. This software load provides Enhanced SMDI where only one SMDI link is required to service multiple COs.

1.7.2.2 CCS7 Signaling for MVP Incoming Integration

One MVP CCS7 CPU module supports two CCS7 A/F links. Two CCS7 CPU modules provide support for up to four links. Redundant links can be independent or configured on individual CPU's. The DMS-10 switch supports the Extracted Data Channel using one TDM channel on the T1 span for signaling. Currently, Glenayre supports several different configurations of the CCS7 protocol which include:

- CCITT ISUP
- CCITT TUP
- ANSI ISUP
- Country specific variants

1.7.2.2.1 CCS7 Physical Connection

In the DMS-10 environment, T1 trunks are directly connected to the MVP. These trunks should be configured as ISUP trunks. In a multiple CO environment a CCS7 "F" link and separate trunk group would be required for each CO unless there is an STP (Signal Transfer Point) available. If an STP is available, one CCS7 "A" link and one trunk group would be needed for the COs. An SMDI link is required to light the message waiting lamp and provide stutter dial tone to the phone. If the MVP is connected to multiple central offices, then a separate SMDI link would be connected to each CO.

1.7.2.3 MVP to DMS-10 MF DGPX Outgoing Trunks

Digital Private Mail Exchange (DGPX) trunks are MF type PBX trunks used for outdialing from the MVP.

1.7.2.4 DGPX Physical Connections

In the DMS-10 environment T1 trunks are directly connected to the MVP. These trunks should be configured as DGPX trunks with MF Featured Group C signaling.

1.7.2.5 CCS7 MVP toDMS-10 Outgoing Trunks

CCS7 Signaling is a digital, out of band signaling format. The MVP can utilize the CCS7 ISUP trunk as an outgoing only or bothway trunk handling incoming calls as well. The MVP must utilize CCS7 "A" links for outgoing calls to the DMS-10.

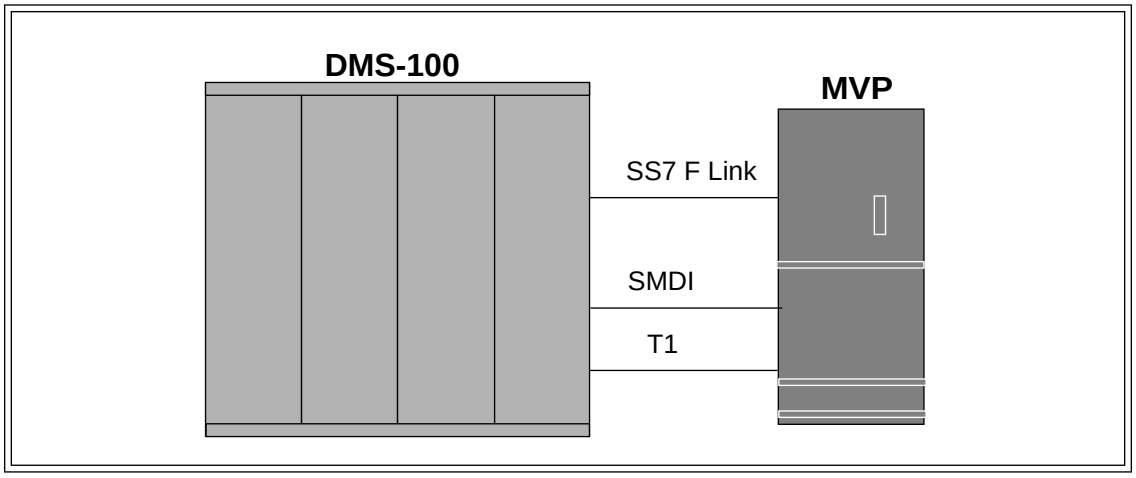
Currently Glenayre supports several different configurations of the CCS7 protocol which include:

- CCITT ISUP
- CCITT TUP
- ANSI ISUP

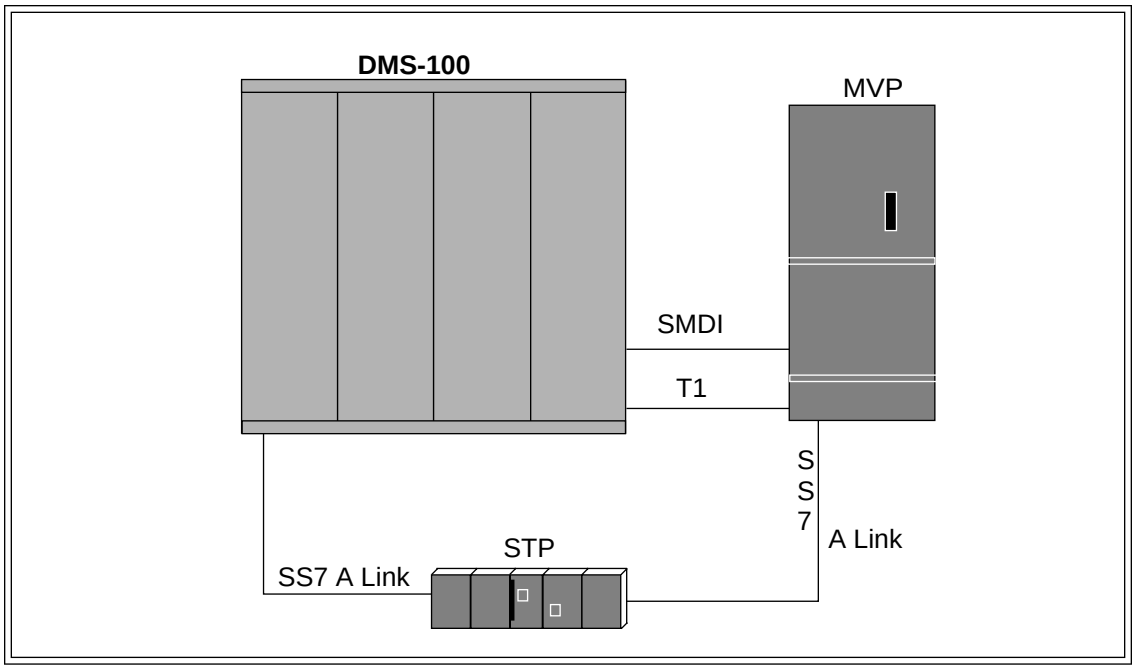
- Country specific variants

1.7.2.6 CCS7 Physical Connection

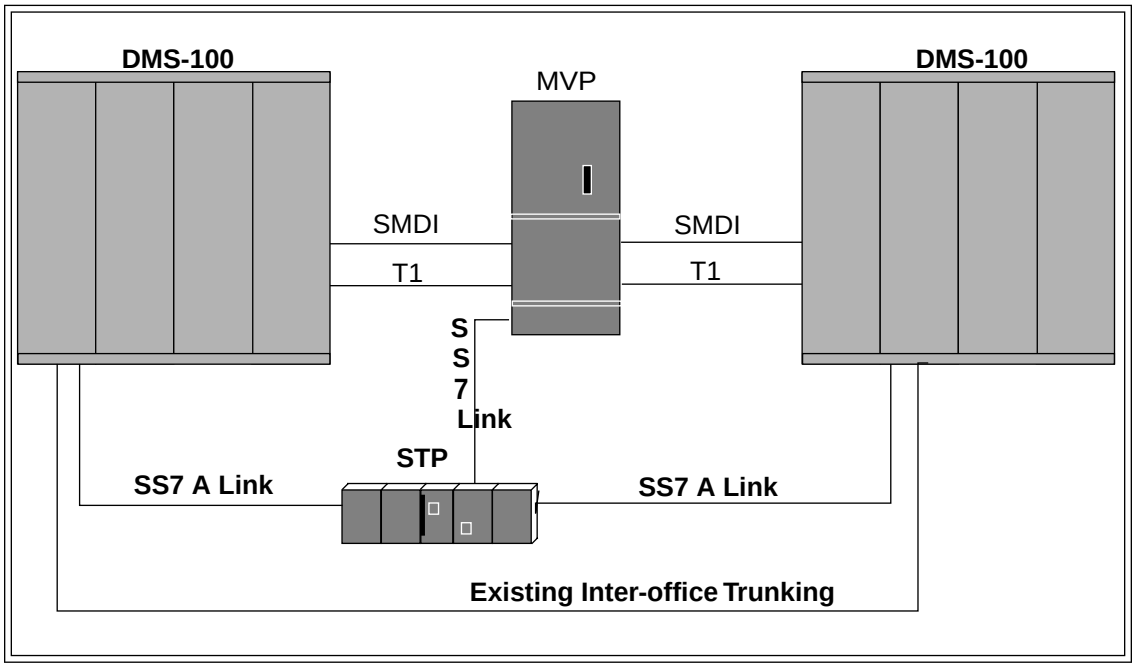
In the DMS-10 environment, T1 trunks are directly connected to the MVP. These trunks should be configured as ISUP trunks. In a multiple CO environment a CCS7 “F” link and separate trunk group would be required for each CO unless there is an STP (Signal Transfer Point) available. If an STP is available, one CCS7 “A” link and one trunk group would be needed for the COs. An SMDI link is required to send message waiting set and cancel commands to the DMS-10 switch. If the MVP is connected to multiple central offices, then a separate SMDI link would be connected to each CO unless the CO’s have Network Message Service (NMS) software loaded. This software load provides Enhanced SMDI where only one SMDI link is required to service multiple COs.



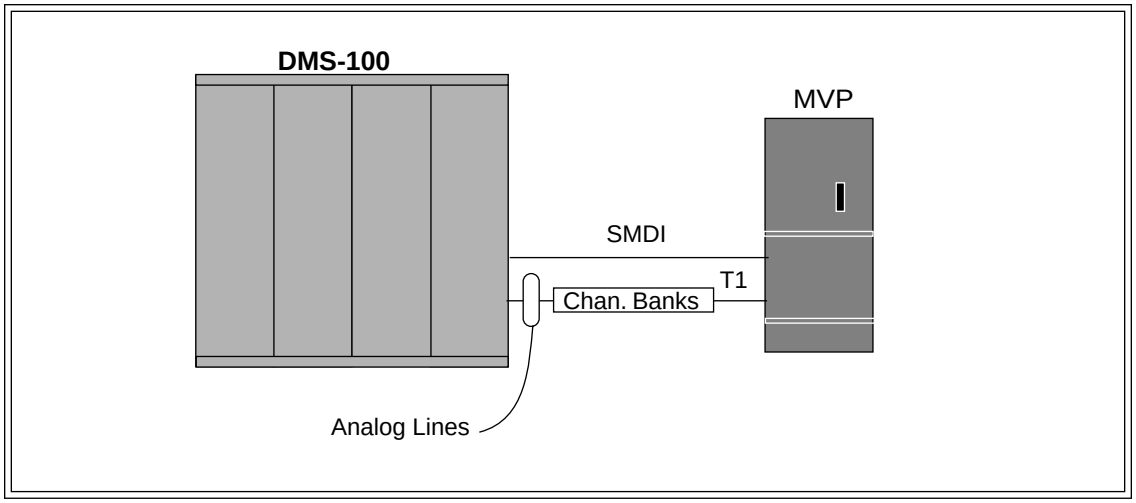
Single DMS-100 connected to MVP via CCS7 F link



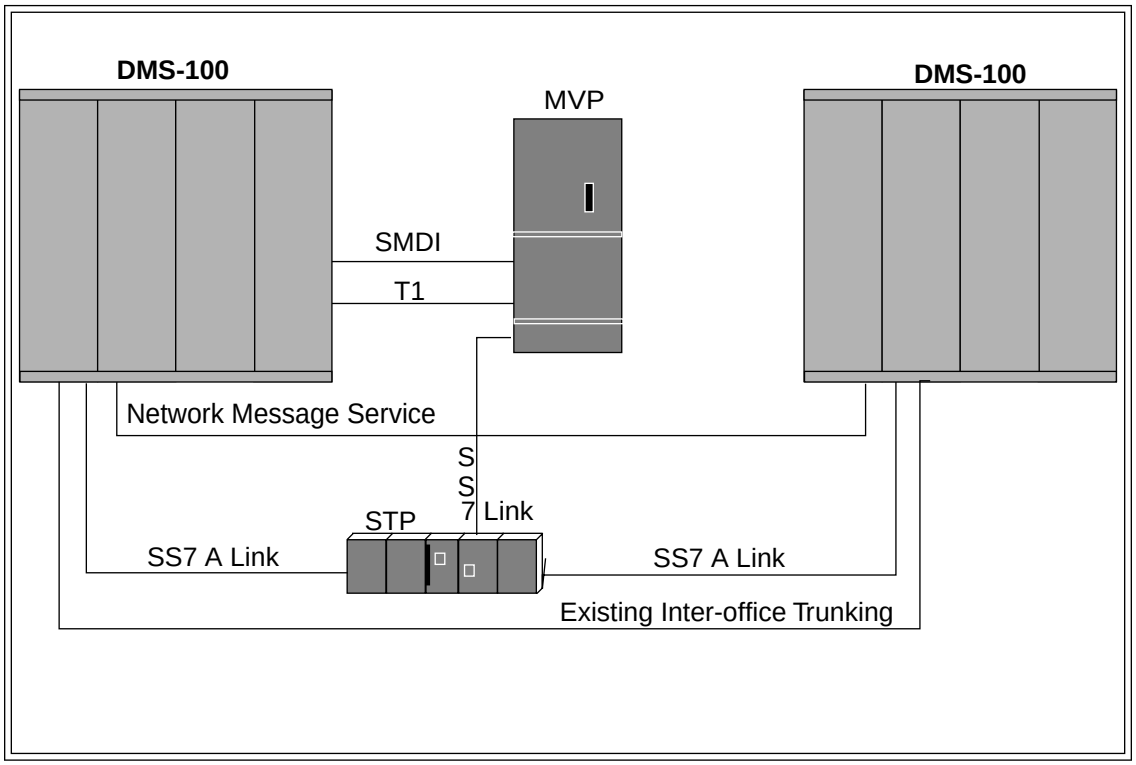
Single DMS-100 connected to MVP via CCS7 A link (via STP)



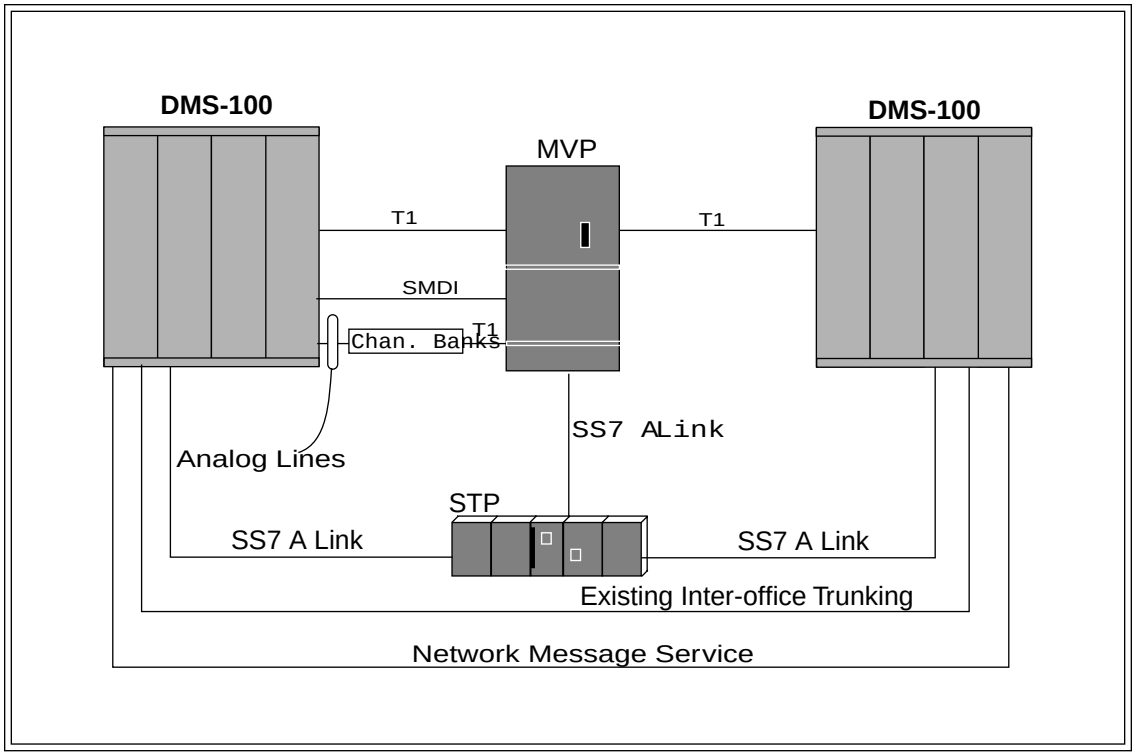
Two DMS-100s connected independently to MVP via A links



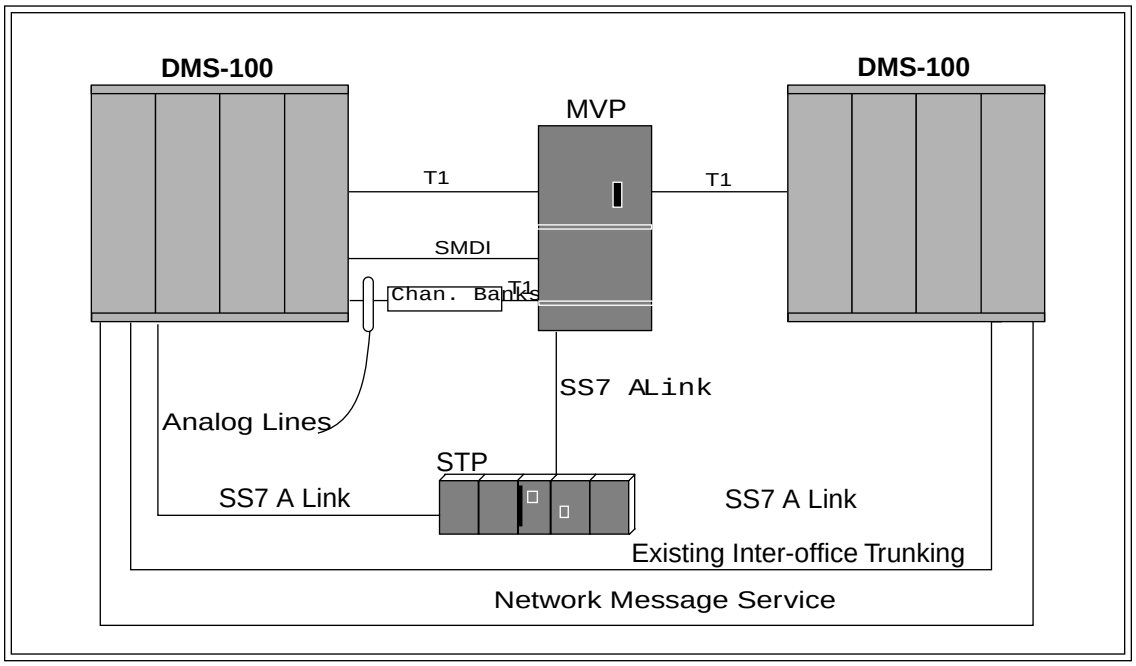
Single DMS-100 connected to MVP via SMDI and T1(via analog lines/channel bank) Inbound



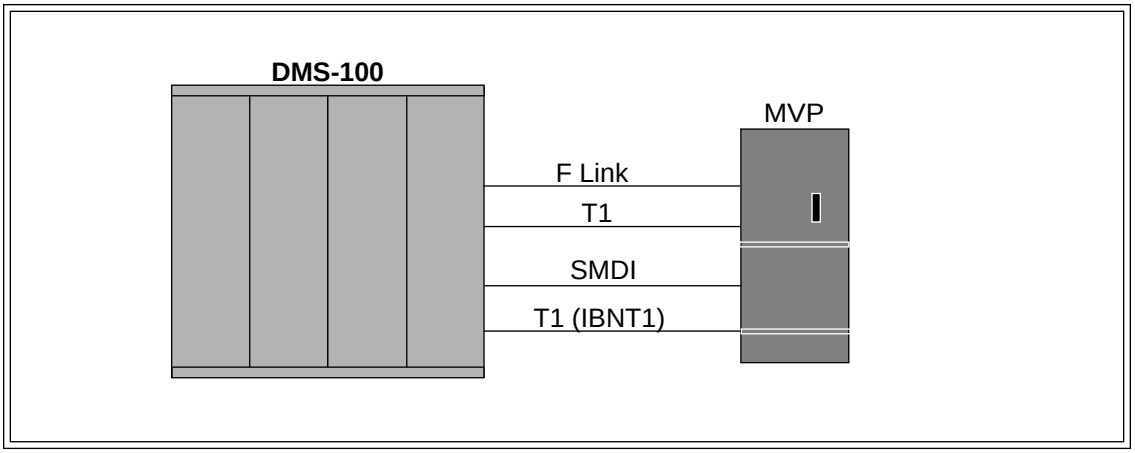
Two DMS-100s connected via Enhanced SMDI and STP A links (w/ NMS)



Outbound T1 (CCS7 Signaling) w/ NMS



Outbound T1 (MF Signaling) W/ NMS



Single DMS connected to MVP via F link Inbound and MF Outbound

2.0 Glenayre DMS-100 Installation

2.1 Overview

Note: This section is an overview of the installation process and does not replace the Nortel installation methods and safety guidelines which should be followed for installation of all Nortel products.

2.2 Procedure to install the CCS7 A/F-link (Glenayre to STP)

If the Glenayre and STP are within the same Isolated Ground Zone (IZG) and a V.35 connection is used, go to 1A.

If the Glenayre and STP are not in the same IGZ and a V.35 connection is used, go to 1B.

If a DS0 interface is used between the STP and Glenayre, go to 1C.

Note: If this configuration uses an "F" link (Vs an "A" link), substitute the word STP with DMS-100 in the following procedures.

1A

1 Install the two LIU7 circuit packs (NTEX22BB & NT9X76AA) into the STP LIM slots engineered/designated by the operating company.

2 Install the LIU7 paddle board card (NT9X77) in the corresponding slot in the back of the LIM.

3 Connect the bulkhead cable (NT9X0193) from the bottom DB25 connector on the above paddle board card to the Link Interface Module frame bulkhead.

4 Run the A-link cable (NTNX36RF, maximum 150 feet) from the above LIM frame bulkhead connector to the Glenayre MVP. (It will terminate to a Glenayre supplied adaptor cable).

5 Datafill the LIU7 card in table LIUINV. (Configure for 56000 DCE).

6 Post the above LIU7 in the PM level of the MAP display BSY, LOADPM, RTS the LIU7 card.

7 Return to Step 1 if engineering designates connectivity to the other member of the STP pair.

1B

1 Follow 1A steps 1 thru 3.

2 Run the A-link cable from the above LIM frame bulkhead connector described here to the provided modem.

3 Connect the operating company-provided private line connection to the modem. Configure the modem that supports V.35 signalling for a private/leased line.

4 At the Glenayre side of the private line, connect and configure the provided modem.

5 Connect the (xxx) cable from the modem to the Glenayre-provided adaptor cable.

6 Follow 1A, steps 5 through 7.

1C

1 Follow 1A steps 1 through 3. Note the paddle board for DS0 is the NT9X78, the bulkhead cable is NT9X0193, and the A-link cable is NTNX36RF.

2 Run the A-link cable from the LIM to the operating company-provided digital cross connect (DAX). From the DAX, the operating company must provide a T1 appearance on a DSX bay.

3 On the front of the DSX bay, run a 4-wire jumper from the DMS A-link T1 to the Glenayre T1 which should appear on the same DSX bay.

4 Follow 1A steps 5 through 7.

2.3 Procedure to install the SMDI link (DMS-100 to Glenayre)

If the DMS-100 and Glenayre are within the same IGZ and a 50-foot cable length connection, go to 2A.

If the DMS-100 and Glenayre are within the same IGZ and the connection is greater than 50 feet, go to 2B.

If the DMS-100 and Glenayre are not within the same IGZ or the distance is greater than xxx feet, go to 2C.

2A

1 Install the NT1X89 circuit packs (xxx) into the DMS-100 Input/Output Controller (IOC) slots engineered/designated by the operating company.

2 Connect the IOC cable (NT0X96EH) to position 2 or 3 on the back of the IOC, that corresponds to the card that was installed in step 1A (1). Connect the other end of the cable to the port on the Glenayre designated for the SMDI link.

3 Datafill the NT1X89 card in Table Multi Protocol Control and MPC link.

4 Post the NT1X89 card in the Input/Output Device (IOD), IOC, and Card level of the MAP display BSY, LOADPM, RTS the NT1X89 card.

5 Return to Step 2 if engineering designates connectivity to the other DMS switches connecting to the Glenayre.

2B

1 Follow 2A steps 1 and 2.

2 Connect the RS232 amplifier to the cable in line at the Glenayre side of the cable connector.

3 Follow 2A steps 3 through 5.

2C

1 Follow 2A step 1.

2 Connect the IOC cable (NT0X96EH) to position 2 or 3 on the back of the IOC, which corresponds to the card that was installed in 1A step1. Connect the other end of the cable to the provided modem.

3 Connect the operating company-provided private line connection to the modem. Configure the modem, which must support RS232 private line signaling, if required.

4 At the Glenayre side of the private line, connect and configure the provided modem.

5 Connect the appropriate cable from the modem to the Glenayre-provided adaptor cable.

6 Follow 1A steps 3 through 5.

2.4 Connect the voice T1s to the Glenayre MVP

From each switch that has direct T1 voice connections to the Glenayre, follow step 3A. From each switch that has direct voice connections to the Glenarye using analog lines and channel banks, go to step 3B.

3A

1 Run a 4-wire jumper from each of the designated DMS T1/s on the DSX to the Glenayre T1 appearance on the same DSX.

2 Connect the T1 cable at the designated location on the Glenayre (DB15 connector) to the back of the DSX. (There is a connector at the Glenayre end, wire wrap on the back of the DSX).

3 Datafill the T1 on the DMS100, table LTCPSINV and table CARRMTC.

4 Ensure the signaling format of the DMS switch matches the Glenayre, SF ZCS.

5 Return the Carrier to service on the DMS using the path mapci;mtc;trks;carrier;post DTC X X, bsy X, rts X.

6 Repeat the above steps for each T1 connection.

3B

1 Install the provided channel bank, if required, and follow the channel bank installation instructions.

2 Install the channel cards in the above channel bank as designated. Ensure the cards are set for ground start.

3 Connect a timing source to the channel bank which can be configured to sync off the T1.

4 Connect the engineered DMS-100 lines from the Main Distribution Frame (MDF) to the Channel bank.

5 Connect the T1 from the channel bank to the DSX bay which is wire wrapped on the back of the channel bank and the DSX.

6 Run a 4-wire jumper from the channel bank T1 on the DSX to the Glenayre T1 appearance on the same DSX.

7 Install the corresponding line cards (NT6x18) into the Line Equipment Number (LEN) locations (see step 4 above). Ensure the line cards are set for ground start.

8 Datafill the line cards in the DMS-100 table LNINV for Ground Start.

9 Datafill the DMS-100 for a universal call distribution (UCD) group which will be used to distribute calls to the install lines and the channel bank. (See datafill example in the DMS-100 switch translations section)

10 Datafill the UCD group LENs designated in step 4 (above) including the appropriate SMDI options.

11 Return the LEN into service using the following command string: mapci;mtc;lns;ltp;post L x x x x. bsy, rts.

2.5 CCS7

4A

1 Datafill the DMS-100/STP CCS7 information in each of the following DMS-100 switch tables:

- ADJNODE
- LKSET
- RTESET

4B

If the Network Message Service (NMS) feature is used, enter the data for the supporting CCS7 susbsystems DMS and STP.

3.0 DMS-100 Translations

3.1 Connections between MVP and DMS

3.1.1 Configurations

There are a number of possible configurations for the integration of a Glenayre MVP system into the DMS network. For purposes of consistency, the following terms are utilized in this document. “Incoming” refers to trunks MVP/outgoing from the the DMS. “Outgoing” refers to trunks outgoing from the Glenayre MVP/incoming to the the DMS. “Incoming” and “outgoing” in this document are referenced from the perspective of the MVP node.

3.1.2 Single DMS Configurations

- Analog lines with channel bank T1 incoming voice, SMDI incoming signaling, MF IBNTI trunks outgoing voice and signalling. SMDI link for outgoing Message Waiting Indicator .
- CCS7 ISUP trunks incoming voice, CCS7 F-link incoming signalling, MF IBNTI trunks outgoing voice and signalling. SMDI link for outgoing MWI.
- CCS7 ISUP IBNTI2 trunks incoming and outgoing voice, CCS7 A-link incoming and outgoing signaling. SMDI link for outgoing Message Waiting Indicator (MWI).
- Note that in all three configurations, an SMDI link is required to support the MWI being sent to the DMS-100 switch. In the first configuration, that same SMDI link is also used to support signaling for the T1 trunk incoming from the channel bank. In the configurations utilizing CCS7 incoming, the SMDI link function exclusively supports the MWI.

3.1.3 Multiple DMS Configurations

In the case of a multiple DMS-100 switch configuration, each node may have a direct connection to the MVP or one node can serve as the “host node” for the MVP, tandeming information through to the other nodes. If each node has a direct connection to the MVP, each node should be configured as in the single DMS configurations described here.

If one node is serving as a host for the MVP, three functions of the MVP must be considered for tandeming:

voice and associated signaling incoming
voice and associated signaling outgoing
and support for the MWI.

Voice and associated signaling can be tandemed in any of the three configurations listed under single DMS configurations using existing interoffice trunks. The MWI sent to the host node using SMDI may be tandemed using Enhanced SMDI over the Network Messaging Service (NMS). NMS is a CCS7 subsystem that uses Transaction Capabilities Application Part messages and global title translations between the host DMS-100 switch node and the other served DMS-100 switch nodes. For more information, see "NMS translations" in this document.

Each DMS can carry direct connections for some of the functions, such as incoming voice, outgoing voice, and MWI support, while tandeming through a host node for other functions. A common example of this is to have the incoming and outgoing voice to the MVP tandemed through the host node while each node served supports an SMDI link directly to the MVP, thus avoiding the use of NMS.

3.1.4 DMS-100 SMDI Link Translations to Support the MWI

The SMDI link passes information to the MVP over a dedicated RS-232 port. The MVP uses the SMDI link to send commands to the DMS-100 to set and cancel message waiting on the subscriber's phone. This can be stutter dial tone or a message waiting light depending on what is provided by the DMS-100.

For telephone sets equipped to provide automatic callback to the voice mail system using a key, the MWI indicator also includes the callback number. This callback number is derived from the pilot of a UCD group associated with the SMDI link in datafill. When the callback key is depressed on the telephone set, the set originates the call to the pilot of the UCD group.

If callback key is supported to voice mail, each node with a direct SMDI link to the MVP will require a UCD group with at least one agent, regardless of the network configuration.

For specific details on interworking between the UCD group and the various MVP incoming configurations supported, see the appropriate configuration section.

3.2 Physical Connections

An SMDI link from the DMS-100 NT1X89 card is connected to an MVP RS-232 port. If the MVP is more than 50 feet from the DMS-100 NT1X89 board, a set of lease line modems are required.

If the MVP is connected to multiple central offices, a separate SMDI link is required for each CO unless the COs have Network Message Service (NMS) software. NMS software provides Enhanced SMDI where only one SMDI link is required to service multiple COs.

3.2.1 Example SMDI Link Translations

Table MPC

MPCNO MPCIOC IOCCCT EQ DLDFILE

---

6 2 32 1X89BB MPCA03AC

Table MPCLINK

LINKKEY LINKALM PRTCLDAT

---

6 2 Y ASYNC 55 (APLDEFN SMDI) (L1IDLY 225) (L2IDLY 300) (LNKDOWN 200)

(BAUDRATE B2400) (PARITY EVEN) $ $

Table SLLNKDEV

DEVNAME DEVTYPE XLATION PROTOCOL DRECTION XFERS

GLENAYRE_SMDI 1X89 6 2 NONE NONE INOUTLK (SMDIDATA (NUMOFDIGS 10) (DNSUPPR CONDITNL NEVER) $)$

NOTE: Table UCDGRP datafill as shown here will vary to support the key callback to voice mail according to the overall network configuration.

Table UCDGRP

UCDNAME ACD CUSTGRP UCDRNGTH THROUTE NSROUTE PRIOPRO MAXPOS DBG DEFPRIO RLSCNT MAXWAIT MAXCQSIZ OPTIONS

GLENAYRE N GLENAYRE_UCD 63 OFRT 60 OFRT 60 0 48 N 3 0 0 0 (UCD_SMDI GLENAYRE_SMDI 62 $) $

****

The following queries are for the UCD prime number and an example of an agent.

****

>qdn 5255850

DN: 5255850

TYPE: UCD GLENAYRE PRIM

>qdn 5255851

DN: 5255851 (NON-UNIQUE)

TYPE: SINGLE PARTY LINE

SNPA: 931 SIG: DT LNATTIDX: N/A

LINE EQUIPMENT NUMBER: HOST 12 1 08 26

LINE CLASS CODE: IBN

IBN TYPE: STATION

CUSTGRP: GLENAYRE_UCD SUBGRP: 0 NCOS: 0

CARDCODE: 6X18AA GND: Y PADGRP: STDLN BNV: NL MNO: N

PM NODE NUMBER : 236

PM TERMINAL NUMBER : 283

OPTIONS:

LCDR COD SMDR UCD DGT GND SUPPRESS PUBLIC Y Y CXR CTALL N STD SMDI 1

GLENAYRE Y

3.3 Incoming integration solutions

In the DMS-100 environment there are two methods for providing signaling between the central office and the MVP, SMDI signaling, and CCS7 signaling. Both types of signaling are out of band signaling, as the signal information travels over a different facility than the voice call.

Signaling in the MVP-enhanced services environment is very important. Every telephone call into the system supplies data that is used for call completion and billing. Such information includes the calling party (referred to as the "A" party) and the Called Party (referred to as the "B" party), and call result (for example, forward from number, busy, no answer).

3.3.1 SMDI incoming signaling, channel bank/T1 incoming voice

SMDI signaling passes signaling information (for example, "A" and "B" party information, call result) to the MVP over a dedicated RS-232 port. In addition to the normal signaling information, the SMDI connection passes trunking information to the MVP system, that is, what trunk the call is coming in over. The MVP uses this information to process the call to the correct mailbox.

Incoming voice in this configuration is supported using a T1 on the MVP side. On the DMS-100 side, a UCD group distributes calls between a number of analog lines. These lines are connected using a channel bank to the T1.

Calls to the MVP from the DMS switch using a key associated with the MWI will terminate at the pilot of the UCD group. The pilot will then send the call to one of the UCD agents, which will connect the call to the MVP.

3.3.2 Physical connections

In the DMS-100, NT6X18 line cards are connected from the DMS-100 to a T1 channel bank and the T1 span to the MVP. These lines should have data entered in a UCD hunt group and configured as ground start. An SMDI link from the DMS-100 NT1X89 card is connected to an MVP RS-232 port. If the MVP is more than 50 feet from the DMS-100 1X89 board, a set of lease line modems are required. If the MVP is connected to multiple central offices, a separate SMDI link is required for each CO unless the COs have NMS software.

NMS software provides Enhanced SMDI where only one SMDI link is required to service multiple COs.

3.3.3 Example SMDI Signaling Translations

This configuration uses the same translations as those required to support the Message Waiting Indicator and callback key. Please reference “SMDI link translations” in section 3.2.1.

3.3.4 CCS7 incoming signaling, CCS7 ISUP trunks incoming voice

Like SMDI, CCS7 signaling is a digital, out of band signaling format. One MVP CCS7 CPU module supports two links. Two CCS7 CPU modules provide support for up to four links. Redundant links can be independent or configured on individual CPUs. There are four possible link configurations for the CCS7 signaling. They are as follows:

Extracted Data Channel (from the T1 span)
RS 449
RS 530
V.35

The Extracted Data Channel uses one time division multiplexing (TDM) channel on the T1 span for signaling. The RS 449 RS 530 and V.35 network protocols can either be directly connected to the switch, if they are collocated, or can be connected over a 64 kb. modem with a dedicated line.

Currently Glenayre supports several different configurations of the CCS7 protocol which include the following:

- CCITT ISUP
- CCITT TUP
- ANSI ISUP
- Country specific variants

As noted in section 3.1.4, "SMDI Link Translations to Support the MWI", a UCD group is still required in this configuration to support calls to the MVP from the DMS using a key associated with the MWI. Such calls will terminate at the pilot of the UCD group. These calls need to be rerouted to the appropriate ISUP trunk groups. This is accomplished in table UCDGRP using the fields UCDRNGTH and THROUTE. Field UCDRNGTH specifies the number of seconds when the call is forwarded, assuming no UCD agent answers the call. The call is then forwarded to the route specified in field THROUTE.

3.3.5 Physical connections

In the DMS-100 environment, T1 trunks are directly connected to the MVP. These trunks should be configured as ISUP trunks. In a multiple CO environment, a CCS7 F-link and separate trunk group would be required for each CO unless there is a signal transfer point (STP) available. If an STP is available, one CCS7 A-link and one trunk group would be needed for the COs. An SMDI link is required to send message waiting set and cancel commands to the DMS-100. If the MVP is connected to multiple central offices, then a separate SMDI link would be connected to each CO unless the COs had NMS software loaded.

This software load provides Enhanced SMDI where only one SMDI link is required to service multiple COs.

3.3.6 Example CCS7 F-link signaling translations

Tables required for datafill:

C7TIMER: Standard table

C7CNGSTN: Standard table

C7NETWRK: If extension job with working CCS7, should be already datafilled. If not, translator must complete this table.

C7LKSET: Required to define and configure the links between two adjacent signaling points (SP).

C7LINK: Required to associate the physical aspects of a link with the logical view of a link as a member of a linkset.

C7RTESET: Required to specify the CCS7 routesets for the MVP.

CLLI: Required to specify the trunk CLLI.

TRKGRP: Required to define data for the TRKGRP created in table CLLI.

TRKSGRP: Required to specify additional information/attributes of the TRKSGRP created in table CLLI.

ADJNODE: Required to specify information on the adjacent nodes of the DMS switch.

TRKMEM: Required to specify the individual members of each trunk in table TRKGRP.

C7TRKMEM: Required to allow the user to enter a portion of the signaling network identifier associated with the TRKGRP tables.

ISUPDEST: Required to assign the route set used for each CCS7 trunk group.

C7NETSSN: Required to provide the set of remote point codes and subsystems, at the remote point cards, where messages are routed by the Signaling Connection Control Part (SCCP).

OFRT: Required to point to the CCS7 ISUP trunk in support of keyset MVP callback.

UCDGRP: Required to point the ring threshold timeout route to the ISUP trunk.

Customer provided input as follows:

1. What is the point code for the DMS-100?

2. What is the point code for the MVP?

3. What LIUNOs in LIUINV should the CCS7 links be assigned?

   Note: General notes:

   Note: Table LIUINV clksource should be DCE indicating the MVP will be configured as DTE, or as receiving clock source.

4. What is the CLLI for the MVP?

5. What size should the CCS7 TRKGRP be? What adnum should be used in CLLI?

6. How should the members of the TRKGRP be spread? What DTC, DTCCKT, and DTCCKTTS?

7. Does customer have a preference of TCIC starting point? 0? Or 1?

The following examples show datafill for CCS7 “F” link signaling translations.

Table C7LKSET

>_pos dmsmvp_ls

DMSMVP_LS FLINK FRSC_SS7NET ANSI7 5 60 133 FRSCTX_VM Y Y Y 0 0 1 Y N

TABLE: C7LINK

LINKNAME LINKDATA CLASDATA Q707 LINKOPT

DMSMVP_LS 0 LIUBASIC LIU7 2 MTP2 0 0 $

DMSMVP_LS 1 LIUBASIC LIU7 10 MTP2 0 0 $

Table C7RTESET

>_pos dmsmvp_rs_

DMSMVP_RS FRSC_SS7NET N ANSI7 (5) (60) (133) $ (DMSMVP_LS 0) $

Table CLLI

>_pos frisco_gvm_

FRISCO_GVM 700 96 DMS_TO_MVP_ISUP_TRUNK

Table TRKGRP

>_pos frisco_gvm_

FRISCO_GVM T2 0 NPDGP NCRT DD MIDL 0 Y NPRT NSCR 972 LCL N N $

Table TRKSGRP

>_pos frisco_gvm 0_

FRISCO_GVM 0 DS1SIG C7UP 2W N N UNEQ NONE Q764 THRH 10 GLENAYRE

(DEFITC SPEECH) $ NIL SGRPYLD Y

Table ADJNODE

>_pos glenayre_

GLENAYRE ISUP OTHER $

Table TRKMEM

CLLI EXTRKNM SGRP MEMVAR

FRISCO_GVM 1 0 DTC 0 16 1

FRISCO_GVM 2 0 DTC 0 16 2

FRISCO_GVM 3 0 DTC 0 16 3

FRISCO_GVM 4 0 DTC 0 16 4

Table C7TRKMEM

MEMKEY CIC

FRISCO_GVM 1 1

FRISCO_GVM 2 2

FRISCO_GVM 3 3

FRISCO_GVM 4 4

Table ISUPDEST

>_pos frisco_gvm_

FRISCO_GVM 0 DMSMVP_RS

Table C7NETSSN

DMSMVP_RS $

Table OFRT

60 N D FRISCO_GVM 0 919 N $

Table UCDGRP

UCDNAME ACD CUSTGRP UCDRNGTH THROUTE NSROUTE PRIOPRO MAXPOS DBG DEFPRIO RLSCNT MAXWAIT MAXCQSIZ OPTIONS

GLENAYRE N GLENAYRE_UCD 1 OFRT 60 OFRT 60 0 48 N 3 0 0 0 (UCD_SMDI GLENAYRE_SMDI 62 $) $

3.3.7 Example CCS7 A-link signaling translations

Tables required for datafill:

C7TIMER: Standard table

C7CNGSTN: Standard table

C7NETWRK: If extension job with working CCS7, should be already datafilled. If not, translator must complete this table.

C7LKSET: Required to define and configure the links between SSP and STP.

C7LINK: Required to associate the physical aspects of a link with the logical view of a link as a member of a linkset.

C7RTESET: Required to specify the CCS7 routesets for the MVP.

CLLI: Required to specify the trunk CLLI.

TRKGRP: Required to define data for the TRKGRP created in table CLLI.

TRKSGRP: Required to specify additional information/attributes of the TRKSGRP created in table CLLI.

ADJNODE: Required to specify information on the adjacent nodes of the DMS switch.

TRKMEM: Required to specify the individual members of each trunk in table TRKGRP.

C7TRKMEM: Required to allow the user to enter a portion of the signaling network identifier associated with the TRKGRP tables.

ISUPDEST: Required to assign the route set used for each CCS7 trunk group.

C7NETSSN: Required to provide the set of remote point codes and subsystems, at the remote point cards, where messages are routed by the SCCP.

OFRT: Required to point to the CCS7 ISUP trunk in support of keyset MVP callback.

UCDGRP: Required to point the ring threshold timeout route to the ISUP trunk.

Customer provided input as follows:

1. What is the point code for the DMS-100?

2. What is the point code for the MVP?

3. What is the point code for the STP?

4. What LIUNOs in table LIUINV should the CCS7 links be assigned?

   Note: Table LIUINV clock source should be DCE indicating the MVP will be configured as DTE, or as receiving clock source.

5. What is the CLLI for the MVP?

6. What size should the CCS7 TRKGRP be? What adnum should be used in CLLI?

7. How should the members of the TRKGRP be spread? What DTC, DTCCKT, and DTCCKTTS are used?

8. Does the customer have a preference of TCIC starting point? 0? Or 1?

The following examples show datafill for CCS7 “A” link signaling translations.

Table C7LKSET

```
>_pos dmsmvp_ls

STPA_LS ALINK FRSC_SS7NET ANSI7 5  60 150 FRSCTX_VM Y Y Y 0
0 1 Y N
```

Table C7LINK

```
LINKNAME LINKDATA CLASDATA Q707 LINKOPT

---------------------------------------

STPA_LS 0 LIUBASIC LIU7 2 MTP2 0 0 $

STPA_LS 1 LIUBASIC LIU7 10 MTP2 0 0 $
```

Table C7RTESET

```
>_pos dmsmvp_rs_

DMSMVP_RS FRSC_SS7NET N ANSI7 (5) (60) (133) $ (STPA_LS 0) $
```

Table CLLI

```
>_pos frisco_gvm_

FRISCO_GVM 700 96 DMS_TO_MVP_ISUP_TRUNK
```

Table TRKGRP

```
>_pos frisco_gvm_

FRISCO_GVM T2 0 NPDGP NCRT DD MIDL 0 Y NPRT NSCR 972 LCL N
N $
```

Table TRKSGRP

```
>_pos frisco_gvm 0_
```

FRISCO_GVM 0 DS1SIG C7UP 2W N N UNEQ NONE Q764 THRH 10 GLENAYRE

(DEFITC SPEECH) $ NIL SGRPYLD Y

Table ADJNODE

>_pos glenayre_

GLENAYRE ISUP OTHER $

Table TRKMEM

CLLI EXTRKNM SGRP MEMVAR

FRISCO_GVM 1 0 DTC 0 16 1

FRISCO_GVM 2 0 DTC 0 16 2

FRISCO_GVM 3 0 DTC 0 16 3

FRISCO_GVM 4 0 DTC 0 16 4

TABLE: C7TRKMEM

MEMKEY CIC

FRISCO_GVM 1 1

FRISCO_GVM 2 2

FRISCO_GVM 3 3

FRISCO_GVM 4 4

TABLE: ISUPDEST

>_pos frisco_gvm_

FRISCO_GVM 0 DMSMVP_RS

Table C7NETSSN

DMSMVP_RS $

Table OFRT

60 N D FRISCO_GVM 0 919 N $

Table UCDGRP

UCDNAME ACD CUSTGRP UCDRNGTH THROUTE NSROUTE PRIOPRO MAXPOS DBG DEFPRIO RLSCNT MAXWAIT MAXCQSIZ OPTIONS

GLENAYRE N GLENAYRE_UCD 1 OFRT 60 OFRT 60 0 48 N 3 0 0 0 (UCD_SMDI GLENAYRE_SMDI 62 $) $

3.4 Outgoing integration solutions

Two outgoing integration solutions are supported, using IBNTI MF trunks or IBNT2 CCS7 A-link trunks. The outgoing integration scenarios that follow only cover the trunking related datafill.

For call processing of the ten-digit no prefix calls that come from the MVP, see the “Call processing” section of this document.

3.4.1 IBNTI MF trunks for outgoing integration

The IBNTI trunk group uses Feature Group D (FGD) and MF signaling.

Physical connections:

- In the DMS-100 environment, T1 trunks are directly connected to the MVP. These trunks should be configured as IBNTI trunks with MF FGD signaling.

3.4.1.1 Translations for IBNTI MF Outgoing

The following tables require datafill for IBNT1 MF Outgoing:

- CUSTENG: Required to define certain resources available to the customer group specified for the trunk group.
- NCOS: Required to specify the network class of service (dialing plans or levels of dialing restrictions available) in the customer group.
- CLLI: Required to specify the trunk CLLI.
- TRKGRP: Required to define data for the TRKGRP created in table CLLI.
- TRKSGRP: Required to specify additional information/attributes of the TRKGRP created in table CLLI.
- TRKMEM: Required to specify the individual members of each trunk in table TRKGRP

Customer provided input:

1. What size should table TRKGRP be? What adnum should be used in CLLI?

2. How should the members of the TRKGRP be spread? What DTC, DTCCKT, and DTCCKTTS are used?

Example Datafill:

Table CUSTENG

CUSTNAME ADNUM NONCOS NOIBNTMT CONSOLES MASCON DOMAIN GROUPID OPTIONS

GLENAYRE 258 256 50 N N PUBLIC 1 $

GLENAYRE_UCD 259 256 50 N N PUBLIC 2 $

Table NCOS

CUSTGRP NCOS NCOSNAME LSC TRAFSNO OPTIONS

GLENAYRE 0 GENRIC 0 11 $

Table TRKGRP

GRPKEY GRPINFO

GLENAYRE_TEST IBNTI 52 ELO NCRT GLENAYRE 0 0 N ANSDISC 0 N N N N N N N 0 0 N N N Y Y FGD Y Y $ NATL $

Table TRKSGRP

SGRPKEY CARDCODE SGRPVAR

GLENAYRE_TEST 0 DS1SIG STD IC MF WK N 10 10 NO NO N N Y C UNEQ $

Table TRKMEM

CLLI EXTRKNM SGRP MEMVAR

GLENAYRE_TEST 1 0 DTC 9 17 1

GLENAYRE_TEST 2 0 DTC 9 17 2

GLENAYRE_TEST 3 0 DTC 9 17 3

GLENAYRE_TEST 4 0 DTC 9 17 4

3.4.2 IBNT2 CCS7 Trunks for Outgoing Integration

The IBNT2 trunk group uses FGD and CCS7 signaling.

Physical Connections:

In the DMS-100 environment, T1 trunks are directly connected to the MVP. These trunks should be configured as IBNT2 trunks with CCS7 FGD signaling. These same trunks carry CCS7 traffic incoming to the MVP as well. There will also be an A-link to the STP serving the DMS switch. This A-link may already exist before the MVP is introduced to the network.

3.4.2.1 Translations for IBNT2 CCS7 Outgoing:

The following tables required datafill for IBNT2 CCS7 Outgoing:

- CUSTENG: Required to define certain resources available to the customer group specified for the trunk group.
- NCOS: Required to specify the network class of service (dialing plans or levels of dialing restrictions available) in the customer group.
- CLLI: Required to specify the trunk CLLI.
- TRKGRP: Required to define data for the TRKGRP created in table CLLI.
- TRKSGRP: Required to specify additional information/attributes of the TRKGRP created in table CLLI.
- TRKMEM: Required to specify the individual members of each trunk in table TRKGRP.
- C7TIMER: Standard table
- C7CNGSTN: Standard table
- C7NETWRK: If extension job with working CCS7, should be already datafilled. If not, translator must complete this table.
- C7LKSET: Required to define and configure the links between SSP and STP.

- C7LINK: Required to associate the physical aspects of a link with the logical view of a link as a member of a linkset.
- C7RTESET: Required to specify the CCS7 routesets for the MVP.
- ADJNODE: Required to specify information on the adjacent nodes of the DMS switch.
- C7TRKMEM: Required to allow the user to enter a portion of the signaling network identifier associated with the TRKGRP tables.
- ISUPDEST: Required to assign the route set used for each CCS7 trunk group.
- C7NETSSN: Required to provide the set of remote point codes and subsystems, at the remote point cards, where messages are routed by the SCCP.

Customer provided input:

1. What is the point code for the DMS-100?

2. What is the point code for the MVP?

3. What is the point code for the STP?

4. What LIUNOs in table LIUINV should the CCS7 links be assigned?

5. What is the CLLI for the MVP?

6. What size should the CCS7 TRKGRP be? What adnum should be used in CLLI?

7. How should the members of the TRKGRP be spread? What DTC, DTCCKT, and DTCCKTTS are used?

8. Does the customer have a preference of TCIC starting point? 0? Or 1?

Example Datafill:

Table CUSTENG

CUSTNAME ADNUM NONCOS NOIBNTMT CONSOLES MASCON DOMAIN GROUPID OPTIONS

GLENAYRE 258 256 50 N N PUBLIC 1 $

GLENAYRE_UCD 259 256 50 N N PUBLIC 2 $

Table NCOS

CUSTGRP NCOS NCOSNAME LSC TRAFSNO OPTIONS

GLENAYRE 0 GENRIC 0 11 $

Table TRKGRP

GRPKEY GRPINFO

GLENAYRE_TEST IBNT2 0 ELO NCRT GLENAYRE 0 MIDL 0 2221234 ANSDISC 0 N N N N N N N N 0 0 N 0 0 0 0 N N N N N N N N Y Y FGD Y Y NATL $

Table TRKSGRP

SGRPKEY CARDCODE SGRPVAR

GLENAYRE_TEST 0 DS1SIG C7UP 2W N N UNEQ NONE Q764 THRH 10 GLENAYRE (DEFITC SPEECH) $ NIL CIC

Table TRKMEM

CLLI EXTRKNM SGRP MEMVAR

GLENAYRE_TEST 1 0 DTC 9 17 1

GLENAYRE_TEST 2 0 DTC 9 17 2

GLENAYRE_TEST 3 0 DTC 9 17 3

GLENAYRE_TEST 4 0 DTC 9 17 4

Table C7LKSET

STPA_LS ALINK FRSC_SS7NET ANSI7 5 60 150 FRSCTX_VM Y Y Y 0 0 1 Y N

Table C7LINK

LINKNAME LINKDATA CLASDATA Q707 LINKOPT

STPA_LS 0 LIUBASIC LIU7 2 MTP2 0 0 $

STPA_LS 1 LIUBASIC LIU7 10 MTP2 0 0 $

Table C7RTESET

DMSMVP_RS FRSC_SS7NET N ANSI7 (5) (60) (133) $ (STPA_LS 0) $

Table ADJNODE

GLENAYRE ISUP OTHER $

Table C7TRKMEM

MEMKEY CIC

GLENAYRE_TEST 1 1

GLENAYRE_TEST 2 2

GLENAYRE_TEST 3 3

GLENAYRE_TEST 4 4

TABLE: ISUPDEST

GLENAYRE_TEST 0 DMSMVP_RS

Table C7NETSSN

DMSMVP_RS $

3.5 Call Processing

IBNTI/IBNT2 trunks are Centrex-type trunks used for outdialing from the MVP. The Virtual Private Network (VPN) feature on the DMS-100 provides the capability of receiving FGD signaling on an IBN trunk. This allows the DMS-100 to screen the ANI of the originator and provide a new customer group and NCOS for the call using table CGNSCRN. The customer group and

NCOS provided in table CGNSCRN are used to translate the call. Since table CGNSCRN associates an NCOS with an ANI, there are 512 possible translations schemes on the customer group.

In order to accommodate 1-800/888/877 calls, a virtual facility group is necessary. For example, in DMS-100 offices that perform E800 database queries, a virtual facility group is required to complete 800/888/877 calls out-dialed from the MVP. The Virtual Facility Group (VFG) portion provides interworking from the IBNTI/IBNT2 trunk to E800.

3.5.1 Translations for Distinct Dialing Plans via VPN

Each public dialing plan in an office (that is, each local calling area, class of service, and so forth) may be represented by a LINEATTR number. In order to apply the correct dialing plan for a given subscriber who is originating a call using MVP outdialing, ANI screening is used to identify that subscriber as belonging to a particular dialing plan, to be associated with a particular LINEATTR tuple. This is accomplished in table CGNSCRN. If there are more than 512 distinct dialing plans in an office, multiple customer groups will be used to support them. Even with less than 512 dialing plans, multiple customer groups may be used as an administrative choice.

Note: All calls from the MVP outpulse 10 digits with no prefix. This is not allowed in most public dialing plans. In order to complete these calls, a new PFXSELEC field value must be assigned to each of the existing dialing plans. This requires the following actions:

a. Clone and update the existing PFXTREAT table to allow 10-digit no prefix dialing for the new PFXSELEC value.

b. Clone and update the LCASCRCN table to index to the new PFXTREAT entry.

c. Clone and update the LINEATTR tuples to be used, modifying the LCANAME to point to the new data in LCASCRCN.

Finally, in a multiple node configuration where one host switch is home to the MVP, and routes outdialing for users resident to several switches, the host switch must carry all dialing plans represented by all subscribers to the MVP on any switch it is serving. Consider this example: Switch A is a host for the MVP, and the MVP supports subscribers from Switch A, Switch B, and Switch C. Switch A must support the public dialing plans of those subscribers not only resident to itself, but also those resident to Switch B and Switch C. If Switch C has a subscriber with a dialing plan that Switch A does not support, that dialing plan must be duplicated on Switch A as well.

The following tables required datafill for translations for Distinct Dialing Plans via VPN:

- CUSTENG: Required to define certain resources available to a customer group.
- CUSTHEAD: Required to define the group options or system features available to the customer group.
- CUSTSTN: Required to define the options which are assigned to the customer group.
- NCOS: Required to specify the network class of service (dialing plans or levels of dialing restrictions available) in the customer group.
- XLANAME: Required to specify the IBN translator names.
- IBNXLA: Required to provide IBN translator screening/routing.
- LINEATTR: Required to specify line attributes.
- CGNSCRN: Required to screen and identify the customer group and NCOS of the caller
- PFXTREAT: Required to update the call types.
- LCASCRCN: Required to specifiy local calling areas.
- LCASCRCN.LCRSCR: Sub table of LCASCRCN.
- TMTCNTL: Required to define treatments. ADBF is used for calls which fail ANI screening.

3.5.1 Customer Provided Input

1. Define all local calling areas/dialing plans for the node or network served by the MVP.

2. Assuming NO Equal Access, what carrier from OCCNAME should be used for all outdialing?

3. For table CGNSCRN, each local calling area/dialing plan is mapped to a customer group/NCOS. For example, all host subscribers are assigned Glenayre customer group, and NCOS 1 with translator of Glenvm01. Remote A subscribers are assigned Glenayre customer group and NCOS 2 with translator of Glenvm02. Each LCA/dialing plan/customer group/NCOS has to be mapped to the appropriate new LINEATTR, which will be cloned from an existing LINEATTR. What LINEATTR should be used for each dialing plan?

Example Datafill

Table CUSTENG

CUSTNAME ADNUM NONCOS NOIBNTMT CONSOLES MASCON DOMAIN GROUPID OPTIONS

GLENAYRE 258 256 50 N N PUBLIC 1 $

GLENAYRE_UCD 259 256 50 N N PUBLIC 2 $

Table CUSTHEAD

CUSTNAME CUSTXLA DGCOLNM IDIGCOL OPTIONS

GLENAYRE CITZCX01 CITZDI01 NIL (VACTRMT 1) (EXTNCOS 0) (FETXLA CITZFX01) (OCTXLA CITZOX01)$

GLENAYRE_UCD CITZCX01 CITZDI01 NIL (VACTRMT 1) (EXTNCOS 0) (FETXLA CITZFX01) (OCTXLA CITZOX01) $

Table CUSTSTN

CUSTNAME OPTNAME OPTION

GLENAYRE CXFER CXFER CTALL N STD

GLENAYRE CXFERSUP CXFERSUP ALLIBN CONF ALLPOTS CONF N

****

The following datafill for table NCOS is necessary to use different IBNXLA prefix translators using specific line attribute indexes using Table LINEATTR to give the originator the correct local calling area/dialing plan. NCOS 0 is restricted from dialing toll, NCOS 1 is for the Cookeville (HOST) subscribers, NCOS 2 is for the Sparta (Remote) subscribers, and NCOS 3 is the Monterey (Remote) subscribers.

****

Table NCOS

CUSTGRP NCOS NCOSNAME LSC TRAFSNO OPTIONS

GLENAYRE 0 RSTRCT 0 11 (XLAS GLENVM00 CITZFX01 CITZDI01) $

GLENAYRE 1 CKVMVP 0 11 (XLAS GLENVM01 CITZFX01 CITZDI01) $

GLENAYRE 2 SPTMVP 0 11 (XLAS GLENVM02 CITZFX01 CITZDI01) $

GLENAYRE 3 MTYVMP 0 11 (XLAS GLENVM03 CITZFX01 CITZDI01) $

GLENAYRE_UCD 0 UCDOUT 0 11 (XLAS GLENVM00 CITZFX01 CITZDI01) $

Table XLANAME

XLANAME DEFAULT MAXDIG

GLENVM00 NET N N N 1 Y POTS N N GEN (LATTR 49) (EA 0096 Y 1) (TOLL TDN N) $

GLENVM01 NET N N N 0 N POTS N N GEN (LATTR 11) (EA 0096 N 1) (LPIC 0096 N) $

GLENVM02 NET N N N 0 N POTS N N GEN (LATTR 113) (EA 0096 N 1) (LPIC 0096 N) $

GLENVM03 NET N N N 0 N POTS N N GEN (LATTR 114) (EA 0096 N 1) (LPIC 0096 N) $

Table IBNXLA

KEY RESULT

GLENVM00 0 TRMT TDND

GLENVM00 1 TRMT TDND

GLENVM00 20 TRMT TDND

GLENVM00 21 TRMT TDND

GLENVM00 22 TRMT TDND

GLENVM00 230 TRMT TDND

GLENVM00 232 TRMT TDND

GLENVM00 233 TRMT TDND

GLENVM00 977 TRMT TDND

GLENVM00 978 TRMT TDND

GLENVM00 98 TRMT TDND

GLENVM00 99 TRMT TDND

GLENVM01 800 ROUTE N N N 0 N 10 10 POTS N T IBNRTE 800 $

GLENVM01 877 ROUTE N N N 0 N 10 10 POTS N T IBNRTE 800 $

GLENVM01 888 ROUTE N N N 0 N 10 10 POTS N T IBNRTE 800 $

GLENVM01 900 TRMT VACT

GLENVM01 976 TRMT VACT

GLENVM02 800 ROUTE N N N 0 N 10 10 POTS N T IBNRTE 800 $

GLENVM02 877 ROUTE N N N 0 N 10 10 POTS N T IBNRTE 800 $

GLENVM02 888 ROUTE N N N 0 N 10 10 POTS N T IBNRTE 800 $

GLENVM02 900 TRMT VACT

GLENVM02 976 TRMT VACT

Table CGNSCRN

KEY CUSTGRP NCOS ACCTREQ

931372 931372 GLENAYRE 1 N

931520 931520 GLENAYRE 1 N

931836 931836 GLENAYRE 2 N

931839 931839 GLENAYRE 3 N

****

The following data-fill is necessary to take a 10-digit number from the MVP over the IBNTI/2 and route local as local and toll as toll as determined by the local calling area screen (Table LCASCRCN) and prefix treatment (Table

PFXTREAT) used by the line attribute index (Table LINEATTR). Comparisons are shown of normal LINEATTR(s) for lines and LINEATTR(s) for the MVP to illustrate that the only difference is the prefix treatment used by the LCASCRCN.

****
****

Table PFXTREAT

TYPLCLCD UPDTYPCA TREAT

MAIL NP N DD UNDT

MAIL NP Y NP UNDT

Table LCASCRCN

NPALOCNM LCASCR PFXSELEC PFXFOR10

---

931 MVP1 (13) MAIL N

931 MVP5 (14) MAIL N

931 MVP2 (15) MAIL N

SUB LCASCR

931 MVP1 (13) MAIL N

FROMDIGS TODIGS

---

260 261

372 372

432 432

520 520

525 526

528 528

537 537

544 545

839 839

858 858

911 911

931 931

979

Table LINEATTR

LNATTIDX LCC CHGCLSS COST SCRNCL LTG STS PRTNM LCANAME ZEROMPOS TRAFSNO MRSA SFC LATANM MDI IXNAME DGCLNAME FANIDIGS RESINF OPTIONS

---

11 1FR NONE NT CCR1 2 931 CCR1 MVP1 TSPS 11 NIL NILSFC NSVL 0 NIL NIL 00 N

113 1FR NONE NT CCR2 29 931 CCR1 MVP5 TSPS 14 NIL NILSFC NSVL 0 NIL NIL 00 N

114 1FR NONE NT CCR3 30 931 CCR1 MVP2 TSPS 13 NIL NILSFC NSVL 0 NIL NIL 00 N

****

The following datafill is for a new treatment that should be set in table TMTCNTL. Treatment ADBF is indexed each time an invalid ANI is sent to table CGNSCRN.

****

Table TMTCNTL

EXTTMTNM TREAT

OFFTREAT (90)

SUB TREAT

TREATMT LOG FSTRTE

ADBF Y S T120

3.5.2 Translations to support 800 calls from the MVP

The routing of 800 calls requires the call to be sent over an IBNRTE that uses VFG virtual facility group. Since the Glenayre sends the 10 digits entered by the mailbox owner, it is necessary to prefix on a one (1), which is done through table DIGMAN.

Tables required for datafill:

DIGMAN: Required to manipulate digits of 800 calls in this scenario.

VIRTGRPS: Virtual facility groups table required for 800 calls to complete (in this scenario.

IBNRTE: Required to route to a virtual facility group.

Customer Provided Input:

1. What LINEATTR number should the Virtual Facility Group use to process the 800 call?

Example Datafill

Table DIGMAN

DMIKEY DMIDATA

---

8 (CL BEG) (INC 1) (CL BEG)$

Table VIRTGRPS

KEY DATA OPTIONS

VM800 SIZE 100 POTS N 0 N $

Table VFGDATA

KEY DATA

VM800 POTSVI POTSVI N 0 N $

Table IBNRTE

RTE RTELIST

---

800 (VFG N N N VM800 8) $

3.5.3 Translations to Support Equal Access from MVP

Equal Access is supported from the MVP by using the ANI screened in table CGNSCRN to provide an NCOS and customer group, in exactly the same way this method is used to distinguish dialing plans. Each NCOS is assigned a Primary InterLATA Carrier (PIC) as well as a LINEATTR number. The ANI then points to the NCOS that provides it with not only the correct LINEATTR number and dialing plan but also the correct PIC.

This method geometrically increases the amount of data that must be put into the host node to support outdialing. Without Equal Access, the number of NCOS/IBNXLA/XLANAME entries that must be entered is equal to the number of LINEATTR numbers that must be supported. When Equal Access is added, the number of NCOS/IBNXLA/XLANAME entries is equal to the number of LINEATTR numbers multiplied by the number of carriers that must be supported.

IntraLATA Primary Interexchange Carriers (LPICs) may also be supported in the same manner. To calculate the effect of supporting LPICs, PICs, and multiple dialing plans, multiply the number of LINEATTRs by the number of PICs and then multiply that result by the number of LPICs.

3.5.4 Network Messaging Service

NMS is a CCS7 subsystem that uses global title translations to tandem incoming SMDI messages over the CCS7 network. It can be used to tandem the MWI over the CCS7 network from a node hosting the MVP to other nodes in the network served by the MVP. If a MWI OP or RMV message comes in on the SMDI link, and the DN in the message is a DN that does not exist on the host node, the information is converted to a TCAP message and sent to the remote node.

For this service to work, NMS needs to be datafilled and in-service on all the SSPs to be served by the service. In addition, Global Title Translations must be entered on all the SSPs and STPs involved in the service.

Table Required for Datafill:

C7LOCSSN: Required to establish the local subsystem number for NMS.

C7NETSSN: Required to establish the subsystems and SSNs for a given routeset.

C7GTTYPE: Required to establish global title translations for the subsystem.

C7GTT: Required to associate global title translations for this subsystem with a given routeset.

TCAPTRID: Required to provide transaction ID resources for TCAP messages.

Customer Provided Input:

1 What is the name of the routeset to the STP to pass NMS TCAP messages? Are there any backup routesets?

Example Datafill:

Table C7LOCSSN

SSNAME SSNUMBER MININST REPLINFO TFMI PCNAMES

NMS 244 1 N N $

Table C7NETSSN

PCNAME SSNAMES

STPA_RTE (NMS 244) $

Table C7GTTYPE

GTTNAME GTTYPE GTTID

NMSGT ANSI7 244 (NMSGT) $

Table C7GTT

GTTKEY GTTRSLT

NMSGT 0 9 PCONLY (STPA_RTE 0) $ GT

Table TCAPTRID

TCAPAPPL NUMTRIDS NUMCOMPS IDPLUSER

NMS 100 0 N

4.0 Glenayre DMS-10 Installation

4.1. Description

This method provides the operating company personnel with the technical procedure to install the cabling and assoicated hardware for the Integration of the DMS-10 and the Glenayre Modular Voice Platform (MVP) system.

The Glenayre MVP is a multi-application, multi-media enhanced service platform. It supports a suite of applications from basic call answering and voice messaging to FAX messaging, voice dialing, and single number service.

The Glenayre MVP 4240 is a stand-alone voice processing system.

This method applies to both initials and extensions.

4.2 Material Requirements

4.2.1 Supplies

Verify a Glenayre MVP bolt-down kit has been provided for the anchoring of the MVP cabinet. If this kit is missing, contact the Glenayre project manager immediately.

4.2.2 Customer Supplied Equipment

Ensure the customer has supplied two telephone sets and associated lines for operational testing of the Glenyre MVP.

4.3 Precautions and Preparations

4.3.1 Precautions

Observe the safety precautions against personal injury and equipment damage outlined in the ISM/IM0 at all times.

In addition to the general safety precautions listed in ISM/IM0, adhere to the procedures detailed in this installation.

If cut ends of power cables have sharp projections, tape ends before handling to prevent injury and equipment damage.

When working near or on live equipment, remove all jewelry and insulate all metalic tools with plastic tape to guard against short circuits.

When running cables, or installing lugs and equipment, protect equipment temporarily with rigid insulating material such as blankets, heavy paperboard, fiber, or masonite. The protective materials are to be secured in place so as not to be disturbed when struck.

When making bends, ensure the insulation on the wire and/or cable is not damaged.

When possible, dress all leads to clear sharp corners and projections (use fiber protection where it is not possible) and fasten tightly.

4.3.2 Preparations

Prior to starting the operations presented in this method, arrange all materials, tools, and test equipment at the work location to minimize fatigue and inconvenience.

The DMS 10 switch has to be fully commisioned prior to the start of the Glenayre integration.

Ensure the proper hardware are installed on-site or that it has been provisioned as part of the installation.

Ensure the customer has supplied two telephone sets and associated lines for operational testing of the Glenyre MVP.

The installation of the various feature groups to be used for each interface configuration will not be covered by this installation method. Reference will be made to available IMs and NTPs. Verify the required feature groups have been installed prior to the start of the installation.

Northern Telecom field installation personnel are not responsible for datafill of either the DMS tables nor any Glenayre MVP software requirements

4.4 Procedure

DMS-10 Glenayre Integration supports the use of several different interface configurations. Use the information found in section 4.2 “Material Requirements” to indicate the sections which are to be performed. The information presented in this method covers the following topics:

- Configuration requirements
- Installation of the Glenayre MVP floor mounting
- Power and grounding of the Glenayre MVP
- T1 interface installation
- Voice connection via analog lines and channel banks

- SMDI interface installation
- SS7 interface installation
- DGPX interface installation
- Commissioning

4.4.2 Configuration Requirements

Refer to the following table to define the sections of this Service Implementation Guide which are required for the installation of each configuration.

Configuration Requirement		
Inbound Interface	**Outbound Interface**	**Section Required**
SMDI	DGPX	4.3 / 4.4 / 4.5 / 4.7 / 4.8 / 4.10
SMDI	SS7	4.3 / 4.4 / 4.5 / 4.7 / 4.8 / 4.9 / 4.10
SS7	DGPX	4.3 / 4.4 / 4.5 / 4.7 / 4.8 / 4.9 / 4.10
SS7	SS7	4.3 / 4.4 / 4.5 / 4.7 / 4.8 / 4.9 / 4.10

4.4.3 Installation of the Glenayre MVP Floor Mounting

Locate the floor template and the bolt-down kit for the Glenayre MVP. The bolt-down kit should contain the required parts for both a raised and concrete floor. Reference the DMS-100 *Physical Handbook Event* 02 and *DMS-100 Floor Preparation* (IM 03-9052) for instruction on drilling and assmbly of anchors.

4.4.4 Power and Grounding for the Glenayre MVP

1 Glenayre requires a power feed of negative 48 Volt DC nominal input (aceptable range 40-60 VDC). Power cabling cannot be sourced from the PDC, due to the excessive amperage (PDC limit of 30 A) requirement, power cabling should be directly cabled to the same power plant that powers the DMS PDCs. The power feed should be isolated from the power source by a 60-amp fuse or a 50-amp circuit breaker located in the main distribution bay of the power plant. Ensure the power cables are to be 8 awg stranded wire , or equivalent for lengths up to 50 feet and 6 awg for lengths greater than 50 feet. The power feed is to be cabled up to the drop off point of the Glenayre MVP system. The Glenayre Customer Service Engineer will be responsible for the connection of the power cable to the MVP system.

2 Ensure the MVP ground leads (8 awg stranded wire or equivalent for lengths up to 50 feet and 6 awg for lengths greater than 50 feet) is properly grounded within the IGZ. Reference the DMS-100 Physical Handbook *Event 03 and DMS-100 Grounding* (IM 03-9056) for instruction on grounding.

4.4.5 T1 interface installation

1 For direct T1 connection from the DMS to the MVP, go to step 2. For voice connections using analog lines and channel bank(s) see section 4.4.6 voice connections via analog lines and channel banks.

2 Locate required number of circuit packs NT6X50AA/AB (1 per every two DS0) to be installed on the LTC/DTC cabinet or frame) and the connections made from these circuit packs to the DSX, using T1 interface cables NTRX26AC or R0115462. If these are not already installed, reference IM XX-XXXXX for the installation of the T1 cables and run four wire jumpers from each designated DMS T1 on the DSX to the Glenayre T1 appearance on the same DSX.

3 Install the NTRX26GK cables (T1 Interface cables between the DSX and the Glenayre MVP) to the DSX. Repeat for the number of T1 lines required for this installation (1 per every 2 DS0). Route these cables to the MVP. The connection and assignments will be completed by the Glenayre Customer Service Engineer.

4 Enter data for the T1 on the DMS100 (table LTCPSINV and table CARRMTC). Ensure the signaling format between the DMS and the Glenayre MVP are in sync (that is SF ZCS).

5 Return the carrier to service on the DMS using the following path: mapci;mtc;trks;carrier;post DTC X X, bsy X and rts X

6 Repeat step 2 through 5 for additional T1 connections. The voice cabling installation is now complete. Go to the next required section of the installation.

4.4.6 Voice connections via analog lines and channel banks

1 For direct T1 connection from the DMS-100 to the Glenayre MVP, refer to section 4.4.5 T1 interface installation.

2 Steps 3 through 6 of this section are applied only for sites without a pre-existing analog-line/channel bank configuration. For sites with preexisting channel banks and analog lines go to step 7.

3 Verify the channel bank and related hardware have been properly installed. Ensure the channel bank is capable of acquiring timing from the T1 connected, in the upcoming steps, to the Glenayre MVP. ***Note***: the actual channel bank installation will be conducted by a Broadband installer.

4 Connect the engineered DMS-100 lines from the MDF to the channel bank and connect the T1 from the channel bank to the DSX.

5 Install the provisioned NT6X18 circuit packs into the LEN locations. Ensure the line cards are set for ground start.

6 Install the NTRX26GK cables (T1 Interface cables between the DSX and the Glenayre MVP) to the channel bank. Repeat for the number of T1 lines required for this installation (1 per every 2 DS-0). The MVP connection and assignments will be completed by the Glenayre Customer Service Engineer.

7 Ensure that the required line cards are properly datafilled for the DMS-100 switch in table LNINV. Enter data for the UCD group. After datafilling, return the impacted LEN into service using the following path: mapci;mtc;lns;ltp;post L x x x x, bsy, rts.

8 The voice cabling installation is now complete. Go to the next required section of the installation.

4.4.7 SMDI Interface Installation

1 Verify the network shelf, within the network bay or control bay contains the correct circuit packs (CS3T80BB, CS3T45DC) or the additional space for these cards. Also, verify the analog voice channel pack(s)set for ground start. NT6X18, 1 per hunt group is provisioned in the CE bay.

2 Connect the provisioned cable (ED0T25-13) to the assigned port on the CS3T45DC paddleboard. Route the cable from the network or control bay to the Glenayre MVP. The cabling connection up to the MVP will be completed by the Glenayre Customer Service Engineer. Note the total cabling length between the the network bay and the MVP should be no greater than 50 feet. If the distance exceeds this limit, consult the project manager for alternative cabling methods.

3 The SMDI interface installation is now complete. Go to the next required section of the installation.

4.4.8 DGPX Interface Installation

1 Verify the DCI or DCM shelf within the CE or PE bay contains the correct circuit packs (NT6X50 and NT4T24,1 per 2 DS1).

2 Connect the provisioned ED0T25-53 to the DCI (or for older systems ED0T25-22 to the DCM) in the CE or PE bay.

3 Route the ED0T25-53/22 cable (1 per link) from the CE or PE bay to the Glenayre MVP. The Glenayre customer service engineer will complete the connection of the ED0T25 cables.

4 The DGPX interface installation is now complete. Go to the next required section of the installation.

4.4.9 SS7 Interface Installation

Note: For the SS7 interface, the Glenayre MVP is considered to be within the integrated grounding zone.

1 The Glenayre MVP employs two types of SS7 interfaces the A-link and the F-link. Both types have essentially the same hardware. The only difference is the F-link is cabled directly from the DMS switch. The A-link is cabled through the STP.

2 Verify the circuit packs (CS4T20 and CS4T21), located on the messaging shelf on the CE or PE bay, have been installed and are available for use.

3 Connect the provisioned cable ED1T27-19 from the messaging shelf (CS4T21 paddleboard) to the DCI or, for older switches, the provisioined cable ED1T27-14 from the messaging shelf to the Digital Carrier Module (DCM).

4 After the hardware installation has been completed, the software tables need to be verified and are data entered. The Nortel installer will be required to complete the minimum set to verify the interface has been installed correctly.

5 Enter data for the SS7 Basic Trunk Signaling.

6 The SS7 interface installation is now complete. Go to the next required section of the installation.

4.4.10 Commissioning

1 After the required hardware and software has been installed and configured, and the MVP is brought into service, a dummy voicemail account is to be provided by the Glenayre Customer Service Engineer for one of the telephone lines designated for testing purposes, which have been provided by the operating company.

2 Using a second telephone line, place a call to the telephone account which is now equiped with the voicemail. A successful connection into the voicemail will indicate the inbound interface from the DMS-100 to the Glenayre MVP has been installed properly.

3 Once the interface has been properly verified, the DMS-Glenayre MVP integration installation is complete.

5.0 DMS-10 Translations

5.1 Analog Setup

Analog setup on the DMS-10 use the Station Message Desk Indicator (SMDI) connection for mailbox identification and message waiting indicator lamp (MWIL) messages. For a mailbox subscriber to know a voice message exists, either the MWIL must be lit on the phone, if avaiable, or studder dial tone must be heard when the mailbox user picks up the receiver. This SMDI message (either MWIL or stutter dial tone) is sent from the Glenayre to the DMS-10 when these actions are required.

The SMDI analog link connection is the "pipeline" for messages to and from the Glenayre to identify mailbox users in the Glenayre and to send MWIL stutter tone to the mailbox subscriber in the DMS-10.

SMDI messages may be viewed from the DMS-10 terminal. A special Bell Northern Research Lab Flag must be set to see these messages. This would validate the send and receive actions.

For a user to be properly set-up in the DMS-10 switch, they would have both Message Desk (MD) and MWIL. MD identifies this subscriber of the DMS-10 switch that this number is to be a voice mail subscriber. The number must also appear in the Glenayre as a user of voice mail.

Analog voice connections from the DMS-10 to the Glenayre is accomplished via line access through channel banks. This is the same setup and the Meridian GP voice mail unit. A hunt group or EBS group would have all of these voice connections, typically referred to as the SMDI hunt group. These are special numbers with tip-ring termination to the MDF, where they are picked up and carried over channel banks to the Glenayre. At the Glenayre, end of connection can terminate as a line connection or be converted to a channel on T1. Additionally, lines in the SMDI Hunt Group would have a designation on station options as:

- STN
- DN 570 2002
- LOC CAPA LCE 01 4 12 00

- OPT 1FR EMR 0 DGT NRML RTP 0 EBS 9 SMDI 9 63 3

The three numbers on the SMDI represent:

- Port - the logical port number declared in the logical unit (LOGU) prompting sequence in OVLY CNFG
- Desk - designation given by Glenayre
- Line - designation given by Glenayre

An access number is typically given to steer the call to the SMDI Hunt Group. A different access number must be given to each Home Numbering-Plan Area (HNPA) in the office. If not done, the SMDI message will contain zeros for the identification number sent from the DMS-10 to the Glenayre. This is shown in the following example:

MD063 0003 CALL TYPE D

CALLING# 0000000000

#150

If successful entry is gained to the voice mail unit, then would be a follows : output from the DMS-10 (with the BNR_LAB_FLAG set)is shown below:

MD063 0003 CALL TYPE D

CALLING# 9129212001

#150

DEACTIVATE MWI

STN 9129212001

#151

The access number is the number the voice mail subscriber must dial to retrieve messages. It can also be used to forward calls to the voice mail. Once called, the access number will attempt to establish an analog connection to the voice mail. If busy, the hunt group will roll to the next available message desk interface number. This will continue until an idle interface is found or until the SMDI hunt group has exhausted all numbers.

With the 410.10 generic, the only available configuration for SMDI identification and messaging is the analog configuration as described here. Channel banks are required with line access and SMDI hunt group. This is not possible with CCS7, since only the called and calling numbers are sent in the IAM, not the required original called number (OCN). MF signaling of the

required identification is also not viable since the CFW type situations remove the orginal calling number and replace it with the Call Forwarding (CFW) leg of the line identification. The true originator does not know which is required by the Glenayre for line identification to open up the correct mailbox. Otherwise, a generic greeting is always received and the user is prompted to enter their mailbox and password.

5.2 MF trunk configuration from the Glenayre

For a convention of reference, Outbound from the Glenayre is a call from the Glenayre to the DMS-10. Inbound from the Glenayre is a call from the DMS-10 to the Glenayre.

An outbound call from the Glenayre to the DMS-10 may be handled in generic 410.10 via Multi Frequency trunking. This would occur when a voice mail user decides to originate a call from the Glenayre to the world either terminating in the DMS-10 or continuing outwards. Because of special considerations on some calls, the following are not supported by Product Line Management when sent to the DMS-10:

- 1+900 or 1+976
- 911 - because the caller could be logged into their mailbox from a remote source such as a cell or pay phone

0+ "operator assisted calls" due to billing issues not supported

011+ international calls due to billing issues not supported

Support for other types of calls "Direct Dial" is considered.

- 1+ dialing where the caller can call either NPA + NXX + #### (10 digit) or
- 1+ NXX + #### (8 digit) or even a local call (7 digit)
- 1+ 800

The Glenayre features refer to outdials as two types: Rapid Response and Direct Dial. These correspond to the Meridian Mail features Call Sender (press key 9) and Thru Dial (press 0 and enter phone#). Product Line Management wants to support interlata, intralata and long distance calls with both features.

The Glenayre Features are:

- Rapid Response allows a mailbox owner to call someone who left them a message.
- Direct Dial allows a mailbox owner to choose to key in a number they want to call. They enter zero pound (0#), followed by the phone number.

For outbound calls from the Glenayre to the DMS-10 in 410.10 generic, use the PBX arrangement for the incoming trunk group. Also required are the features Digital GPX and Line Feature Trunk in CNFG/FEAT.

Feature Group C signaling is accepted from the Glenayre to the DMS-10. The Glenayre cannot forward specific carrier numbers to the DMS-10. Because of this, a carrier is attached to the incoming call. The incoming trunk group will appear as follows:

TYP LTG

NUM 102

APPL PBX

TGTP INC

SITE BASE

TGDP ELOC

RMB YES

STPL WINK

RCVR MF

MSGI YES

FDTM 5 SEC

CNTL ETHR

TRNL PRFX

PRFX 8

APFX NONE

TRFC CAMS

ANIS YES

ASIG WINK

CO 921

570

580

DN 921 5801

TRK CAPA CE 02 1 04 1 04

CAPA CE 02 1 04 1 05

CAPA CE 02 1 04 1 06

Calls using prefix 8 will be filtered. The traffic class of CAMS allows the ANI spill prompt to appear. With YES, we expect an ANI spill from the Glenayre. CO stands for central office codes. Valid codes in this office are NXXs of 921, 570 and 580. Enter as a string for this line.

The Directory Number prompt shows a pilot number. In this case, the pilot number is not the number that shows up as the calling number. Instead, it is used for determining incoming billing in the office. Characteristics of this number are compared to the destination and billing which is performed. Calls are billed in the office. Downstream billing would decode the records for charges.

A problem example with billing certain calls is when a user is called in the DMS-10 switch. A straight call from the caller to the user is billable. A call to the Glenayre is free, because it is a call from the Glenayre to the user. Use the Glenarye to call the user for free instead of calling them directly. Also recognize the example with this user would be more complex if the user resided in a remote or another switch.

There are many cases with DMS-10 tandem calls for other switches. This is related because the DMS-100 cannot act as an SRP or STP. This makes it likely the DMS-10 will be a hub configuration.

For all billing to take a Feature Group C incoming call, tag a carrier to the call using the station (921-5801 above) with Pre Subscription and/or PRS2 (secondary carrier routing) and go out of the office FGD. Using a Line Trunk Group (LTG) with PBX application software will handle these requirements. The number 921-5801 will not show up in the billing record. The true originator and true destination will show up if setup properly.

Traver of the LTG cannot be accomplished since LTG is not acceptable input. Also, the number 921-5801 is accepted, but the wrong PRFX is taken, which should be PRFX 8 in this case.

An example of the 921-5801 station configuration is:

LINE CAPA CE 02 1 04 1 04 PBXC DN 921 5801

OPT 1FR EMR 0 DGT RTP 3 PRES 0288 PBX

Be sure to configure this station so all billing occurs. Notice that RTP 3 is used here. This is also the station which handles the presubscription for all incoming trunks from the Glenayre.

When the line trunks (LTRK) are configured in both the DMS-10 and Glenayre, all should be accessible. If not, you may be routed back to the outdial sequence in the voice mailbox.

For example, a call originated from 912-921-2001 calls the access number 921-2002 for voice mail. A personal greeting is received to enter the password (9999). The call is then carried to the main menu of the voice mail. At this point the user can outdial by an input of zero pound (0#). The user is prompted to enter the outdial number followed by #. Enter 912-921-2002 (use -) pound (#). Going back to the main menu may result in a trunk not found. The Glenayre may not be programmed with the correct trunks. Various reasons can cause this.

The Glenayre may only be trying one trunk in the group which happens to be busy or out of service. Continuing to try and outdial may be successful.

The network Perpheral Loop of the corresponding Digital Carrier Module/Digital Signal Interface may be down in the DMS-10 switch. Hardware problems may exist.

A DCM or DSI may be used in the DMS-10 for MF signaling with the Glenayre for incoming calls. Only 56k can be configured. Since the DCM is only capable of 56k, there is no problem here. With the Digital Signal Interface it must be configured as 56K and ESF in OVLY NET. Review both the DSI and DSLK.

If 64k B8ZS is configured, all bits in the T1 are used for information messaging. This means that even though bit 4 of the A and B signaling are set for out of service or MMB of the selected channel on the T1, the DMS-10 cannot see it. A 64k clear-channel which means are to be subscriber information and not to be used as overhead in the DMS-10 for reference of trunk status. To accomplish the needed overhead of trunk status, use CCS7 messaging which is not done to the Glenayre in generic 410.10.

CCS7 is not possible because only the called and calling numbers are sent in the IAM (and not the required original called number (OCN) in generic 410.10. OCN is available in generic 411.10. This component field is only shown if a forward occurs.

The Glenayre looks first for the SMDI message for the OCN. If not available then the OCN field is searched. If still not available then the calling field is gathered in the IAM.

With generic 410.10, SMDI must be used to send the original called number to the Glenayre. With generic 411.10, other choices are available, such as IAM signaling. In CCS7 signaling, all A,B,C,and D bits are set for busy trunks.

In generic 410.10 a pilot number is srequired in (INC TG_, otherwise a LIN204 would be seen at the terminal for calls attempted and the call would fail.

A message for CLG validation failure occurs, review the CO field in the trunk group (TG) and ensure the proper NXX code is assigned here.

A normal TG could be used for incoming MF signaling from the Glenayre, but all calls would not be billed properly, based on the ANI spill. An example setup would be as follows:

TYP TG

NUM 102

TGTP INC

SIGT INB

PKTP DTRK

SITE BASE

TGDP ELOC

RMB YES

FLSH NO

STPL WINK

RCVR MF

MSGI YES

FDTM 5 SEC

COIN NOCO

STSI 0

HNPA 912

RC 7

RTP 3

CNTL ETHR

VERF NO

TRNL PRFX

PRFX 8

APFX NONE

TRFC LINE

CODE 0288

ANIS YES

ASIG WINK

CO 570

921

4XCD NO

ACKA NO

FANI NONE

TYPC NOCO

NXX UNKN

LATA 000

TRK CAPA CE 02 1 04 1 07

CAPA CE 02 1 04 1 08

With this setup, local calls would not be able to be billed and no records shown. Outgoing calls from the DMS-10 could be billed if the routes are set up properly.

Changing the Automatic Number Identification Spill to a NO and assigning a specific number for billing does not meet the billing requirements of the Glenayre which needs both the called and calling numbers for billing records.

If you are not interested in billing properly, perhaps this arrangement could be used. This may be true if you opt to let the Glenayre bill all calls, but it does have this capability.

- T-1 CCS7 Signaling
- CCS7 Setup Inbound/Outbound from the Glenayre
- CCS7 on the DMS-10 to the Glenayre must use the DS1 which has the capability of 64k Clear-channel. (B8ZS with ESF).
- DSI or DCM with 56k for CCS7 will not work with the Glenayre due to the limitation of the Glenayre.

Generic 411.10 must be used when configuring CCS7 to the Glenayre. With CCS7 the called and calling numbers are sent in the IAM. If a forward has occurred, the OCN component will also be included in the IAM. OCN is available in generic 411.10. OCN is not available in generic 410.10.

The Glenayre looks first for the SMDI message for the OCN. If not available, the OCN field is searched. If still not available, the calling field is gathered in the IAM for mailbox access.

In CCS7 signaling all A,B,C,and D bits are set for busy trunks. A T-Berd 224 unit can be used to validate the trunk status.

5.3 Translations

The following translations represent NORTEL-defined Standard Translations for the DMS-10 to Glenayre MVP voice mail system. The order presented here should be the order entered into the switch.

5.3.1 Features

- DGPX - Digital PX feature is required to allow
  - — (1) the LPIC presubscription of inta-Lata vs inter-Lata calls. The LTG will have lines that are presubscribed to operating company requirements. Without DGPX, the TG would only be valid for inter-lata presubscription.
  - — (2) Without DGPX, only one CO code would be available (NXX code for call completion). With DGPX, multiple CO codes can be assigned on the TG. The address is .217C0 offset 2 in 410.10.
- LFT - The Line Feature Trunk Patch feature (a feature bit in software called CNFG_LFT_PATCH (3,1). The address is .217B8 in 410.10 is required for carrier origination on a TG.

- CAMS - CAMS option feature on the LTG is required to allow the additional needed prompts ANIS, ASIG, CO to appear. With NONE for Traffic Class in the Trunk group on the LTG, none of these prompt show up.
- CAMA - CAMA feature is not required unless the operating company has special billing needs.
- PBX - LTG feature for the application should be set up as PBX.
- DN - A station is assigned to the digital trunk of the inbound call for carrier assignment, for example PRES 0096 and PRS2 0096.

5.3.2 Outdialing testing

Interlata

Local

EQA

800

900 blocking

Intralata

Outdialing translations

Create a new trunk group as follows:

```
# OVLY TG

      REQ   NEW

   TYP  LTG

   NUM  101

   APPL  PBX

  TGTP  INC

   SITE BASE

   TGDP ELOC

   RMB  YES

   STPL WINK
```

RCVR MF

MSGI NO

FDTM 5 SEC

CNTL ETHR

TRNL PRFX

PRFX 6

APFX NONE

TRFC CAMS

ANIS YES

ASIG WINK

CO 473

506

DN 506 5891

TRK MMVL PE 01 4 18 17

Ten digits will be coming to the DMS-10 from the MVP. Local and toll calls need to be distinguished in PRFX 6. This is done by SP 1 0. Local calls have the leading three digits absorbed. Block what is needed to in the PRFX 06 such as 900 dialing from the MVP. Essentially, block what is needed and let everything else translate normally by sending it to the HNPA. The prefix can be created as follows:

REQ que prfx 6

TEST PRFX 6 ACTV 13:56:00 30/06/98 LAST CHG 13:56:00 30/06/98

PRFX 6 DIG 0 ROUT VCCO

PRFX 6 DIG 1 SAME 0

PRFX 6 DIG 2 SP 1 0 ADDR HNPA

PRFX 6 DIG 3 SP 1 0 ADDR HNPA

PRFX 6 DIG 4 SP 1 0 ADDR HNPA

PRFX 6 DIG 5 SP 1 0 ADDR HNPA

PRFX 6 DIG 6 SP 1 0 ADDR HNPA

PRFX 6 DIG 7 SP 1 0 ADDR HNPA

PRFX 6 DIG 8 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 0 DIG 0 ROUT VCCO(block these calls)

PRFX 6 DIG 9 DIG 0 DIG 1 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 0 DIG 2 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 0 DIG 3 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 0 DIG 4 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 0 DIG 5 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 0 DIG 6 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 0 DIG 7 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 0 DIG 8 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 0 DIG 9 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 1 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 2 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 0 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 0 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 1 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 2 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 3 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 4 DIG 0 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 4 DIG 1 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 4 DIG 2 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 4 DIG 3 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 4 DIG 4 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 4 DIG 5 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 4 DIG 6 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 4 DIG 7 DIG 0 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 4 DIG 7 DIG 1 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 4 DIG 7 DIG 2 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 4 DIG 7 DIG 3 ABS 3 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 4 DIG 7 DIG 4 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 4 DIG 7 DIG 5 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 4 DIG 7 DIG 6 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 4 DIG 7 DIG 7 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 4 DIG 7 DIG 8 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 4 DIG 7 DIG 9 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 4 DIG 8 DIG 0 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 4 DIG 8 DIG 1 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 4 DIG 8 DIG 2 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 4 DIG 8 DIG 3 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 4 DIG 8 DIG 4 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 4 DIG 8 DIG 5 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 4 DIG 8 DIG 6 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 4 DIG 8 DIG 7 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 4 DIG 8 DIG 8 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 4 DIG 8 DIG 9 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 4 DIG 9 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 5 DIG 0 DIG 0 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 5 DIG 0 DIG 1 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 5 DIG 0 DIG 2 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 5 DIG 0 DIG 3 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 5 DIG 0 DIG 4 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 5 DIG 0 DIG 5 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 5 DIG 0 DIG 6 ABS 3 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 5 DIG 0 DIG 7 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 5 DIG 0 DIG 8 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 5 DIG 0 DIG 9 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 5 DIG 1 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 5 DIG 2 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 5 DIG 3 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 5 DIG 4 SP 1 0 ADDR HNPA

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PRFX 6 DIG 9 DIG 3 DIG 1 DIG 6 DIG 2 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 6 DIG 3 DIG 0 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 6 DIG 3 DIG 1 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 6 DIG 3 DIG 2 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 6 DIG 3 DIG 3 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 6 DIG 3 DIG 4 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 6 DIG 3 DIG 5 ABS 3 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 6 DIG 3 DIG 6 SP 1 0 ADDR HNPA

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PRFX 6 DIG 9 DIG 3 DIG 1 DIG 6 DIG 6 DIG 3 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 6 DIG 6 DIG 4 SP 1 0 ADDR HNPA

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PRFX 6 DIG 9 DIG 3 DIG 1 DIG 6 DIG 8 DIG 1 SP 1 0 ADDR HNPA

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PRFX 6 DIG 9 DIG 3 DIG 1 DIG 6 DIG 8 DIG 4 SP 1 0 ADDR HNPA

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PRFX 6 DIG 9 DIG 3 DIG 1 DIG 6 DIG 8 DIG 6 ABS 3 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 6 DIG 8 DIG 7 SP 1 0 ADDR HNPA

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PRFX 6 DIG 9 DIG 3 DIG 1 DIG 6 DIG 9 DIG 3 SP 1 0 ADDR HNPA

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PRFX 6 DIG 9 DIG 3 DIG 1 DIG 9 DIG 0 DIG 0 ROUT VCCO

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 9 DIG 0 DIG 1 SP 1 0 ADDR HNPA

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PRFX 6 DIG 9 DIG 6 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 7 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 8 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 9 SP 1 0 ADDR HNPA

REQ que addr 931 4733

TEST ADDR 931 ACTV 14:40:00 30/06/98 LAST CHG 14:39:00 30/06/98

ADDR 931 4733 AMB NPA DEST 39 SCRN 1

ADDR 931 4733 AMB CO THGP 473 3 SCRN 0

ADDR 931 4734 AMB NPA DEST 39 SCRN 1

ADDR 931 4734 AMB CO THGP 473 4 SCRN 0

ADDR 931 4735 AMB NPA DEST 39 SCRN 1

ADDR 931 4735 AMB CO THGP 473 5 SCRN 0

ADDR 931 4736 AMB NPA DEST 39 SCRN 1

ADDR 931 4736 AMB CO THGP 473 6 SCRN 0

ADDR 931 4737 AMB NPA DEST 39 SCRN 1

ADDR 931 4737 AMB CO !!!!

DMO000 QTRN

REQ que scrn 0

TEST SCRN 0 ACTV 14:48:00 30/06/98 LAST CHG 14:47:00 30/06/98

SCRN 0 TOL N TP 1 N TP 0 N COI N OWT N HOTL N ONI N TWX N TDN N !INM N GEFG

SCRN 0 TOL N TP 1 N TP 0 N COI N OWT N HOTL N ONI N TWX N TDN N !INM Y ROUT

VCCO

SCRN 0 TOL N TP 1 N TP 0 N COI N OWT N HOTL N ONI N TWX N TDN Y !INM N GEFG

SCRN 0 TOL N TP 1 N TP 0 N COI N OWT N HOTL N ONI N TWX N TDN Y !INM Y ROUT

VCCO

SCRN 0 TOL N TP 1 N TP 0 N COI N OWT N HOTL N ONI N TWX Y !INM N GEFG

SCRN 0 TOL N TP 1 N TP 0 N COI N OWT N HOTL N ONI N TWX Y !INM Y ROUT VCCO

SCRN 0 TOL N TP 1 N TP 0 N COI N OWT N HOTL N ONI Y GEFG

SCRN 0 TOL N TP 1 N TP 0 N COI N OWT N HOTL Y OPT1 N GEFG

SCRN 0 TOL N TP 1 N TP 0 N COI N OWT N HOTL Y OPT1 Y ROUT VCCO

SCRN 0 TOL N TP 1 N TP 0 N COI N OWT Y BRTE 12

SCRN 0 TOL N TP 1 N TP 0 N COI Y GEFG

SCRN 0 TOL N TP 1 N TP 0 Y COI N OWT N HOTL N ONI N TWX N TDN N BRTE 29

SCRN 0 TOL N TP 1 N TP 0 Y COI N OWT N HOTL N ONI N TWX N TDN Y ROUT VCCO

SCRN 0 TOL N TP 1 N TP 0 Y COI N OWT N HOTL N ONI N TWX Y BRTE 36

SCRN 0 TOL N TP 1 N TP 0 Y COI N OWT N HOTL N ONI Y BRTE 29

SCRN 0 TOL N TP 1 N TP 0 Y COI N OWT N HOTL Y ROUT VCCO

SCRN 0 TOL N TP 1 N TP 0 Y COI N OWT Y ROUT VCCO

SCRN 0 TOL N TP 1 N TP 0 Y COI Y TDN N BRTE 30

SCRN 0 TOL N TP 1 N TP 0 Y COI Y TDN Y ROUT VCCO

SCRN 0 TOL N TP 1 Y COI N OWT N !MVP N ROUT VCCO

SCRN 0 TOL N TP 1 Y COI N OWT N !MVP Y GEFG (for local calls)

SCRN 0 TOL N TP 1 Y COI N OWT Y BRTE 12

SCRN 0 TOL N TP 1 Y COI Y ROUT VCCO

SCRN 0 TOL Y TDN N TP 1 N ROUT VCCO

SCRN 0 TOL Y TDN N TP 1 Y COI N ROUT VCCO

SCRN 0 TOL Y TDN N TP 1 Y COI Y ROUT VCCO

SCRN 0 TOL Y TDN Y ROUT VCCO

REQ ****

Note: With CAMS on the TG, translations currently exists for showing the local call as a TP 1 Y instead of the TP 1 N.

Additionally, TRVR was broken in 410.10 for incoming DGPX PBX calls so this is not shown.

REQ For a local call the following is dialed #####

ORIG .A0A5FF74 MMVL PE 01 4 18 17 LTRK 506 5891 RT= .EC60B5B2 IP= .EC60B5

8B 144841

CREG .A0A5FF74 ORIG 0 0 STATE CHANGED TO ORIG 144841

EVNT .A0A5FF74 ORIG 0 0 SRCE CONN 0 RT= .EC60B5BB IP= .EC60B58B

MMVL PE 01 4 18 17 .A092A78C 0 1 144841

CREG .A0A5FF74 ORIG 0 0 STATE CHANGED TO ORWS 144841

CREG .A0A5FF74 ORWS 0 0 STATE CHANGED TO DLNG 144841

EVNT .A0A5FF74 DLNG 3 0 RS DIGT 10 RT= .EC60B76F IP= .EC60B767 144841

EVNT .A0A5FF74 DLNG 4 0 RS DIGT 9 RT= .EC60B8FA IP= .EC60B8D1 144842

EVNT .A0A5FF74 DLNG 4 0 RS DIGT 3 RT= .EC60B995 IP= .EC60B97F 144842

EVNT .A0A5FF74 DLNG 4 0 RS DIGT 1 RT= .EC60BA64 IP= .EC60BA39 144842

EVNT .A0A5FF74 DLNG 4 0 RS DIGT 4 RT= .EC60BAFC IP= .EC60BAF1 144842

EVNT .A0A5FF74 DLNG 4 0 RS DIGT 7 RT= .EC60BBAA IP= .EC60BBA1 144842

EVNT .A0A5FF74 DLNG 4 0 RS DIGT 3 RT= .EC60BC53 IP= .EC60BC4F 144842

EVNT .A0A5FF74 DLNG 4 0 RS DIGT 3 RT= .EC60BD18 IP= .EC60BD09 144843

EVNT .A0A5FF74 DLNG 4 0 RS DIGT 1 RT= .EC60BDCA IP= .EC60BDC1 144843

EVNT .A0A5FF74 DLNG 4 0 RS DIGT 4 RT= .EC60BE7C IP= .EC60BE71 144843

EVNT .A0A5FF74 DLNG 4 0 RS DIGT 6 RT= .EC60BF27 IP= .EC60BF1F 144843

EVNT .A0A5FF74 DLNG 4 0 RS DIGT 11 RT= .EC60C0A5 IP= .EC60C0A2 144843

LEAF ACT PRFX 6 144843

TREE INDX 6 .A05C9F98 2 144843

NODE DIGT .00000061 144843

BRCH DIGT 9 .A05A5E38 2 144843

NODE DIGT .00000001 144843

BRCH DIGT 3 .A0621430 2 144843

NODE DIGT .00000001 144843

BRCH DIGT 1 .A062145C 2 144843

NODE DIGT .00000001 144843

BRCH DIGT 4 .A0617CFC 2 144843

NODE DIGT .00000001 144843

BRCH DIGT 7 .A0617D60 2 144843

NODE DIGT .00000001 144843

BRCH DIGT 3 .A0617DA4 2 144843

NODE ABS .00001832 144843

BRCH ABS 0 .28030000 1 144843

LEAF ACT HNPA 0 144843

TREE INDX 33 .A05B3C10 2 144843

NODE DIGT .00000001 144843

BRCH DIGT 4 .A0615214 2 144843

NODE DIGT .00000001 144843

BRCH DIGT 7 .A0615374 2 144843

NODE DIGT .00007EE1 144843

BRCH DIGT 3 .A06153A0 2 144843

NODE DIGT .00000001 144843

BRCH DIGT 3 .A05CE654 2 144843

NODE NPA .00000062 144843

BRCH NPA 1 .08000003 1 144843

LEAF INTR THGX 3 SCRN 0 144843

LEAF ACT SCRN 0 144843

CREG .A0A5FF74 DLNG 4 0 STATE CHANGED TO ANSP 144843

EVNT .A0A5FF74 ANSP 7 0 CR TO 0 RT= .EC60C22F IP= .EC60C1D7 144844

EVNT .A0A5FF74 ANSP 2 0 RS DIGT 10 RT= .EC60C39D IP= .EC60C39A 144844

EVNT .A0A5FF74 ANSP 3 0 RS DIGT 0 RT= .EC60C46B IP= .EC60C452 144845

EVNT .A0A5FF74 ANSP 4 0 RS DIGT 5 RT= .EC60C6D6 IP= .EC60C6C2 144845

EVNT .A0A5FF74 ANSP 4 0 RS DIGT 0 RT= .EC60C776 IP= .EC60C772 144845

EVNT .A0A5FF74 ANSP 4 0 RS DIGT 6 RT= .EC60C838 IP= .EC60C82A 144846

EVNT .A0A5FF74 ANSP 4 0 RS DIGT 5 RT= .EC60C8E9 IP= .EC60C8E2 144846

EVNT .A0A5FF74 ANSP 4 0 RS DIGT 8 RT= .EC60C997 IP= .EC60C992 144846

EVNT .A0A5FF74 ANSP 4 0 RS DIGT 7 RT= .EC60CA45 IP= .EC60CA41 144846

EVNT .A0A5FF74 ANSP 4 0 RS DIGT 5 RT= .EC60CB00 IP= .EC60CAFA 144846

EVNT .A0A5FF74 ANSP 4 0 RS DIGT 11 RT= .EC60CC16 IP= .EC60CC12 144846

LEAF ACT SCRN 0 144846

TREE INDX 40 .A0622D34 2 144846

NODE TOL .00000007 144846

BRCH TOL 0 .A0622D40 2 144846

NODE PFXT .00000108 144846

BRCH PFXT 1 .A0622E24 2 144846

NODE COI .00000146 144846

BRCH COI 0 .A0622E30 2 144846

NODE OWT .00000046 144846

BRCH OWT 0 .A0622E60 2 144846

NODE CASO .001E8EE7 144846

BRCH CASO 1 .28060000 1 144846

LEAF ACT RESM 0 144846

RESM 3 .A059AF88 2 144846

NODE DIGT .00000001 144846

BRCH DIGT 1 .A05A6078 2 144846

NODE DIGT .00000001 144846

BRCH DIGT 4 .A05C06C0 2 144846

NODE GDIG .00007FF6 144846

BRCH GDIG 6 .00000024 1 144846

LEAF TN .00000024 .00000024 144846

CREG .A0A5FF74 ANSP 4 0 STATE CHANGED TO RLIN 144846

GIVE TONE TS TYPE 01 144847

EVNT .A0A5FF74 RLIN 9 0 CR RSRC 0 RT= .EC60CCE8 IP= .EC60CCB7 144847

TONE CTRL TS .A0980AB0 01 144847

LIN022 MMVL LCE 05 3 02 01

#206 144849

EVNT .A0A5FF74 RLIN 9 0 DEST CONN 0 RT= .EC60DEF7 IP= .EC60DEEB

MMVL LCE 01 3 00 23 .A09C8BB0 7 4 144851

TONE CTRL TS .A0980AB0 06 144851

EVNT .A0A5FF74 RLIN 11 1 CR TO 0 RT= .EC60E705 IP= .EC60E6FB 144853

CREG .A0A5FF74 RLIN 11 1 STATE CHANGED TO LINE 144853

****

Interlata call

ORIG .A09D9F44 MMVL PE 01 4 18 17 LTRK 506 5891 RT= .F15122B4 IP= .F15122

8F 134946

CREG .A09D9F44 ORIG 0 0 STATE CHANGED TO ORIG 134946

EVNT .A09D9F44 ORIG 0 0 SRCE CONN 0 RT= .F15122BC IP= .F151228F

MMVL PE 01 4 18 17 .A092A78C 0 1 134946

CREG .A09D9F44 ORIG 0 0 STATE CHANGED TO ORWS 134946

CREG .A09D9F44 ORWS 0 0 STATE CHANGED TO DLNG 134946

EVNT .A09D9F44 DLNG 3 0 RS DIGT 10 RT= .F151245D IP= .F1512459 134947

EVNT .A09D9F44 DLNG 4 0 RS DIGT 9 RT= .F15125F9 IP= .F15125D0 134947

EVNT .A09D9F44 DLNG 4 0 RS DIGT 1 RT= .F151269D IP= .F1512688 134947

EVNT .A09D9F44 DLNG 4 0 RS DIGT 9 RT= .F151275A IP= .F1512740 134947

EVNT .A09D9F44 DLNG 4 0 RS DIGT 9 RT= .F15127F9 IP= .F15127F0 134947

EVNT .A09D9F44 DLNG 4 0 RS DIGT 9 RT= .F15128B0 IP= .F15128A0 134948

EVNT .A09D9F44 DLNG 4 0 RS DIGT 2 RT= .F1512971 IP= .F1512963 134948

EVNT .A09D9F44 DLNG 4 0 RS DIGT 3 RT= .F1512A14 IP= .F1512A0F 134948

EVNT .A09D9F44 DLNG 4 0 RS DIGT 0 RT= .F1512ACD IP= .F1512AC8 134948

EVNT .A09D9F44 DLNG 4 0 RS DIGT 1 RT= .F1512B82 IP= .F1512B80 134948

EVNT .A09D9F44 DLNG 4 0 RS DIGT 7 RT= .F1512C40 IP= .F1512C30 134949

EVNT .A09D9F44 DLNG 4 0 RS DIGT 11 RT= .F1512DAA IP= .F1512DA7 134949

LEAF ACT PRFX 6 134949

TREE INDX 6 .A05C9F98 2 134949

NODE DIGT .00000061 134949

BRCH DIGT 9 .A05A5E38 2 134949

NODE DIGT .00000001 134949

BRCH DIGT 1 .A0611900 2 134949

NODE PFXA .0000006C 134949

BRCH PFXA 0 .28030000 1 134949

LEAF ACT HNPA 0   134949

TREE INDX 33 .A05B3C10 2 134949

NODE DIGT .00000001 134949

BRCH DIGT 9 .A0616D10 2 134949

NODE DIGT .00000001 134949

BRCH DIGT 1 .A0616D68 2 134949

NODE DIGT .00007FA1 134949

BRCH DIGT 9 .10000401 1 134949

LEAF INTE DEST 1 SCRN 1   134949

LEAF ACT SCRN 100   134949

CREG .A09D9F44 DLNG 4 0 STATE CHANGED TO ANSP 134949

EVNT .A09D9F44 ANSP 7 0 CR TO 0 RT= .F1512F2F IP= .F1512EEE 134949

EVNT .A09D9F44 ANSP 2 0 RS DIGT 10 RT= .F15130B3 IP= .F15130A3 134950

EVNT .A09D9F44 ANSP 3 0 RS DIGT 0 RT= .F151316C IP= .F151315C 134950

EVNT .A09D9F44 ANSP 4 0 RS DIGT 5 RT= .F15133EE IP= .F15133EB 134951

EVNT .A09D9F44 ANSP 4 0 RS DIGT 0 RT= .F151349F IP= .F151349C 134951

EVNT .A09D9F44 ANSP 4 0 RS DIGT 6 RT= .F151356E IP= .F1513554 134951

EVNT .A09D9F44 ANSP 4 0 RS DIGT 5 RT= .F1513602 IP= .F15135FA 134951

EVNT .A09D9F44 ANSP 4 0 RS DIGT 8 RT= .F15136DE IP= .F15136B3 134951

LIN022 MMVL LCE 05 3 05 10

#863 134951

EVNT .A09D9F44 ANSP 4 0 RS DIGT 7 RT= .F151376F IP= .F151376C 134951

EVNT .A09D9F44 ANSP 4 0 RS DIGT 5 RT= .F1513828 IP= .F151381B 134952

EVNT .A09D9F44 ANSP 4 0 RS DIGT 11 RT= .F1513936 IP= .F1513933 134952

LEAF ACT SCRN 100 134952

TREE INDX 140 .A0595FBC 2 134952

NODE AD1 .00000387 134952

BRCH AD1 0 .A0595FC8 2 134952

NODE TOL .00000007 134952

BRCH TOL 1 .A0596024 2 134952

NODE TDN .00000086 134952

BRCH TDN 0 .A0596030 2 134952

NODE PFXT .00000408 134952

BRCH PFXT 0 .A059603C 2 134952

NODE PFXT .00000308 134952

BRCH PFXT 0 .A0596048 2 134952

NODE PFXT .00000108 134952

BRCH PFXT 1 .A05962F4 2 134952

NODE PFXT .00000708 134952

BRCH PFXT 0 .A0596300 2 134952

NODE SAC .00000307 134952

BRCH SAC 0 .A059630C 2 134952

NODE COI .00000106 134952

BRCH COI 0 .A0596318 2 134952

NODE OWT .00000006 134952

BRCH OWT 0 .A0596324 2 134952

NODE HOTL .00000386 134952

BRCH HOTL 0 .A0596330 2 134952

NODE ONI .00000186 134952

BRCH ONI 0 .A059633C 2 134952

NODE TWX .00000206 134952

BRCH TWX 0 .A0596348 2 134952

NODE MSG .00000207 134952

BRCH MSG 0 .A0596354 2 134952

NODE RES1 .00000807 134952

BRCH RES1 0 .A0596360 2 134952

NODE ZZ   .000000B4 134952

BRCH ZZ   0 .200000F0 1 134952

LEAF BRTE 240   134952

START ROUT 240 134952

CREG .A09D9F44 ANSP 4 0 STATE CHANGED TO RTE EQA 134952

DO ROUT .000000F0 EQA 00 0 134952

GIVE TONE TD TYPE 36 134952

EVNT .A09D9F44 RTE EQA 5 3 DEST WINK 0 RT= .F1513C40 IP= .F1513C1C

MMVL PE 01 4 02 01 .A0B05120 1 2 134953

DO ROUT .000000F0 EQA 05 3 134953

OUTPULSE FROM NI:.0036 TO NI:.0023 TN:.20001000

DIGITS .A 0 1 7 0 0 9 6 .B 134953

EVNT .A09D9F44 RTE EQA 6 3 TD OPLS 0 RT= .F1514122 IP= .F1514116 134954

DO ROUT .000000F0 EQA 06 3 134954

EVNT .A09D9F44 RTE EQA 8 1 DEST WINK 0 RT= .F1514306 IP= .F1514302

MMVL PE 01 4 02 01 .A0B05120 1 2 134954

DO ROUT .000000F0 EQA 08 1 134954

OUTPULSE FROM NI:.0036 TO NI:.0023 TN:.20001000

DIGITS .A 0 0 9 3 1 5 0 6 5 8 7 5 .B 134954

EVNT .A09D9F44 RTE EQA 8 2 TD OPLS 0 RT= .F1514A89 IP= .F1514A5B 134956

DO ROUT .000000F0 EQA 08 2 134956

OUTPULSE FROM NI:.0036 TO NI:.0023 TN:.20001000

DIGITS .A 9 1 9 9 9 2 3 0 1 7 .B 134956

EVNT .A09D9F44 RTE EQA 9 2 TD OPLS 0 RT= .F15150DF IP= .F15150DB 134958

DO ROUT .000000F0 EQA 09 2 134958

TONE CTRL TD .A097A1E0 06 134958

EVNT .A09D9F44 RTE EQA 10 2 DEST WINK 0 RT= .F15152D6 IP= .F15152C3

MMVL PE 01 4 02 01 .A0B05120 1 2 134958

DO ROUT .000000F0 EQA 10 2 134958

EVNT .A09D9F44 RTE EQA 19 1 DEST CONN 0 RT= .F1516133 IP= .F1516130

MMVL PE 01 4 02 01 .A0B05120 1 1 135002

DO ROUT .000000F0 EQA 19 1 135002

EVNT .A09D9F44 RTE EQA 19 2 CR TO 0 RT= .F1516931 IP= .F1516909 135004

DO ROUT .000000F0 EQA 19 2 135004

CREG .A09D9F44 RTE EQA 19 2 STATE CHANGED TO TRNK 135004

EVNT .A09D9F44 TRNK 1 2 SRCE DISC 0 RT= .F1517514 IP= .F1517500

MMVL PE 01 4 18 17 .A092A78C 1 2 135007

ORIG .A0A93DD4 MMVL PE 01 4 18 17 LTRK 506 5891 RT= .F151BFB3 IP= .F151BF

91 135026

CREG .A0A93DD4 ORIG 0 0 STATE CHANGED TO ORIG 135026

EVNT .A0A93DD4 ORIG 0 0 SRCE CONN 0 RT= .F151BFBC IP= .F151BF91

MMVL PE 01 4 18 17 .A092A78C 0 1 135026

CREG .A0A93DD4 ORIG 0 0 STATE CHANGED TO ORWS 135026

CREG .A0A93DD4 ORWS 0 0 STATE CHANGED TO DLNG 135026

EVNT .A0A93DD4 DLNG 3 0 RS DIGT 10 RT= .F151C16F IP= .F151C16A 135027

EVNT .A0A93DD4 DLNG 4 0 RS DIGT 9 RT= .F151C2E0 IP= .F151C2DA 135027

EVNT .A0A93DD4 DLNG 4 0 RS DIGT 3 RT= .F151C38F IP= .F151C38A 135027

EVNT .A0A93DD4 DLNG 4 0 RS DIGT 1 RT= .F151C43D IP= .F151C43A 135028

EVNT .A0A93DD4 DLNG 4 0 RS DIGT 4 RT= .F151C4FB IP= .F151C4F2 135028

EVNT .A0A93DD4 DLNG 4 0 RS DIGT 7 RT= .F151C5A7 IP= .F151C5A1 135028

EVNT .A0A93DD4 DLNG 4 0 RS DIGT 3 RT= .F151C661 IP= .F151C65A 135028

EVNT .A0A93DD4 DLNG 4 0 RS DIGT 3 RT= .F151C716 IP= .F151C712 135028

EVNT .A0A93DD4 DLNG 4 0 RS DIGT 1 RT= .F151C7D1 IP= .F151C7C2 135028

EVNT .A0A93DD4 DLNG 4 0 RS DIGT 4 RT= .F151C888 IP= .F151C876 135029

EVNT .A0A93DD4 DLNG 4 0 RS DIGT 6 RT= .F151C963 IP= .F151C95E 135029

EVNT .A0A93DD4 DLNG 4 0 RS DIGT 11 RT= .F151CADF IP= .F151CADA 135029

LEAF ACT PRFX 6 135029

TREE INDX 6 .A05C9F98 2 135029

NODE DIGT .00000061 135029

BRCH DIGT 9 .A05A5E38 2 135029

NODE DIGT .00000001 135029

BRCH DIGT 3 .A0621430 2 135029

NODE DIGT .00000001 135029

BRCH DIGT 1 .A062145C 2 135029

NODE DIGT .00000001 135029

BRCH DIGT 4 .A0617CFC 2 135029

NODE DIGT .00000001 135029

BRCH DIGT 7 .A0617D60 2 135029

NODE DIGT .00000001 135029

BRCH DIGT 3 .A0617DA4 2 135029

NODE ABS .00001832 135029

BRCH ABS 0 .28030000 1 135029

LEAF ACT HNPA 0   135029

TREE INDX 33 .A05B3C10 2 135029

NODE DIGT .00000001 135029

BRCH DIGT 4 .A0615214 2 135029

NODE DIGT .00000001 135029

BRCH DIGT 7 .A0615374 2 135029

NODE DIGT .00007EE1 135029

BRCH DIGT 3 .A06153A0 2 135029

NODE DIGT .00000001 135029

BRCH DIGT 3 .A05CE654 2 135029

NODE NPA .00000062 135029

BRCH NPA 1 .08000003 1 135029

LEAF INTR THGX 3 SCRN 0   135029

LEAF ACT SCRN 0   135029

CREG .A0A93DD4 DLNG 4 0 STATE CHANGED TO ANSP 135029

EVNT .A0A93DD4 ANSP 7 0 CR TO 0 RT= .F151CCB9 IP= .F151CC93 135030

EVNT .A0A93DD4 ANSP 2 0 RS DIGT 10 RT= .F151CE3E IP= .F151CE2D 135030

EVNT .A0A93DD4 ANSP 3 0 RS DIGT 0 RT= .F151CF01 IP= .F151CEE1 135030

EVNT .A0A93DD4 ANSP 4 0 RS DIGT 5 RT= .F151D16E IP= .F151D157 135031

EVNT .A0A93DD4 ANSP 4 0 RS DIGT 0 RT= .F151D217 IP= .F151D20F 135031

EVNT .A0A93DD4 ANSP 4 0 RS DIGT 6 RT= .F151D2C9 IP= .F151D2BF 135031

EVNT .A0A93DD4 ANSP 4 0 RS DIGT 5 RT= .F151D37A IP= .F151D375 135031

EVNT .A0A93DD4 ANSP 4 0 RS DIGT 8 RT= .F151D42C IP= .F151D428 135032

EVNT .A0A93DD4 ANSP 4 0 RS DIGT 7 RT= .F151D4E9 IP= .F151D4E0 135032

EVNT .A0A93DD4 ANSP 4 0 RS DIGT 5 RT= .F151D5A3 IP= .F151D598 135032

EVNT .A0A93DD4 ANSP 4 0 RS DIGT 11 RT= .F151D6CF IP= .F151D6A7 135032

LEAF ACT SCRN 0 135032

TREE INDX 40 .A0622D34 2 135032

NODE TOL .00000007 135032

BRCH TOL 0 .A0622D40 2 135032

NODE PFXT .00000108 135032

BRCH PFXT 1 .A0622E24 2 135032

NODE COI .00000146 135032

BRCH COI 0 .A0622E30 2 135032

NODE OWT .00000046 135032

BRCH OWT 0 .A0622E60 2 135032

NODE CASO .001E8EE7 135032

BRCH CASO 1 .28060000 1 135032

LEAF ACT RESM 0 135032

RESM 3 .A059AF88 2 135032

NODE DIGT .00000001 135032

BRCH DIGT 1 .A05A6078 2 135032

NODE DIGT .00000001 135032

BRCH DIGT 4 .A05C06C0 2 135032

NODE GDIG .00007FF6 135032

BRCH GDIG 6 .00000024 1 135032

LEAF TN .00000024 .00000024 135032

CREG .A0A93DD4 ANSP 4 0 STATE CHANGED TO RLIN 135032

GIVE TONE TS TYPE 01 135032

EVNT .A0A93DD4 RLIN 9 0 CR RSRC 0 RT= .F151D766 IP= .F151D749 135032

TONE CTRL TS .A097E7A0 01 135032

EVNT .A0A93DD4 RLIN 9 0 DEST CONN 0 RT= .F151F9A3 IP= .F151F99F

MMVL LCE 01 3 00 23 .A09B8830 7 4 135041

TONE CTRL TS .A097E7A0 06 135041

EVNT .A0A93DD4 RLIN 11 1 CR TO 0 RT= .F1520130 IP= .F15200C4 135043

CREG .A0A93DD4 RLIN 11 1 STATE CHANGED TO LINE 135043

EVNT .A0A93DD4 LINE 1 1 DEST DISC 0 RT= .F152126B IP= .F1521247

MMVL LCE 01 3 00 23 .A09B8830 1 2 135048

EVNT .A0A93DD4 LINE 2 1 SRCE DISC 0 RT= .F15214A1 IP= .F1521498

MMVL PE 01 4 18 17 .A092A78C 1 2 135048

CLI MMVL WED 13:51:56 01/07/98

CLED DN 473 8738

CLNG DN 931 668 2234 TG 44 MMVL PE 02 5 08 19

#864 135156

-BUG INVLD EVNT .A0A4D7B4 RTE EQA 23 2 DEST WINK 0 RT= .F1539B39 IP= .F1539

B34

MMVL PE 01 4 12 14 .A0AF6DAC 1 2 135228

TRK117 CARR 0288 MMVL PE 01 4 12 14 TG 40 2WAY

#865 135238

LIN022 MMVL LCE 05 3 05 10

#866 135242

ORIG .A0A343E4 MMVL PE 01 4 18 17 LTRK 506 5891 RT= .F15474DB IP= .F15474

CB 135324

CREG .A0A343E4 ORIG 0 0 STATE CHANGED TO ORIG 135324

EVNT .A0A343E4 ORIG 0 0 SRCE CONN 0 RT= .F15474E4 IP= .F15474CB

MMVL PE 01 4 18 17 .A092A78C 0 1 135324

CREG .A0A343E4 ORIG 0 0 STATE CHANGED TO ORWS 135324

CREG .A0A343E4 ORWS 0 0 STATE CHANGED TO DLNG 135324

EVNT .A0A343E4 RLIN 9 0 DEST CONN 0 RT= .F154A58C IP= .F154A57F

MMVL LCE 01 3 00 23 .A09BE5B0 7 4 135336

TONE CTRL TS .A0981B90 06 135336

EVNT .A0A343E4 RLIN 11 1 CR TO 0 RT= .F154AD31 IP= .F154AD0F 135338

CREG .A0A343E4 RLIN 11 1 STATE CHANGED TO LINE 135338

EVNT .A0A343E4 LINE 1 1 DEST DISC 0 RT= .F154C8CF IP= .F154C89B

MMVL LCE 01 3 00 23 .A09BE5B0 1 2 135345

EVNT .A0A343E4 LINE 2 1 SRCE DISC 0 RT= .F154CACD IP= .F154CAC9

MMVL PE 01 4 18 17 .A092A78C 1 2 135346 ####

The following changes to OVLY CNFG are required:

Change LOGU XX

LUNO 6

DEVT SMDI

NUM 5

NDIG 7

SDI DUAL

CELO ABBG CE 1 5 07 02 (SMDI 5)

THIS CE LOCATION CAN BE DETERMINED BY USING OVLY IOD,

STAT SMDI COMMAND

Change CP for stutter dial tone

CP - STDT = 2SEC

Change in OVLY DN station data for voice mail.

REQ QUE DN 648 9960

DN 648 9960 (INTERCEPTED DN TO CAMA ROUTE FOR VOICE MAIL)

ROUT 28

REQ QUE STN 648 2570

STN

DN 648 2570 (SAMPLE VOICE MAIL STATION)

LOC ABBG LCE 01 3 06 07

OPT CFW 1FR EMR 0 DGT NRML RTP 0 CFB CFD MD MWIL

REQ QACT STN 648 2570 (SAMPLE SHOWING CALL FORWARD ACTIVATION)

648 2570 CFB 6489960

CFD 6489960 2

New Glenayre MVP translations:

From: Jay Simpson

Mgr. SSE

ESN 255-3017

Date:July 09, 1998

Typical Translations of a standard SMDI (using channel banks) and voice channels (using channel banks) is shown as follows for the DMS-10 to the voice mail unit. Additionally, translations are shown for outdialing from the voice mail unit to the DMS-10.

(Refer to ***NTP*** 297-3401-311, service order procedure 0081 for set up simplified message dest interface (SMDI).)

ovly cnfg

REQ PATCH 116 APPLIED

DMO000 CNFG

REQ que vers

VERS

VERSION 410 ISSUE 10

IN-SERVICE DATE = MAR 27, '98

DATA FROM VERSION 408 ISSUE 11 RELEASE 2

CONVERSION PATCH LEVEL 0

REQ que logu

LOGU

LUNO 0

DEVT IOI

NUM 0

CELO CE 3 2 12 (IOI 0)

LUNO 1

DEVT TTY

FRMT DMS

NUM 0

DLIN NO

MODM NO

USER MTC DMO COT

CELO CE 3 2 08 (TTY 0)

LUNO 2

DEVT TTY

FRMT DMS

NUM 1

DLIN NO

MODM NO

USER MTC DMO

CELO CE 3 3 08 (TTY 1)

LUNO 3

DEVT TTY

FRMT DMS

NUM 6

SDI DUAL

DLIN NO

MODM NO

USER MTC DMO DEBG COT

CELO CE 1 2 04 01 (TTY 6)

LUNO 4

DEVT TTY

FRMT DMS

NUM 7

SDI DUAL

DLIN YES

IPAL ADMN MTC DMO DEBG

USER MTC DMO DEBG COT

CELO CE 1 2 04 02 (TTY 7)

LUNO 5

DEVT TTY

FRMT DMS

NUM 4

SDI DUAL

DLIN NO

MODM NO

USER MTC DMO COT

CELO CE 1 3 04 01 (TTY 4)

LUNO 6

DEVT TTY

FRMT DMS

NUM 5

SDI DUAL

DLIN NO

MODM NO

USER TRAF

CELO CE 1 3 04 02 (TTY 5)

LUNO 7

DEVT TTY

FRMT DMS

NUM 2

SDI MODM

USER DMO

CELO CE 1 4 05 01 (TTY 2)

LUNO 8

DEVT TTY

FRMT DMS

NUM 3

SDI MODM

USER MTC DMO

CELO CE 1 4 05 02 (TTY 3)

LUNO 9

DEVT TTY

FRMT DMS

NUM 8

SDI MODM

USER MTC DMO

CELO CE 1 5 05 01 (TTY 8)

LUNO 10

DEVT TTY

FRMT DMS

NUM 9

SDI MODM

USER MTC DMO

CELO CE 1 5 05 02 (TTY 9)

LUNO 11

DEVT SMDI

NUM 10

NDIG 7

SDI DLEX

CELO CE 1 2 06 01 (SMDI 10)

LUNO 12

DEVT SMDI

NUM 11

NDIG 7

SDI DLEX

CELO CE 1 2 06 02 (SMDI 11) (Used for SMDI connection to

the Voice Mail Unit [VMU].)

LUNO 13

DEVT SMDI

NUM 12

NDIG 10

SDI DLEX

CELO CE 1 3 06 01 (SMDI 12)

REQ que feat (Note bold features required.)

FEAT

CCS YES SSC YES LSC YES CFW YES 3WC YES

CWT YES CCWT YES RCFW YES TCFW YES DCMA YES

REMA NO AMAF YES CAMF NO FRMT ATT LCDR NO

LCC NO LCO NO STDY YES ROTL YES DGT YES

2PCC YES EDAS NO FGA YES EQA YES SCCS YES

TSMS PKG3 IBS YES EBS YES SPLR YES LIT NO

ATR NO ABUP NO INTR YES UPLD NO NAIL NO

TEEN YES UCCF NO RAG YES VFGC YES MDR YES

CWTE YES CCS7 YES E800 YES MSCD NO SMDI YES

CFRA NO SRP NO CFBD YES UCBD NO BTFI YES

DCP YES CFWA YES DRR YES ACB YES UACB YES

AR YES UAR YES COT YES UCOT YES OCOT NO

CND YES UCND YES CNB NO UCNB NO OCNB YES

CNAM NO UNAM NO CNAB NO UNAB NO ONAB NO

CIDS NO UCID NO OCID YES ACR NO UACR NO

OACR NO SCF YES USCF YES SCR YES USCR YES

```
SCA  YES    USCA YES    SDR  YES    USDR YES    ISUP YES
CCDS NO     ESI  NO     EAOS YES    CBA  YES    MPIC YES
DP   YES    MWIL YES    LDBS NO     9002 NO     E8AT NO
LFT  YES    MDT  NO     INPA YES    SW56 YES    MBS  YES
MADN YES    PARK YES    CAMP YES    SNPA NO     ARPR YES
STP  NO     EIDB YES    MLAT NO     DGPX YES    IT   NO
BERT YES    AR1X NO     WEWE NO     CEBS NO     GWS  NO
CFF  NO     E8EX YES    OHI  NO     OHD  NO     SIT  NO
FCD  NO     CDP  NO     DIG  NO     N11  NO     TA   NO
PNI  YES    BRI  YES    LNP  NO     QOR  NO     CANA NO
CWID NO
REQ   ****
# ovly odq
REQ PATCH 016  APPLIED
REQ PATCH 030  APPLIED
REQ PATCH 032  APPLIED
REQ PATCH 064  APPLIED
REQ PATCH 101  APPLIED
ODQ000    ODQ
REQ   list
TYP   ?
     DN LINE TRK DTRK TG CG CIC STOR CNTS ACDN PIN TMPL
     LTRK MDNL GICG LTG TSP
TYP   dn
RNGE  all
```

DNTP stn

OPT ?

ALL SCL CFWA IBSG CVDL EBSG GSCL CPUG CFBA CFDA CNDA SCAA

SCFA SCRA SDRA SLEL SCAL SCFL SCRL SDRL IOCM CNMA ACRA CFFA

AINS

SC SUSO SUST SUS SLE

1FR 2FR 4FR 8FR 10FR 1MB 1MR 2MR 4MR 3WC 3WSH !XXX

ACB ACR ALCK AMAM AR AUT BTF BTFA BTFI CAMP CCF CCWT

CDF CELL CFB CFD CFF CFM CFRA CFW CHD CIDS CNAB CNAM

CNB CND COPL COS COT CPU CPUG CRST CSP CVD CVDC CWID

CWIG CWT CWTI CWTO DACR DAT DATL DCBI DCBX DCID DCOT DCPU

DCPX DCWT DGT DNAB DNH DOR DPRK DPUA DPX DRR DSR DSRG

DTM DTSI E911 EBS EMR FANI FCD FGA FIXL FNT FX FXA

FXO FXS GIC GIWT GSC GSCC GWTD HOTL IBS ICWT IMP INT

IRST IWT LCDR LOCO LPDS LSC MAN MD MDT MWIL NCDP NLIT

NMD NMDR NPED NRH NRML OHD OHI OMP ONI OPT1 OPT2 OPT3

OPT4 OTHP OWTF OWTM PBX PICL PIN PRES PRK PRS2 PRS3 PSIG

RAG RAGD RCO RES1 RES2 RMB RMR RTP SCA SCF SCR SDR

SHU SIDT SLUS SMDI SOBS SPB SPLR SSC STSI SUPR SUPV TA

TDN TDV TEEN TRAF TSLS TWX U3WC UACB UACR UAR UCFB UCFD

UCFF UCFW UCID UCNB UCND UCOT UCWT UNAB UNAM USCA USCF USCR

USDR UTF WARM LNPT

OPT md (These are Message Desk lines with voice mail boxes in the VMU.)

DN 473 0498 SPRD LCE 01 2 06 18 6X17

OPT MD MWI YES

DN 473 0609 MMVL LCE 01 1 08 16 6X17

OPT MD MWI YES

DN 473 0619 MMVL LCE 04 2 18 12 6X17

OPT MD MWI NO

DN 473 0620 SMVL LCE 01 2 07 05 6X17

OPT MD MWI NO

DN 473 0630 MMVL LCE 06 1 05 16 6X17

OPT MD MWI NO

DN 473 0644 SPRD LCE 01 2 09 27 6X17

OPT MD MWI YES

DN 473 0661 SPST LCE 01 2 04 13 6X17

OPT MD MWI YES

DN 473 0681 MMVL LCE 05 3 03 12 6X17

OPT MD MWI YES

DN 473 0696 MMVL LCE 04 3 02 01 6X17

OPT MD MWI YES

DN 473 0725 SPST LCE 01 2 08 18 6X17

OPT MD MWI NO

DN 473 0747 MMVL LCE 04 3 05 17 6X17

OPT MD MWI YES

DN 473 0771 SMVL LCE 01 3 13 17 6X17

OPT MD MWI NO

DN 473 0778 MMVL LCE 01 1 05 08 6X17

OPT MD MWI YES

DN 473 0803 MMVL LCE 02 1 05 24 6X17

OPT MD MWI NO ####

REQ list dn all stn

OPT smdi(These lines represent the line access connections to the VMU, know as SMDI DNH.)

DN 506 0750 MMVL LCE 06 1 00 15 6X18

OPT SMDI 11 63 25 (SMDI port-desk-line)

DN 506 0751 MMVL LCE 06 1 01 15 6X18

OPT SMDI 11 63 26

DN 506 0752 MMVL LCE 06 1 02 15 6X18

OPT SMDI 11 63 27

DN 506 0753 MMVL LCE 06 1 03 15 6X18

OPT SMDI 11 63 28

DN 506 0754 MMVL LCE 06 1 04 15 6X18

OPT SMDI 11 63 29

DN 506 0755 MMVL LCE 06 1 05 15 6X18

OPT SMDI 11 63 30

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        DN 506 0756 MMVL LCE 06 1 06 15 6X18
              OPT  SMDI 11 63 31
        DN 506 0757 MMVL LCE 06 1 07 15 6X18
              OPT  SMDI 11 63 32
        DN 506 0758 MMVL LCE 03 2 13 31 6X18
              OPT  SMDI 11 63 33
        DN 506 0759 MMVL LCE 05 1 01 30 6X18
              OPT  SMDI 11 63 34
        DN 506 0760 MMVL LCE 03 1 01 23 6X18
              OPT  SMDI 11 63 35
        DN 506 0761 MMVL LCE 01 1 05 31 6X18
              OPT  SMDI 11 63 36
          REQ   ****
      # ovly dn
        REQ PATCH 017  APPLIED
        REQ PATCH 083  APPLIED
        REQ PATCH 104  APPLIED
        REQ PATCH 106  APPLIED
        REQ PATCH 110  APPLIED
        REQ PATCH 166  APPLIED
        REQ PATCH 197  APPLIED
        DMO000    DN
    REQ   que stn 506 0750
        STN
        DN   506 0750            (The DNH is #400.)
```

LOC MMVL LCE 06 1 00 15

OPT DNH 400 FRST TDN 3WC 1FR EMR 0 DGT NRML RTP 0 UTF

SMDI 11 63 25

REQ que stn 506 0755

STN

DN 506 0755

LOC MMVL LCE 06 1 05 15

OPT DNH 400 506 0754 TDN 3WC 1FR EMR 0 DGT NRML RTP 0 UTF

SMDI 11 63 30

REQ que stn 506 0756

STN

DN 506 0756

LOC MMVL LCE 06 1 06 15

OPT DNH 400 506 0755 TDN 3WC 1FR EMR 0 DGT NRML RTP 0 UTF

SMDI 11 63 31

REQ que stn 506 0757

STN

DN 506 0757

LOC MMVL LCE 06 1 07 15

OPT DNH 400 506 0756 TDN 3WC 1FR EMR 0 DGT NRML RTP 0 UTF

SMDI 11 63 32

REQ que stn 506 0758

STN

DN 506 0758

LOC MMVL LCE 03 2 13 31

OPT DNH 400 506 0757 TDN 3WC 1FR EMR 0 DGT NRML RTP 0 UTF SMDI 11 63 33

REQ que stn 506 0759

STN

DN 506 0759

LOC MMVL LCE 05 1 01 30

OPT DNH 400 506 0758 TDN 3WC 1FR EMR 0 DGT NRML RTP 0 UTF SMDI 11 63 34

REQ que stn 506 0760

STN

DN 506 0760

LOC MMVL LCE 03 1 01 23

OPT DNH 400 506 0759 TDN 3WC 1FR EMR 0 DGT NRML RTP 0 UTF SMDI 11 63 35

REQ que stn 506 0761

STN

DN 506 0761

LOC MMVL LCE 01 1 05 31

OPT DNH 400 506 0760 TDN 3WC 1FR EMR 0 DGT NRML RTP 0 UTF SMDI 11 63 36

REQ que stn 473 0498

STN

DN 473 0498

LOC SPRD LCE 01 2 06 18

OPT CFW SSC 3WC 1FR CWT EMR 0 DGT NRML RTP 0 PRES 0096 CFB CFD

MD PRS2 0096

REQ que stn 473 0747

STN

DN 473 0747

LOC MMVL LCE 04 3 05 17

OPT 1FR EMR 0 DGT NRML RTP 0 PRES 0432 CFB CFD MD PRS2 0432

REQ ****

ovly hunt

REQ PATCH 015 APPLIED

REQ PATCH 125 APPLIED

DMO000 HUNT

REQ que dnh 400 (This is the query of the SMDI hunt group.)

TYP DNH

HTGP 400

IWT NO

FGA NO

SRCH RR

OVFL NORM

DN 506 0750

506 0751

506 0752

506 0753

```
            506 0754

            506 0755

            506 0756

            506 0757

            506 0758

            506 0759

            506 0760

            506 0761

        REQ   ****

       # ovly dn

        REQ PATCH 017  APPLIED

        REQ PATCH 083  APPLIED

        REQ PATCH 104  APPLIED

        REQ PATCH 106  APPLIED

        REQ PATCH 110  APPLIED

        REQ PATCH 166  APPLIED

        REQ PATCH 197  APPLIED

        DMO000    DN

        REQ   que stn 506 5891    (This is the LTG DN.)

        STN

        DN   506 5891

        LOC  MMVL PE  01 4 18 17

        OPT  1FR EMR 0 RTP 1 PRES 0096 !MVP PRS2 0096 PBX

        REQ   que stn 473 3146

         STN
```

DN 473 3146

LOC MMVL LCE 05 2 14 28

OPT CFW DNH 56 FRST 3WC 1FR EMR 0 DGT NRML RTP 0 PRES 0096

UTF ACB AR 2

REQ que rcfa (An RCFA is used to direct the call

DN allto the VMU.)

RCFA

DN 473 0524

RDN 16155978294

OPT 1FR RTP 0 EMR 0 MAX 01

RCFA

DN 473 1443

RDN 5060750 (506-0750 is the pilot for Voice Mail)

OPT 1FR RTP 0 EMR 0 MAX 08

RCFA

DN 473 1444

RDN 5060750

OPT 1FR RTP 0 EMR 0 MAX 08

RCFA

DN 473 1514

RDN 18008085186

OPT 1FR RTP 0 EMR 0 MAX 01

RCFA

DN 473 1799

RDN 5060750

OPT 1FR RTP 0 EMR 0 MAX 05

RCFA

DN 473 2400

RDN 19319670550

OPT 1FR RTP 0 EMR 0 MAX 01

RCFA

DN 473 2423

RDN 19317282453

OPT 1FR RTP 0 EMR 0 MAX 01

RCFA

DN 473 2516

RDN 19314556718

OPT 1FR RTP 0 EMR 0 MAX 01

RCFA

DN 473 5551

RDN 5060750

OPT 1FR RTP 0 EMR 0 MAX 08

RCFA

DN 473 6571

RDN 5060750

OPT 1FR RTP 0 EMR 0 MAX 08

RCFA

DN 473 9171

RDN 5060750

OPT 1FR RTP 0 EMR 0 MAX 01

RCFA

DN 506 5810

RDN 5065850

OPT 1FR RTP 0 EMR 0 MAX 12

####

REQ ****

ovly qtrn

REQ PATCH 071 APPLIED

REQ PATCH 138 APPLIED

REQ PATCH 178 APPLIED

REQ PATCH 181 APPLIED

REQ PATCH 193 APPLIED

DMO000 QTRN

REQ trvr dn

DN 506 5875 (local DN with MD)

DEST 4739171 (RCFA to 506-0750)

LINE SPRD LCE 01 3 11 00 6X17 DN 506 5875

OPT CFW 1FR EMR 0 DGT NRML RTP 0 CFB CFD MD !MVP

ORIG ACTV PRFX 1 ASTR N DIG 4 SSC N LSC N PRFX 0

ORIG ACTV PRFX 0 DIG 4 ADDR HNPA

ORIG ACTV ADDR 931 4739 AMB CO THGP 473 9 SCRN 0

TEST ACTV SCRN 0 TOL N TP 1 N TP 0 N COI N OWT N HOTL N ONI N TWX N

TDN N !INM N GEFG DIG 1 DIG 7 DIG 1 RCFW

CURRENT DEST: 4739171

RCFA DN 473 9171 RDN 5060750

OPT 1FR RTP 0 EMR 0 MAX 01

ORIG ACTV PRFX 0 DIG 5 ADDR HNPA

ORIG ACTV ADDR 931 5060 AMB CO THGP 506 0 SCRN 0

TEST ACTV SCRN 0 TOL N TP 1 N TP 0 N COI N OWT N HOTL N ONI N TWX N

TDN N !INM N GEFG DIG 7 DIG 5 DIG 0 TN

CURRENT DEST: 5060750

LINE MMVL LCE 06 1 00 15 6X18 DN 506 0750

OPT DNH 400 FRST TDN 3WC 1FR EMR 0 DGT NRML RTP 0 UTF SMDI 11 63 25

* CALL COMPLETE/DISCONNECTED

REQ ****

ovly tg

REQ PATCH 000 APPLIED

REQ PATCH 002 APPLIED

DMO000 TG

REQ que ltg 101 (This is the incoming TG on the DMS-10 switch, for example, outdialing from the Voice Mail unit.)

TYP LTG

NUM 101

APPL PBX

TGTP INC

SITE BASE

TGDP ELOC

RMB YES

STPL WINK

RCVR MF

MSGI NO

FDTM 5 SEC

CNTL ETHR

TRNL PRFX

PRFX 6

APFX NONE

TRFC CAMS

ANIS YES

ASIG WINK

CO 473

506

DN 506 5891 Note the assigned DN.

TRK MMVL PE 01 4 18 17

REQ ****

ovly qtrn

REQ PATCH 071 APPLIED

REQ PATCH 138 APPLIED

REQ PATCH 178 APPLIED

REQ PATCH 181 APPLIED

REQ PATCH 193 APPLIED

DMO000 QTRN

REQ ****

```
 # ovly qtrn

   REQ PATCH 071  APPLIED

   REQ PATCH 138  APPLIED

   REQ PATCH 178  APPLIED

   REQ PATCH 181  APPLIED

   REQ PATCH 193  APPLIED

   DMO000    QTRN

   REQ   trvr dn 506 5891

   DEST  9315280516  (NOTE: We requested PRFX 6 but took
PRFX 1 leg.  TRVR is broken in 410.10
Generic for the LTG.)

   LINE MMVL PE  01 4 18 17 PBXC DN 506 5891

   OPT  1FR EMR 0 RTP 1 PRES 0096 !MVP PRS2 0096 PBX

   ORIG ACTV PRFX 1 ASTR N  DIG 9  SSC N PRFX 0

   ORIG ACTV PRFX 0 DIG 9  DIG 3  ADDR HNPA

   ORIG ACTV ADDR 931 9315 DIG 2  DIG 8  DEST 50 SCRN 12

  ORIG ACTV SCRN 100 AD1  N  TOL  Y  TDN N TP 011 N TP 01 N TP 1
N TP 950 N TP
 0 N

        ROUT VCCO

   CURRENT DEST: 9315280516

   ROUT RTE 3  AUDC  TG 3  ALTR OVFL

         * CALL COMPLETE/DISCONNECTED

   REQ   trvr dn 506 5891 19199923017  (Note: 5891 is the LTG line)

   LINE MMVL PE  01 4 18 17 PBXC DN 506 5891
```

OPT 1FR EMR 0 RTP 1 PRES 0096 !MVP PRS2 0096 PBX

ORIG ACTV PRFX 1 ASTR N DIG 1 DIG 9 PRFX 0

ORIG ACTV PRFX 0 DIG 1 DIG 9 DIG 1 SP 1 1 ADDR HNPA

ORIG ACTV ADDR 931 919 DEST 1 SCRN 1

ORIG ACTV SCRN 100 AD1 N TOL Y TDN N TP 011 N TP 01 N TP 1 Y TP 950 N SA

C N

COI N OWT N HOTL N ONI N TWX N MSG N RES1 N ZZ 0

BRTE 240 BC-3AU: ROUT 240

CURRENT DEST: 9199923017

ROUT 240 EQA EAIC TG 40 CTYP ILSP DEL 0 APFX NONE ALTR OVFL

* CALL COMPLETE/DISCONNECTED

REQ trvr dn 506 5891 9199923017

LINE MMVL PE 01 4 18 17 PBXC DN 506 5891

OPT 1FR EMR 0 RTP 1 PRES 0096 !MVP PRS2 0096 PBX

ORIG ACTV PRFX 1 ASTR N DIG 9 SSC N PRFX 0

ORIG ACTV PRFX 0 DIG 9 DIG 1 ADDR HNPA

ORIG ACTV ADDR 931 919 DEST 1 SCRN 1

ORIG ACTV SCRN 100 AD1 N TOL Y TDN N TP 011 N TP 01 N TP 1 N TP 950 N TP

0 N

ROUT VCCO

CURRENT DEST: 9199923017

ROUT RTE 3 AUDC TG 3 ALTR OVFL

* CALL COMPLETE/DISCONNECTED

REQ que prfx 6 (This is the PRFX for incoming calls to the DMS-10 switch, for example, outdialing from the voice mail unit. For a local call such as 473-3146, incoming to the DMS-10 from the VMU, we will receive 10-digits. Therefore, the leading three digits must be deleted. # [931])

TEST PRFX 6 ACTV 13:56:00 30/06/98 LAST CHG 13:56:00 30/06/98

PRFX 6 DIG 0 ROUT VCCO

PRFX 6 DIG 1 SAME 0

PRFX 6 DIG 2 SP 1 0 ADDR HNPA

PRFX 6 DIG 3 SP 1 0 ADDR HNPA

PRFX 6 DIG 4 SP 1 0 ADDR HNPA

PRFX 6 DIG 5 SP 1 0 ADDR HNPA

PRFX 6 DIG 6 SP 1 0 ADDR HNPA

PRFX 6 DIG 7 SP 1 0 ADDR HNPA

PRFX 6 DIG 8 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 0 DIG 0 ROUT VCCO

PRFX 6 DIG 9 DIG 0 DIG 1 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 0 DIG 2 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 0 DIG 3 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 0 DIG 4 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 0 DIG 5 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 0 DIG 6 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 0 DIG 7 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 0 DIG 8 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 0 DIG 9 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 1 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 2 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 0 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 0 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 1 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 2 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 3 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 4 DIG 0 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 4 DIG 1 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 4 DIG 2 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 4 DIG 3 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 4 DIG 4 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 4 DIG 5 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 4 DIG 6 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 4 DIG 7 DIG 0 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 4 DIG 7 DIG 1 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 4 DIG 7 DIG 2 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 4 DIG 7 DIG 3 ABS 3 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 4 DIG 7 DIG 4 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 4 DIG 7 DIG 5 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 4 DIG 7 DIG 6 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 4 DIG 7 DIG 7 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 4 DIG 7 DIG 8 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 4 DIG 7 DIG 9 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 4 DIG 8 DIG 0 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 4 DIG 8 DIG 1 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 4 DIG 8 DIG 2 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 4 DIG 8 DIG 3 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 4 DIG 8 DIG 4 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 4 DIG 8 DIG 5 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 4 DIG 8 DIG 6 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 4 DIG 8 DIG 7 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 4 DIG 8 DIG 8 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 4 DIG 8 DIG 9 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 4 DIG 9 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 5 DIG 0 DIG 0 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 5 DIG 0 DIG 1 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 5 DIG 0 DIG 2 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 5 DIG 0 DIG 3 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 5 DIG 0 DIG 4 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 5 DIG 0 DIG 5 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 5 DIG 0 DIG 6 ABS 3 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 5 DIG 0 DIG 7 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 5 DIG 0 DIG 8 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 5 DIG 0 DIG 9 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 5 DIG 1 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 5 DIG 2 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 5 DIG 3 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 5 DIG 4 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 5 DIG 5 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 5 DIG 6 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 5 DIG 7 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 5 DIG 8 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 5 DIG 9 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 6 DIG 0 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 6 DIG 1 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 6 DIG 2 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 6 DIG 3 DIG 0 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 6 DIG 3 DIG 1 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 6 DIG 3 DIG 2 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 6 DIG 3 DIG 3 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 6 DIG 3 DIG 4 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 6 DIG 3 DIG 5 ABS 3 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 6 DIG 3 DIG 6 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 6 DIG 3 DIG 7 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 6 DIG 3 DIG 8 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 6 DIG 3 DIG 9 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 6 DIG 4 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 6 DIG 5 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 6 DIG 6 DIG 0 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 6 DIG 6 DIG 1 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 6 DIG 6 DIG 2 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 6 DIG 6 DIG 3 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 6 DIG 6 DIG 4 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 6 DIG 6 DIG 5 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 6 DIG 6 DIG 6 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 6 DIG 6 DIG 7 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 6 DIG 6 DIG 8 ABS 3 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 6 DIG 6 DIG 9 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 6 DIG 7 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 6 DIG 8 DIG 0 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 6 DIG 8 DIG 1 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 6 DIG 8 DIG 2 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 6 DIG 8 DIG 3 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 6 DIG 8 DIG 4 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 6 DIG 8 DIG 5 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 6 DIG 8 DIG 6 ABS 3 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 6 DIG 8 DIG 7 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 6 DIG 8 DIG 8 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 6 DIG 8 DIG 9 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 6 DIG 9 DIG 0 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 6 DIG 9 DIG 1 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 6 DIG 9 DIG 2 ABS 3 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 6 DIG 9 DIG 3 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 6 DIG 9 DIG 4 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 6 DIG 9 DIG 5 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 6 DIG 9 DIG 6 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 6 DIG 9 DIG 7 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 6 DIG 9 DIG 8 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 6 DIG 9 DIG 9 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 7 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 8 DIG 0 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 8 DIG 1 DIG 0 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 8 DIG 1 DIG 1 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 8 DIG 1 DIG 2 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 8 DIG 1 DIG 3 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 8 DIG 1 DIG 4 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 8 DIG 1 DIG 5 ABS 3 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 8 DIG 1 DIG 6 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 8 DIG 1 DIG 7 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 8 DIG 1 DIG 8 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 8 DIG 1 DIG 9 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 8 DIG 2 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 8 DIG 3 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 8 DIG 4 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 8 DIG 5 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 8 DIG 6 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 8 DIG 7 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 8 DIG 8 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 8 DIG 9 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 9 DIG 0 DIG 0 ROUT VCCO

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 9 DIG 0 DIG 1 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 9 DIG 0 DIG 2 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 9 DIG 0 DIG 3 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 9 DIG 0 DIG 4 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 9 DIG 0 DIG 5 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 9 DIG 0 DIG 6 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 9 DIG 0 DIG 7 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 9 DIG 0 DIG 8 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 9 DIG 0 DIG 9 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 9 DIG 1 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 9 DIG 2 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 9 DIG 3 DIG 0 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 9 DIG 3 DIG 1 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 9 DIG 3 DIG 2 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 9 DIG 3 DIG 3 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 9 DIG 3 DIG 4 ABS 3 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 9 DIG 3 DIG 5 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 9 DIG 3 DIG 6 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 9 DIG 3 DIG 7 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 9 DIG 3 DIG 8 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 9 DIG 3 DIG 9 ABS 3 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 9 DIG 4 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 9 DIG 5 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 9 DIG 6 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 9 DIG 7 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 9 DIG 8 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 1 DIG 9 DIG 9 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 2 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 3 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 4 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 5 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 6 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 7 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 8 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 3 DIG 9 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 4 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 5 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 6 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 7 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 8 SP 1 0 ADDR HNPA

PRFX 6 DIG 9 DIG 9 SP 1 0 ADDR HNPA

REQ que addr 931 4733 (for the 473-3146 call we go to the ADDR for translation)

TEST ADDR 931 ACTV 14:40:00 30/06/98 LAST CHG 14:39:00 30/06/98

ADDR 931 4733 AMB NPA DEST 39 SCRN 1

ADDR 931 4733 AMB CO THGP 473 3 SCRN 0

ADDR 931 4734 AMB NPA DEST 39 SCRN 1

ADDR 931 4734 AMB CO THGP 473 4 SCRN 0

ADDR 931 4735 AMB NPA DEST 39 SCRN 1

ADDR 931 4735 AMB CO THGP 473 5 SCRN 0

ADDR 931 4736 AMB NPA DEST 39 SCRN 1

ADDR 931 4736 AMB CO THGP 473 6 SCRN 0

ADDR 931 4737 AMB NPA DEST 39 SCRN 1

ADDR 931 4737 AMB CO !!!!

REQ for a local call the following is dialed ####

```
REQ  ****

  #   ORIG .A0A5FF74 MMVL PE  01 4 18 17 LTRK 506 5891  RT=
.EC60B5B2  IP= .EC60B5

8B  144841

  CREG .A0A5FF74 ORIG 0 0 STATE CHANGED TO ORIG  144841

  EVNT .A0A5FF74 ORIG 0 0 SRCE CONN 0 RT= .EC60B5BB  IP=
.EC60B58B

     MMVL PE  01 4 18 17  .A092A78C 0 1  144841

  CREG .A0A5FF74 ORIG 0 0 STATE CHANGED TO ORWS  144841

  CREG .A0A5FF74 ORWS 0 0 STATE CHANGED TO DLNG  144841

  EVNT .A0A5FF74 DLNG 3 0 RS DIGT 10 RT= .EC60B76F  IP=
.EC60B767  144841

  EVNT .A0A5FF74 DLNG 4 0 RS DIGT 9 RT= .EC60B8FA  IP=
.EC60B8D1  144842

  EVNT .A0A5FF74 DLNG 4 0 RS DIGT 3 RT= .EC60B995  IP=
.EC60B97F  144842

  EVNT .A0A5FF74 DLNG 4 0 RS DIGT 1 RT= .EC60BA64  IP=
.EC60BA39  144842

  EVNT .A0A5FF74 DLNG 4 0 RS DIGT 4 RT= .EC60BAFC  IP=
.EC60BAF1  144842

  EVNT .A0A5FF74 DLNG 4 0 RS DIGT 7 RT= .EC60BBAA  IP=
.EC60BBA1  144842

  EVNT .A0A5FF74 DLNG 4 0 RS DIGT 3 RT= .EC60BC53  IP=
.EC60BC4F  144842

  EVNT .A0A5FF74 DLNG 4 0 RS DIGT 3 RT= .EC60BD18  IP=
.EC60BD09  144843

  EVNT .A0A5FF74 DLNG 4 0 RS DIGT 1 RT= .EC60BDCA  IP=
.EC60BDC1  144843

  EVNT .A0A5FF74 DLNG 4 0 RS DIGT 4 RT= .EC60BE7C  IP=
.EC60BE71  144843
```

EVNT .A0A5FF74 DLNG 4 0 RS DIGT 6 RT= .EC60BF27 IP= .EC60BF1F 144843

EVNT .A0A5FF74 DLNG 4 0 RS DIGT 11 RT= .EC60C0A5 IP= .EC60C0A2 144843

LEAF ACT PRFX 6 144843 (Note: We take PRFX 6)

TREE INDX 6 .A05C9F98 2 144843

NODE DIGT .00000061 144843

BRCH DIGT 9 .A05A5E38 2 144843

NODE DIGT .00000001 144843

BRCH DIGT 3 .A0621430 2 144843

NODE DIGT .00000001 144843

BRCH DIGT 1 .A062145C 2 144843

NODE DIGT .00000001 144843

BRCH DIGT 4 .A0617CFC 2 144843

NODE DIGT .00000001 144843

BRCH DIGT 7 .A0617D60 2 144843

NODE DIGT .00000001 144843

BRCH DIGT 3 .A0617DA4 2 144843

NODE ABS .00001832 144843

BRCH ABS 0 .28030000 1 144843

LEAF ACT HNPA 0 144843

TREE INDX 33 .A05B3C10 2 144843

NODE DIGT .00000001 144843

BRCH DIGT 4 .A0615214 2 144843

NODE DIGT .00000001 144843

BRCH DIGT 7 .A0615374 2 144843

NODE DIGT .00007EE1 144843

BRCH DIGT 3 .A06153A0 2 144843

NODE DIGT .00000001 144843

BRCH DIGT 3 .A05CE654 2 144843

NODE NPA .00000062 144843

BRCH NPA 1 .08000003 1 144843

LEAF INTR THGX 3 SCRN 0 144843

LEAF ACT SCRN 0 144843

CREG .A0A5FF74 DLNG 4 0 STATE CHANGED TO ANSP 144843

EVNT .A0A5FF74 ANSP 7 0 CR TO 0 RT= .EC60C22F IP= .EC60C1D7 144844

EVNT .A0A5FF74 ANSP 2 0 RS DIGT 10 RT= .EC60C39D IP= .EC60C39A 144844

EVNT .A0A5FF74 ANSP 3 0 RS DIGT 0 RT= .EC60C46B IP= .EC60C452 144845

EVNT .A0A5FF74 ANSP 4 0 RS DIGT 5 RT= .EC60C6D6 IP= .EC60C6C2 144845

EVNT .A0A5FF74 ANSP 4 0 RS DIGT 0 RT= .EC60C776 IP= .EC60C772 144845

EVNT .A0A5FF74 ANSP 4 0 RS DIGT 6 RT= .EC60C838 IP= .EC60C82A 144846

EVNT .A0A5FF74 ANSP 4 0 RS DIGT 5 RT= .EC60C8E9 IP= .EC60C8E2 144846

EVNT .A0A5FF74 ANSP 4 0 RS DIGT 8 RT= .EC60C997 IP= .EC60C992 144846

EVNT .A0A5FF74 ANSP 4 0 RS DIGT 7 RT= .EC60CA45 IP= .EC60CA41 144846

EVNT .A0A5FF74 ANSP 4 0 RS DIGT 5 RT= .EC60CB00 IP= .EC60CAFA 144846

EVNT .A0A5FF74 ANSP 4 0 RS DIGT 11 RT= .EC60CC16 IP= .EC60CC12 144846

LEAF ACT SCRN 0 144846

TREE INDX 40 .A0622D34 2 144846

NODE TOL .00000007 144846

BRCH TOL 0 .A0622D40 2 144846

NODE PFXT .00000108 144846

BRCH PFXT 1 .A0622E24 2 144846 (We take the TP 1 Y here.)

NODE COI .00000146 144846

BRCH COI 0 .A0622E30 2 144846

NODE OWT .00000046 144846

BRCH OWT 0 .A0622E60 2 144846

NODE CASO .001E8EE7 144846

BRCH CASO 1 .28060000 1 144846

LEAF ACT RESM 0 144846

RESM 3 .A059AF88 2 144846

NODE DIGT .00000001 144846

BRCH DIGT 1 .A05A6078 2 144846

NODE DIGT .00000001 144846

BRCH DIGT 4 .A05C06C0 2 144846

NODE GDIG .00007FF6 144846

BRCH GDIG 6 .00000024 1 144846

LEAF TN .00000024 .00000024 144846

```
   CREG .A0A5FF74 ANSP 4 0 STATE CHANGED TO RLIN  144846

   GIVE TONE TS      TYPE 01  144847

   EVNT .A0A5FF74 RLIN 9 0 CR RSRC 0 RT= .EC60CCE8  IP=
.EC60CCB7  144847

   TONE CTRL TS   .A0980AB0 01  144847

   EVNT .A0A5FF74 RLIN 9 0 DEST CONN 0 RT= .EC60DEF7  IP=
.EC60DEEB

       MMVL LCE 01 3 00 23  .A09C8BB0 7 4  144851

   TONE CTRL TS   .A0980AB0 06  144851

  EVNT .A0A5FF74 RLIN 11 1 CR TO 0 RT= .EC60E705  IP= .EC60E6FB
144853

   CREG .A0A5FF74 RLIN 11 1 STATE CHANGED TO LINE  144853
```

6.0 Environmental and regulatory

6.1 Climatic Specifications

Altitude

Operating	- 1000 ft to + 10,000 ft. (-304.8m to +3048m)
Non-Operating	- 1000 ft. to +10,000 ft. (-304.8m to +3048m)

Temperature (Non-Condensing)

Operating	+55 to +40 degrees C Max. Grad.,=10 degrees C/Hr
Short Term Operating	+5 to 50 degrees C Max. Grad.,=10 degrees C/Hr
Non-Operating	-40 to +58 degrees C Max. Grad.,=10 degrees C/Hr
Humidity (Non-Condensing)	
Operating	10% to 40%
Short Term Operating	5% to 90%
Non-Operating	10% to 95

6.2 Airborne contaminants

Cabinets are equipped with fans and air filters desgined for use in a reasonably clean area, and the density of dust should be low to precude the necessity for frequent cleaning of filters. MVP equipment should not be exposed to water, smoke, aerosols, oils, solvents or corrosive gasses.

6.3 Storage Requirements

Altitude

Non-Operating	- 1000 ft. to +10,000 ft. (-304.8m to +3048m)

Temperature (Non-Condensing)

Non-Operating	- 40 to +58 degrees C Max. Grad. + 10 degrees C/Hr.
Humidity (Non-Condensing)	
Non-Operating	10% to 95%

6.4 Electromagnetic compatibility

Network Equipment building Standard Complaint (NEBS) Level 4 support: Bellcore Standard - Includes - Noise, Illumination, Thermal, Environmental, Handling, Seismic (California, Japan)

6.5 Safety

A fully configured MVP can weigh up to 650 lbs. Caution should be used when moving the system.

7.0 Customer documentation

7.1 On-site documentation

Glenayre will supply four (4) sets of basic documentation with each system consisting of the following manuals:

DMS Glenayre Integration Service Implementation Guide
Hardware Reference Manual
Software Reference Manual
System Administration Manual

If the optional Fax, Voice, Terminal or World Wide Web server is purchased, the appropriate hardware and software manuals are supplied.

8.0 Standards compliance

8.1 Compliance's

UL (Underwriter Laboratories)
CSA (Canadian Standards Association)
CE (Central Europe)
FCC (Federal Communications Commission)
ISO 9001 9001 CERTIFIED

8.2 NEBS Compliance

Network Equipment building Standard Compliant (NEBS) Level 4 Support: Bellcore Standard - Includes - Noise, Illumination, Thermal, Environmental, Handling, Seismic (California, Japan)

The Glenayre MVP 4240 Voice Processing System, as defined in the MET Laboratories' Test Report EMI 9267, has successfully completed the following test program at MET laboratories.

NEBS GR - 1089-CORE, Issue 1, November 1994 - Electomagnetic Compatibility and Electrical Safety - Generic Criteria for Network Telecommunications Equipment:

Section 2 - Systems-Level Electrostatic Discharge (ESD)
Section 3.2.1 - Radiated Emission Criteria (Electric Fields)
Section 3.2.2 - Radiated Emission Requirement (Magnetic Fields)
Section 3.2.4 - Conducted Emission Requirement (DC Power and Signal Leads- Current)
Section 3.3.1.2 - Radiated Immunity Criteria (Electric Fields)
Section 3.3.3 - Conducted Immunity Requirements (DC Power Leads and Signal Leads)

NRBS GR-63-CORE, Issue 1, October 1995 - Network Equipment-Building System (NEBS) Requirements: Physical Protection:

Section 4.1.1.1 - Low-Temperature Exposure & Thermal Shock
Section 4.1.1.2 - High-Temperature Exposure & Thermal Shock
Section 4.1.1.3 - High Relative Humidity Exposure
Section 4.1.2 - Operating Temperature and Humidity Criteria
Section 4.1.3 - Altitude

Section 4.3.1 - Packaged Equipment Shock Criteria
Section 4.4.1/4.4 - Earthquake Environment and Criteria
Section 4.4.3 - Office Vibration Environment and Criteria
Section 4.4.4 - Transportation Vibration Criteria

For Regional Bell Operating Companies (RBOCs) or other interested parties, the MET NEBS Logo is a convenient indicator that MET Laboratories has tested the product. For specific details regarding the extent of the testing and the configuration of the product tested, please consult the MET Laboratores' Detailed Test Report.

MET Laboratories Inc.
914 West Patapsco Ave.
Baltimore, MD 21230

9.0 Limitations and restrictions

9.1 MVP Hardware Restrictions

Table 9-1 MVP Hardware Restrictions

Hardware	Resriction
SS7 Ports	Maximum 4 Non-Redundant
	Maximum 8*
SMDI Ports	Maximum 8*
Miscellaneous RS-232 Ports	Maximum 8*
T1 Spans	Maximum 8*

The SMDI and Miscellaneous RS-232 Ports are software programmable. The total of both cannot exceed 8.

List of terms

AMA	Automatic Message Accounting
ANI	Automatic Number Identification
ANIS	Automatic Number Identifier Spill
BNR	Bell Northern Research
CAMS	Centralized Automatic Messaging Short Traffic
CCS7	Signaling System Server
CFW	Call Forwarding
CLLI	Common Language Location Identifier
CNFG/FEAT	Configure Feature
CO	Central Office
CPU	Central Processing Unit
DAX	Digital Cross Connect
DCM	Digital Carrier Module
DGPX	Digital Private Mail Exchange
DN	Directory Number
DNH	Directory Number Hunt
DSI	Digital Signal Interface
DSO	One Channel on a T1-Digital Switched Zero

FGC	Feature Group C
FGD	Feature Group D
GP	General Purpose
HNPA	Home Numbering-Plan Area
IAM	Initial Address Message
INC TG	Incoming Trunk Group
IOC	Input/Output Controller
IOD	Input/Output Device
LEN	Line Equipment Number
IGZ	Isolated Ground Zone
LFT	Line Feature Trunk
LIU7	Link Interface Unit CCS7
LIM	Link Interface Module
LPIC	IntraLATA Primary Interexchange Carrier
MD	Message Desk
MDF	Main Distribution Frame
MF	Multi Frequency
MLOB	Multi Line of Business
MVP	Modular Voice Platform
MWI	Message Waiting Indicator
MWIL	Message Waiting Indicator Lamp
NCOS	Network Class of Service
NMS	Network Message Service
OCN	Original Called Number

PCN	Public Carrier Networks
PELP	Peripheral Loop
PIC	Primary InterLATA Carrier
PLM	Product Line Management
PRES	Presubscribe
SCCP	Signaling Connection Control Part
SMDI	Station Message Desk Interface
SP	Signal Point
STP	Signal Transfer Point
TCAP	Transaction Capabilities Application Point
TDM	Time Division Multiplexing
TRFC	Traffic Class
TRVR	Traver
UCD	Universal Call Distribution
VFG	Virtual Facility Group
VPN	Virtual Private Network

DMS-10/DMS-100

Glenayre Integration

Service Implementation Guide

Year 2000 Readiness Disclosure
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