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Meridian Mail
Virtual Node AMIS Networking Installation
and Administration Guide

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and Administration Guide

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Preface

In this preface

What this manual is about and who should read it

Introduction

The *Virtual Node AMIS Networking Installation and Administration Guide* provides descriptive information and instructions for implementing networking for Meridian Mail.

Implementing networking

When you implement networking for Meridian Mail, you are providing users with the ability to send messages to and receive messages from users of other voice messaging systems (including Meridian Mail systems).

Each voice messaging system is defined as a site in the network. The Meridian Mail site is connected to the other voice messaging system by trunks which allow the two systems to communicate with each other.

Description of this manual

This manual explains how to implement Virtual Node AMIS Networking only. To implement other networking services, see the appropriate NTP.

Note: To identify the NTP you need, see "Related documents" on page xxvii.

What this manual includes

This manual explains how to get your Meridian Mail network to work. It includes instructions for

• switch configuration

Note: Detailed instructions are provided for the Meridian 1 only. For the DMS family, SL-100, and non-Nortel switches, only descriptive information is provided.

• Meridian Mail configuration
• testing (to ensure the network is working correctly)
• backing up the system
• maintaining the network
• troubleshooting network errors

What this manual includes (continued)

For your reference, this manual also includes information about how the Meridian 1 processes calls and how Meridian Mail message transfers work. This information can be used when troubleshooting network errors.

Assumptions

This manual assumes that the Meridian Mail Networking and AMIS Networking features have been installed on your system. You can verify this by displaying the Configuration Record from the Administration Tools menu.

If Meridian Mail Networking and/or AMIS Networking have not been installed, then you will need to install them. For instructions, see the *System Installation and Modification Guide* (NTP 555-7001-215).

Who should read this manual

This manual was written for system administrators who are responsible for configuring and maintaining

- the Meridian Mail system
- the switch to which Meridian Mail is connected

Note: The Meridian Mail system administrator and the switch administrator may be the same person.

What skills you need to have

Introduction

This topic describes the minimum set of skills required for implementing networking for Meridian Mail.

Meridian Mail administration

If you are responsible for administering the Meridian Mail system, you should know how to

- log in and out of Meridian Mail
- navigate through system menus and through fields on screens
- use system softkeys
- access a mailbox to send and listen to messages
- perform system backups

You should also have a basic understanding of

- how to work with the channel allocation and VSDN tables
- how to create system distribution lists (used for testing the sending of messages to other sites)
- how to set up user mailboxes (for remote voice user administration)

Meridian 1 administration

If you are responsible for administering the Meridian 1, you should know how to

- log in and out of the Meridian 1
- work with Meridian 1 overlays

You should also

- have a basic understanding of Meridian 1 features and their relationships
- be knowledgeable about CDP and ESN dialing plans

DMS family, SL-100, and non-Nortel switch administration

DMS family, SL-100, and non-Nortel switches are typically configured and maintained by central office (carrier) personnel. These persons should already have a complete understanding of how these switches work, and have the necessary skills to configure and maintain them.

How networking is packaged with Meridian Mail

Networking features versus networking services

Three networking features are available for Meridian Mail. As a whole, they provide five types of networking services. The following table identifies the networking features that are available, and the services they provide.

Available networking features	Services provided
Meridian Mail Networking	• Meridian Networking • Enterprise Networking You have the option of implementing either Meridian Networking, Enterprise Networking, or both.
AMIS Networking	AMIS Networking
Network Message Service	Network Message Service
Meridian Mail Networking and AMIS Networking	Virtual Node AMIS Networking (For more information, see the explanation following this table.)

Virtual Node AMIS Networking

In your network, you can set up remote sites that use the AMIS protocol. These sites are known as virtual nodes, and the networking service is called Virtual Node AMIS Networking.

To implement Virtual Node AMIS Networking, you must have both the Meridian Mail Networking and AMIS Networking features installed on your system.

Note: Implementation of Virtual Node AMIS Networking involves configuring certain aspects of both features. For instructions, refer to the *Meridian Networking Installation and Administration Guide* (NTP 555-7001-244) and the *AMIS Networking Installation and Administration Guide* (NTP 555-7001-242).

Supported platforms

Introduction

Virtual Node AMIS Networking is supported on all Meridian Mail platforms using Release 8 or higher, except single-customer systems using VMUIF.

AML versus SMDI platforms

Instructions for implementation of Virtual Node AMIS Networking are different according to the type of data link that is used between the switch and Meridian Mail.

The Application Module Link (AML) is used between Meridian Mail and the Meridian 1 switch.

The Simplified Message Desk Interface (SMDI) link is used between Meridian Mail and one of the following switches:

- DMS family (DMS 10, DMS 100, DMS 250, and DMS 500)
- SL-100
- non-Nortel switch (AT&T and Rolm)

Note: In this manual, the DMS family, SL-100, and non-Nortel switches are referred to as "PBX/DMS" switches.

The platforms supported for each type of data link are identified in the following table.

Systems using AML	Systems using SMDI
• Card Option • Modular Option • Modular Option EC • EC11	• Modular Option GP • MSM

Structure of this manual

Introduction   This manual is organized in the sequence of tasks required to
                            successfully implement networking for Meridian Mail. Start
                            at the beginning of the manual and work your way through to
                            the end until all required tasks are completed.

Contents of this   This manual contains the following chapters.
manual

Chapter number and title	Description
Chapter 1, "Understanding Virtual Node AMIS Networking"	This chapter provides an overview of Virtual Node AMIS Networking. It describes what it is, how it works, and how it interacts with other features of Meridian Mail. It also describes the dialing plans that are used, and what these dialing plans need in order to work. This chapter also provides a high-level overview of the tasks that are performed during implementation.
Chapter 2, "Gathering information for the network"	This chapter explains • how to gather dialing plan information from the switch • why you need to gather it • how to convert this information into a network diagram • the basic guidelines for identifying the changes required (if any) to standardize the dialing plans across your network
Chapter 3, "Configuring the Meridian 1 for systems using AML"	For systems using AML, this chapter explains how to • define ACD queues for networking • configure the Meridian 1 hardware • modify CDP and ESN dialing plans *Note:* If your system uses the SMDI link between the Meridian Mail system and the switch, ignore this chapter.

Chapter number and title	Description
Chapter 4, "Configuring the PBX/DMS for systems using SMDI"	For systems using SMDI, this chapter provides descriptive information for • defining UCD queues or hunt groups for networking • configuring the switch hardware • modifying dialing plans *Note:* If your system uses the AML link between the Meridian Mail system and the switch, ignore this chapter.
Chapter 5, "Configuring Meridian Mail"	For all platforms, this chapter explains how to • dedicate ports to networking • modify the VSDN table • define the networking configuration • add local sites • add remote sites • add remote Network Message Service sites and locations
Chapter 6, "Testing the network"	This chapter explains how to verify that the network is working properly. There are two types of tests: • those that are performed at the local site only • those that test both the local and remote sites to ensure that messages can be sent and received
Chapter 7, "Creating a backup of the system"	This chapter explains • why a backup of the network database is required • how to perform a system backup of both the Meridian Mail system and your switch • how to obtain printouts of all the networking information
Chapter 8, "Really understanding how Virtual Node AMIS Networking works"	This chapter provides more technical information about • how the Meridian 1 processes calls • how messages are transferred to other sites This information is essential for troubleshooting network errors and for fine-tuning your network.

Chapter number and title	Description
Chapter 9, "Maintaining the network"	This chapter explains how to • modify and delete local and remote sites • modify and delete remote Network Message Service sites and locations • add remote voice users • clear sites in error • modify the networking configuration • print and review Operational Measurements reports
Chapter 10, "Troubleshooting network errors"	If you are experiencing problems with your network, this chapter explains how to identify the cause of those problems. Network errors may be caused by • site configuration errors • site status which prevents it from receiving messages from the local site • networking configuration errors • switch configuration errors
Appendix A, "Networking implementation forms"	Appendix A contains full-size samples of all the forms used to implement networking.
Appendix B, "Miscellaneous tasks"	Appendix B contains instructions for changing the local site ID.
Appendix C, "Reference information"	Appendix C contains a table that shows the maximum number of sites, locations, translation tables, and exchange codes that can be defined at one time in Meridian Mail.
List of fields	This section lists all networking related fields in alphabetical order. Use this section to quickly locate descriptive information for a field.
Index	The index is an alternate way of locating information in this manual.

Typographic conventions

Introduction   This topic explains the typographic conventions used in this
manual.

"System-related" text   The following table describes how softkeys, system text, and
responses you enter into the system are presented.

Convention for	Description	Example
Meridian Mail softkeys	Softkeys are displayed on administration menus and screens. They indicate which keyboard function keys you press to carry out specific Meridian Mail tasks. A softkey is referred to by its label (as displayed in the menu or screen) enclosed in square brackets. It appears in the same typeface as the accompanying text.	To save your changes, press [Save].
keyboard keys (or hardkeys)	A keyboard key or hardkey is referred to by its label enclosed in angle brackets. When two key names appear together, you press them both at the same time. A keyboard key or hardkey appears in the same typeface as the accompanying text.	Press <Return>. Press <Ctrl> <R>.
text you are required to enter	Text that you type appears in bold print.	Type **PRT** and press <Return>.
names of menu options, screens, or fields	The first letter of a field name is capitalized. The field name appears in the same typeface as the accompanying text. *Note:* For clarity, some field names may be enclosed in quotation marks.	*Procedure text:* Move your cursor to the Mailbox number equals local extension? field. *Other text:* The Add Remote Site screen is used to define sites in your network.
values in a field	The first letter of a value in a field is capitalized. The field value appears in the same typeface as the accompanying text.	The default is No.

Convention for	Description	Example
system responses	System responses appear in the same typeface as the accompanying text. They are introduced with ***Result:***.	***Result:*** The Add Remote Site screen is displayed.

Cross-references   The following table describes how cross-references to other sources of information are presented.

For a reference to text	the text appears	Example
in the same chapter of this manual	surrounded by double quotation marks, with the name of the topic under which the required text is located.	For information about what this guide contains, see "What this manual is about and who should read it" on page xvi.
in another chapter of this manual	surrounded by double quotation marks, with the name of the chapter, and, if necessary, the name of the topic where the required text is located.	For instructions on adding remote sites, see Section F on page 5-97.
in another manual	in italics (for the NTP title) and parentheses (for the NTP number).	For instructions on how to ensure that all hardware and software requirements are fulfilled for networking, refer to the *Networking Planning Guide* (NTP 555-7001-241).

Related documents

Introduction

This topic lists other documents where information related to networking for Meridian Mail can be found.

Networking documents

The following table lists other documents (in addition to this one) that explain how to implement networking for Meridian Mail.

NTP name	NTP number
Networking Planning Guide	555-7001-241
AMIS Networking Installation and Administration Guide	555-7001-242
Network Message Service Installation and Administration Guide	555-7001-243
Meridian Networking Installation and Administration Guide	555-7001-244
Enterprise Networking Installation and Administration Guide	555-7001-246

**System
administration
documents**

The following table lists documents that explain how to configure Meridian Mail.

NTP name	NTP number
Maintenance Messages (SEERs)	555-7001-510
System Administration Guide (M1)	555-7001-301
System Administration Guide for Multi-Customer Systems (M1)	555-7001-302
System Administration Guide (MSM and Modular Option GP)	557-7001-301
System Administration Guide for Multi-Customer Systems (MSM and Modular Option GP)	557-7001-302

Note: When one of these guides is referenced in this manual, it is simply referred to as "the *System Administration Guide*."

Meridian 1 documents

The following table lists documents that explain how to configure the Meridian 1. Documents which explain how to implement dialing plans have also been listed in case you need them.

NTP name	NTP number
X11 input/output guide	553-3001-400
Basic and Network Alternate Route Selection description	553-2751-100
Coordinated Dialing Plan description	553-2751-102
Basic and Network Authorization Code description	553-2751-103
Flexible Numbering Plan	553-2751-105
Electronic Switched Network description	309-3001-100
ESN engineering (signaling guidelines)	*309-3001-180*
ESN transmission guidelines	309-3001-181

Chapter 1

Understanding Virtual Node AMIS Networking

In this chapter

Overview of this chapter

Introduction

This chapter provides an overview of Virtual Node AMIS Networking on Meridian Mail.

Description

Section A,"What is Virtual Node AMIS Networking?"

- defines a network
- describes Virtual Node AMIS Networking
- explains how it works and how it is configured
- explains how it interacts with other features of Meridian Mail
- identifies the features that are available to end users

Dialing plans

Section B, "Understanding dialing plans"

- identifies the different types of dialing plans that can be used (ESN, CDP, no dialing plan)
- explains why standardization of the dialing plans is important
- explains what is needed to make the dialing plans work

Implementing Virtual Node AMIS Networking

Section C, "Implementing Virtual Node AMIS Networking," provides

- a description of your responsibilities (as administrator)
- a brief description of the implementation process
- a recommendation for how the network is set up (if you are the network administrator)
- a sample of an implementation checklist

Section A What is Virtual Node AMIS Networking?

In this section

Overview of this section

Introduction   This section

- defines a network
- describes Virtual Node AMIS Networking
- explains how it works and how it is configured
- explains how it interacts with other features of Meridian Mail
- identifies the features that are available to end users

Network definitions   Network definitions are provided for

- generic network
- switch network
- Meridian Mail network

Description: Virtual Node AMIS is a combination of Meridian Mail
Virtual Node AMIS   Networking and AMIS Networking. Meridian Mail
Networking   Networking provides the ability to define remote sites which
                             use the AMIS protocol. These sites are called virtual nodes.
                             Virtual Node sites do not have to be Meridian Mail systems.
                             They can be any voice messaging system which supports
                             AMIS-A networking.

How it works   Descriptions are provided for

- how a user addresses a message to a remote site
- how Meridian Mail identifies the site to which the message must be sent
- when a message transfer session is initiated
- how messages are transferred to remote sites

How it is configured   Configuration of Virtual Node AMIS Networking consists of
the following major components:

- switch configuration
- Meridian Mail configuration

Virtual Node AMIS   The following are described:
Networking and other
Meridian Mail features

- how Virtual Node AMIS Networking interacts with
other features of Meridian Mail

- features that are available to users who wish to send
messages to and receive messages from users of other
Meridian Mail systems

What is a network?

Introduction   This topic defines the following:

- a network (generic definition)
- a switch network
- a Meridian Mail network

**Definition:
network**   A network is two or more computer systems connected by
                            communication lines. Each computer system has software
                            installed that allows it to communicate with the other systems
                            in the network.

**Definition:
switch network**   A switch network is a network of telephone trunks and
                            switches which are normally used for processing telephone
                            calls.

                            There are two types of switch networks:

- public network

  This is a network of communication channels that are
  maintained by a telecommunications service provider
  and used by more than one customer.
- private network

  This is a network of communication channels that are
  maintained by the customer and restricted to use by that
  customer alone.

Example   The following diagram shows an example of a switch
                               network.
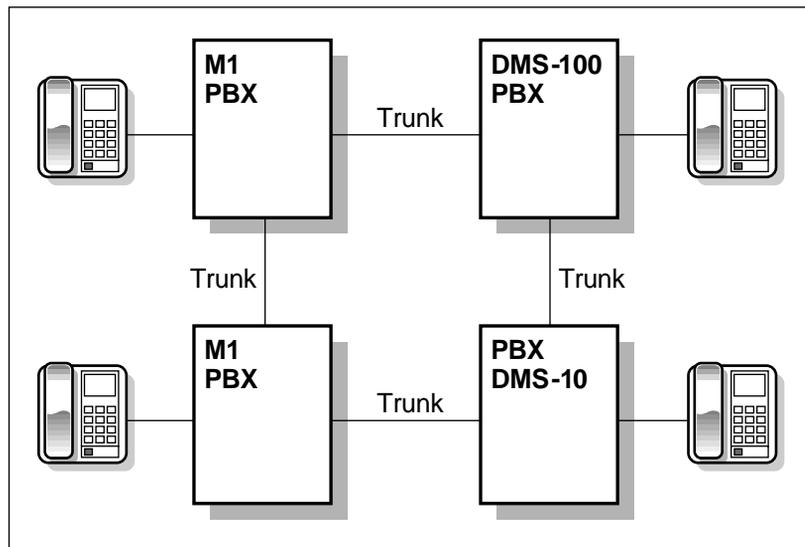
G100467

Definition: A Meridian Mail network is a collection of Meridian Mail
Meridian Mail network   systems and switches. Users at one Meridian Mail system can
                              send messages to and receive messages from other users
                              whose mailboxes reside on other voice mail systems in the
                              network.

                              A Meridian Mail network is typically a private network. It
                              uses one of the following message transfer protocols:

                              •   Meridian Networking

                                   For more information, refer to the *Meridian Networking
                                   Installation and Administration Guide*
                                   (NTP 555-7001-244)

                              •   Enterprise Networking

                                   For more information, refer to the *Enterprise
                                   Networking Installation and Administration Guide*
                                   (NTP 555-7001-246)

                              •   AMIS Networking (described in this manual)

Example

The following diagram shows an example of a Meridian Mail network.
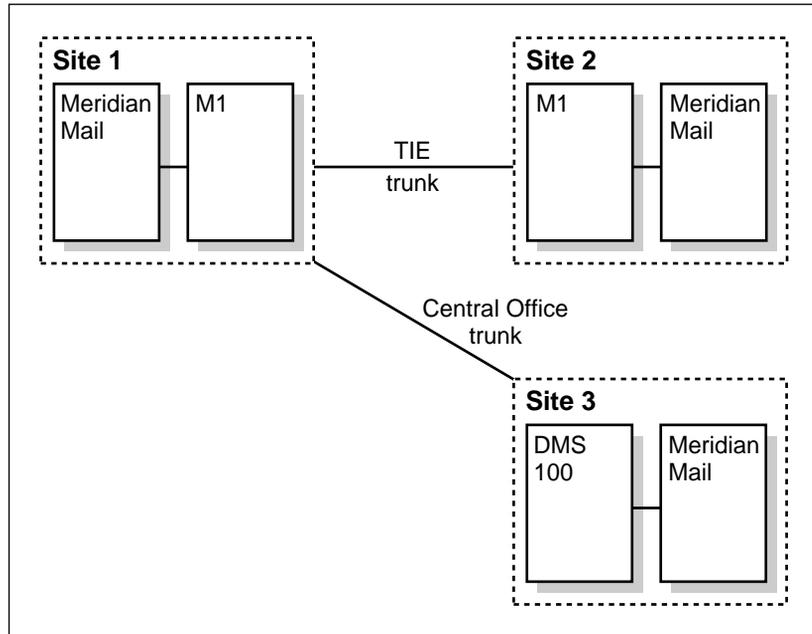
Site 1 (local site) communicates with

- site 2 using the Meridian protocol
- sites 3 and 4 using the AMIS protocol (therefore, they are Virtual Node AMIS remote sites)

Note: Site 4 is not using a Meridian Mail system.

How Virtual Node AMIS Networking works

Introduction

This topic

- explains how a user addresses a message to a remote site
- explains how Meridian Mail identifies the site to which the message must be sent
- explains when a message transfer session is initiated
- provides a high-level overview and diagram of how messages are transferred to remote sites

Relationship to AMIS and Meridian Mail Networking

Virtual Node AMIS Networking is actually a combination of Meridian Mail Networking and AMIS Networking. Meridian Mail Networking provides the ability to define remote sites that use the AMIS protocol. These sites are called virtual nodes and are addressed by users just like any other site.

Note: Virtual nodes may or may not have a Meridian Mail system installed. The messaging system can be any other voice messaging system which supports the AMIS-A protocol.

Components that must be configured

Virtual Node AMIS Networking relies on two very important components that must be configured. These are

- the dialing plan

  The dialing plan is configured on the switch. It is the set of rules that the switch uses to route calls through a public or private telephone network to their final destinations.

  Each site may use

  — Coordinated Dialing Plan (CDP)
  — Electronic Switched Network (ESN)
  — both CDP and ESN, or
  — no dialing plan (no dialing plan means that neither the ESN nor the CDP dialing plans are used)

**Components that
must be configured
(continued)**

- the network database

  The network database is the collection of local and
  remote sites that are defined in the network. Each site
  definition includes the following (this is not a complete
  list):

  — site ID

  — type of dialing plan used

  — DN used to connect to that site

How a user addresses and sends a message to another site

When a user wants to send a message to a user at another site, he or she does the following.

Stage	Description
1	The user logs in to Meridian Mail.
2	The user presses 75 to compose a message.
3	The user enters a network address.

IF the	THEN the user enters
user's mailbox number is the same as his or her extension DN	*For ESN:* ESN access code, ESN location code and mailbox number. *Example:* 63387460 *For CDP:* DN of user at remote site (CDP steering code and mailbox number). *Example:* 737673 *For Hybrid:* use ESN or CDP as appropriate.
mailbox numbering is not the same as user DNs (dialing plan), or the dialing plan is "None"	mailbox prefix and mailbox number.

Stage	Description
4	The user presses #.
5	The user completes the list of recipients as described below.

IF	THEN the user
there are more addresses	repeats stages 3 and 4.
there are no more addresses	presses # again.

Stage	Description
6	The user presses 5 (to record a message).
7	The user records the message, then presses # (to stop recording).
8	The user presses 79 to send the message.

Stage	Description
9	The user logs out of Meridian Mail and hangs up.

Example of how messages are addressed

The following illustration shows how a message is addressed to a remote site using the ESN dialing plan.
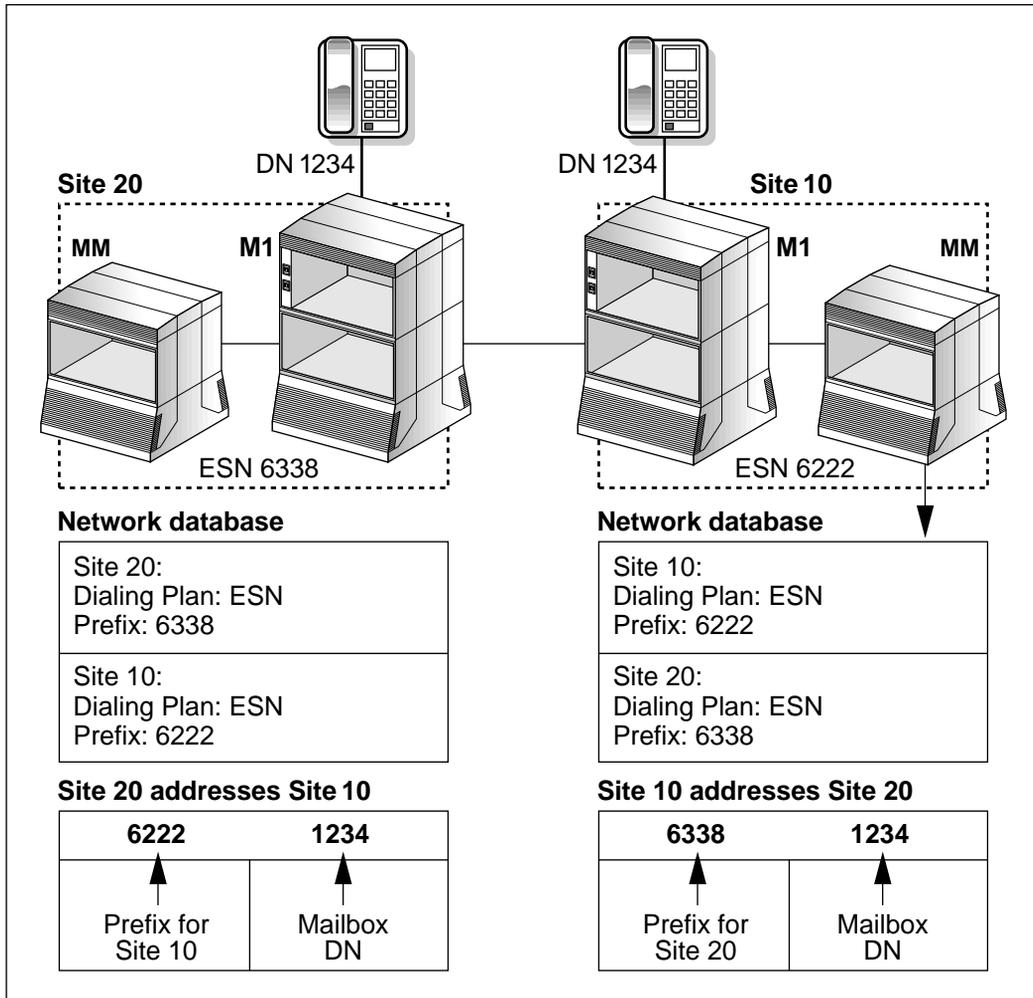
G100468

When a message transfer session is initiated

When a message is queued for transfer, Meridian Mail uses the following to determine when a message transfer session is to be initiated:

- message priority (there are three of them):
  - economy (messages are sent at a specific time each day)
  - standard (messages are sent when the holding time for standard messages has been exceeded)
  - urgent (messages are sent when the holding time for urgent messages has been exceeded)

    The holding time for urgent messages is usually shorter than for standard messages.

- batch threshold that has been exceeded

  The batch threshold defines the maximum number of standard and urgent messages that can be queued for one site. The batch threshold does not apply to economy messages.

If a message has been queued for longer than the holding time for that message type, *or* the number of messages queued for one site exceeds the batch threshold, then a session is initiated to the receiving site. The session remains active until all messages are delivered, regardless of the holding time.

Urgent messages are always sent first. Economy messages are only sent at the defined time.

How Meridian Mail knows which site to contact

Before Meridian Mail can deliver a message to a remote site, it must first determine what that site is and how to connect to it.

As discussed previously, a message address contains one of the following:

- ESN prefix (ESN access and location codes)
- CDP steering code
- mailbox prefix

followed by the mailbox number.

How Meridian Mail knows which site to contact (continued)

Meridian Mail does the following:

- searches the network database until it finds the ESN prefix, CDP steering code, or mailbox prefix (When Meridian Mail finds it, it has identified the site.)
- obtains the connection DN that has been defined for that site and initiates the call

Note: The connection DN is entered in dialable format.

How the message transfer works

The following is a brief description of how messages are transferred to remote sites using the AMIS Networking protocol. For a more detailed description, see Chapter 8, "Really understanding how Virtual Node AMIS Networking works".

Stage	Description
1	AMIS Networking initiates the call to the virtual node.
2	When the connection is established, the local site identifies itself to the virtual node.
3	The virtual node accepts the information from the local site.
4	The local site starts the message transfer to the virtual node.
5	The local site • transmits the envelope information for each message by DTMF tones • plays each voice message over the voice port
6	The virtual node • receives the envelope information for the message by DTMF tones • records each voice message over the voice port
7	Once all messages have been sent (maximum of nine messages per transfer session), the local site terminates the call.

Virtual Node AMIS Networking and other Meridian Mail features

Introduction

This topic describes how Virtual Node AMIS Networking interacts with other features of Meridian Mail. It also lists the features that are available to users who wish to send messages to and receive messages from users of other Meridian Mail systems.

Interactions with other Meridian Mail features

The following table describes how Virtual Node AMIS Networking interacts with other features of Meridian Mail.

Meridian Mail feature	Interaction
Bulk Provisioning	Bulk Provisioning is a Meridian Mail enhancement that provides the ability to copy, by tape, information between Meridian Mail systems. Bulk Provisioning can be used to copy local voice users to another network site as remote voice users. The copied information includes each user's • spoken name • textual name • mailbox address Remote voice users' personal verifications are played when senders compose messages or use name dialing and name addressing.
Other networking services	If more than one networking service is implemented on the same Meridian Mail system, then Virtual Node AMIS Networking will share the same network database.
Outcalling	Virtual Node AMIS Networking will compete with Outcalling for the system voice ports. If this is an issue, you may want to consider dedicating ports to networking.
Multi-Customer	On a multi-customer system, only one customer group can use the network database. Virtual Node AMIS Networking must be specifically enabled for that customer (on the General Options screen).
Network Message Service	Any Virtual Node AMIS Networking site can be defined as a Network Message Service site (message center).

Meridian Mail feature	Interaction
VMUIF	Virtual Node AMIS Networking is not supported by Meridian Mail customers using the VMUIF interface.

Features available to end users

The following table lists the features that are available to users who wish to send messages to and receive messages from users of other Meridian Mail systems.

End-user feature	Interaction
Call Sender	Call Sender can be used for both call answering and composed messages from network users • if the calling line identification (CLID) is present on the message or • if the mailbox numbering plan follows the dialing plan or • if a remote voice user (RVU) has been added for the network user Call Sender cannot be used to a remote user if pauses are required to dial the user. For example, if an access number is required to be dialed followed by a pause to wait for a dial tone, then in this case Call Sender cannot be used.
Reply To	The reply feature can be used with all networked messages. They can also be used with call answering messages left by network users provided the calling line identification (CLID) is present on the message.
Name Addressing Name Dialing	Name Addressing and Name Dialing are available if users at the remote site are defined as remote voice users at the local site.
Personal Distribution Lists	Network addresses can be included in a user's personal distribution list. Network addresses are subject to the same validation process as other entries in the list. They can become invalid when • the networking service is removed from the system • addresses contain references to network sites that no longer exist

End-user feature	Interaction
System Distribution Lists	Only RVU addresses can be added to a system distribution list, if the RVUs are defined at the local site.
	System distribution lists are not automatically updated if a site is deleted from the network database.
	Note: If a system distribution list (SDL) at a remote site contains remote voice users whose mailboxes reside at other sites in the network, then a message that is addressed to the SDL is sent only to the local users at the remote site. The message is not automatically sent to the remote voice users at other remote sites. A non-delivery notification and SEER *are not* generated.
Personal verification	The user's personal verification will be played to callers in voice messaging scenarios if recipients have been defined as remote voice users at the local site.
	The administrator can record a personal verification for remote voice users who are defined at the local site, or Bulk Provisioning can be used to propagate the network user's own personal verification.
Remote site spoken names	A spoken name can be recorded for each remote site by pressing a softkey on the remote site maintenance screen.
Acknowledgment tags	The acknowledgment tag causes the sender to be notified when the message is delivered to the remote site.
Message tags	Messages can be tagged as urgent, and will trigger urgent-related features such as remote notification or message waiting indication.
	Urgent network messages are sent before any standard messages.
	For Virtual Node AMIS Networking, the message received by the remote site is not tagged as urgent because the receiving destination cannot distinguish it.
Received time announced	The time at which the message was deposited into the mailbox is announced to the recipient.
99-minute messages	For Virtual Node AMIS Networking, the message body is limited to eight minutes in length. If a longer message is recorded, the message is divided into and delivered in increments of eight minutes. For more information, see the *Networking Planning Guide* (NTP 555-7001-241).

Features not available to end users

The following Meridian Mail features are not supported for users who wish to send messages to and receive messages from users at Virtual Node AMIS sites.

- Private message tags

  Meridian Mail cannot prevent "private" tagged messages that are sent to an AMIS system from being forwarded to another person. Consequently, messages that are tagged as private are not sent to any AMIS address; instead, they are returned to the sender with a nondelivery notification.

- Call Sender
- Name Addressing and Name Dialing
- Network Broadcast Messaging
- System Distribution Lists
- Personal Verifications
- Multiple recipients

How Virtual Node AMIS Networking is configured

Introduction

Configuration of Virtual Node AMIS Networking consists of the following major components:

- switch configuration
- Meridian Mail configuration

Switch configuration

Virtual Node AMIS Networking requires configuration of the following on the switch:

- dummy ACD queue for the networking service DN that is night call forwarded to the primary Meridian Mail DN
- ACD agents if ports will be dedicated to networking
- dialing plan (CDP, ESN, or no dialing plan)

Configuration of the dialing plan is covered in great detail in this manual. It is extremely important that the current dialing plan be analyzed and, if necessary, modified so that it becomes standardized across the network. Standardization of the dialing plan across the network will

- result in a network that is easier to maintain
- allow for future growth of the network

Meridian Mail configuration

Configuration of Meridian Mail for networking consists of the following:

- defining the networking DN in the Voice Services DN table
- modifying the Channel Allocation Table (if ports will be dedicated to networking)
- adding local and remote sites (and NMS locations if a remote site is also using Network Message Service)
- modifying the networking scheduling parameters. Nortel (Northern Telecom) recommends that you work with the default settings until you are comfortable with how your network is operating.

Meridian Mail configuration (continued)

The addition of local and remote sites is the largest and most important task in the configuration of Meridian Mail for networking. To simplify the task and to ensure that fewer errors are made during implementation, it is highly recommended that you first identify the dialing plans that are being used at each site.

The following information is required for each site:

- type of dialing plan used
- ESN access code and location code (if ESN is being used)
- steering codes (if CDP is being used)
- mailbox prefix (if no dialing plan is being used)

Reference

For a high-level overview of the implementation process and Nortel's recommendation for an easier implementation, see Section C, "Implementing Virtual Node AMIS Networking," on page 1-39.

Section B   Understanding dialing plans

In this section

Overview of this section

Introduction   This section identifies and describes the different dialing
                          plans that can be used for Virtual Node AMIS Networking,
                          and what it takes to make them work.

Types of dialing plans A dialing plan is the set of rules the switch uses to route calls
                          through a public or private telephone network to their final
                          destinations.

                          Three types of dialing plans are available:

                          • Electronic Switched Network (ESN)
                          • Coordinated Dialing Plan (CDP)
                          • no dialing plan (used when neither ESN nor CDP exist)

                          This section describes these dialing plans, provides examples
                          of how they are used, and explains how Meridian Mail uses
                          these dialing plans as mailbox addressing.

                          Note: Meridian Mail also supports a combination of both
                          ESN and CDP dialing plans. This is called a *hybrid* dialing
                          plan.

Standardization of   The chosen dialing plan must be standardized across the
dialing plan   network. Standardization will

                          • result in a network that is easier to configure and
                            maintain
                          • allow for future growth of the network

Dialing plan elements The CDP and ESN (NARS) dialing plans on the Meridian 1
                          need to be configured with one or more of the following
                          elements so that calls are correctly routed to their
                          destinations:

                          • dialing plan parameters which identify the maximum
                            number of tables and access codes that can be configured
                          • access codes (NARS only)
                          • time-of-day schedules

Dialing plan elements (continued)

- network translation tables (NARS only)
- steering codes (CDP only)
- route lists
- network class of service groups
- free calling area screening tables (NARS only)
- digit manipulation tables

This section provides a brief description of what these elements are and how they are used.

Types of dialing plans

Introduction   This topic

- explains what a dialing plan is
- provides descriptions of the three types of dialing plans that can be used
- explains why you should standardize the dialing plans you use

Definition: dialing plan   A dialing plan is the set of rules the switch uses to route calls through a public or private telephone network to their final destinations.

Three types of dialing plans are available for Virtual Node AMIS Networking:

- Electronic Switched Network (ESN)
- Coordinated Dialing Plan (CDP)
- no dialing plan

Examples   For examples of how these dialing plans can be implemented in a network, see "Examples of network diagrams" on page 2-83.

Standardization   It is highly recommended that you standardize the dialing plans you use in your network. The current dialing plans should be analyzed and, if necessary, modified so that they become standardized across the network. Standardization will

- result in a network that is easier to configure and maintain
- allow for future growth of the network

Description: ESN	An Electronic Switched Network (ESN) is a private communications network intended for use by business customers with distributed operating centers.

An ESN is actually a combination of

- switches and communication lines which make up the network
- software which contains the dialing plan configuration that allows users at switch locations to communicate easily with users at other switch locations

Notes:

1. When ESN is discussed throughout this manual, it refers to the dialing plan configuration.

2. Network Alternate Route Selection (NARS) is the Meridian 1 software package that is actually used to configure an ESN network. The terms ESN and NARS are typically used in the marketplace to mean the same thing.

In an ESN dialing plan for Virtual Node AMIS Networking, each switch location has at least one *ESN prefix*. The ESN prefixes consist of the access code and a unique location code.

Definition: access code	An access code is used to access ESN routing in the same way that an access code (usually 9) is needed to dial out to the public network from a private network. The same ESN access code is typically used by all switches in the network although it may vary from switch to switch.

ESN access codes are similar to trunk access codes and are set independently in each switch.

Definition: location code	The location code is a routing prefix that identifies a location within the network. It is usually three digits in length.

How an ESN call is placed

When a user places a call to a user at another location, he or she must first dial the access code and location code before dialing the user's extension DN.

All users in the network use the same prefix to reach a particular location. When a user calls another local user on the same switch, he or she simply dials the local extension without the access and location codes.

Example

The following diagram illustrates how ESN works.

DN 1234   **M1**   **M1**   DN 1234

8-222-1234

6-338-1234

Location code: 338
AC 8

Location code: 222
AC 6
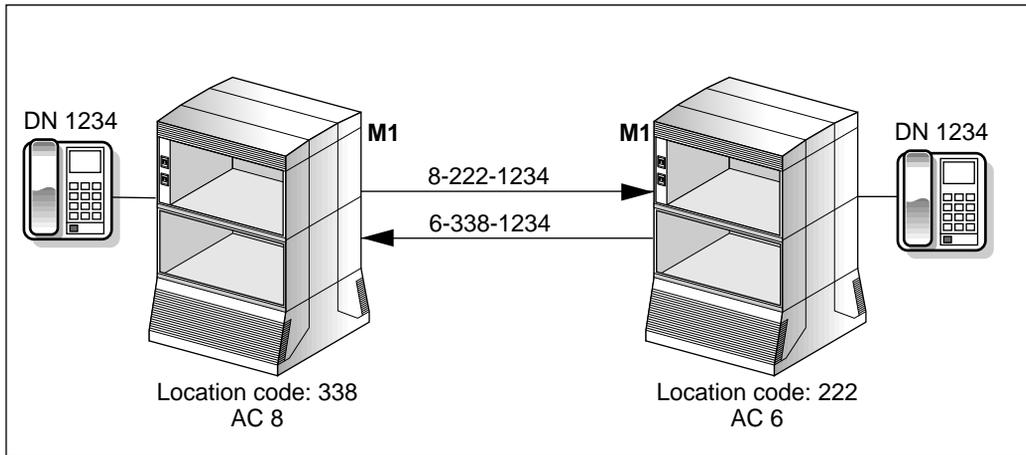
G100472

On the first Meridian 1, the ESN access code is 8, and the location code is 338. On the second Meridian 1, the ESN access code is 6, and the location code is 222.

If you are a user on the second Meridian 1, and want to dial a user on the first Meridian 1, dial your access code (6) followed by the first Meridian 1's location code (338) and the user's extension (1234).

If you are a user on the first Meridian 1 and want to dial a user on the second Meridian 1, dial 82221234.

Overlapping digits between the ESN location code and user's extension

The last digit or more of the location code may overlap with the user's extension at the remote site, depending on how the information is defined on the switch. The following example shows how a user may place a call to a user at a remote site that has two location codes with an overlap of one digit defined.

Example

A site has two location codes. The ESN access code is 6. Location code 224 is used for local extensions that begin with "4" and location code 225 is used for local extensions that begin with "5." An overlap of one digit is defined, which means that the last digit of the location code is also the first digit of the user's extension.

To dial the extension 41234 at this site, users from another site would dial 62241234 instead of 622441234.

To dial the extension 51234 at this site, users from another site would dial 62251234 instead of 622551234.

Description: CDP

CDP is a switch feature that enables a customer with two or more switches to coordinate the dialing plan for telephone sets (users) on each switch.

CDP enables a user at one switch to call a user at another switch within the CDP group by dialing a unique number without access codes and associated pauses for dial tone.

The CDP software provides the translation and digit manipulation capability required to implement CDP. Calls dialed within the CDP format can be terminated locally after digit translation or digit deletion.

Alternatively, calls can be routed to a remote switch in the CDP group following digit translation, route selection, and digit deletion or insertion.

How a CDP call is placed

When a user places a call to another user, he or she must first dial the steering code before dialing the user's extension DN.

IF the call is being placed	THEN
to a user at the same site	the steering code is deleted and the call is terminated locally.
to a user at another site	the steering code identifies the site to which the call is to be routed. The call is terminated at the remote site.

Note: Usually the CDP steering code is also part of the user's extension DN. For example, if the steering code is 7, and the extension DN is 7123, the steering code is actually the first digit of the extension DN. Thus, the user is dialed by 7123, not 77123. (In Meridian Mail, this is called an *overlap*.)

Example

The following diagram illustrates how CDP works.
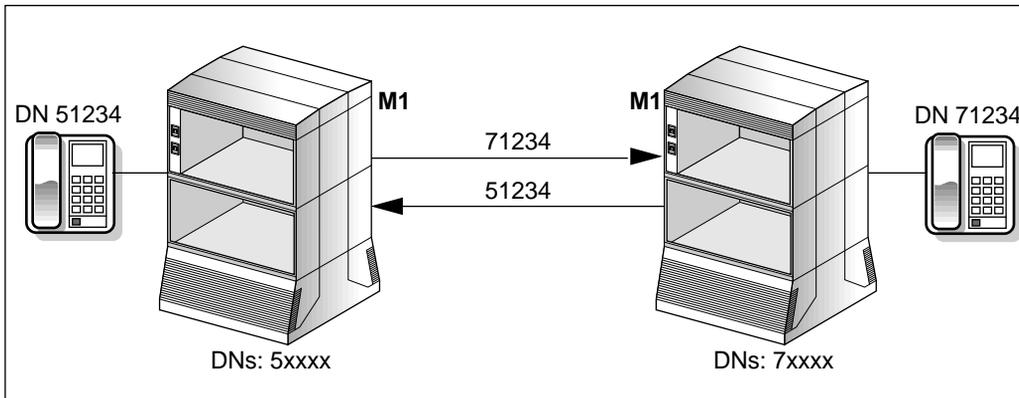
G100471

On the first Meridian 1, all DNs start with 5. Therefore, the steering code is 5. All DNs beginning with 5 will terminate on this Meridian 1.

On the second Meridian 1, all DNs start with 7. Therefore, the steering code is 7. All DNs beginning with 7 will terminate on the second Meridian 1.

Description: Hybrid	Hybrid is a Meridian Mail term that indicates that both CDP and ESN are being used in the network.

A network site may support both of the dialing plans or only one of them. If a site is using both CDP and ESN, this implies that, on the switch, CDP has been implemented as part of NARS, not as CDP stand-alone.

Description: no dialing plan	"No dialing plan" means that ESN or CDP has not been implemented. Therefore, to reach users at other sites, a user is required to enter the following:

- trunk access code
- area code (for long distance calls)
- exchange code
- user's extension number

How Meridian Mail uses the dialing plan as mailbox addresses

If the users' telephone extension numbers are the same as their mailbox numbers, Meridian Mail uses the dialing plan as mailbox addresses.

Messages are addressed as described in the following table.

For	the mailbox address contains	Example
ESN	the access and location codes (which are entered as the ESN prefix in Meridian Mail) and the user's extension (mailbox) number	• access code - 6 • location code - 338 • mailbox number - 7460 The mailbox address is 63387460.
	ESN prefixes and user's extensions that overlap	• access code - 6 • location code - 224 • mailbox number - 41234 The mailbox address is 62241234, not 622441234.

For	the mailbox address contains	Example
CDP	the steering code and the user's extension (mailbox) number	• steering code - 22 • mailbox number - 7460 The mailbox address is 227460.
	a steering code and extension (mailbox) number that overlap	• steering code - 7 • mailbox number - 7123 The mailbox address is 7123, not 77123.

In a "no dialing plan" scenario, Meridian Mail cannot be configured to represent the numbering plan.

Instead, the Meridian Mail dialing plan is defined as None, and the sites are configured to use different dialing prefixes to reach a specific remote site. The dialing prefix is the sequence of digits required before the extension DN in order to dial it. For example, if the extension DN 1234 must be dialed through the public network as 914165551234, then the dialing prefix is 91416555.

A mailbox prefix is required to allow users to compose messages to mailboxes at the site.

Definition: mailbox prefix

The mailbox prefix (defined in Meridian Mail) is similar *in concept* to the ESN prefix or CDP steering code. However, it does not reflect any dialing plans. It is used to identify the remote site to which the message is being addressed. (For more information, see "How Meridian Mail knows which site to contact" on page 1-13.)

The mailbox prefix is an arbitrary number. Its only restriction is that it must be unique; it cannot conflict with other prefixes or DNs on the system.

How messages are addressed

Users address messages to a remote site with no dialing plan by entering the mailbox prefix for that site followed by the mailbox number of the user to whom the message is being sent.

Example: The mailbox prefix is 5 and the mailbox number is 7460. The mailbox address is 57460.

Networking connection DN consideration for private networks

When initiating a network call to a remote site, Meridian Mail is required to enter the trunk access code, plus one of the following:

- *for long distance calls:* area code (NPA), exchange code (NXX), and extension
- *for local calls:* exchange code (NXX) and extension
- *across tie line:* extension

These formats must be considered when defining the networking connection DN for remote sites.

When mailbox numbering is not the same as user extensions

Messages are addressed in a similar way when users' mailbox numbers are not the same as their telephone extension numbers. Users must know the mailbox numbers of the remote users to whom they wish to compose and send messages.

When mailbox numbering is not the same as the users' extension DNs, the call sender feature will not work for network messages (unless the sender exists as a remote voice user).

What a dialing plan needs in order to work

Introduction
The CDP and ESN (NARS) dialing plans on the Meridian 1 need to be configured with one or more of the following elements so that calls are correctly routed to their destinations:

- dialing plan parameters which identify the maximum number of tables and access codes that can be configured
- access codes (NARS only)
- time-of-day schedules
- network translation tables (NARS only)
- steering codes (CDP only)
- route lists
- network class of service groups
- free calling area screening tables (NARS only)
- digit manipulation tables

Descriptions of these elements follow.

What this has to do with networking for Meridian Mail
It is important that you understand the relationship between these elements in order to implement a working Meridian Mail network. If the dialing plan on the Meridian 1 does not route calls to their proper destinations, then you will not be able to get networking on Meridian Mail to work either.

Where to get more information
The following descriptions are overviews only. For more detailed descriptions, refer to the following documents:

- *Coordinated Dialing Plan description* (NTP 553-2751-102)
- *Electronic Switched Network description* (NTP 309-3001-100)
- *Meridian 1 feature document* for your Meridian 1 X11 release

ESN data block

The ESN data block is used to define parameters for both CDP and ESN. Some parameters apply only to CDP, or only to ESN. See the following table.

These parameters	apply to
maximum number of location codes	ESN (NARS)
maximum number of incoming trunk group exclusion tables	
free calling area screening tables	
access codes	
maximum number of digit manipulation tables	CDP and ESN (NARS)
maximum number of route lists	
time-of-day schedules	
number of digits used in the coordinated dialing plan	CDP
maximum number of steering codes	

Access codes

Access codes are used by NARS to identify the type of call that is about to be placed. There are two access codes on the Meridian 1:

- **AC1** Typically used to place on-network and long distance calls.
- **AC2** Typically used to place off-network and local calls.

Access codes trigger the switch to perform necessary call processing and routing using a specified set of network translation tables.

Time-of-day schedules

Time-of-day schedules are used by CDP and NARS to define when routes are used. If both CDP and NARS are installed, the NARS time-of-day schedules can be shared by CDP.

When a route is selected to complete a call, the current time is compared with the time-of-day schedule associated with the route. See the following table.

IF	THEN
the current time is within the schedule	the route is used to complete the call.
the current time is not within the schedule	the route is not used to complete the call. In this case, the call is blocked.
time-of-day schedule is turned OFF	

Network translation tables

Network translation tables are used by NARS to define how the following should be translated into a format that can be dialed by the trunk used to complete the call:

- location code
- home location code
- numbering plan area code
- home numbering plan area code
- central office exchange code
- special number

Translation is used to invoke either

- route selection with a specified route list

    or

- standard call blocking

Steering codes

Steering codes are used by CDP. A steering code is a unique number dialed by a call originator along with the extension number (internal DN) of the party being called. The CDP software uses the steering code to determine where the call is to go.

A steering code can be

• one to four digits in length
  or

• one to seven digits in length when the directory number expansion package (DNXP) is present on the Meridian 1

At each switch, the steering codes must be unique; they must be different from any other assigned DN codes.

Example

The following diagram shows an example of steering codes used in a coordinated dialing plan.

Location D		Location E
0		0
1		1
2xxxx		2
3xxxx		3
4		43xxx
5	←──────────→	52xxx
6		6
7		7
8	0 = Attendant	8
9	1 = Special service prefix (SPRE)	9
	7 = SL-1 trunk access code	
	8 = NARS/BARS access code	
	9 = Public exchange network	
	access code	

G100365
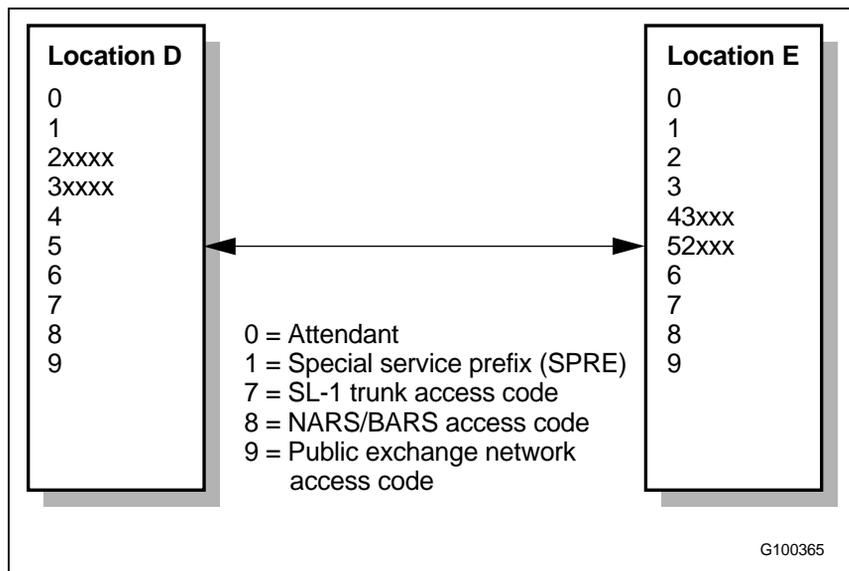
According to the diagram, only the digits 2, 3, 4, 5, and 6 can be used as leading digits for steering codes. The following scenarios describe how users at both locations can call each other.

**Example:
steering codes
(continued)**

Scenario 1

In the preceding diagram, users at location D can call users at location E by dialing 43XXX or 52XXX. Similarly, users at location E can call users at location D by dialing 2XXXX or 3XXXX.

Location D uses the digits 43 and 52 as distant steering codes to select the trunk group to location E.

Location E uses the digits 2 and 3 as distant steering codes to select the trunk group to location D.

Scenario 2

A user in each location can call a user at the same location by using the same dialing format as scenario 1. That is

- users at location D dial 2XXXX or 3XXXX to reach users at their location
- users at location E dial 43XXX or 52XXX to reach users at their location

In these cases, each Meridian 1 interprets the digits 2 and 3 (location D) and 43 and 52 (location E) as local steering codes, and deletes them from the dialed number in order to terminate the call locally.

Route lists

Route lists are used by both CDP and NARS to define the alternate route choices for calls to a particular destination. The choices in the route list are called route list entries. The entries are searched sequentially for an available and eligible trunk route.

For CDP, route lists are associated with distant and trunk steering codes. They are not associated with local steering codes.

For ESN, route lists are used to identify the routes (which identify the trunks) that can be used to complete ESN calls.

Network Class of Service

Network Class of Service is used by both CDP and NARS, and is used to control

- which trunk routes are eligible to be accessed to complete the call
- whether queuing is offered to the caller
- whether the caller receives an "expensive route" warning tone (ERWT) when an expensive trunk route is selected to complete the call

Once the network class of service groups have been defined, they are associated with any telephone sets, trunks, Direct Inward System Access (DISA) DNs, and authorization codes that need to access the network.

Free calling area screening

Free calling area screening tables are used by NARS to define the following for off-network calls:

- area and exchange codes that are denied
- area and exchange codes that are allowed

Each table is associated with route list entries.

Note: Free calling area screening tables are not used by CDP.

Digit manipulation tables

Digit manipulation tables are used by CDP and NARS. They provide the translation and digit manipulation capability that is required to implement the dialing plan.

For CDP, calls dialed within the CDP format can be terminated locally after digit translation or digit deletion. Alternatively, calls can be routed to a remote switch in the CDP group following digit translation, route selection, and digit deletion or insertion.

For NARS, digit manipulation is used to translate the dialed number into a format that can be used by the trunk which is processing the call.

Digit manipulation tables are associated with route list entries.

Section C   Implementing Virtual Node AMIS Networking

In this section

Overview of this section

Introduction   This section provides the following:

- a description of your responsibilities (as administrator)
- a brief description of the implementation process
- a recommendation for how the network is set up (if you are the network administrator)
- a sample of an implementation checklist

Administrator's   As the administrator, you are responsible for the
responsibilities   configuration and specification of the operational
                              characteristics of the Virtual Node AMIS Networking service
                              including

- fulfillment of software requirements
- administration of local and remote sites, and networking configuration from your site's point of view
- dialing plan configuration

Implementation   When implementing Virtual Node AMIS Networking, you
overview   will proceed through the following phases:

- gathering information for the network
- configuring the switch
- configuring Meridian Mail
- testing the network
- creating a backup of the system

In this manual, the completion of each phase is explained in a separate chapter. The chapters are sequenced so that you start at the beginning of this manual, and work your way through until all implementation tasks are completed.

Once the tasks are completed, you simply maintain the network on a daily basis.

Implementation recommendation

If your network contains (or will contain) many sites and you are the network administrator (that is, the administrator responsible for maintaining all sites in the network), Nortel recommends that you concentrate on configuring a *specific pair* of sites at any given time.

Following this recommendation will

- reduce confusion
- reduce the number of errors made
- speed up the implementation process as a result of the previous two points

Implementation checklist

To track your progress during implementation, you can use the NWP-032, "Virtual Node AMIS Networking Implementation Checklist." This checklist is two pages in length, and can be obtained from Appendix A, "Networking implementation forms", at the back of this manual.

Your responsibilities as the administrator

Introduction   As the administrator, you are responsible for the configuration and specification of the operational characteristics of the Virtual Node AMIS Networking service. This topic explains what your duties as "site" or "network" administrator include.

Software aspects   You need to make sure that all software requirements are fulfilled.

For more information, see the following documents:

- the *Site and Installation Planning Guide* for your system (NTP 555-70x1-200, where x represents your Meridian Mail platform)
- *Networking Planning Guide* (NTP 555-7001-241)

Network configuration   You are also responsible for your site's view of the network. Responsibilities include

- local site administration through which the basic networking parameters of the local site are specified
- remote site administration through which the connection parameters from the local site to selected remote sites are specified
- dialing plans, location numbers, and other configured information which must match for all sites in the network to ensure correct operation of the system

For an overview of these tasks, see "Implementation overview" on page 1-44.

Remote access   In some installations, one administrator may be designated to maintain the networking parameters of some or all of the sites. Administration of the information can be achieved by dial-up access (also known as remote access) to each site.

For information about remote access, see your *System Administration Guide* (NTP 555-7001-30x).

Network view

Your view of the network will depend on which site you are working from. See the following table.

IF you are	THEN in the network database
located at site 1	site 1 is the local site, and all other sites are remote sites.
located at site 2	site 2 is the local site, and all other sites are remote sites.
dialing into site 2 and performing network administration from site 1	site 2 is the local site, and all other sites are remote sites.
dialing into site 1 and performing network administration from site 2	site 1 is the local site, and all other sites are remote sites.

To clarify this, from the point of view of any system in the network, all other sites are remote sites.

Implementation overview

Introduction   This topic provides a summary of the steps required to
                            implement Virtual Node AMIS Networking.

                            The implementation process consists of six phases, as
                            follows.

Stage	Description
1	Gather dialing plan information for the network.
2	Configure the switch.
3	Configure Meridian Mail.
4	Test the network.
5	Create a backup of the network.
6	Maintain the network and troubleshoot network errors as required.

Consult with other   If you are administering your site only, then make sure you
administrators   regularly consult with administrators at other sites to ensure

                            •   the validity of your information
                            •   that location prefixes are not duplicated

Gathering information   One of the first steps to implementing Virtual Node AMIS
for the network   Networking is to determine what type of dialing plan is used
                            on the switch.

                            This information is needed to define how the local and
                            remote sites are dialed by other sites in the network.

Gathering information for the network (continued)

To gather information for the network, do the following. For detailed instructions, see Chapter 2, "Gathering information for the network".

Step	Action
1	Determine if the switch is configured with ESN.
2	Determine if the switch is configured with CDP.
3	Draw a diagram of the existing network.
4	Determine if any changes to the switch configuration are required.

Configuring the switch for networking

The next step is to configure the switch for networking. For detailed instructions, see one of the chapters listed in the following table.

IF your switch is	THEN
a Meridian 1	see Chapter 3, "Configuring the Meridian 1 for systems using AML".
one of the following: • DMS family • SL-100 • non-Nortel switch (AT&T or ROLM)	see Chapter 4, "Configuring the PBX/DMS for systems using SMDI".

Do the following.

Step	Action
1	Define the ACD/UCD queues.
2	Dedicate ACD/UCD agents to networking.
3	Verify TGAR and NCOS on ACD/UCD agents.
4	Define the trunks.
5	Verify TGAR (access to trunks).
6	Modify the dialing plan configuration as needed: • ESN • CDP

Configuring Meridian Mail

Once you have configured your switch, you can configure Meridian Mail for networking. For detailed instructions, see Chapter 5, "Configuring Meridian Mail".

Step	Action
1	Enable Meridian Mail Networking.
2	Dedicate ports to AMIS Networking (if required).
3	Define the AMIS Networking DN in the Voice Services DN table as follows. You can do this by one of the following: • Define a VSDN for AMIS Networking • Use a voice menu DN or a thru-dial service DN for AMIS Networking.
4	Define the AMIS Networking dialing prefixes and translation tables.
5	Define the AMIS Networking system access number and compose prefix.
6	Define the local site.
7	Define remote sites and, if needed, remote Network Message Service (NMS) locations.

Testing the network

Once both the switch and Meridian Mail have been configured for Virtual Node AMIS Networking, you need to perform some tests to ensure that the network will function properly. For detailed instructions, see Chapter 6, "Testing the network".

Step	Action
1	Test call routing access. *Result:* This test ensures that trunks cannot be accessed directly.
2	Test ACD/UCD agents. *Result:* This test ensures that Meridian Mail ports can be accessed.

Step	Action
3	Compose and send a message from the local site to the local site. ***Result:*** This is known as a loop-back test.
4	Compose and send a message to an empty system distribution list (SDL) at a remote site (if the site is using a Meridian Mail system). ***Result:*** This is also known as a "loop-back test."
5	Send a message from the local site to a remote site. ***Result:*** This is known as an "end-to-end test."

Creating a backup of the system

The final step to implementing Virtual Node AMIS Networking is to create a backup of the system. For detailed instructions, see Chapter 7, "Creating a backup of the system".

Step	Action
1	Back up Meridian Mail.
2	Print Virtual Node AMIS Networking information.
3	Back up the switch.
4	Print switch network information.

Maintaining the network

After you have created a backup of the network information, you simply need to maintain the network. Maintaining the network may include the following tasks:

- Add, modify, or delete remote sites and NMS locations as required.
- Modify the networking configuration.
- Verify network status and disable sites as required.
- Print and review Operational Measurement reports.
- Troubleshoot network errors as required.

Recommendation for implementation

Introduction   If your network contains (or will contain) many sites and you
are the network administrator (that is, the administrator
responsible for maintaining all sites in the network), Nortel
recommends that you concentrate on configuring a *specific
pair* of sites at any given time.

Rationale   Following this recommendation will

- reduce confusion
- reduce the number of errors made
- speed up the implementation process as a result of the
  previous two points

Exception   The exception to this recommendation is that you should
gather information for the network from all sites first, before
you proceed to the next phase of implementation. You need
to create a diagram of the entire network so you can make the
correct decisions for dialing plan configuration.

Example: For example, your network will contain six sites, numbered
network with six sites from 1 to 6. Imagine that your network resembles a wheel
with spokes, with site 1 as the hub.

Procedure   Do the following.

Step	Action
1	Configure sites 1 and 2.
	Configuration includes both the switch configuration and the Meridian Mail configuration (including the local site and remote site). For example, local site 1 and remote site 2 at site 1, and local site 2 and remote site 1 at site 2.
2	Test the two sites.
	Make sure that both sites can receive messages from and send messages to each other.

Step	Action
3	Create a backup of the system at both sites.
4	Repeat steps 1 to 3 for • sites 1 and 3 • sites 1 and 4 • sites 1 and 5 • sites 1 and 6
5	If you are the administrator for the entire network, repeat steps 1 to 4 for each site.

Implementation checklist

Introduction   To help you track your progress throughout the
                          implementation of Virtual Node AMIS Networking, you can
                          use a checklist.

                          A sample is shown on the next two pages.

                          This checklist is form NWP-032, "Virtual Node AMIS
                          Networking Implementation Checklist." To obtain a working
                          copy of this checklist, see Appendix A, "Networking
                          implementation forms", at the back of this manual. The
                          checklist may be photocopied.

Sample of checklist: page 1

The following is an example of page 1 of the NWP-032, "Virtual Node AMIS Networking Implementation Checklist."

Virtual Node AMIS Networking Implementation Checklist   **NWP-032**
Page 1 of 2

Step	Description	For instructions, see the chapter	Done
1	Gather ESN information from the switch.	Gathering information for the network	☐
2	Gather CDP information from the switch.		☐
3	Draw a diagram of the existing network.		☐
4	Analyze the information and determine if changes are required to the dialing plan configuration on the switch.		☐
5	Define the ACD/UCD queues.	Configuring the Meridian 1 for systems using AML	☐
6	Dedicate ACD/UCD agents to networking (if required).		☐
7	Verify TGAR and NCOS on ACD/UCD agents.		☐
8	Define trunks (if additional trunks are required).	Configuring the PBX/DMS for systems using SMDI	☐
9	Verify TGAR (access to trunks).		☐
10	Modify the dialing plan configuration on the switch if required.		☐
11	Dedicate ports to networking if required.	Configuring Meridian Mail	☐
12	Define the networking DN in the VSDN table.		☐
13	Define the AMIS Networking dialing prefixes and translation tables.		☐
14	Define the AMIS Networking system access number and compose prefix.		☐
15	Define the local site.		☐
16	Define remote sites.		☐
17	Define remote Network Message Service (NMS) sites if required.		☐
18	Convert existing sites to AMIS Networking if necessary.		☐
19	Test call routing access.	Testing the network	☐
20	Test ACD/UCD agents.		☐
21	Compose and send a message from the local site to the local site.		☐
22	Compose and send a message to an empty system distribution list at a Meridian Mail remote site.		☐

Sample of checklist: page 2

The following is an example of page 2 of the NWP-032, "Virtual Node AMIS Networking Implementation Checklist."

Virtual Node AMIS Networking Implementation Checklist   **NWP-032**
                                                                    Page 2 of 2

Step	Description	For instructions, see the chapter	Done
23	Send a message from the local site to each remote site.	Testing the network	☐
24	Back up Meridian Mail.		☐
25	Print Meridian Mail network information.	Creating a backup of the system	☐
26	Back up the switch.		☐
27	Print switch network information.		☐

Chapter 2

Gathering information for the network

In this chapter

Overview of this chapter

Introduction   This chapter explains

- how to gather the following dialing plan information from the Meridian 1
  — Coordinated Dialing Plan (CDP)
  — Electronic Switched Network (ESN)
- how to convert the Meridian 1 dialing plan information into a network diagram
- the basic guidelines for identifying the changes required on the Meridian 1 in order to implement Virtual Node AMIS

For the DMS family, the SL-100, and non-Nortel switches, only the information that Meridian Mail needs for networking is identified.

Details about dialing plans on these switches *are not* provided.

Rationale: Dialing plans on DMS-family switches are maintained by the central office; they are not maintained directly by the customer who owns the Meridian Mail system.

Non-Nortel switches have their own documentation that should explain how to maintain dialing plans.

Why you need to gather information   You need to gather information in order to

- identify the sites in your network
- identify how the sites relate to each other
- identify what dialing plan each Meridian 1 is using
- create the network diagram which will help you to visualize your network
- determine if the dialing plans on one or more switches in the network need to be modified so that message transfers by Meridian Mail will work

Why you need to gather information (continued)

- prepare for Meridian Mail configuration

  Some of the dialing plan information from the switch is used when adding or maintaining sites in Meridian Mail. For more information, see the following chapters:

  — Chapter 5, "Configuring Meridian Mail"

  — Chapter 9, "Maintaining the network"

Gathering the numbering plan information from PBX/DMS switches

Introduction

Numbering plans for DMS family and SL-100 switches are configured and maintained at the central office. Therefore, detailed instructions for gathering this information are not provided for the following:

- DMS-10
- DMS-100
- DMS-500
- SL-100

For instructions on working with AT&T, NEC, and ROLM switches, see the documentation for those switches. If you do not have the documentation, contact your vendor.

Requirements for Virtual Node AMIS

You need to obtain the following information from each site that uses a DMS family, SL-100, or non-Nortel switch, in order to configure Meridian Mail for networking:

- directory numbers at each site
- for CDP
  - steering codes
  - number of digits in common between steering codes and directory numbers
- for ESN
  - ESN access codes
  - location codes
  - number of digits in common between the ESN prefixes and directory numbers

To get this information from DMS family and SL-100 switches, contact the administrator at your central office.

To get this information from AT&T, NEC, and ROLM switches, refer to the documentation for those switches.

Section A   Gathering information from Meridian 1 sites

In this section

Overview of this section

Introduction   This section explains the following:

- what you need to do before you start gathering information for the network
- the difference between non-Network Message Service sites and Network Message Service sites and locations

Before you start   Before you can implement Virtual Node AMIS, you need to do
gathering information   the following:

1. Confirm that all sites have the switch software packages that are required to properly implement Virtual Node AMIS. If you are not sure that they do, read the *Networking Planning Guide* (NTP 555-7001-241).

2. Do one of the following for each Meridian 1:

   - Gather the forms that will be used for gathering information from each Meridian 1 in the network. or
   - Prepare to print the information.

   Note: For DMS family and SL-100 switches, the central office will gather information about and perform any changes required for dialing plans.

3. Create a separate file folder for each site. Each folder will hold all notes, forms, and printouts that you complete for the site.

   These folders should be stored in a secure location. If you lose them, you will have to begin again.

Preparing yourself

Introduction

In order to properly implement Virtual Node AMIS, you must

- identify the dialing plan used on each switch in the network
- identify how that dialing plan has been configured

This topic provides some information that will help you prepare for the gathering of this information.

Software requirements

Since you are already reading this manual it is assumed that each site has all of the switch software packages required to properly implement Virtual Node AMIS. If you are not sure that each site has all the software, then review the following sections in the *Networking Planning Guide* (NTP 555-7001-241), Chapter 6, "Identifying the customer's hardware and software requirements":

- Section B, "Hardware required for networking"
- Section C, "Switch software required for networking"

Recording the Meridian 1 dialing plan information for each site

The following sections of this chapter provide the instructions for recording information from the Meridian 1.

- Section C, "Gathering ESN information from the Meridian 1"
- Section D, "Gathering CDP information from the Meridian 1"

The information can either be recorded on data entry forms, or it can be printed from the Meridian 1.

You can use the data entry forms when

- you are capturing small amounts of information
- you are not able to print a hard copy yourself

There is a data entry form for each block of information required from the Meridian 1 overlays. In some cases, you may be required to complete several copies of the same form in order to record all the information for the data block.

The forms can be photocopied from Appendix A, "Networking implementation forms", at the back of this NTP.

Note: The data entry forms or printouts must be completed for each site in the network.

Do not distract yourself

As you are gathering the information, work with each site independently. Do not distract yourself with information that you have seen at another site.

After you have gathered the information, you (or a Meridian 1 expert) will analyze the information for all sites together to determine if the dialing plan at each site is compatible with the dialing plans at the other sites. (See Section E, "Identifying the hardware and software requirements.")

DMS family, SL-100, and non-Nortel switch dialing plans

Detailed instructions for gathering the information from DMS family and non-Nortel switches *are not* provided.

Only the basic requirements for dialing plans are identified in "Gathering the numbering plan information from PBX/DMS switches" on page 2-4.

Rationale: Dialing plans on DMS family switches are maintained by the central office; they are not maintained directly by you (the customer who owns the Meridian Mail system.)

Non-Nortel switches have their own documentation that should explain how to maintain dialing plans. If you do not have this documentation, contact your vendor.

Record keeping

If you will be supervising the implementation of Virtual Node AMIS at each site, then Nortel recommends that you do the following:

• Create a separate file folder for each site.

Put all notes, forms, and printouts that you complete for the site into this folder.

• Keep the file folders in a secure location.

If you lose the information, you will have to begin again.

Components of Network Message Service (NMS) sites

Introduction

This topic explains the difference between non-Network Message Service sites and Network Message Service sites and locations.

Why this is important

If you have both Virtual Node AMIS and Network Message Service on your system, it is important that you understand the concept of NMS sites and locations because

- this information is required on the data entry forms used throughout this chapter
- understanding how this information is maintained on Meridian Mail will be much easier

If Network Message Service is not being used anywhere in the network, you can ignore all references to NMS throughout this manual and skip this section.

Definition: Network Message Service

Network Message Service is a Meridian Mail feature that permits one Meridian Mail system to provide voice messaging services to users in a network of Meridian 1 switches which are interconnected by ISDN PRA trunks.

This type of network contains two or more locations. One location contains a Meridian Mail system connected to a Meridian 1 switch; the remaining locations contain only Meridian 1 switches which are connected by ISDN PRA trunks. See the following diagram.

Example　　　　　This is an example of a typical NMS network.
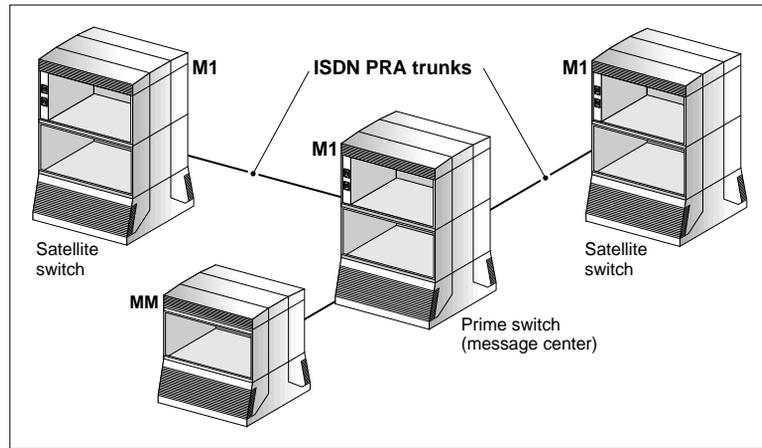
G100404

Definition: NMS sites

An NMS site is a site that is defined in the Meridian Mail network database. Both the local site and a remote site can be defined as NMS sites.

The difference between an NMS site and a Virtual Node AMIS site is that, for the NMS site, the "Site is network message center" field is defined on the site maintenance screen as Yes. Defining the site as a message center allows you to define the other switch locations in the NMS network as locations which are associated with this site.

The switch that is connected to Meridian Mail is called the *prime location*.

Definition: NMS locations

An NMS location is a switch in the network that

- is not connected to its own Meridian Mail system
- is connected by an ISDN PRA trunk to another switch location that does have a Meridian Mail system

  Note: The Meridian Mail system may not be directly connected to the switch.

NMS switch locations without Meridian Mail are called *satellite locations*.

What the hierarchy looks like   The following flowchart shows how sites and NMS sites and locations relate to each other in Meridian Mail.
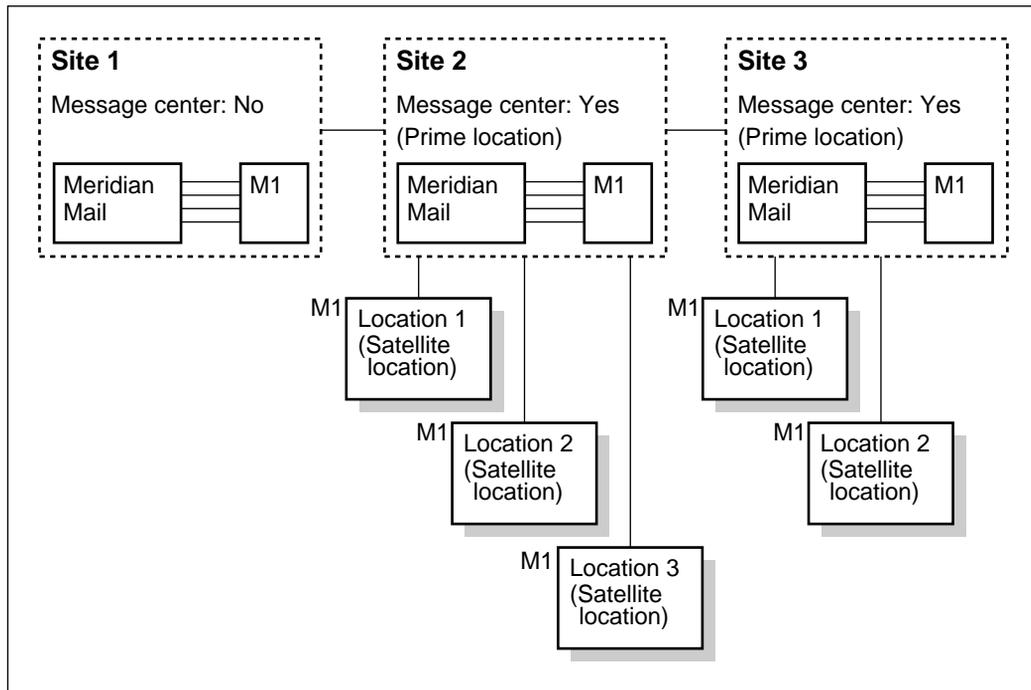
G100410

Section B Recording Meridian 1 information

In this section

Overview of this section

Introduction
When gathering dialing plan information from the Meridian 1, you can

- print the information from the Meridian 1 to a printer
- manually record the information on data entry forms
- do both of the above

What information is collected
The following types of information are collected from each Meridian 1 in the network:

- coordinated dialing plan (CDP) information
- Network Alternate Route Selection (NARS)

  NARS, which is a collection of packages used in an Electronic Switched Network, is commonly referred to as ESN.

What this information is used for
The information is used

- to determine if the dialing plan on one Meridian 1 is compatible with the dialing plans on other Meridian 1s in the network

  If they are not compatible, then you will need to make changes.

- when defining local and remote sites in Meridian Mail

What is in this section
This section contains the following:

- general instructions for recording information collected from the Meridian 1
- a list of the data entry forms that are used

Should you gather CDP information, ESN information, or both?

Introduction   Any site in the network may use the following dialing plans:

- CDP only
- ESN only
- both CDP and ESN
- none of the above

CDP can be implemented on the Meridian 1 as part of ESN, or it can be implemented by itself (referred to as "stand-alone CDP").

Where to find CDP and ESN instructions   The following table describes where to find instructions for the configuration that has been implemented at any given site.

This section	contains procedures for
Section C: Gathering ESN information from the Meridian 1	gathering information for • ESN • CDP that has been implemented as part of ESN.
Section D: Gathering CDP information from the Meridian 1	gathering information for CDP that has been implemented by itself (CDP stand-alone) The instructions and the forms that are used for CDP stand-alone are the same as those found in Section C.

The instructions for gathering some information for CDP (as stand-alone or as part of ESN) have been duplicated for the benefit of administrators who are not familiar with dialing plans and how they are configured on the Meridian 1. Printing information from the Meridian 1 is a straightforward task, but trying to decide if a particular overlay applies to the site configuration is not.

Deciding which instructions to use   You have the option of deciding which instructions to follow. See the following table for assistance.

IF you	THEN
know for certain that this site is using only ESN	follow all the procedures in Section C, "Gathering ESN information from the Meridian 1."
know for certain that this site is using only CDP	follow only the procedures in Section D, "Gathering CDP information from the Meridian 1."
know for certain that this site is using both CDP and ESN	follow the procedures in both sections
are not sure at all	If a Meridian 1 technician will be evaluating the information and making the configuration changes, then the technician can decide which forms or printouts to use. (It is better to provide too much information than not enough.)

Recording the information

Introduction   As you gather the dialing plan information from the Meridian 1, you will need to make a hard copy record. You can do this by doing one or both of the following:

- printing the information from the Meridian 1 to a printer
- manually recording the information on a series of data entry forms

Preparing to print   To prepare for printing, see the following table.

IF	THEN
you have a printer that is connected to the Meridian 1 terminal	enable printing on the printer instead of printing on the screen. Refer to your Meridian 1 terminal documentation for instructions.
	Ensure that the printer is loaded with enough paper.
	Note: If you are using a VTx20 (where x represents your particular model) terminal, press CTRL-F2 (Print) to enable automatic printing. Otherwise, refer to your Meridian 1 terminal documentation for instructions.
you are using a PC as your terminal	you can
	• print the information on the screen, then save it in a file for printing later
	• print it on the printer that is connected to your PC
you do not have a printer, or it is not working (out of order)	you can ask your technical support representative to access your system remotely and print the information for you.
	Note: For most overlays, you can record the information manually from the screen onto the data entry forms.
	To do this, you may have to pause scrolling on the screen. If you are using a VTx20 (where x represents your particular model) terminal, press F1 (Hold). Otherwise, refer to your Meridian 1 terminal documentation for instructions.

Preparing to manually record the information   To manually record the information from the overlays, use the Meridian 1 Network Information forms listed in the following table. The forms are all shown in Appendix A, "Networking implementation forms", at the back of this manual. They may be photocopied.

Form name	Form number	Description	Used for
Site Information	NWP-004	This form is used to identify • the site's address and telephone numbers • customer number (on multi-customer systems) • the site administrator's name • if the site is a message center Complete one copy of this form for each site.	CDP ESN
ESN Data Block	NWP-005	This form is used to identify the parameters that have been defined for ESN on this system.	CDP ESN
Digit Manipulation Tables	NWP-006	This form is used to identify how many digits are to be deleted and what digits are to be inserted for network calls. You can record up to four DMI tables on this form. Complete additional pages as required.	CDP ESN
CDP Steering Codes	NWP-007	This form is used to identify the local, distant, and trunk steering codes defined for this site. *Note:* Trunk steering codes are not supported for locations that are also using Network Message Service.	CDP ESN
Route List Index	NWP-008	This form is used to identify the parameters defined for each route list used at this site. Complete this form for each route list that is defined on the system.	CDP ESN

Form name	Form number	Description	Used for
NCOS Groups	NWP-009	This form is used to identify the network class of service groups defined at this site. Complete this form for each NCOS group that is defined on the system.	CDP ESN
FCAS Tables	NWP-010	This form is used to identify the NPAs and NXXs that are to be screened. You can record up to five NPA or NXX codes on this form. Complete additional pages as required.	ESN
ITGE Groups	NWP-011	This form is used to identify the incoming trunk exclusion tables that restrict calls from being made to specific area codes, exchange codes, locations, and special numbers. You can record up to eight ITGE groups on this form. Complete additional pages as required.	ESN
Network Translation—Location Codes	NWP-012	This form is used to identify the LOCs that have been defined at this site. Complete this form for each LOC that is defined on the system.	ESN
Network Translation—Numbering Plan Area Codes	NWP-013	This form is used to identify the NPAs that have been defined at this site. Complete this form for each NPA that is defined on the system.	ESN
Network Translation—Exchange Codes	NWP-014	This form is used to identify the NXXs that have been defined at this site. Complete this form for each NXX that is defined on the system.	ESN
Network Translation—Special Number Translation Codes	NWP-015	This form is used to identify the SPNs that have been defined at this site. Complete this form for each SPN that is defined on the system.	ESN

Form name	Form number	Description	Used for
Network Translation— Home Location and Home Numbering Plan Area Codes	NWP-016	This form is used to identify the HLOCs and HNPAs that have been defined at this site. You can record up to three HLOCs and HNPAs on this form. Complete additional pages as required.	ESN
Site Numbering Plan	NWP-017	This form is used to identify the directory numbers (extensions) used at this site.	CDP ESN

Filing the information   When you are finished, put all the data entry forms and printouts in the file folder you created for the site.

Completing the Site Information form

Description   The NWP-004, "Meridian 1 Network Information—Site
                           Information" form is used to record the site's name, address,
                           telephone numbers, and site administrator's name.

                           This form also identifies the following:

                           •   the customer number on the Meridian 1

                                The customer number on a single-customer system is usu-
                                ally 0. To identify the customer number for a multi-cus-
                                tomer system, you need to print the customer data block on
                                the Meridian 1.

                           •   whether the site is a message center

                                If the site *is* a message center, the method for defining the
                                site in Meridian Mail is different from non-Network Mes-
                                sage Service sites.

Where to get a copy   Obtain a copy of form NWP-004. The forms are shown in
                           Appendix A, "Networking implementation forms", at the back
                           of this manual. They may be photocopied.

**Form sample:
NWP-004**

The following shows a sample of form NWP-004. Field
completion instructions are on the following pages.

Meridian 1 Network Information—Site Information   **NWP-004**

Address and contact information

Site name:	Site number:	Customer number:	Administrator's name:
Address:			
City:	Prov/State:	Country:	Postal/Zip Code:
Telephone:		Fax:	

Site type

Answer the following questions

1) Is this site a message center (contains a Meridian Mail system that services one
    or more Meridian 1 switches located somewhere else)?
    ☐ Yes
    ☐ No

2) Is this switch connected to a message center (in other words, does not have its
    own Meridian Mail system)?
    ☐ Yes
    ☐ No

3) If response to question 2 is "yes," record the site name or number.   Site: _____

Completed by

Administrator:	Date:

Address and contact information fields

Descriptions of the site address and contact information fields follow.

Field	Description
Site name	Site name.
	This could be the name of the geographical area in which the site is located.
Site number	A unique number that identifies the site.
	In Meridian Mail, the site number must be in the range of 1–500.
Customer number	The number that identifies the customer (in a multi-customer system) for which Virtual Node AMIS is being implemented.
	For instructions on how to identify the customer number, see "Obtaining the customer number" on page 2-25.
Administrator's name	Name of the site administrator who maintains the Meridian Mail or Meridian 1 system, or both.
Address	Site's street address, including suite number.
City	The city in which the site is located.
Prov/State	The province or state in which the site is located.
Country	The country in which the site is located.
Postal/Zip Code	Site's postal or zip code.
Telephone	Administrator's telephone number.
Fax	Administrator's fax number.

Site type fields   The "Site type" area of the form helps you identify sites that are using Network Message Service (NMS). Sites that use NMS are considered to be message centers, and are defined differently from other networking sites in Meridian Mail.

See the following table for analysis.

IF this site	THEN
has a Meridian Mail system that is directly connected to a Meridian 1	this site is considered to be a standard networking site. Record a check mark next to No for questions 1 and 2.
has already implemented, or is considering implementing the Network Message Service feature of Meridian Mail	the site is a message center This site is providing messaging services to one or more Meridian 1 locations. For question 1, check Yes. For question 2, check No.
does not have its own Meridian Mail system, but is connected to another site that does have a Meridian Mail system	this site is considered to be a Network Message Service (NMS) location For question 1, check No. For question 2, check Yes. For question 3, record the name or number of the site that is providing the messaging services (the one with the Meridian Mail system).

Obtaining the customer number

Introduction   Meridian 1 customers are defined in the customer data block on overlay 21, and printed from overlay 21. The customer data block (CDB) is used to identify the customer number for which Virtual Node AMIS is to be implemented.

Procedure   At the Meridian 1 terminal, do the following.

Starting Point: You are already logged in, and are at the > prompt.

Step	Action
1	Type **LD 21** and press <Enter>. ***Result:*** The REQ prompt is displayed.
2	Type **PRT** and press <Enter>. ***Result:*** The TYPE prompt is displayed.
3	Type **CDB** and press <Enter>. ***Result:*** The CUST prompt is displayed.
4	Leave this prompt blank and press <Enter>. ***Result:*** The information for this data block is printed.
5	Review the information and locate the customer you want to use.
6	Record the customer number on the NWP-004, "Meridian 1 Network Information—Site Information" form.
7	Type ******** to exit the overlay.

Completing the Meridian 1 overlay forms

Description
The Meridian 1 network information forms are used to record information from the Meridian 1 overlays.

There are 14 forms—one for each data block that needs to be recorded.

Where to get copies
The forms are shown in Appendix A, "Networking implementation forms", at the back of this manual. They may be photocopied.

Completing site information fields
The following fields are present on each form. Complete them as described in the following table.

Field	Description
Page _____ of _____	You may be required to complete more than one copy of any form for this site.
	Example: If you complete three copies of form NWP-006, complete the fields as follows:
	Page 1 of 3, Page 2 of 3, Page 3 of 3
	Otherwise, complete as follows:
	Page 1 of 1
Site or NMS location name	Site name. This could be the name of the geographical area in which the site is located.
Site or NMS location number	A unique number that identifies the site.
	If numbers have not yet been assigned to all sites, you may want to define them now. They will be required for Meridian Mail configuration.
Customer number	The number that identifies the customer (in a multi-customer system) for which Virtual Node AMIS is being implemented.
	For instructions on how to identify the customer number, see "Obtaining the customer number" on page 2-25.

Field	Description
Administrator's name	Name of the administrator at the site. This is the person who maintains the Meridian Mail or Meridian 1 system, or both.

Printout attached   You may attach a printout of the information when there is too much information to record manually.

If you do attach a printout, check this box.

Completing the remaining fields   For instructions on completing the fields specific to each overlay, see the *X11 input/output guide* (NTP 553-3001-400).

Section C Gathering ESN information from the Meridian 1

In this section

Overview of this section

Introduction
This section explains how to identify if the Meridian 1 is using ESN (and CDP, if it has been implemented as part of ESN).

How information is gathered
Identifying if the Meridian 1 is using ESN is done by printing (and manually recording, if applicable) information from the following:

- the following data blocks on overlay 86
  — Route List Index (RLB)
  — Digit Manipulation Index (DMI)
  — ESN data block (ESN)
  — Incoming trunk group exclusion (ITGE)
- the following data blocks on overlay 87
  — Coordinated Dialing Plan (CDP)
  — Network control (NCTL)
  — Free calling area screening (FCAS)
- network translation data blocks on overlay 90 for numbering plan area and location codes
- overlay 21, Route Data Block (RDB)
- overlay 20, Directory Number Block (DNB)

The information from each overlay can be

- manually recorded on a data entry form
- printed directly to a printer

Instructions for completing the forms are provided in Section B: Recording Meridian 1 information. An example of each form is provided in this section with each overlay procedure.

When you can skip this section
If you know for certain that you are not using ESN on the Meridian 1, then you may skip this section.

What this information is used for

The information on these forms is used

- to determine if the dialing plan on one Meridian 1 is compatible with the dialing plans on other Meridian 1s in the network

  If they are not compatible, then you will need to make changes.

- when defining local and remote sites in Meridian Mail

How this section is organized

This section contains the following:

- detailed instructions for obtaining information from overlays on the Meridian 1

  In some cases, the same overlays but different feature data blocks are used to access information. For efficiency's sake, the procedures are sequenced so that you gather all information from one overlay before proceeding to the next overlay. You will not have to load the same overlay again and again.

- examples of information gathering forms

Where to get more information

If you need more information about ESN features, see the following documents:

- *Electronic Switched Network Description* (NTP 309-3001-100)

- *Basic and Network Alternate Route Selection description* (NTP 553-2751-100)

- *X11 input/output guide* (NTP 553-3001-400)

ESN data block (LD 86)

What this overlay is used for

On overlay 86, the ESN feature is used to identify the following:

- ESN access codes
- maximum number of the following
  - location codes
  - incoming trunk group exclusion (ITGE) tables
  - digit manipulation tables
  - route lists
  - free calling area screening tables
- time of day schedules

It is also used to identify

- if CDP is also being used
- the maximum number of steering codes that can be defined for CDP
- the number of digits used in the coordinated dialing plan

Procedure

At the Meridian 1 terminal, do the following.

Starting Point: You are already logged in, and are at the > prompt.

Step	Action
1	Type **LD 86** and press <Enter>. *Result:* The REQ prompt is displayed.
2	Type **PRT** and press <Enter>. *Result:* The CUST prompt is displayed.
3	Type the customer number and press <Enter>. Obtain the customer number from the NWP-004, "Meridian 1 Network Information—Site Information" form. *Result:* The FEAT prompt is displayed.

Step	Action
4	Type **ESN** and press <Enter>.
	Result: The information for this data block is printed.
5	Complete the NWP-005, "Meridian 1 Network Information— ESN Data Block" form.
	An example of the form follows this procedure.
6	Go to "Digit manipulation index (LD 86)" on page 2-35.

Form example: NWP-005

The following is an example of the NWP-005, "Meridian 1 Network Information—ESN Data Block" form. For instructions on completing the form, see "Completing the Meridian 1 overlay forms" on page 2-26.

Meridian 1 Network Information—ESN Data Block **NWP-005**

Site or NMS location information Page ____ of _____

Site or NMS location name:	Site or NMS location number:	Customer number:	Administrator's name:

ESN data block (LD 86, ESN) (If necessary, complete and attach additional pages, or attach printout.)

Prompt	Description	Current	Revise to
MXLC	Maximum number of location codes		
MXSD	Maximum number of Supplemental Digit Restriction blocks		
MXIX	Maximum number of incoming trunk group exclusion tables		
MXDM	Maximum number of digit manipulation tables		
MXRL	Maximum number of route lists		
MXFC	Maximum number of free calling area screening tables		
CDP	Coordinated dialing plan is implemented for this customer		
MXSC	Maximum number of steering codes		
NCDP	Maximum number of digits in CDP DNs		
MSCC	Maximum number of Special Common Carrier entries		
AC1	NARS/BARS access code 1		
AC2	NARS/BARS access code 2		
DLTN	NARS/BARS dial tone after AC1 or AC2		
ERWT	Expensive route warning tone		
ERDT	Expensive route delay time		
TODS	Time-of-day schedules	0 ____to ____ 1 ____to ____ 2 ____to ____ 3 ____to ____ 4 ____to ____ 5 ____to ____ 6 ____to ____ 7 ____to ____	0 ____to ____ 1 ____to ____ 2 ____to ____ 3 ____to ____ 4 ____to ____ 5 ____to ____ 6 ____to ____ 7 ____to ____
RTCL	Routing controls		
NMAP	Network class of service (NCOS) map		
ETOD	Extended Time-of-day schedule		
TGAR	Check for trunk group access restrictions		

☐ printout attached

Digit manipulation index (LD 86)

What this overlay is used for

On overlay 86, the DGT feature is used to identify the digit manipulation tables that are being used.

Digit manipulation tables are used to define

- how many leading digits of a dialed number will be deleted
- what digits will be inserted before the dialed number

Digit manipulation tables are associated with trunks and are used by ESN to convert a dialed number into a format that can be used by the trunk.

Procedure

At the Meridian 1 terminal, do the following.

Starting Point: You are already logged in, and overlay 86 is loaded. The REQ prompt is displayed.

Step	Action
1	Type **PRT** and press <Enter>.
	Result: The CUST prompt is displayed.
2	Type the customer number and press <Enter>.
	Obtain the customer number from the NWP-004, "Meridian 1 Network Information—Site Information" form.
	Result: The FEAT prompt is displayed.
3	Type **DGT** and press <Enter>.
	Result: The DMI prompt is displayed.
4	Press <Enter>.
	Result: The information for this data block is printed.
5	Complete the NWP-006, "Meridian 1 Network Information—Digit Manipulation Tables" form.
	An example of the form follows this procedure.
6	Go to "Route list index (LD 86)" on page 2-37.

**Form example:
NWP-006**

The following is an example of the NWP-006, "Meridian 1
Network Information—Digit Manipulation Tables" form. For
instructions on completing the form, see "Completing the
Meridian 1 overlay forms" on page 2-26.

Meridian 1 Network Information—Digit Manipulation Tables   **NWP-006**

Site or NMS location information   Page _____ of _____

Site or NMS location name:	Site or NMS location number:	Customer number:	Administrator's name:

Digit manipulation tables (LD 86, DGT)
(If necessary, complete and attach additional pages, or attach printout.)

Prompt	Description	Current	Revise to
DMI	Digit manipulation index number		
DEL	Number of leading digits to be deleted		
INST	Insert		
SCCI	Special Common Carrier index into the SCC data table		
CTYP	Call type to be used by the manipulated digits (INTL, NPA, NXX, LOC, CDP, SPN, UKWN)		
Next DMI			
DMI	Digit manipulation index number		
DEL	Number of leading digits to be deleted		
INST	Insert		
SCCI	Special Common Carrier index into the SCC data table		
CTYP	Call type to be used by the manipulated digits (INTL, NPA, NXX, LOC, CDP, SPN, UKWN)		
Next DMI			
DMI	Digit manipulation index number		
DEL	Number of leading digits to be deleted		
INST	Insert		
SCCI	Special Common Carrier index into the SCC data table		
CTYP	Call type to be used by the manipulated digits (INTL, NPA, NXX, LOC, CDP, SPN, UKWN)		
Next DMI			
DMI	Digit manipulation index number		
DEL	Number of leading digits to be deleted		
INST	Insert		
SCCI	Special Common Carrier index into the SCC data table		
CTYP	Call type to be used by the manipulated digits (INTL, NPA, NXX, LOC, CDP, SPN, UKWN)		

☐ printout attached

Route list index (LD 86)

What this overlay is used for

On overlay 86, the RLB feature is used to identify the route lists (and their associated route numbers) that are being used by the switch.

Route lists identify the routes (which identify the trunks) that can be used to complete ESN calls.

Procedure

At the Meridian 1 terminal, do the following.

Starting Point: You are already logged in, and overlay 86 is loaded. The REQ prompt is displayed.

Step	Action
1	Type **PRT** and press <Enter>. *Result:* The CUST prompt is displayed.
2	Type the customer number and press <Enter>. Obtain the customer number from the NWP-004, "Meridian 1 Network Information—Site Information" form. *Result:* The FEAT prompt is displayed.
3	Type **RLB** and press <Enter>. *Result:* The RLI prompt is displayed.
4	Press <Enter> to print all route lists. *Result:* The information for this data block is printed.
5	Complete the NWP-008, "Meridian 1 Network Information—Route List Index" form. An example of the form follows this procedure.
6	Go to "Incoming trunk exclusion (LD 86)" on page 2-39.

Form example: NWP-008

The following is an example of the NWP-008, "Meridian 1 Network Information—Route List Index" form. For instructions on completing the form, see "Completing the Meridian 1 overlay forms" on page 2-26.

Meridian 1 Network Information—Route List Index   **NWP-008**

Site or NMS location information   Page _____ of _____

Site or NMS location name:	Site or NMS location number:	Customer number:	Administrator's name:

Route list index (LD 86, RLB)
(If necessary, complete and attach additional pages, or attach printout.)

Prompt	Description	Current	Revise to
RLI	Route list index to be accessed		
ENTR	Entry number for NARS/BARS route list		
LTER	Local termination entry		
ROUT	Route number		
TOD	Time-of-day schedule	0 _____ 1 _____ 2 _____ 3 _____ 4 _____ 5 _____ 6 _____ 7 _____	0 _____ 1 _____ 2 _____ 3 _____ 4 _____ 5 _____ 6 _____ 7 _____
CNV	Conversion to listed directory number (LDN)		
EXP	Expensive route		
FRL	Facility restriction level		
DMI	Digit manipulation index		
ISDM	ISL D-channel down digit manipulation index		
FCI	Free calling area screening index number		
OHQ	Off-hook queuing allowed		
CBQ	Call-back queuing		

☐   printout attached

Incoming trunk exclusion (LD 86)

What this overlay is used for

On overlay 86, the ITGE feature is used to identify the trunks that will block calls that should have been dialed off-network. Exclusion numbers are associated with trunks that route to specific

- numbering plan area codes (NPA)
- exchange codes (NXX)
- special numbers (SPN)
- locations (LOC)

Procedure

At the Meridian 1 terminal, do the following.

Starting Point: You are already logged in, and overlay 86 is loaded. The REQ prompt is displayed.

Step	Action
1	Type **PRT** and press <Enter>. *Result:* The CUST prompt is displayed.
2	Type the customer number and press <Enter>. Obtain the customer number from the NWP-004, "Meridian 1 Network Information—Site Information" form. *Result:* The FEAT prompt is displayed.
3	Type **ITGE** and press <Enter>. *Result:* The ITEI prompt is displayed.
4	Press <Enter> to print all trunk exclusions. *Result:* The information for this data block is printed.
5	Complete the NWP-011, "Meridian 1 Network Information—ITGE Groups" form. An example of the form follows this procedure.
6	Type **** to exit the overlay. *Result:* OVL000 is displayed.
7	Go to "Coordinated Dialing Plan (LD 87)" on page 2-41.

Form example: NWP-011

The following is an example of the NWP-011, "Meridian 1 Network Information—ITGE Groups" form. For instructions on completing the form, see "Completing the Meridian 1 overlay forms" on page 2-26.

Meridian 1 Network Information—ITGE Groups   **NWP-011**

Site or NMS location information   Page ____ of _____

Site or NMS location name:	Site or NMS location number:	Customer number:	Administrator's name:

Incoming trunk exclusion (LD 86, ITGE)
(If necessary, complete and attach additional pages, or attach printout.)

Prompt	Description	Current	Revise to
ITEI	Incoming trunk group exclusion index number		
RTNO	Route number associated with index		
Next index or route			
ITEI	Incoming trunk group exclusion index number		
RTNO	Route number associated with index		
Next index or route			
ITEI	Incoming trunk group exclusion index number		
RTNO	Route number associated with index		
Next index or route			
ITEI	Incoming trunk group exclusion index number		
RTNO	Route number associated with index		
Next index or route			
ITEI	Incoming trunk group exclusion index number		
RTNO	Route number associated with index		
Next index or route			
ITEI	Incoming trunk group exclusion index number		
RTNO	Route number associated with index		
Next index or route			
ITEI	Incoming trunk group exclusion index number		
RTNO	Route number associated with index		
Next index or route			
ITEI	Incoming trunk group exclusion index number		
RTNO	Route number associated with index		

☐ printout attached

Coordinated Dialing Plan (LD 87)

What this overlay is used for

On overlay 87, the CDP feature is used to identify the following:

- the following types of steering codes used by the switch
  - local steering code (identifies that the call is internal, from one user to another user on the same switch)
  - distant steering code (identifies that the call is going to a user on another switch in the private network)
  - trunk steering code (identifies that the call is external; the call is going to a user on a switch in the public network)
- the route lists used by each steering code

  Note: Local steering codes are not associated with route lists.

Procedure

At the Meridian 1 terminal, do the following.

Starting Point: You are already logged in, and are at the > prompt.

Step	Action
1	Type **LD 87** and press <Enter>. ***Result:*** The REQ prompt is displayed.
2	Type **PRT** and press <Enter>. ***Result:*** The CUST prompt is displayed.
3	Type the customer number and press <Enter>. Obtain the customer number from the NWP-004, "Meridian 1 Network Information—Site Information" form. ***Result:*** The FEAT prompt is displayed.
4	Type **CDP** and press <Enter>. ***Result:*** The TYPE prompt is displayed.

Step	Action
5	Type one of the following:
	• **DSC** for distant steering code
	• **LSC** for local steering code
	• **TSC** for trunk steering code
	Note: A response is mandatory; otherwise, the error ESN128 is displayed.
	Result: Your response is repeated on the screen.The information for this data block is printed.
6	Press <Enter>.
	Result: The information for this data block is printed.
7	Repeat steps 2 to 6 for each steering code type.
	Result: The information for the data block is printed.
8	Complete the NWP-007, "Meridian 1 Network Information— CDP Steering Codes" form.
	An example of the form follows this procedure.
9	Go to "Network control (LD 87)" on page 2-44.

Form example: NWP-007

The following is an example of the NWP-007, "Meridian 1 Network Information—CDP Steering Codes" form. For instructions on completing the form, see "Completing the Meridian 1 overlay forms" on page 2-26.

Meridian 1 Network Information—CDP Steering Codes   **NWP-007**

Site or NMS location information   Page _____ of _____

Site or NMS location name:		Site or NMS location number:	Customer number:	Administrator's name:

CDP steering codes (LD 87, CDP)
(If necessary, complete and attach additional pages, or attach printout.)

Prompt	Description	Current	Revise to
LSC	Local steering code		
DMI	Digit manipulation index for local steering code (LSC)		
DEL	Number of digits to be deleted for local steering code (LSC)		
DSC	Distant steering code		
DSP	Display (local steering code and DN)		
RLI	Route list index to be accessed for distant steering code (DSC)		
TSC	Trunk steering code		
FLEN	Flexible length number of digits		
ITOH	Inhibit time-out option		
RLI	Route list index to be accessed for trunk steering code (TSC)		

☐   printout attached

Network control (LD 87)

What this overlay is used for

On overlay 87, the NCTL feature is used to identify the class of service (NCOS) groups used by the switch.

NCOS groups are used to control access to trunks, call queuing, and to provide a caller with an "expensive route" warning tone.

NCOS groups are assigned to each of the following:

- 500/2500 sets
- SL-1 M1000, M2000, and M3000 telephones
- Touchphone
- attendant console
- trunks
- Direct Inward System Access directory number
- authorization code

Procedure

At the Meridian 1 terminal, do the following.

Starting Point: You are already logged in, and overlay 87 is loaded. The REQ prompt is displayed.

Step	Action
1	Type **PRT** and press <Enter>. *Result:* The CUST prompt is displayed.
2	Type the customer number and press <Enter>. Obtain the customer number from the NWP-004, "Meridian 1 Network Information—Site Information" form. *Result:* The FEAT prompt is displayed.
3	Type **NCTL** and press <Enter>. *Result:* The NRNG prompt is displayed.

Step	Action
4	Type **0 99** and press <Enter>. *Result:* The information for this data block is printed.
5	Complete the NWP-009, "Meridian 1 Network Information—NCOS Groups" form. An example of the form follows this procedure.
6	Go to "Free calling area screening (LD 87)" on page 2-47.

Form example: NWP-009

The following is an example of the NWP-009, "Meridian 1 Network Information—NCOS Groups" form. For instructions on completing the form, see "Completing the Meridian 1 overlay forms" on page 2-26.

Meridian 1 Network Information—NCOS Groups   **NWP-009**

Site or NMS location information   Page _____ of _____

Site or NMS location name:	Site or NMS location number:	Customer number:	Administrator's name:

Network Class of Service Groups (LD 87, NCTL)
(If necessary, complete and attach additional pages, or attach printout.)

Prompt	Description	Current	Revise to
NRNG	Network class of service (NCOS) range		
SOHQ	Off-hook queuing option		
OHTL	Off-hook queue time limit		
SCBQ	Call-back queuing option		
CBTL	Call-back queue time limit		
RANE	RAN route number for CBQ to ESN stations		
RANC	RAN route number for CBQ offer to conventional main		
NCOS	Network class of service group number		
FRL	Facility restriction level		
RWTA	Expensive route warning tone		
NSC	Network speed call access allowed		
LIST	List numbers to which system speed call has access		
OHQ	Off-hook queuing eligibility		
CBQ	Call-back queuing eligibility		
ROUT	Call-back queuing on initial routes		
RADT	Route advance timer		
SPRI	Starting priority in CBQ		
MPRI	Maximum priority attainable in CBQ		
PROM	Priority promotion timer		

☐ printout attached

Free calling area screening (LD 87)

What this overlay is used for

On overlay 87, the FCAS feature is used to identify the following for off-network calls:

- area and exchange codes that are to be denied
- area and exchange codes that are to be allowed

Procedure

At the Meridian 1 terminal, do the following.

Starting Point: You are already logged in, and overlay 87 is loaded. The REQ prompt is displayed.

Step	Action
1	Type **PRT** and press <Enter>. *Result:* The CUST prompt is displayed.
2	Type the customer number and press <Enter>. Obtain the customer number from the NWP-004, "Meridian 1 Network Information—Site Information" form. *Result:* The FEAT prompt is displayed.
3	Type **FCAS** and press <Enter>. *Result:* The FCI prompt is displayed.
4	Press <Enter>. *Result:* The information for this data block is printed.
5	Complete the NWP-010, "Meridian 1 Network Information—FCAS Tables" form. An example of the form follows this procedure.
6	Type **** to exit the overlay. *Result:* OVL000 is displayed.
7	Go to "Network translation (LD 90)" on page 2-49.

Form example: NWP-010

The following is an example of the NWP-010, "Meridian 1 Network Information—FCAS Tables" form. For instructions on completing the form, see "Completing the Meridian 1 overlay forms" on page 2-26.

Meridian 1 Network Information—FCAS Tables   **NWP-010**

Site or NMS location information   Page _____ of _____

Site or NMS location name:	Site or NMS location number:	Customer number:	Administrator's name:

Free calling area screening (LD 87, FCAS)
(If necessary, complete and attach additional pages, or attach printout.)

Prompt	Description	Current	Revise to
FCI	Free calling area screening (FCAS) index number		
NPA	Numbering plan area code to be screened		
NXX	Exchange code to be denied or allowed		
DENY	Range of exchange codes to be denied		
ALOW	Range of exchange codes to be allowed		
Next NPA or NXX			
NPA	Numbering plan area code to be screened		
NXX	Exchange code to be denied or allowed		
DENY	Range of exchange codes to be denied		
ALOW	Range of exchange codes to be allowed		
Next NPA or NXX			
NPA	Numbering plan area code to be screened		
NXX	Exchange code to be denied or allowed		
DENY	Range of exchange codes to be denied		
ALOW	Range of exchange codes to be allowed		
Next NPA or NXX			
NPA	Numbering plan area code to be screened		
NXX	Exchange code to be denied or allowed		
DENY	Range of exchange codes to be denied		
ALOW	Range of exchange codes to be allowed		
Next NPA or NXX			
NPA	Numbering plan area code to be screened		
NXX	Exchange code to be denied or allowed		
DENY	Range of exchange codes to be denied		
ALOW	Range of exchange codes to be allowed		

☐   printout attached

Network translation (LD 90)

What this overlay is used for

On overlay 90, the NET feature is used to identify the following:

- location codes for other site
- location code for this site (home location code)
- numbering plan area code
- home numbering plan area code (area code of local switch)
- central office exchange code
- special number translation

Procedure

At the Meridian 1 terminal, do the following.

Starting Point: You are already logged in, and are at the > prompt.

Step	Action
1	Type **LD 90** and press <Enter>. ***Result:*** The REQ prompt is displayed.
2	Type **PRT** and press <Enter>. ***Result:*** The CUST prompt is displayed.
3	Type the customer number and press <Enter>. Obtain the customer number from the NWP-004, "Meridian 1 Network Information—Site Information" form. ***Result:*** The FEAT prompt is displayed.
4	Type **NET** and press <Enter>. ***Result:*** The TRANS prompt is displayed.
5	Type one of the following and press <Enter>. • **AC1** (access code 1) • **AC2** (access code 2) ***Result:*** The TYPE prompt is displayed.
6	Type **ALL** and press <Enter>. ***Result:*** The information for this data block is printed.

Step	Action
7	Record the information on the following Meridian 1 Network Information forms:

- NWP-012, "Network Translation Location Codes"
- NWP-013, "Network Translation Numbering Plan Area Codes"
- NWP-014, "Network Translation Exchange Codes"
- NWP-015, "Network Translation Special Number Translation Codes"
- NWP-016, "Network Translation Home Location and Home Numbering Plan Area Codes"

Examples of these forms follow this procedure. For instructions on completing the forms, see "Completing the Meridian 1 overlay forms" on page 2-26.

Step	Action
8	Type **** to exit the overlay.
	Result: OVL000 is displayed.
9	Go to "Route data block (LD 21)" on page 2-56.

**Form example:
NWP-012**

The following is an example of the NWP-012, "Meridian 1
Network Information—Network Translation Location Codes"
form.

**Meridian 1 Network Information—Network Translation
Location Codes**   **NWP-012**

Site or NMS location information   Page _____ of _____

Site or NMS location name:		Site or NMS location number:	Customer number:	Administrator's name:

Network translation—location codes (LD 90, NET)
(If necessary, complete and attach additional pages, or attach printout.)

Prompt	Description	Current	Revise to
TRAN	Translator (AC1 or AC2)		
TYPE	Type of data block	LOC	LOC
LOC	Location code		
RLI	Route list index		
ITEI	Incoming trunk group exclusion index		
LDN	Listed directory number		
DID	Direct inward dial		
MNXX	Multiple NXX (exchange codes)		
SAVE	Number of trailing digits to save		
OFFC	Office		
RNGE	Range of DID numbers		
RNGE	Range of DID numbers		
OFFC	Office		
RNGE	Range of DID numbers		
RNGE	Range of DID numbers		

☐ printout attached

**Form example:
NWP-013**

The following is an example of the NWP-013, "Meridian 1
Network Information—Network Translation Numbering Plan
Area Codes" form.

Meridian 1 Network Information—Network Translation   **NWP-013**
Numbering Plan Area Codes

Site or NMS location information   Page _____ of _____

Site or NMS location name:	Site or NMS location number:	Customer number:	Administrator's name:

Network translation—NPA codes (LD 90, NET)
(If necessary, complete and attach additional pages, or attach printout.)

Prompt	Description	Current	Revise to
TRAN	Translator (AC1, AC2, or SUM)		
TYPE	Type of data block	NPA	NPA
NPA	Numbering plan area code		
RLI	Route list index		
SDRR	Supplemental digit restriction or recognition		
DENY	Number to be denied within the NPA		
DMI	Digit manipulation index		
LDID	Local DID number to be recognized		
LDDD	Local DDD number to be recognized		
DID	Remote DID number to be recognized		
DDD	Remote DDD number to be recognized		
ITED	Incoming trunk group exclusion digits		
ITEI	Incoming trunk group exclusion index		

☐ printout attached

Form example: NWP-014

The following is an example of the NWP-014, "Meridian 1 Network Information—Network Translation Exchange Codes" form.

Meridian 1 Network Information—Network Translation Exchange Codes   **NWP-014**

Site or NMS location information   Page _____ of _____

Site or NMS location name:	Site or NMS location number:	Customer number:	Administrator's name:

Network translation—NXX codes (LD 90, NET)
(If necessary, complete and attach additional pages, or attach printout.)

Prompt	Description	Current	Revise to
TRAN	Translator (AC1, AC2, or SUM)		
TYPE	Type of data block	NXX	NXX
NXX	Numbering plan exchange code (central office)		
RLI	Route list index		
SDRR	Supplemental digit restriction or recognition		
DENY	Number to be denied within the NXX		
DMI	Digit manipulation index		
LDID	Local DID number to be recognized		
LDDD	Local DDD number to be recognized		
DID	Remote DID number to be recognized		
DDD	Remote DDD number to be recognized		
ITED	Incoming trunk group exclusion digits		
ITEI	Incoming trunk group exclusion index		

☐   printout attached

Form example:
NWP-015

The following is an example of the NWP-015, "Meridian 1
Network Information—Network Translation Special Number
Translation Codes" form.

Meridian 1 Network Information—Network Translation   **NWP-015**
Special Number Translation Codes

Site or NMS location information   Page _____ of _____

Site or NMS location name:	Site or NMS location number:	Customer number:	Administrator's name:

Network translation—SPN codes (LD 90, NET)
(If necessary, complete and attach additional pages, or attach printout.)

Prompt	Description	Current	Revise to
TRAN	Translator (AC1, AC2, or SUM)		
TYPE	Type of data block	SPN	SPN
SPN	Special number translation		
FLEN	Flexible length		
ITOH	Inhibit time-out handler		
RLI	Route list index		
SDRR	Supplemental digit restriction or recognition		
DENY	Number to be denied		
DMI	Digit manipulation index		
LDID	Local DID number to be recognized		
LDDD	Local DDD number to be recognized		
DID	Remote DID number to be recognized		
DDD	Remote DDD number to be recognized		
ITED	Incoming trunk group exclusion digits		

☐   printout attached

Form example:
NWP-016

The following is an example of the NWP-016, "Meridian 1
Network Information—Network Translation Home Location
and Home Numbering Plan Area Codes" form.

Meridian 1 Network Information—Network Translation **NWP-016**
Home Location and Home Numbering Plan Area Codes

Site or NMS location information Page _____ of _____

Site or NMS location name:	Site or NMS location number:	Customer number:	Administrator's name:

Network translation—HLOC codes (LD 90, NET)
(If necessary, complete and attach additional pages, or attach printout.)

Prompt	Description	Current	Revise to
TRAN	Translator (AC1, AC2, or SUM)		
TYPE	Type of data block	HLOC	HLOC
HLOC	Home location code		
DMI	Digit manipulation index		
Next HLOC			
HLOC	Home location code		
DMI	Digit manipulation index		
Next HLOC			
HLOC	Home location code		
DMI	Digit manipulation index		

☐ printout attached

Network translation—HNPA codes (LD 90, NET)
(If necessary, complete and attach additional pages, or attach printout).

Prompt	Description	Current	Revise to
TRAN	Translator (AC1, AC2, or SUM)		
TYPE	Type of data block	HNPA	HNPA
HNPA	Home numbering plan area code		
HNPA	HNPA with 1+ dialing	1	1
Next HNPA			
HNPA	Home numbering plan area code		
HNPA	HNPA with 1+ dialing	1	1
Next HNPA			
HNPA	Home numbering plan area code		
HNPA	HNPA with 1+ dialing	1	1

☐ printout attached

Route data block (LD 21)

What this overlay is used for

Overlay 21 is used to identify the type of trunks that are being used.

Trunks are associated with route lists and routes that are used to complete calls.

Note: Trunks are actually defined on overlay 16.

Printout is required

The route data block contains too much information for you to record manually. Therefore, a hard copy printout is required.

If you are unable to print the route data block yourself, you might want to ask your technical support representative to access your system remotely and print it for you.

Procedure

At the Meridian 1 terminal, do the following.

Starting Point: You are already logged in, and are at the > prompt.

Step	Action
1	Load overlay 21. *Result:* The REQ prompt is displayed.
2	Type **PRT** and press <Enter>. *Result:* The TYPE prompt is displayed.
3	Type **RDB** and press <Enter>. *Result:* The CUST prompt is displayed.
4	Type the customer number and press <Enter>. Obtain the customer number from the NWP-004, "Meridian 1 Network Information—Site Information" form. *Result:* The ROUT prompt is displayed.

Step	Action
5	Press <Enter>. ***Result:*** The ACOD prompt is displayed.
6	Press <Enter>. ***Result:*** The information for this data block is printed.
7	Type **** to exit the overlay. ***Result:*** OVL000 is displayed.

Site numbering plan

Introduction

The last task in gathering ESN information is to identify the numbering plan used on the Meridian 1. This information is obtained by printing the directory number block (DNB) on overlay 20.

Notes:

1. On older releases of Meridian 1 software, you may have to use overlay 22 to print the directory number block.

2. Directory numbers are actually configured by adding telephone sets in either overlay 10 or overlay 11 (depending on telephone set type.)

If you followed the procedures in Section D, "Gathering CDP information from the Meridian 1", and you have gathered the site numbering plan information already, then ignore this topic. You do not have to gather the site numbering plan information again.

Two ways to identify the numbering plan

There are two ways to identify the numbering plan used in the Meridian 1. The method you use is your choice. It may depend on how many directory numbers have been defined on the Meridian 1.

Method 1
Print the entire directory number block (DNB) by using overlay 20.

Method 2
Print only the unused directory numbers by using overlay 20 (available for Release 19 and later).

Procedure

When requesting the entire directory number block, you can

- specify a range of directory numbers, or print the entire directory number block
- filter the directory numbers by date or description
- specify printing on a per-page basis

When requesting unused directory numbers, you can specify a range of directory numbers.

For detailed instructions on both methods, see LD 20 in the *X11 input/output guide* (NTP 553-3001-400).

Recording the information

Most likely, there will be too much information to record manually. Nortel recommends that you print the information (if you can), and attach the printout to the rest of the information you have already gathered.

You can, however, summarize the numbering plan by recording some of the information in the "Used directory numbers" section of the NWP-017, "Meridian 1 Network Information— Site Numbering Plan" form. An example of this form follows.

Form example: NWP-017

The following is an example of the NWP-017, "Meridian 1 Network Information—Site Numbering Plan" form. For instructions on completing the form, see "Completing the Meridian 1 overlay forms" on page 2-26.

Meridian 1 Network Information—Site Numbering Plan   **NWP-017**

Site or NMS location information   Page _____ of _____

Site or NMS location name:	Site or NMS location number:	Customer number:	Administrator's name:

Used directory numbers (LD 20) (If necessary, complete and attach additional pages, or attach printout.)

	Ranges (record all that apply) *Example:* 1550 to 1599				
☐ Starting with 0					
☐ Starting with 1					
☐ Starting with 2					
☐ Starting with 3					
☐ Starting with 4					
☐ Starting with 5					
☐ Starting with 6					
☐ Starting with 7					
☐ Starting with 8					
☐ Starting with 9					

☐ printout attached

Section D Gathering CDP information from the Meridian 1

In this section

Overview of this section

Introduction

This section explains how to identify if the Meridian 1 is using a stand-alone coordinated dialing plan (CDP).

Note: For instructions on how to identify if CDP has been implemented as part of ESN, see Section C, "Gathering ESN information from the Meridian 1".

How information is gathered

Gathering information for CDP is done by printing (and manually recording, if applicable) information from the following:

- the following data blocks on overlay 86
    — Route List Index (RLB)
    — Digit Manipulation Index (DMI)
    — ESN data block (ESN)
- the following data blocks on overlay 87
    — Coordinated dialing plan (CDP)
    — Network control (NCTL)
- overlay 21, Route Data Block (RDB)
- overlay 20, Directory Number Block (DNB)

The information from each overlay can be

- manually recorded on a data entry form
- printed directly to a printer

Instructions for completing the forms are provided in Section B, "Recording Meridian 1 information". An example of each form is provided in this section with each overlay procedure.

When you can skip this section

If you know for certain that you are not using CDP on the Meridian 1, then you may skip this section.

What this information is used for   The information on these forms is used

- to determine if the dialing plan on one Meridian 1 is compatible with the dialing plans on other Meridian 1s in the network

  If they are not compatible, then you will need to make changes.

- when defining local and remote sites in Meridian Mail

What is in this section   This section contains the following:

- detailed instructions for obtaining information from overlays on the Meridian 1

  In some cases, the same overlays but different feature data blocks are used to access information. For efficiency's sake, the procedures are sequenced so that you gather all information from one overlay before proceeding to the next overlay. You will not have to load the same overlay again and again.

- examples of information-gathering forms

Where to get more information   If you need more information about CDP features, see the following documents:

- *Coordinated Dialing Plan description* (NTP 553-2751-102)
- if CDP is implemented as part of ESN:
  - *Electronic Switched Network description* (NTP 309-3001-100)
  - *Basic and Network Alternate Route Selection description* (NTP 553-2751-100)
- *X11 input/output guide* (NTP 553-3001-400)

Coordinated Dialing Plan (LD 87)

What this overlay is used for

On overlay 87, the CDP feature is used to identify the following:

- the following types of steering codes used by the switch
    - local steering code (identifies that the call is internal, from one user to another user on the same switch)
    - distant steering code (identifies that the call is going to a user on another switch in the private network)
    - trunk steering code (identifies that the call is external; the call is going to a user on a switch in the public network)
- route lists used by each steering code

    Note: Local steering codes are not associated with route lists.

Procedure

At the Meridian 1 terminal, do the following.

Starting Point: You are already logged in, and are at the > prompt.

Step	Action
1	Type **LD 87** and press <Enter>. *Result:* The REQ prompt is displayed.
2	Type **PRT** and press <Enter>. *Result:* The CUST prompt is displayed.
3	Type the customer number and press <Enter>. Obtain the customer number from the NWP-004, "Meridian 1 Network Information—Site Information" form. *Result:* The FEAT prompt is displayed.
4	Type **CDP** and press <Enter>. *Result:* The TYPE prompt is displayed.

Step	Action
5	Type one of the following: • **DSC** for distant steering code • **LSC** for local steering code • **TSC** for trunk steering code ***Note:*** A response is mandatory; otherwise, the error ESN128 is displayed. ***Result:*** Your response is repeated on the screen.
6	Press <Enter>. ***Result:*** The information for this data block is printed.
7	Repeat steps 2 to 6 for each steering code type. ***Result:*** The information for the data block is printed.
8	Complete the NWP-007, "Meridian 1 Network Information—CDP Steering Codes" form. An example of the form follows this procedure.
9	Go to "Network control (LD 87)" on page 2-67.

Form example: NWP-007

The following is an example of the NWP-007, "Meridian 1 Network Information—CDP Steering Codes" form. For instructions on completing the form, see "Completing the Meridian 1 overlay forms" on page 2-26.

Meridian 1 Network Information—CDP Steering Codes   **NWP-007**

Site or NMS location information   Page _____ of _____

Site or NMS location name:	Site or NMS location number:	Customer number:	Administrator's name:

CDP steering codes (LD 87, CDP)
(If necessary, complete and attach additional pages, or attach printout.)

Prompt	Description	Current	Revise to
LSC	Local steering code		
DMI	Digit manipulation index for local steering code (LSC)		
DEL	Number of digits to be deleted for local steering code (LSC)		
DSC	Distant steering code		
DSP	Display (local steering code and DN)		
RLI	Route list index to be accessed for distant steering code (DSC)		
TSC	Trunk steering code		
FLEN	Flexible length number of digits		
ITOH	Inhibit time-out option		
RLI	Route list index to be accessed for trunk steering code (TSC)		

☐   printout attached

Network control (LD 87)

What this overlay is used for

On overlay 87, the NCTL feature is used to identify the class of service (NCOS) groups used by the switch.

NCOS groups are used to control access to trunks, call queuing, and to provide a caller with an "expensive route" warning tone.

Procedure

At the Meridian 1 terminal, do the following.

Starting Point: You are already logged in, and overlay 87 is loaded. The REQ prompt is displayed.

Step	Action
1	Type **PRT** and press <Enter>. *Result:* The CUST prompt is displayed.
2	Type the customer number and press <Enter>. Obtain the customer number from the NWP-004, " Meridian 1 Network Information—Site Information" form. *Result:* The FEAT prompt is displayed.
3	Type **NCTL** and press <Enter>. *Result:* The NRNG prompt is displayed.
4	Type **0 99** and press <Enter>. *Result:* The information for this data block is printed.
5	Complete the NWP-009, "Meridian 1 Network Information— NCOS Groups" form. An example of the form follows this procedure.
6	Type **** to exit the overlay. *Result:* OVL000 is displayed.
7	Go to "Route list index (LD 86)" on page 2-69.

Form example:
NWP-009

The following is an example of the NWP-009, "Meridian 1 Network Information—NCOS Groups" form. For instructions on completing the form, see "Completing the Meridian 1 overlay forms" on page 2-26.

Meridian 1 Network Information—NCOS Groups   **NWP-009**

Site or NMS location information   Page _____ of _____

Site or NMS location name:	Site or NMS location number:	Customer number:	Administrator's name:

Network Class of Service Groups (LD 87, NCTL)
(If necessary, complete and attach additional pages, or attach printout.)

Prompt	Description	Current	Revise to
NRNG	Network class of service (NCOS) range		
SOHQ	Off-hook queuing option		
OHTL	Off-hook queue time limit		
SCBQ	Call-back queuing option		
CBTL	Call-back queue time limit		
RANE	RAN route number for CBQ to ESN stations		
RANC	RAN route number for CBQ offer to conventional main		
NCOS	Network class of service group number		
FRL	Facility restriction level		
RWTA	Expensive route warning tone		
NSC	Network speed call access allowed		
LIST	List numbers to which system speed call has access		
OHQ	Off-hook queuing eligibility		
CBQ	Call-back queuing eligibility		
ROUT	Call-back queuing on initial routes		
RADT	Route advance timer		
SPRI	Starting priority in CBQ		
MPRI	Maximum priority attainable in CBQ		
PROM	Priority promotion timer		

☐ printout attached

Route list index (LD 86)

What this overlay is used for

On overlay 86, the RLB feature is used to identify the route lists (and their associated route numbers) that are being used by the switch.

Route lists are associated with each Distant Steering Code (DSC) and Trunk Steering Code (TSC) that can be dialed at a switch.

Procedure

At the Meridian 1 terminal, do the following.

Starting Point: You are already logged in, and are at the > prompt.

Step	Action
1	Type **LD 86** and press <Enter>. *Result:* The REQ prompt is displayed.
2	Type **PRT** and press <Enter>. *Result:* The CUST prompt is displayed.
3	Type the customer number and press <Enter>. Obtain the customer number from the NWP-004, "Meridian 1 Network Information—Site Information" form. *Result:* The FEAT prompt is displayed.
4	Type **RLB** and press <Enter>. *Result:* The RLI prompt is displayed.
5	Press <Enter> to print all route lists. *Result:* The information for this data block is printed.
6	Complete the NWP-008, "Meridian 1 Network Information—Route List Index" form. An example of the form follows this procedure.
7	Go to "Digit manipulation index (LD 86)" on page 2-71.

Form example:
NWP-008

The following is an example of the NWP-008, "Meridian 1 Network Information—Route List Index" form. For instructions on completing the form, see "Completing the Meridian 1 overlay forms" on page 2-26.

Meridian 1 Network Information—Route List Index   **NWP-008**

Site or NMS location information   Page ____ of _____

Site or NMS location name:	Site or NMS location number:	Customer number:	Administrator's name:

Route list index (LD 86, RLB)
(If necessary, complete and attach additional pages, or attach printout.)

Prompt	Description	Current	Revise to
RLI	Route list index to be accessed		
ENTR	Entry number for NARS/BARS route list		
LTER	Local termination entry		
ROUT	Route number		
TOD	Time-of-day schedule	0 _____ 1 _____ 2 _____ 3 _____ 4 _____ 5 _____ 6 _____ 7 _____	0 _____ 1 _____ 2 _____ 3 _____ 4 _____ 5 _____ 6 _____ 7 _____
CNV	Conversion to listed directory number (LDN)		
EXP	Expensive route		
FRL	Facility restriction level		
DMI	Digit manipulation index		
ISDM	ISL D-channel down digit manipulation index		
FCI	Free calling area screening index number		
OHQ	Off-hook queuing allowed		
CBQ	Call-back queuing		

☐   printout attached

Digit manipulation index (LD 86)

What this overlay is used for

On overlay 86, the DGT feature is used to identify the digit manipulation tables that are being used.

Digit manipulation tables are used to define

- how many leading digits of a dialed CDP DN will be deleted
- what digits will be inserted before the dialed CPD DN

    Up to 24 different digits, including the asterisk (*) to indicate a dialing pause where required, can be inserted.

Procedure

At the Meridian 1 terminal, do the following.

Starting Point: You are already logged in, and overlay 86 is loaded. The REQ prompt is displayed.

Step	Action
1	Type **PRT** and press <Enter>. *Result:* The CUST prompt is displayed.
2	Type the customer number and press <Enter>. Obtain the customer number from the NWP-004, "Meridian 1 Network Information—Site Information" form. *Result:* The FEAT prompt is displayed.
3	Type **DGT** and press <Enter>. *Result:* The DMI prompt is displayed.
4	Press <Enter>. *Result:* The information for this data block is printed.
5	Complete the NWP-006, "Meridian 1 Network Information—Digit Manipulation Tables" form. An example of the form follows this procedure.
6	Go to "ESN data block (LD 86)" on page 2-73.

Form example: NWP-006

The following is an example of the NWP-006, "Meridian 1 Network Information—Digit Manipulation Tables" form. For instructions on completing the form, see "Completing the Meridian 1 overlay forms" on page 2-26.

Meridian 1 Network Information—Digit Manipulation Tables   **NWP-006**

Site or NMS location information   Page _____ of _____

Site or NMS location name:	Site or NMS location number:	Customer number:	Administrator's name:

Digit manipulation tables (LD 86, DGT)
(If necessary, complete and attach additional pages, or attach printout.)

Prompt	Description	Current	Revise to
DMI	Digit manipulation index number		
DEL	Number of leading digits to be deleted		
INST	Insert		
SCCI	Special Common Carrier index into the SCC data table		
CTYP	Call type to be used by the manipulated digits (INTL, NPA, NXX, LOC, CDP, SPN, UKWN)		
Next DMI			
DMI	Digit manipulation index number		
DEL	Number of leading digits to be deleted		
INST	Insert		
SCCI	Special Common Carrier index into the SCC data table		
CTYP	Call type to be used by the manipulated digits (INTL, NPA, NXX, LOC, CDP, SPN, UKWN)		
Next DMI			
DMI	Digit manipulation index number		
DEL	Number of leading digits to be deleted		
INST	Insert		
SCCI	Special Common Carrier index into the SCC data table		
CTYP	Call type to be used by the manipulated digits (INTL, NPA, NXX, LOC, CDP, SPN, UKWN)		
Next DMI			
DMI	Digit manipulation index number		
DEL	Number of leading digits to be deleted		
INST	Insert		
SCCI	Special Common Carrier index into the SCC data table		
CTYP	Call type to be used by the manipulated digits (INTL, NPA, NXX, LOC, CDP, SPN, UKWN)		

☐ printout attached

ESN data block (LD 86)

What this overlay is used for

On overlay 86, the ESN feature is used to identify

- the number of digits used in the coordinated dialing plan
- the maximum number of digit manipulation tables, route lists, and steering codes that can be defined

Procedure

At the Meridian 1 terminal, do the following.

Starting Point: You are already logged in, and overlay 86 is loaded. The REQ prompt is displayed.

Step	Action
1	Type **PRT** and press <Enter>. ***Result:*** The CUST prompt is displayed.
2	Type the customer number and press <Enter>. Obtain the customer number from the NWP-004, "Meridian 1 Network Information—Site Information" form. ***Result:*** The FEAT prompt is displayed.
3	Type **ESN** and press <Enter>. ***Result:*** The information for this data block is printed.
4	Complete the NWP-005, "Meridian 1 Network Information—ESN Data Block" form. An example of the form follows this procedure.
5	Type ******** to exit the overlay. ***Result:*** OVL000 is displayed.
6	Go to "Route data block (LD 21)" on page 2-75.

**Form example:
NWP-005**

The following is an example of the NWP-005, "Meridian 1
Network Information—ESN Data Block" form. For instructions
on completing the form, see "Completing the Meridian 1
overlay forms" on page 2-26.

Meridian 1 Network Information—ESN Data Block   **NWP-005**

Site or NMS location information   Page ____ of _____

Site or NMS location name:	Site or NMS location number:	Customer number:	Administrator's name:

ESN data block (LD 86, ESN) (If necessary, complete and attach additional pages, or attach printout.)

Prompt	Description	Current	Revise to
MXLC	Maximum number of location codes		
MXSD	Maximum number of Supplemental Digit Restriction blocks		
MXIX	Maximum number of incoming trunk group exclusion tables		
MXDM	Maximum number of digit manipulation tables		
MXRL	Maximum number of route lists		
MXFC	Maximum number of free calling area screening tables		
CDP	Coordinated dialing plan is implemented for this customer		
MXSC	Maximum number of steering codes		
NCDP	Maximum number of digits in CDP DNs		
MSCC	Maximum number of Special Common Carrier entries		
AC1	NARS/BARS access code 1		
AC2	NARS/BARS access code 2		
DLTN	NARS/BARS dial tone after AC1 or AC2		
ERWT	Expensive route warning tone		
ERDT	Expensive route delay time		
TODS	Time-of-day schedules	0 ____to ____ 1 ____to ____ 2 ____to ____ 3 ____to ____ 4 ____to ____ 5 ____to ____ 6 ____to ____ 7 ____to ____	0 ____to ____ 1 ____to ____ 2 ____to ____ 3 ____to ____ 4 ____to ____ 5 ____to ____ 6 ____to ____ 7 ____to ____
RTCL	Routing controls		
NMAP	Network class of service (NCOS) map		
ETOD	Extended Time-of-day schedule		
TGAR	Check for trunk group access restrictions		

☐   printout attached

Route data block (LD 21)

What this overlay is used for

Overlay 21 is used to identify the type of trunks that are being used.

Note: Trunks are actually defined on overlay 16.

Printout is required

The route data block contains too much information for you to record manually. Therefore, a hard copy printout is required.

If you are unable to print the route data block yourself, you might want to ask your technical support representative to access your system remotely and print it for you.

Procedure

At the Meridian 1 terminal, do the following.

Starting Point: You are already logged in, and are at the > prompt.

Step	Action
1	Load overlay 21. *Result:* The REQ prompt is displayed.
2	Type **PRT** and press <Enter>. *Result:* The TYPE prompt is displayed.
3	Type **RDB** and press <Enter>. *Result:* The CUST prompt is displayed.
4	Type the customer number and press <Enter>. Obtain the customer number from the NWP-004, "Meridian 1 Network Information—Site Information" form. *Result:* The ROUT prompt is displayed.
5	Do you want to view a specific route? If yes, then type the route number you obtained from overlay 86, RLB feature. If no, then press <Enter> to print all routes. *Result:* The information for this data block is printed.
6	Type ******** to exit the overlay.
7	Go to "Site numbering plan" on page 2-76.

Site numbering plan

Introduction

The last task in gathering CDP information is to identify the numbering plan used on the Meridian 1. This information is obtained by printing the directory number block (DNB) on overlay 20.

Notes:

1. On older releases of Meridian 1 software, you may have to use overlay 22 to print the directory number block.

2. Directory numbers are actually configured by adding telephone sets in either overlay 10 or overlay 11 (depending on telephone set type).

If you followed the procedures in Section C, "Gathering ESN information from the Meridian 1," and have gathered the site numbering plan information already, then ignore this topic. You do not have to gather the site numbering plan information again.

Two ways to identify the numbering plan

There are two ways to identify the numbering plan used in the Meridian 1. The method you use is your choice.

It may depend on how many directory numbers have been defined on the Meridian 1.

Method 1
Print the entire directory number block (DNB) by using overlay 20.

Method 2
Print only the unused directory numbers by using overlay 20 (available for Release 19 and later).

Procedure

When requesting the entire directory number block, you can

- specify a range of directory numbers, or print the entire directory number block
- filter the directory numbers by date or description
- specify printing on a per-page basis

When requesting unused directory numbers, you can specify a range of directory numbers.

For detailed instructions on both methods, see LD 20 in the *X11 input/output guide* (NTP 553-3001-400).

Recording the information

Most likely, there will be too much information to record manually. Nortel recommends that you print the information (if you can), and attach the printout to the rest of the information you have already gathered.

You can, however, summarize the numbering plan by recording some of the information in the "Used directory numbers" section of the NWP-017, "Meridian 1 Network Information— Site Numbering Plan" form. An example of this form follows.

Form example:
NWP-017

The following is an example of the NWP-017, "Meridian 1 Network Information—Site Numbering Plan" form. For instructions on completing the form, see "Completing the Meridian 1 overlay forms" on page 2-26.

Meridian 1 Network Information—Site Numbering Plan   **NWP-017**

Site or NMS location information   Page _____ of _____

Site or NMS location name:	Site or NMS location number:	Customer number:	Administrator's name:

Used directory numbers (LD 20) (If necessary, complete and attach additional pages, or attach printout.)

	Ranges (record all that apply) *Example:* 1550 to 1599				
☐ Starting with 0					
☐ Starting with 1					
☐ Starting with 2					
☐ Starting with 3					
☐ Starting with 4					
☐ Starting with 5					
☐ Starting with 6					
☐ Starting with 7					
☐ Starting with 8					
☐ Starting with 9					

☐ printout attached

Section E Identifying the hardware and software requirements

In this section

Overview of this section

Introduction   This section explains how to evaluate the information you
                          gathered from each switch in the network.

                          The evaluation process consists of the following steps:

                          •   drawing a network diagram that will help you to
                                 —   identify any dialing plan conflicts
                                 —   visualize your network
                          •   comparing the information for all sites, in order to identify
                              conflicts

                          These two steps will help you to determine if changes are
                          required to the configuration of each Meridian 1 in the network.

Identifying other   Before you proceed with the implementation of Virtual Node
requirements   AMIS, it is recommended that you read the *Networking
                          Planning Guide* (NTP 555-7001-241). This NTP provides
                          information about

                          •   what hardware is required for the network
                          •   what software packages are required on the switch
                          •   hardware spares planning

                          Other documents you may want to refer to are

                          •   *Site and Installation Planning Guide* for your Meridian
                              Mail system
                                 —   for Modular Option: NTP 555-7041-200
                                 —   for Modular Option GP: NTP 555-7051-200
                                 —   for Modular Option EC: NTP 555-7061-200
                          •   *MSM Planning and Engineering Guide*
                              (NTP 557-7001-100)

                          Note: There are no planning guides for the following platforms:

                          •   Card Option
                          •   EC11

Drawing a diagram of the network

Introduction

This topic explains how to use the information recorded on the Meridian 1 network information forms (and your notes) to create a diagram of the network.

Why a diagram is required

The diagram will help you to identify, at a glance, any conflicts in dialing plans. It will also help you to visualize the network.

Before you begin

Before you can draw a diagram of the network, you need to gather together the files for all sites including

- any notes taken through the gathering process
- Meridian 1 Network Information forms (NWP-004 through NWP-017)

For examples of what your completed diagram should look like, see "Examples of network diagrams" on page 2-83.

Procedure

To draw a diagram of the network, refer to the Meridian 1 network information forms for each site and do the following.

Step	Action
1	Draw a rectangle that represents each site.
2	Label each site with its site number and name (and customer number if it is not 0). Refer to the NWP-004, "Meridian 1 Network Information—Site Information" form.
3	Beside each site, draw a rectangle that represents the Meridian Mail system to which the site is connected. ***Note:*** If the site is not directly connected to a Meridian Mail system, then indicate this on the diagram.
4	Connect the site and Meridian Mail system with seven lines. The seven lines represent the voice ports and help distinguish the Meridian Mail system from switches in the network.

Step	Action
5	Record the following on each site (only those that apply):

- local steering codes
  Refer to LSC on the NWP-007, "CDP Steering Codes" form
  (LD 87, CDP).
- home location codes
  Refer to HLOC on the NWP-016, "Network Translation
  Home Location and Home Numbering Plan Area Codes"
  form (LD 90, NET).
- numbering plan
  Refer to the NWP-017, "Site Numbering Plan" form (LD 20,
  DNB).

| 6 | Record beside each site the access code used to reach other sites. |

Access codes can be one or more of the following:

- ESN access code
  Refer to AC1 and AC2 on the NWP-005, "ESN Data Block"
  form (LD 86, ESN).
- location code
  Refer to LOC on the NWP-012, "Network Translation
  Location Codes" form (LD 90, NET).
- distant steering code
  Refer to DSC on the NWP-007, "CDP Steering Codes" form
  (LD 87, CDP)
- public network access (for example, 9)

| 7 | Draw an arrow beside each access code. |

The arrow identifies the direction in which calls are going.

| 8 | Connect sites with lines that represent the trunks used. |

Step	Action

9   Label each trunk connection with the route number.

Refer to the following forms.

IF	THEN refer to
CDP is being used	• RLI for DSC on the NWP-007, "CDP Steering Codes" form (LD 87, CDP) • route number (for RLI) on the NWP-008, "Route List Index" form (LD 86, RLB)
ESN is being used	• RLI on forms NWP-012 through NWP-015 (LD 90, NET) • route number (for RLI) on the NWP-008, "Route List Index" form (LD 86, RLB)

10   Label the trunk connection with the trunk type.

Refer to the TYPE prompt for the route number on your LD 21, RDB printout.

11   The next step is to review both the diagram and the information for each site, to determine if there are any dialing plan conflicts.

Examples of network diagrams

Introduction
This topic shows five examples of what the customer's network diagram should look like. The following types of networks are portrayed:

- typical ESN network
- an ESN network using Network Message Service
- typical CDP network
- hybrid network (a combination of CDP and ESN)
- network with no dialing plan

Example of a typical ESN network

The following diagram shows an example of a typical ESN network. For interpretation, see the description that follows.
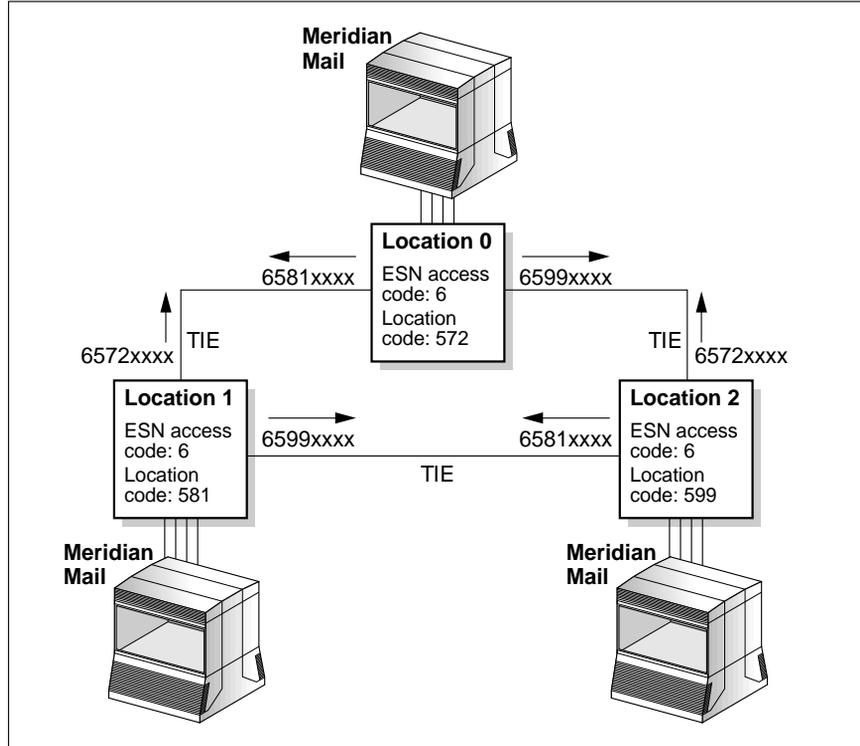
G100411

Description: typical ESN network

In this diagram, users at each location dial users at other locations with the following:

ESN access code 6 + location code + user's extension number

For example, to reach a user at location 1, a user at any other location dials 6-572-xxxx (where xxxx is the user's extension).

Example of an ESN network using Network Message Service

The following diagram shows an example of a network that contains a site performing as a message center. For interpretation, see the description that follows.
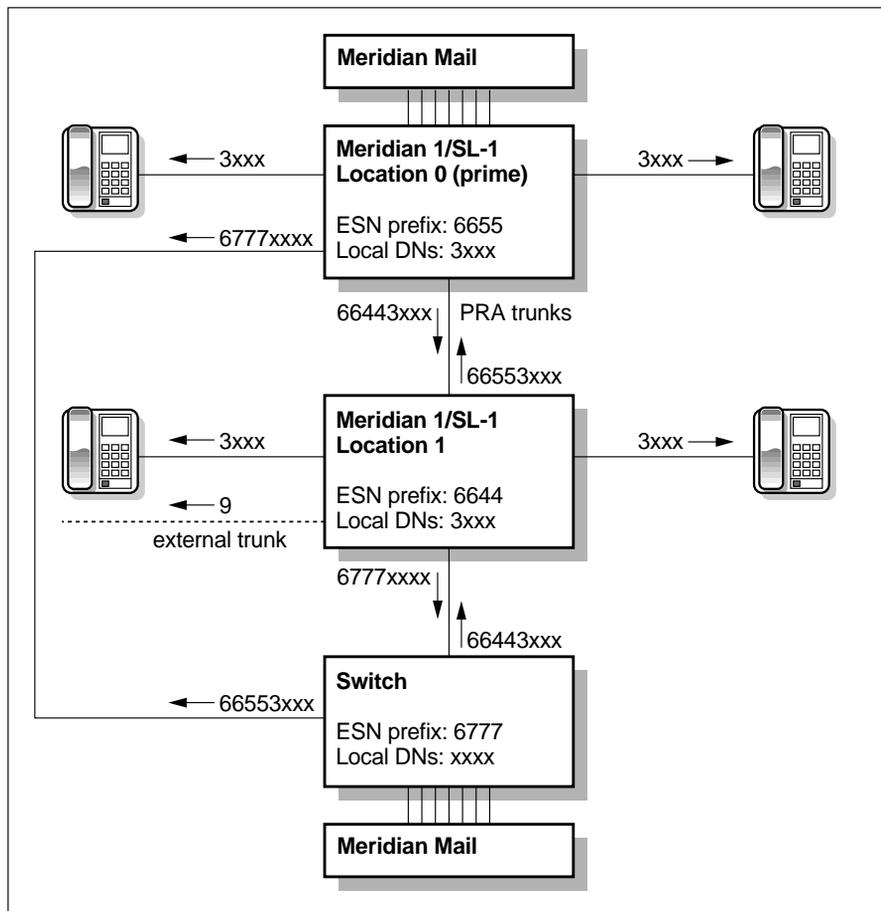
G100320

**Description:
ESN network using
Network Message
Service**

In this diagram, location 0 (the prime location) is the message center providing messaging services to location 1 (the satellite location). Both locations use ESN to reach the other.

Example 1: Location 0 dials location 1 with 66443XXX.

The ESN prefix is 6, the location number is 644, and the extension number starts with 3.

Example 2: Location 1 dials location 0 with 66553XXX.

The ESN prefix is 6, the location number is 655, and the extension number also starts with 3.

**Example of a typical
CDP network**

The following diagram shows an example of a typical CDP network. For interpretation, see the description that follows.
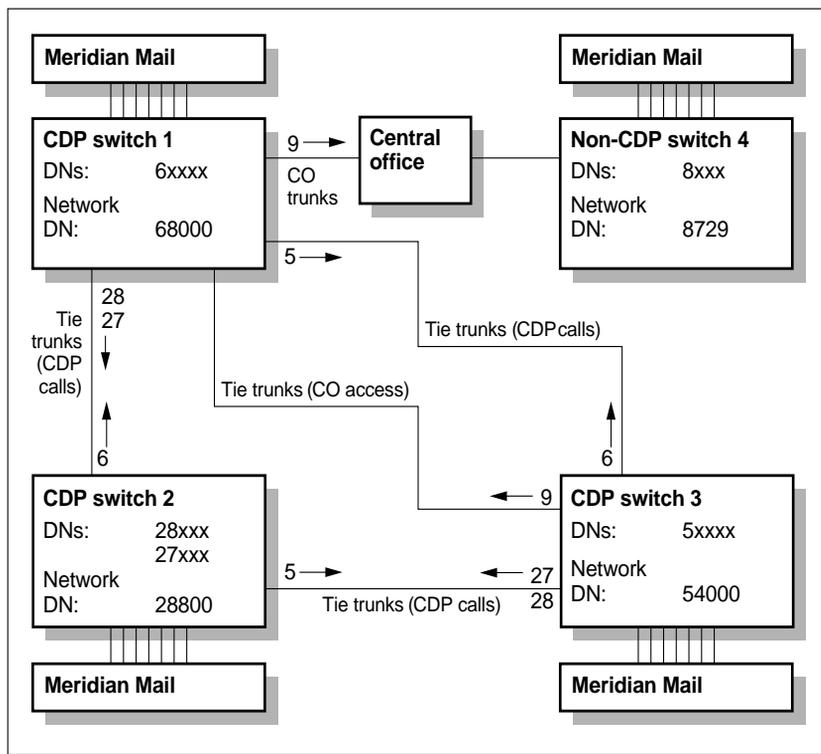
G100362

Description:
typical CDP network

In this diagram, the extensions at site 1 are numbered 60000 to 69999; the steering code is 6.

The extensions at site 2 are numbered 27000 to 28999; the steering codes are 27 and 28.

The extensions at site 3 are numbered 50000 to 59999; the steering code is 5.

Regardless of where the user placing the call is located, the same extension DN (for example, 27341) is dialed to reach the user at site 2. Therefore, users do not need to prefix remote mailbox numbers with additional codes because the first digit (or first two digits) in the DN is the steering code which identifies the site within the network.

This diagram also shows that switch 1 is arranged to provide centralized access to the public telephone network.

So that users at switch 3 can access the public telephone network, a separate tie trunk route is provided to switch 1. This tie trunk route is defined to insert the digit 9 on incoming calls from switch 3.

Note: A tie trunk has already been defined to handle CDP calls between switch 1 and switch 3.

Example of a hybrid
network

For simplicity, a description of the most direct dialing between each location follows. There are alternate routes using tandem switches. With tandem switches configured, routing restriction needs to be provisioned to prevent steering codes from looping back to the originating switch on facilities other than ISDN.

Example of a hybrid network (continued)   The following diagram shows an example of a network that uses both CDP and ESN.
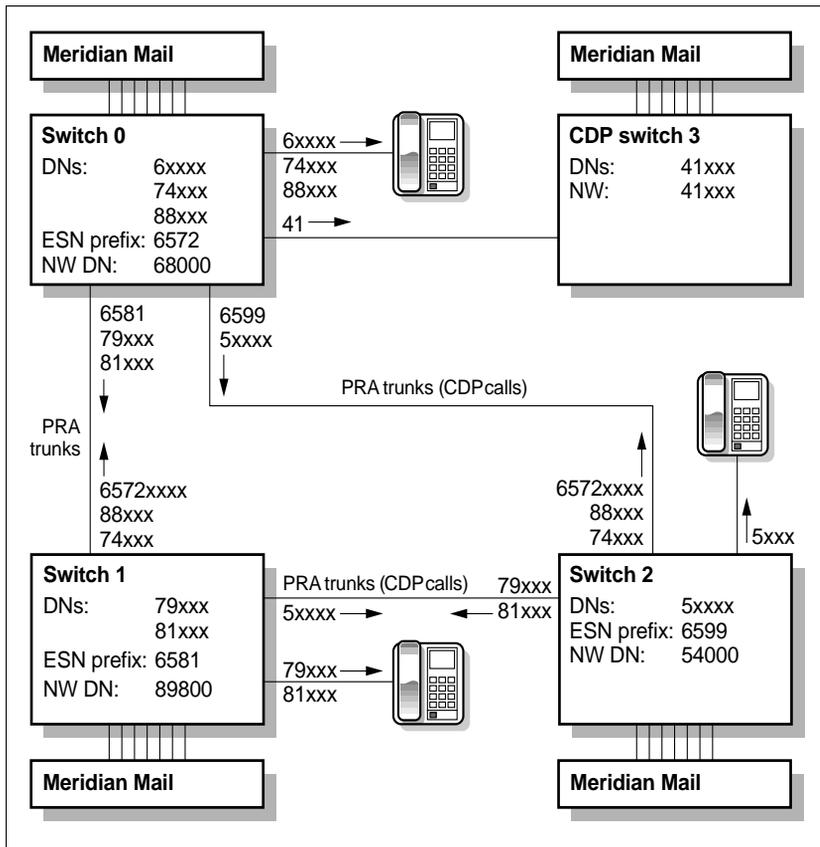
G100361

Description: **hybrid network**	In this diagram, locations 0, 1, and 2 support both ESN and CDP; location 3 supports CDP only. The dialing between each location is described in the following table.

This location	dials location
0	1 with • 6581XXXXX using ESN. The ESN location code of location 1 is 581. • 79XXX, 81XXX, and 8XXXX using CDP. The distant steering codes are 79, 81, and 8 respectively.
	2 with • 6599XXXXX using ESN. The ESN location code of location 2 is 599. • 5XXXX using CDP. The distant steering code is 5.
	3 with 41XXX using CDP. The distant steering code is 41.
1	0 with • 6572XXXXX with ESN. The ESN location code of location 0 is 572. • 74XXX and 88XXX using CDP. The distant steering codes are 74 and 88 respectively.
	2 with • 6599XXXXX using ESN. The ESN location code of location 2 is 599. • 5XXXX using CDP. The distant steering code is 5.
	3 with 41XXX using CDP. The distant steering code is 41.
2	0 with • 6572XXXXX with ESN. The ESN location code of location 0 is 572. • 74XXX and 88XXX using CDP. The distant steering codes are 74 and 88 respectively.
	1 with • 6581XXXXX using ESN. The ESN location code of location 1 is 581. • 79XXX and 81XXX using CDP. The distant steering codes are 79 and 81 respectively.
	3 with 41XXX using CDP. The distant steering code is 41.

This location	dials location
3	0 with 74XXX and 88XXX using CDP. The distant steering codes are 74 and 88 respectively.
	1 with 79XXX and 81XXX using CDP. The distant steering codes are 79 and 81respectively.
	2 with 5XXXX using CDP. The distant steering code is 5.

Example of a network with no dialing plan   The following diagram shows an example of a network that has no dialing plan. For interpretation, see the description that follows.
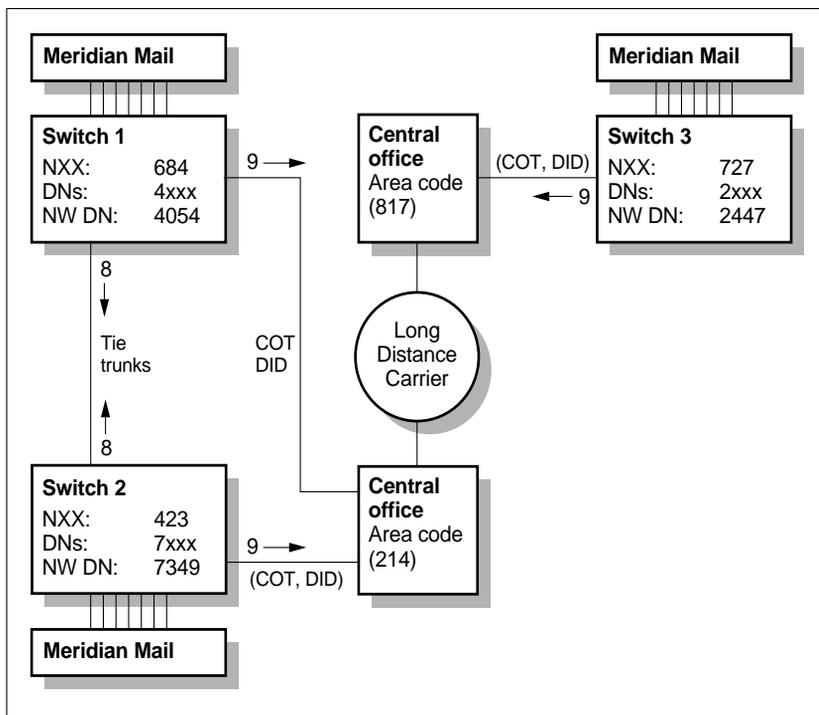
G100363

**Description:
network with no
dialing plan**

When there is no dialing plan (in Meridian Mail, this is referred
to as None), sites may be configured to use different dialing
prefixes to reach a specific remote site. However, Meridian
Mail will not be able to represent the numbering plan.

A tie-line is an example of a network with no coordinated
dialing plan. In this case, a mailbox prefix should be entered to
allow users to compose to mailboxes at this remote site, as the
mailbox numbering plan will be independent of the dialing plan.

Where there is no specified dialing plan, Meridian Mail is
required to enter the trunk access code followed by

- for long distance calls: NPA + NXX + XXXX
- for local calls: NXX + XXXX
- for tie line calls: XXXX

A provision must be made for this format when entering
network connection DNs for remote sites.

**Example of another
network with no
dialing plan**

The following diagram shows another network with no dialing
plan. In this network, each site uses the same extension DNS.
The exchange code makes each site in the network unique.

Note: The mailbox DNs at both sites are the same at each site.
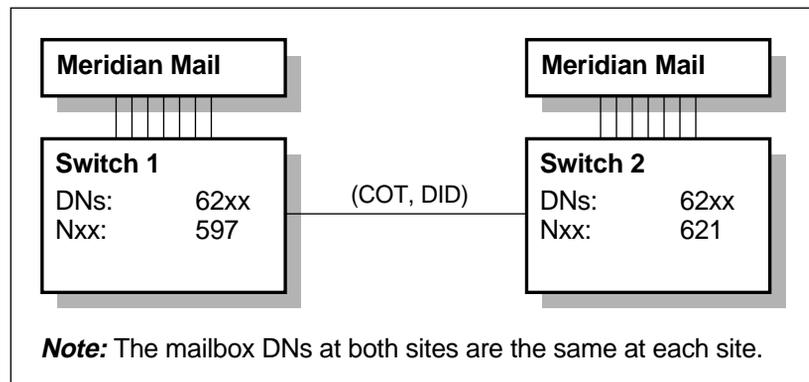
G100473

Identifying the changes required for Meridian 1 configuration

Introduction

When you have the dialing plan information from all Meridian 1s in the network, you need to review it to determine if configuration changes are required.

Skills required

Dialing plan configuration on the switch is a complex task, which requires extensive experience in programming the switch.

If you do not have the required expertise and knowledge, then request the assistance of a switch technician. Switch technicians understand how switches work, and the impacts, when information is incorrect or incompatible.

Mandatory requirement

Dialing plans across all Meridian 1s in the network must be standardized in order to implement a working network.

Where to get more information

Refer to the following documents for detailed information:

- *Coordinated Dialing Plan description* (NTP 553-2751-102)

- *Electronic Switched Network Description* (NTP 309-3001-100)

- *Basic and Network Alternate Route Selection description* (NTP 553-2751-100)

- *X11 input/output guide* (NTP 553-3001-400) for descriptions and suggested responses to Meridian 1 prompts

Evaluating CDP information

The following table lists only some of the things that should be checked when reviewing CDP information. Use your personal knowledge and experience to think of others.

These are the rules	Check for these conditions
Steering codes must be unique on each switch.	Are any steering codes duplicated on two or more switches?
CDP DNs must be unique on each switch. The CDP DN consists of the steering code and internal directory numbers.	Are any CDP DNs duplicated across two or more switches?
The length of CDP DNs is defined on LD 86, ESN data block (NCDP) and should be defined to the length that is required to process calls to each location.	• Will an insufficient length (too short) cause calls to other locations to be blocked? • Nortel strongly recommends that NCDP be defined as the same length on all Meridian 1s in the network. *Example:* If the maximum length is specified as 4 at one site, then the length should be 4 at all sites. If the CDP DNs are the same length for all sites, the network will be easier to support and maintain. As a result, you will save money.
Time-of-day schedules restrict calls to specific times.	Will the Meridian 1 time-of-day schedules conflict with planned Meridian Mail network scheduling parameters?
Route lists and routes determine which trunks will be used to process a call.	• Will the route list and route block calls that should not be blocked? • Have the most cost-effective routes been defined in route lists for steering codes?
Digits in steering codes and directory numbers may overlap.	Do any of the leading digits of user extensions conflict with any steering codes? • The Meridian 1 technician must be informed. • You need to know what the overlap is for Meridian Mail configuration.

These are the rules	Check for these conditions
Steering codes should be kept as simple and as short as possible. It takes longer for the system to recognize a 5-digit number than a 2-digit number; therefore it takes longer for the system to determine where the call should go.	Are any steering codes more than one or two digits in length?

Evaluating ESN information

The following table lists only some of the things that should be checked when reviewing ESN information. Use your personal knowledge and experience to think of others.

These are the rules	Check for these conditions
Location codes must be unique.	• Do multiple locations use the same location code? Include the home location code (HLOC) in your evaluation. • Are any location codes the same as the numbering plan area codes used in 1+ dialing?
Digit manipulation tables specify how many digits are to be inserted or deleted.	Will the insertion or deletion of digits convert the dialed number into a format that cannot be dialed by trunks at any site (including the local site)? *Note:* Digit manipulation is not supported for Network Message Service locations.
Time-of-day schedules restrict calls to specific times.	Will the Meridian 1 time-of-day schedules conflict with planned Meridian Mail network scheduling parameters?
FCAS tables restrict users from dialing to specific area or exchange codes.	Will any of the restricted area or exchange codes be required by network users?
Route lists and routes determine which trunks will be used to process calls.	• Will the route lists and routes block calls that shouldn't be blocked? • Have the most cost-effective routes been defined in route lists for the following? — LOC — NPA — NXX — SPN

Engineering guidelines

Identifying other requirements

Before you proceed with the implementation of Virtual Node AMIS, Nortel recommends that you read the *Networking Planning Guide* (NTP 555-7001-241). This NTP provides information about

- what hardware is required for the network
- what software packages are required on the switch
- hardware spares planning

Another document you may want to refer to is the *Site and Installation Planning Guide* for your Meridian Mail system:

- for Modular Option: NTP 555-7041-200
- Modular Option GP: NTP 555-7051-200
- for Modular Option EC: NTP 555-7061-200

For the Message Services Module (MSM), refer to the *MSM Planning and Engineering Guide* (NPT 557-7001-100).

Note: There are no planning guides for the following platforms:

- Card Option
- EC11

Chapter 3

Configuring the Meridian 1 for systems using AML

In this chapter

Overview of this chapter

Introduction   This chapter explains how to perform the following tasks for
                         systems using the Application Module Link (AML):

- define ACD queues

    Virtual Node AMIS Networking requires an ACD queue
    without agents (service queue). Agents may need to be
    defined if Meridian Mail ports are to be dedicated to
    networking.

- configure the Meridian 1 hardware

    Meridian 1 hardware that needs to be configured for
    networking include the following:

    — trunks
    — trunk routes

- modify CDP and ESN dialing plans, if required

- CDP and ESN dialing plans are modified according to the
    changes identified in Chapter 2, "Gathering information for
    the network".

Definition: The Application Module Link (AML) is the link between the
AML   Meridian Mail system and the Meridian 1. The AML is the path
                         over which call data is sent to Meridian Mail.

                         Call data includes the following:

- calling party identification
- called party identification

Systems that use AML Meridian Mail systems that use AML include the following
                         platforms:

- Card Option
- EC 11
- Modular Option
- Modular Option EC

Configuring for SMDI   For instructions on configuring the switch for systems using the Simplified Message Desk Interface (SMDI) link, refer to Chapter 4, "Configuring the PBX/DMS for systems using SMDI".

Section A   Setting up ACD queues

In this section

Overview of this section

Introduction   This topic explains the following:

- how to define an ACD service queue for Virtual Node AMIS Networking

    The ACD DN is later defined in the Voice Service Directory Number (VSDN) table in Meridian Mail.

- when you might need to add ACD queues and agents

    You may need to add ACD queues and agents if you want to dedicate ports to Virtual Node AMIS Networking.

- how to verify that trunk group access restriction (TGAR) and network class of service (NCOS) on ACD agents are compatible with outgoing trunks used for Virtual Node AMIS Networking

Skills required   Defining ACD DNs on the Meridian 1 requires some basic knowledge about Meridian 1 programming. If you are a Meridian Mail administrator who is implementing Virtual Node AMIS Networking, and have received basic training for Meridian 1 programming, then you may proceed. Otherwise, you may want to consult someone who has more Meridian 1 experience.

Where to get more   For more information, see the *X11 input/output guide*
information   (NTP 553-3001-400).

Defining the ACD DN

Introduction

If ports are not being dedicated to Virtual Node AMIS Networking, then an ACD service queue (that is, an ACD queue without agents) which is night-call forwarded to the primary voice messaging queue is required.

ACD service queues are defined in overlay 23.

Note: In Meridian Mail, they are defined in the Voice Services Directory Number (VSDN) table. For instructions on defining the VSDN for Virtual Node AMIS Networking, see Chapter 5, "Configuring Meridian Mail".

DNS can be shared

Virtual Node AMIS Networking can share its ACD DN with Enterprise Networking or with one of the following voice services:

- a voice menu
- a thru-dial service
- a time-of-day controller

When a call to the voice service DN is received by Meridian Mail, either AMIS Networking or the voice service responds, depending on whether a C-tone is received from the calling party.

Meridian Mail consideration for shared DNs

If you are planning to share the AMIS Networking VSDN with Enterprise Networking or a voice service, then bear in mind that the peg counts on the Meridian Mail Services Summary report will be affected.

When an AMIS Networking call is received on a voice service DN, the first few seconds of the call are logged as a voice service call.

When AMIS Networking takes over, the call is then logged as an AMIS Networking call.

Meridian Mail consideration for shared DNs (continued)

The number of times the call is logged on reports depends on the number of nested time-of-day controllers, and the number of services accessed by the call.

Procedure

To define the ACD DN in the Meridian 1, do the following.

Starting Point: You are already logged in, and are at the > prompt.

Step	Action
1	Type **LD 23** and press <Enter>. *Result:* The REQ prompt is displayed.
2	Type **NEW** and press <Enter>. *Result:* The CUST prompt is displayed.
3	Type the customer number and press <Enter>. Obtain the customer number from the NWP-004, Meridian 1 Network Information—Site Information form. *Result:* The ACDN prompt is displayed.
4	Type the directory number used to access the networking service and press <Enter>. *Note:* This same number will be entered in the VSDN table in Meridian Mail. *Result:* The MWC prompt is displayed.
5	Type **NO** and press <Enter>. *Result:* The AST prompt is displayed.
6	Press <Enter> at this and the prompts that follow, until the MAXP prompt is displayed. *Result:* The MAXP prompt is displayed.
7	Type **1** and press <Enter>. *Result:* The SDNB prompt is displayed.
8	Press <Enter> at this and the prompts that follow, until the NCFW prompt is displayed. *Result:* The NCFW prompt is displayed.
9	Type the directory number used to access Meridian Mail. *Note:* This is the primary voice messaging queue with agents. *Result:* The FORC prompt is displayed.

Step	Action
10	Press <Enter> at this and the prompts that follow, until the REQ prompt is displayed.
	When the REQ prompt is displayed, it means that the ACD queue was created.
11	Type **** to exit the overlay.
	Result: OVL000 is displayed.

Dedicating ACD agents to Virtual Node AMIS Networking

Networking requirement

ACD agents that are defined on the Meridian 1 correspond to ports in Meridian Mail. ACD agents (and the corresponding ports) are usually defined during system installation.

If you want to dedicate ports to Virtual Node AMIS Networking, you will need to add an ACD queue with agents.

Reference

ACD queues are defined in overlay 23. ACD agents are defined in overlay 11.

For a description of the requirements and instructions for adding ACD queues and agents, see your *System Administration Guide* (NTP 555-7001-30x).

Verifying TGAR and NCOS on ACD agents

Introduction

Network class of service (NCOS) groups are used by ACD agents (of either the primary voice messaging ACD queue, or agents that are dedicated to Virtual Node AMIS Networking) to control access to outgoing trunks. The NCOS on trunks must be supported by the trunk group access restriction (TGAR) and NCOS codes of the ACD agents where outbound calls originate.

This topic explains how to identify the TGAR and NCOS on ACD agents. Later, this information is compared with the TGAR and NCOS on trunks.

Skills required

Understanding TGAR and NCOS requires the skills of an experienced Meridian 1 technician. If you are a Meridian Mail administrator who is implementing Virtual Node AMIS Networking, then you may want to consult a Meridian 1 technician for advice.

Procedure: Printing a listing of ACD agents

ACD agents are defined on overlay 11 and are printed from overlay 20. To verify the TGAR and NCOS codes, do the following.

Starting Point: You are already logged in, and are at the > prompt.

Step	Action
1	Type **LD 20** and press <Enter>. *Result:* The REQ prompt is displayed.
2	Type **PRT** and press <Enter>. *Result:* The TYPE prompt is displayed.
3	Type SL1 and press <Enter>. *Result:* The TN prompt is displayed.
4	Leave this prompt blank and press <Enter>. *Result:* The CUST prompt is displayed.

Step	Action
5	Leave this prompt blank and press <Enter>.
	Result: The information for this data block is printed.
6	Type **** to exit the overlay.
	Result: OVL000 is displayed.

Comparing agent and trunk settings

In order to compare agent and trunk settings, you need to print a listing of trunks. For instructions, see "Verifying TGAR (access to trunks)" on page 3-18.

Section B Configuring the hardware

In this section

Overview of this section

Introduction   This section explains the following:

- Virtual Node AMIS Networking requirements for trunks
- how to verify that TGAR and NCOS settings on trunks are compatible with TGAR and NCOS settings on ACD agents

Skills required   This section requires an experienced Meridian 1 technician. who has

- skills in trunk definitions
- an understanding of TGAR and NCOS

If you are a Meridian Mail administrator who is implementing Virtual Node AMIS Networking, then consult a Meridian 1 technician for advice.

Where to get more   For more information, see the *X11 input/output guide*
information   (NTP 553-3001-400).

Defining the trunks

Introduction   Trunks used by Virtual Node AMIS Networking may be attached to a public (central office) or to a private (tie) network. Trunks are required for processing any type of call (not just Virtual Node AMIS Networking calls).

Trunk definition includes

- defining the actual trunks (done in overlay 14)
- defining the routes used by trunks (done in overlay 16)

Skills required   Trunk definitions on the Meridian 1 require the skills of an experienced Meridian 1 technician. If you are a Meridian Mail administrator who is implementing Virtual Node AMIS Networking, then you may want to consult a Meridian 1 technician for advice.

What this topic covers   This topic discusses only the networking requirements for trunks. For instructions on programming the Meridian 1, see the *X11 input/output guide* (NTP 553-3001-400).

Before you begin   Before trunks can be defined for Virtual Node AMIS Networking, you must define the following:

- ACD DN in the Meridian 1

  For instructions, see "Defining the ACD DN" on page 3-7.
- ACD DN in the Voice Services Directory Number table in Meridian Mail

For instructions, see Section B, "Assigning a voice service DN to AMIS Networking," on page 5-23.

When to add trunks   Add additional trunks if the anticipated Virtual Node AMIS Networking traffic will increase call blocking to an unacceptable level.

Defining trunks for incoming access

Route incoming calls from remote sites to the ACD DN used by Virtual Node AMIS Networking without attendant intervention. You can also use Direct Inward System Access (DISA) to access the Virtual Node AMIS Networking ACD DN.

If central office trunks are used, they can be auto-terminated on the ACD DN used by Virtual Node AMIS Networking, or they can be terminated on a DISA DN.

Defining trunks for outgoing access

Number of trunks
The number of outgoing trunks required by Virtual Node AMIS Networking is based on the anticipated outbound message traffic. If these trunks are also used for inbound calls, expected inbound traffic must also be considered.

TGAR and NCOS
Outgoing trunks must have Trunk Group Access Restriction (TGAR) and network class of service (NCOS) codes that support the TGAR and NCOS codes of the ACD agents where outbound calls originate.

Public network
Virtual Node AMIS calls are intended to go on the public network. However, if Virtual Node AMIS Networking calls are only used within an ESN network, and the Meridian 1 is a main ESN site, then you can set the NCOS of the ACD agent so that the outgoing trunk call will not be routed off ESN to the public network.

Select an NCOS that will not use a call path with voice compression. This will prevent the call from going over any trunk route that might have voice compression. Voice compression will cause Meridian Mail to fail because Virtual Node AMIS Networking needs at least a 56-kbyte clear channel to work properly.

Defining trunks for outgoing access (continued)

If the Meridian 1 is a satellite ESN site (that is, it has access to ESN, but does not run ESN software), define a new trunk route to the main ESN site. If Virtual Node AMIS Networking calls are used only within the ESN network, at the main ESN site, set NCOS so that calls will not be routed off the ESN network to the public network.

Specific settings

The following table identifies the settings required for Virtual Node AMIS Networking.

Parameter	Description	Setting	Where
SUPN	supervision enable	YES	for tie trunks in overlay 14 (trunk data block) *Note:* For central office trunks, SUPN is automatically enabled.
NEDC	near-end answer and disconnect supervision	ETH	overlay 16 (route data block)
FEDC	far-end answer and disconnect supervision		

Verifying TGAR (access to trunks)

Introduction
Network class of service (NCOS) groups are used by ACD agents to control access to outgoing trunks. The NCOS on trunks must be supported by the trunk group access restriction (TGAR) and NCOS codes of the ACD agents where outbound calls originate.

This topic explains how to identify the TGAR on trunks. This information is then compared with the TGAR and NCOS on ACD agents.

Skills required
Understanding TGAR and NCOS requires the skills of an experienced Meridian 1 technician. If you are a Meridian Mail administrator who is implementing Virtual Node AMIS Networking, then you may want to consult a Meridian 1 technician for advice.

Before you begin
Before you can verify that TGAR and NCOS on ACD agents and trunks will be compatible, you need to

• print a listing of ACD agents

For instructions, see "Verifying TGAR and NCOS on ACD agents" on page 3-11.

• identify which trunks are being used by the ACD agents

Printing trunk information
At the Meridian 1 terminal, do the following.

Starting Point: You are already logged in, and are at the > prompt.

Step	Action
1	Type **LD 20** and press <Enter>. *Result:* The REQ prompt is displayed.
2	Type **PRT** and press <Enter>. *Result:* The TYPE prompt is displayed.
3	Specify the trunk type and press <Enter>. *Result:* The TN prompt is displayed.

Step	Action
4	Press <Enter>.
	Result: The CDEN prompt is displayed.
5	Press <Enter>.
	Result: The CUST prompt is displayed.
6	Type the customer number and press <Enter>.
	Obtain the customer number from the NWP-004, "Meridian 1 Network Information—Site Information" form.
	Result: The DATE prompt is displayed.
7	Press <Enter>.
	Result: The PAGE prompt is displayed.
8	Type one of the following and press <Enter>.
	• **YES** if you want to print information for each trunk on a separate page
	Result: You are prompted to adjust the paper, then press <Enter>. Once you press <Enter>, the information for this data block is printed.
	• **NO** if you do not want to print each trunk on a separate page (This method will use less paper.)
	Result: The information for this data block is printed.
9	Type **** to exit the overlay.
	Result: OVL000 is displayed.

Comparing agent and trunk settings

For each ACD agent and trunk that will be used in combination to process Virtual Node AMIS Networking calls, do the following:

- Compare the NCOS and TGAR settings.
- Ensure that they are compatible and will not block calls.
- Ensure that calls attempted by system hackers and abusers will be blocked.

Section C Modifying the dialing plan information

In this section

Overview of this section

Introduction

During your review of the CDP and ESN information from each Meridian 1 in the network, you may decide that changes are required.

The required changes should already have been

• identified in Chapter 2, "Gathering information for the network"

• manually recorded (on the Meridian 1 Network Information forms, or on the Meridian 1 overlay printouts)

The next step is to enter the changes into the system.

Skills required

Defining dialing plans on the Meridian 1 requires some basic knowledge about Meridian 1 programming. If you are a Meridian Mail administrator who is implementing Virtual Node AMIS Networking, and you have received basic training for Meridian 1 programming, then you may proceed. Otherwise, you may want to consult someone with more Meridian 1 experience.

Where to get more information

For information about how to respond to Meridian 1 overlay prompts, see the *X11 input/output guide* (NTP 553-3001-400).

Entering ESN changes

What you need   In order for you to enter the changes required for ESN, you need either the Meridian 1 Network Information forms, or the Meridian 1 overlay printouts listed in the following table.

Data block type	Meridian 1 Network Information forms	Meridian 1 overlay printouts
ESN	NWP-005	ESN data block (LD86)
Digit manipulation tables	NWP-006	DGT data block (LD 86)
CDP steering codes	NWP-007	CDP data block (LD 87)
Route list index	NWP-008	RLB data block (LD 86)
Network class of service groups	NWP-009	NCTL data block (LD 87)
Free calling area screening tables	NWP-010	FCAS data block (LD 87)
Incoming trunk group exclusions	NWP-011	ITGE data block (LD 86)
Network translation—location codes	NWP-012	LOC data block (LD 90)
Network translation—numbering plan area codes	NWP-013	NPA data block (LD 90)
Network translation—exchange codes	NWP-014	NXX data block (LD 90)
Network translation—special number translation codes	NWP-015	SPN data block (LD 90)
Network translation—home location codes	NWP-016	HLOC data block (LD 90)
Network translation—home numbering plan area codes		HNPA data block (LD 90)

Note: The required changes should already have been

• identified in Chapter 2, "Gathering information for the network"

• manually recorded (on the forms, or on the Meridian 1 overlay printouts)

Procedure   Using your printouts or the manually completed forms, enter the
                       ESN changes into the Meridian 1.

ATTENTION

Changes must be entered in the order stated below.

Step	Action
1	Modify the ESN data block in overlay 86. *Data entry form:* NWP-005 or ESN data block printout
2	Modify the digit manipulation index in overlay 86. *Data entry form:* NWP-006 or DGT printout
3	Modify the free calling area screening table in overlay 87. *Data entry form:* NWP-010 or FCAS printout
4	Modify the incoming trunk group exclusion table in overlay 86. *Data entry form:* NWP-011 or ITGE printout
5	Modify network control information in overlay 87. *Data entry form:* NWP-009 or NCTL printout
6	Modify the route list index in overlay 86. *Data entry form:* NWP-008 or RLB printout
7	Modify the translation tables (NET) in overlay 90. *Data entry forms:* • NWP-012 or LOC printout • NWP-013 or NPA printout • NWP-014 or NXX printout • NWP-015 or SPN printout • NWP-016 or HLOC and HNPA printouts
8	Modify CDP steering codes in overlay 87. *Data entry form:* NWP-007 or CDP printout

Entering CDP changes

What you need   In order for you to enter the changes required for CDP, you need either the Meridian 1 Network Information forms, or the Meridian 1 overlay printouts listed in the following table.

Data block type	Meridian 1 Network Information forms	Meridian 1 overlay printouts
ESN	NWP-005	ESN data block (LD86)
Digit manipulation tables	NWP-006	DGT data block (LD 86)
CDP steering codes	NWP-007	CDP data block (LD 87)
Route list index	NWP-008	RLB data block (LD 86)
Network class of service groups	NWP-009	NCTL data block (LD 87)

Note: The required changes should already have been

- identified in Chapter 2, "Gathering information for the network"
- manually recorded (on the forms, or on the Meridian 1 overlay printouts)

Procedure   Using your printouts or the manually completed forms, enter the CDP changes into the Meridian 1.

ATTENTION

Changes must be entered in the order stated below.

Step	Action
1	Modify the ESN data block in overlay 86. *Data entry form:* NWP-005 or ESN data block printout
2	Modify the digit manipulation table in overlay 86. *Data entry form:* NWP-006 or DGT printout
3	Modify network control information in overlay 87. *Data entry form:* NWP-009 or NCTL printout
4	Modify the route list index table in overlay 86. *Data entry form:* NWP-008 or RLB printout
5	Modify CDP steering codes in overlay 87. *Data entry form:* NWP-007 or CDP printout

Chapter 4

Configuring the PBX/DMS for systems using SMDI

In this chapter

Overview of this chapter

Introduction

This chapter provides information about the following for systems using the Simplified Message Desk Interface (SMDI):

- how to define UCD queues

  Virtual Node AMIS Networking requires a UCD queue without agents (service queue). Agents may need to be defined if Meridian Mail ports will be dedicated to Virtual Node AMIS Networking.

- descriptive information for configuring the DMS hardware
- a suggestion to modify CDP and ESN dialing plans

  CDP and ESN dialing plans are modified according to the changes identified in Chapter 2, "Gathering information for the network".

If your system uses the AML between the Meridian Mail system and the switch, you can ignore this chapter.

Definition: SMDI

The Simplified Message Desk Interface (SMDI) is the link., between the Meridian Mail system and the PBX/DMS. The SMDI link is the path over which call data is sent to Meridian Mail.

Call data includes the following:

- calling party identification
- called party identification

Systems that use SMDI

SMDI is used between Meridian Mail and one of the following switches:

- DMS family (DMS 10, DMS 100, DMS 250, and DMS 500)
- SL-100
- non-Nortel switch (AT&T and Rolm)

Note: In this manual, the DMS family, SL-100, and non-Nortel switches are referred to as PBX/DMS switches.

Meridian Mail systems that use SMDI include the following platforms (when connected to a DMS):

- Modular Option GP
- Message Services Module (MSM)

Configuring for AML

For instructions on configuring the switch for systems using the Application Module Link (AML), refer to Chapter 3, "Configuring the Meridian 1 for systems using AML".

Setting up UCD DNs or hunt groups

Introduction   Virtual Node AMIS Networking requires a uniform call
delivery (UCD) directory number (DN), or a directory number
that is call forwarded to the primary voice messaging DN.

Note: In Meridian Mail, the UCD DN is defined in the Voice
Services Directory Number (VSDN) table. For instructions on
defining the VSDN for Virtual Node AMIS Networking, see
Chapter 5, "Configuring Meridian Mail".

DNS can be shared   Virtual Node AMIS Networking can share its UCD DN with
Enterprise Networking or with one of the following voice
services:

- a voice menu
- a thru-dial service
- a time-of-day controller

When a call to the voice service DN is received by Meridian
Mail, either AMIS Networking or the voice service responds,
depending on whether a C-tone is received from the calling
party.

Meridian Mail   If you are planning to share the AMIS Networking VSDN with
consideration for   Enterprise Networking or a voice service, then bear in mind that
shared DNs   the peg counts on the Meridian Mail Services Summary report
will be affected.

When an AMIS Networking call is received on a voice service
DN, the first few seconds of the call are logged as a voice
service call.

When AMIS Networking takes over, the call is then logged as
an AMIS Networking call.

Note: The number of times the call is logged on reports
depends on the number of nested time-of-day controllers, and
the number of services accessed by the call.

Description of DMS UCD DN prompts　　　To define the UCD DN in the DMS using SERVORD, refer to the following table.

Note: The following information applies to release BCS36.

Prompt	Response	Description
SO	NEW	Adds a new UCD DN.
DN	xxxxxxx	UCD directory number. This DN must be entered in the VSDN table in Meridian Mail.
LCC	IBN	Defines the line class code as IBN (integrated business network).
GROUP	aaaaaaaa	Customer group name as defined in CUSTENG.
SUBGRP	x	Subgroup of a customer group to which a station or DN belongs (0–7).
NCOS	x	Defines the network class of service capabilities and restrictions (0–255).
SNPA	xxx	Local numbering plan area code. *Example:* 416/613
LATANAME	NILLATA	LATA name definition in table LATANAME. *Example:* NILLATA
LEN	x x xx xx	Line equipment number of line. *Example:* HOST 04 1 07 01
OPTION	COD	Cut off on disconnect.
OPTION	DGT	Digitone service.
OPTION	CFDVT 12	Call Forward—do not answer variable timer.
OPTION	CFU N	Call Forward—universal.
OPTION	CFD N XXXX A	Call Forward—do not answer the Meridian Mail voice service DN. *Example:* CFD N 2326050 A
OPTION	CFB N XXXX A	Call Forward—busy to Meridian Mail voice service DN. *Example:* CFB N 2326050 A

Dedicating UCD agents to Virtual Node AMIS Networking

Virtual Node AMIS Networking requirement

UCD agents that are defined on the DMS correspond to ports in Meridian Mail. UCD agents (and the corresponding ports) are usually defined during system installation.

However, in the future, if you need to add ports that will be dedicated to Virtual Node AMIS Networking, you may need to add UCD agents as well.

For a description of the requirements and instructions for adding UCD queues and agents, see your *System Administration Guide* (NTP 55x-7001-30x).

Defining the trunks

Introduction   Trunks used by Virtual Node AMIS Networking may be attached to a public (central office) or to a private (tie) network. Trunks are required for processing any type of call (not just networking calls).

Skills required   Trunk definitions on the DMS require the skills of an experienced switch technician. If you are a Meridian Mail administrator who is implementing Virtual Node AMIS Networking, then you may want to consult a switch technician for advice.

What this topic covers   This topic discusses only the Virtual Node AMIS Networking requirements for trunks. For instructions on programming the PBX/DMS, see the documentation for your particular switch model.

Before you begin   Before trunks can be defined for Virtual Node AMIS Networking, you must define the following:

- UCD DN in the DMS

  For instructions, see "Setting up UCD DNs or hunt groups" on page 4-4.
- UCD DN in the Voice Services Directory Number table in Meridian Mail

  For instructions, see Section B, "Assigning a voice service DN to AMIS Networking," on page 5-23.

When to add trunks   Add additional trunks if the anticipated Virtual Node AMIS Networking traffic will increase call blocking to an unacceptable level.

Answer and disconnect supervision   Enable answer and disconnect supervision on all trunks.

Note: Central office trunks automatically get supervision enabled.

Defining trunks for incoming access

Route incoming calls from remote sites to the Virtual Node AMIS Networking UCD DN without attendant intervention. You can also use Direct Inward System Access (DISA) to access the Virtual Node AMIS Networking UCD DN.

If central office trunks are used, they can be auto-terminated on the Virtual Node AMIS Networking UCD DN, or they can be terminated on a DISA DN.

Defining trunks for outgoing access

Number of trunks
The number of outgoing trunks required by Virtual Node AMIS Networking is based on the anticipated outbound message traffic. If these trunks are also used for inbound calls, expected inbound traffic must also be considered.

TGAR and NCOS
Outgoing trunks must have Trunk Group Access Restriction (TGAR) and network class of service (NCOS) codes that support the TGAR and NCOS codes of the UCD agents where outbound calls originate.

Public network
Virtual Node AMIS calls are intended to go on the public network. However, if Virtual Node AMIS Networking calls are only used within an ESN network, and the DMS is a main ESN site, then you can set the NCOS of the UCD agent so that the outgoing trunk call will not be routed off ESN to the public network.

Select an NCOS that will not use a call path with voice compression. This will prevent the call from going over any trunk route that might have voice compression. Voice compression will cause Meridian Mail to fail because Virtual Node AMIS Networking needs at least a 56-kbyte clear channel to work properly.

Defining trunks for outgoing access (continued)

If the DMS is a satellite ESN site (that is, it has access to ESN, but does not run ESN software), define a new trunk route to the main ESN site. If Virtual Node AMIS calls are used only within the ESN network, at the main ESN site, set NCOS so that calls will not be routed off the ESN network to the public network.

Modifying dialing plan information

Introduction

During your review of the CDP and ESN information from each PBX/DMS in the network, you may decide that changes are required.

The required changes should already have been identified in Chapter 2, "Gathering information for the network".

Skills required

Defining dialing plans on the PBX/DMS requires some basic knowledge about PBX/DMS programming. If you are a Meridian Mail administrator who is implementing Virtual Node AMIS Networking, and you have received basic training for PBX/DMS programming, then you may proceed. Otherwise, you may want to consult someone with more PBX/DMS experience.

Where to get more information

For information about how to respond to PBX/DMS system prompts, see the documentation for your switch model.

Chapter 5

Configuring Meridian Mail

In this chapter

Overview of this chapter

Introduction   This chapter explains how to set up Virtual Node AMIS
                          Networking on Meridian Mail.

                          It explains how to enable Meridian Mail Networking,
                          dedicate ports, assign a voice service DN to Virtual Node
                          AMIS Networking, and add local and remote sites.

                          Other topics explained in this chapter include

                          •   accessing the Customer Administration menu
                          •   entering Network Message Service sites and locations
                          •   defining the dialing translations
                          •   defining the networking configuration
                          •   converting remote sites to AMIS Networking

**What this chapter   This chapter provides detailed explanations and instructions
contains**   for network maintenance tasks as described in the following
                           table.

Section	Description
Section A: Setting up Virtual Node AMIS Networking	This section explains how to • enable Meridian Mail Networking for a specific customer on a multi-customer system • dedicate ports to Virtual Node AMIS Networking
Section B: Assigning a voice service DN to AMIS Networking	This section deals with the considerations you must take when using • a special DN defined for AMIS Networking in the VSDN table • a voice menu DN defined in the VSDN table • a thru-dial DN defined in the VSDN table

Section	Description
Section C: Defining the dialing translations	This section describes what is required in order to generate dialable DNs for AMIS Networking. Dialable DNs are generated by using • network dialing prefixes • codes to access the local site • translation tables (if required)
Section D: Defining the networking configuration	This section explains how to define the following for the AMIS Networking configuration: • AMIS compose prefix • system access number All other networking configuration parameters are explained in Chapter 9, "Maintaining the network."
Section E: Adding the local site	This section shows you how to add and configure the local site with the following dialing plans: • Hybrid (combination of ESN and CDP) • ESN (Electronic Switched Network) • CDP (Coordinated Dialing Plan) • "None"
Section F: Adding remote sites	This section explains how to add and configure remote sites with the following dialing plans: • Hybrid • ESN • CDP • "None"
Section G: Adding remote Network Message Service (NMS) satellite locations	This section explains how to add and configure remote Network Message Service (NMS) locations (also known as satellite locations) with the following dialing plans: • Hybrid • ESN • CDP • "None" This section is applicable to Meridian 1 (or Meridian 1 with SL-100) networks only.

Multi-customer system users

Introduction

If you are using a multi-customer system, you need to access the Customer Administration menu to administer your system.

Procedure: Accessing the Customer Administration menu

To access the Customer Administration menu, follow these steps.

Starting Point: The Main Menu

Step	Action

1   Select Customer Administration.

Result: The following screen appears.

```
┌─────────────────────────────────────────────────────────────┐
│                    Customer Administration                   │
│                                                              │
│                                                              │
│                                                              │
│              To display the List of Customers select the     │
│              Find softkey followed by the List softkey.      │
│                                                              │
│                                                              │
│                                                              │
│                                                              │
│ ─────────────────────────────────────────────────────────── │
│ Select a softkey >                                           │
│   ┌───────┐  ┌───────┐  ┌───────────┐  ┌────────┐  ┌──────┐ │
│   │ Exit  │  │  Add  │  │View/Modify│  │ Delete │  │ Find │ │
│   └───────┘  └───────┘  └───────────┘  └────────┘  └──────┘ │
└─────────────────────────────────────────────────────────────┘
```

2   Do you know the customer number?

If yes, go to step 3.

If no, do the following.

a. Press [Find].
b. Press [List].
c. Move the cursor to the customer you want and press
   <Space bar>] to select it.
d. Press [View/Modify].

Result: The Customer Administration menu appears. See the screen example shown in step 4.

Step	Action
3	Press [View/Modify].
	Result: The system asks you for the customer number.
4	Type the customer number and press <Enter>.
	Result: The Customer Administration menu appears.
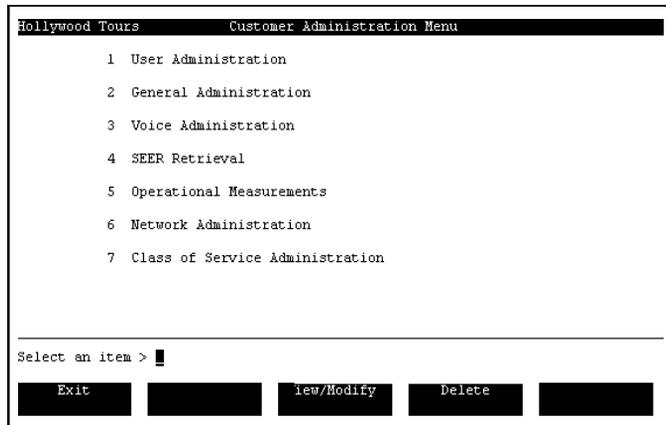
```
Hollywood Tours          Customer Administration Menu

            1  User Administration

            2  General Administration

            3  Voice Administration

            4  SEER Retrieval

            5  Operational Measurements

            6  Network Administration

            7  Class of Service Administration



Select an item > █
     Exit                        iew/Modify    Delete
```

Section A Setting up Virtual Node AMIS Networking

In this section

Overview of this section

Introduction

This section explains how to

- enable Meridian Mail Networking for a specific customer
- dedicate ports to Virtual Node AMIS Networking

Enabling Meridian Mail Networking

The Meridian Mail feature known as Meridian Mail Networking provides both Meridian Networking and Enterprise Networking. If you also have the AMIS Networking feature installed, it also provides Virtual Node AMIS Networking. You have the option of using any or all of the networking services.

Enabling Meridian Mail Networking works differently for single- and multi-customer systems. On a multi-customer system, you need to enable Meridian Mail Networking for a specific customer because only one customer is allowed to use the network database. However, on a single-customer system, Meridian Mail Networking is automatically enabled for the customer.

Dedicating ports

You can dedicate ports to Virtual Node AMIS Networking for single- and multi-customer systems

- if you expect networking to generate a high level of traffic
- if you need to ensure that some ports are always available for networking

The Channel Allocation Table (CAT) is used to dedicate ports.

Note: Dedicating ports to Virtual Node AMIS Networking is an optional procedure and, in most cases, is not required.

ATTENTION

Nortel recommends that you do not dedicate ports until
you are comfortable with how your system is running.

Enabling Meridian Mail Networking

Introduction   The Meridian Mail feature known as Meridian Mail
                               Networking provides both Meridian Networking and
                               Enterprise Networking. If you also have the AMIS
                               Networking feature installed, it also provides Virtual Node
                               AMIS Networking. You have the option of using any or all of
                               the networking services.

                               Only one customer can use Meridian Mail Networking.
                               Therefore, on a multi-customer system, you need to specify
                               which customer will use networking.

                               This topic explains how to enable Meridian Mail Networking
                               for a specific customer.

Why you need to   Meridian Mail Networking must be enabled if you want to
enable Meridian Mail   create, in your network database, remote sites that use the
Networking   AMIS message transfer protocol. The network database
                               cannot be accessed until Meridian Mail Networking is
                               enabled.

Single-customer   On a single-customer system, Meridian Mail Networking is
system   automatically enabled for the customer. Therefore, you can
                               ignore this topic.

Multi-customer   On a multi-customer system, by default, Meridian Mail
system   Networking is disabled for all customer groups. To enable it,
                               the General Options screen on the Customer Administration
                               menu is used.

                               When you enable Meridian Mail Networking for a customer
                               on this screen, the following occurs:

                               • The Meridian Mail Networking Customer field on the
                                 system level General Options screen is updated
                                 automatically.
                               • The Meridian Mail Networking feature field is set to
                                 Disabled and is read-only for all other customers.

**Multi-customer
system (continued)**

Notes:

1. Meridian, Enterprise, and Virtual Node AMIS
   Networking must all use the same customer.

2. Meridian Mail Networking is not supported for VMUIF
   customers.

Softkey descriptions   The following table describes the softkeys that appear on the
                                  General Options screen.

Softkey	Description
[Save]	Press this key to save any changes you make.
[Cancel]	Press this key to cancel any changes you make.

Procedure   To specify the customer that is to use networking, do the
                                  following.

Starting Point: The Customer Administration menu

Step Action

1   Select General Administration.

        Result: The General Administration menu appears.

2   Select General Options.

        Result: The General Options screen, similar to the following,
        appears.

```
Ispep Fire Inc.              General Administration
General Options

System Name:                     Aloc-Acoc Fuels Inc.

System Number:                   1

System Addressing Length:        0

Supervised Transfer Delay (CS):  200

ACCESS Default Customer Number:  1

Integrated Mailbox Administration
Default Customer Number:         1

Customer Name:                   Ispep Fire Inc.

Customer Number:                 2
                                                          MORE BELOW
Select a softkey >

    Save            Cancel
```

Step Action

3 Use the arrow or the [Page Down] keys to move the cursor to the Meridian Mail Networking field in the list of Available Features.

Result: A screen, similar to the following, appears.

```
Ispep Fire Inc.            General Administration            MORE ABOVE
General Options

Interface Type:                MMUI VMUIF

Available Features:
                               Multi-Customer
                               SMDI
                               Meridian ACCESS
                               AdminPlus
                               Voice Messaging
                               Dual Language Prompting
                               Outcalling
                               Voice Menus & Announcements  Disabled Enabled
                               Voice Forms                  Disabled Enabled
                               Meridian Mail Networking     Disabled Enabled

Class of Service Selection:
                                                                   MORE BELOW

Select a softkey >

      Save          Cancel
```

4 Enable Meridian Mail Networking.

5 Do you want to save your change?

If yes, press [Save].

Result: The system saves your changes and returns to the General Administration menu.

If no, press [Cancel].

Result: The system discards your changes and returns to the General Administration menu.

Field descriptions   The following table describes the field that is required to
                               enable Meridian Mail Networking.

                               Note: Throughout this manual, only the fields that are
                               directly related to the implementation of Meridian Mail
                               Networking are discussed. This screen is described in
                               greater detail in your *System Administration Guide*
                               (NTP 55x-70x1-30x).

Available Features	
Description	This list displays features that can be used by or enabled for the customer currently displayed. For more information on enabling and disabling these features, see your *System Administration Guide for Multi-Customer Systems*.
	You can enable Meridian Mail Networking for one customer group only.
	If Meridian Mail Networking is currently enabled and you want to disable it, you must delete the following features from the system:
	• remote voice users
	• Meridian Networking or Enterprise Networking, or both VSDNs
	Notes:
	1. Meridian Mail Networking is not available for VMUIF customer groups.
	2. This field is read-only if another customer group already has this feature enabled.
Default	Disabled

Dedicating ports to AMIS Networking

Introduction

This section explains how to dedicate ports to AMIS Networking in the Channel Allocation Table (CAT).

You may want to dedicate some ports to networking for the following reasons:

- You expect networking to generate a high level of traffic.
- You need to ensure that some ports are always reserved for networking.

Note: Dedicating ports to AMIS Networking is an optional procedure. It is *not* recommended unless AMIS Networking frequently prints SEERs indicating that channels are not available or messages become stale.

How dedicating ports affects the system

Ports are dedicated only for outgoing calls. Incoming calls use the first available port.

Dedicating ports reduces the overall efficiency of the system because dedicating ports reduces

- the number of channels that can be used by other Meridian Mail services

  A port that is dedicated to AMIS Networking cannot be used for any other outgoing call. If the port is not required by AMIS Networking for long periods of time, the port will remain inactive which reduces the efficiency of your system.

- the traffic capacity per port of the remaining channels

How dedicating ports affects the system (continued)

The most efficient use of system channel resources is to allow all ports to be shared by all services. If there is a concern that networking may access too many ports during the system busy hour, this may be managed by doing one of the following:

- limiting the number of active networking ports with the Networking call maximum field on the View/Modify AMIS Networking Information screen
- increasing the number of channels on the system

Impact of dedicating ports to networking

When a port is dedicated to AMIS Networking, this feature is restricted to those ports (that is, outgoing AMIS Networking traffic cannot use any other port, including those configured for all services). Therefore, most of your ports should be shared by all services.

ATTENTION

Nortel recommends that you do not dedicate ports until you are comfortable with how your system is running.

Port type required

AMIS Networking requires full service ports.

For more information

For more information on dedicating ports, see the "Channel Allocation Table" section in the "System Status and Maintenance" chapter of your *System Administration Guide* (NTP 55x-70x1-30x).

Softkey descriptions

The following table describes the softkeys that are displayed on the Channel Allocation Table (CAT).

Softkey	Description
[Save]	Press this key to save your changes.
[Cancel]	Press this key to cancel your changes.
[Display Choice of Services]	Press this key to view the features installed on your system.
[Hide Choice of Services]	Press this key to hide the list of features installed on your system.

Before you begin

ATTENTION

You should dedicate ports only when the system is idle or during low traffic periods.

Before you dedicate any ports, you must disable them first.

Note: Before you disable a port, verify that the Type field is set to Voice, and the Capability field is set to Full.

Procedure: Enabling and disabling ports

To enable or disable a port, follow these steps.

    Starting Point: The Main Menu

Step	Action
1	Select System Status and Maintenance. *Result:* The System Status and Maintenance menu appears.
2	Select DSP Port Status. *Result:* The System Status and Maintenance screen appears.

Step Action

```
                    System Status and Maintenance
DSP Port Status for Node 1 (C=Card D=DSP P=Port)

System Status: InService        Alarm Status: Critical=Off Major=Off Minor=Off

C-D-P        DSP Port Status

4-1-*         1-Idle        2-Idle

5-1-*         3-Idle        4-Idle




_____

Select a softkey > ▌
┌──────────┬─────────────┬──────────────┬────────────┬────────────┐
│   Exit   │ Enable Port │ Disable Port │  Courtesy  │  Change to │
│          │             │              │Disable Port│ Range Mode │
└──────────┴─────────────┴──────────────┴────────────┴────────────┘
```

3 Do one of the following:

IF you have a	THEN
single-node system	go to step 5.
multi-node system	the system asks you to enter a node number.

4 Enter the node number and press <Enter>.

5 Do one of the following:

IF you want to	THEN press the
enable a port	[Enable] softkey.
disable a port	[Disable] softkey.

Result: The system prompts you for the in-service port number.

6 Enter the number(s) of the port(s) that you want to enable or disable and press <Enter>.

Result: The port is now enabled or disabled.

Note: Enabling is complete when the port status changes to Idle. Disabling is complete when the port status changes to OutOfService.

For more information, see your *System Administration Guide* (NTP 55x-70x1-30x).

Step	Action
7	Press [Exit].
	Result: The System Status and Maintenance menu appears.
8	Go to "Procedure: Dedicating ports" on page 5-20.

**Procedure::
Enabling or disabling
multiple ports**

You can enable or disable multiple ports if the port numbering is sequential.

To enable or disable multiple ports, follow these steps.

Starting Point: The Main Menu

Step	Action
1	Select System Status and Maintenance.
	Result: The System Status and Maintenance menu appears.
2	Select DSP Port Status.
	Result: The System Status and Maintenance screen appears.

```
                    System Status and Maintenance
DSP Port Status for Node 1 (C=Card D=DSP P=Port)

System Status: InService          Alarm Status: Critical=Off Major=Off Minor=Off

C-D-P        DSP Port Status

4-1-*        1-Idle          2-Idle

5-1-*        3-Idle          4-Idle




Select a softkey > ▮

   Exit       Enable Port    Disable Port      Courtesy        Change to
                                             Disable Port      Range Mode
```
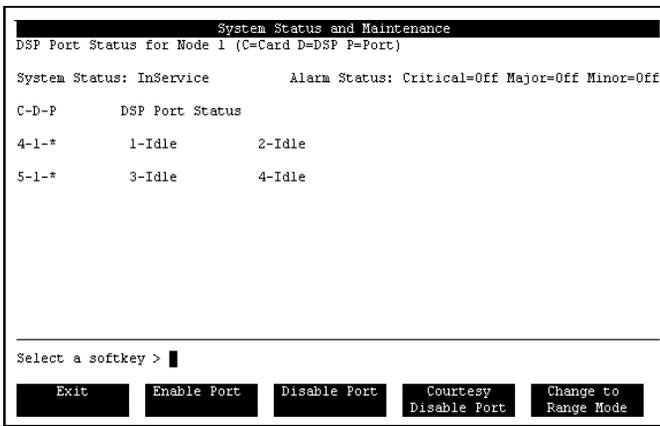
3	If the [Change to Range Mode] softkey is displayed, press this key before going to step 4.
4	Press the [Disable] or [Enable] softkey.
	Result: The system prompts for the first port to enable or disable and the last port to enable or disable.

Step	Action
5	Enter the number of the first and last port you want to enable or disable. ***Result:*** The system disables or enables the ports within the range you specify. For more information, see your *System Administration Guide* (NTP 55x-70x1-30x).
6	Press [Exit]. ***Result:*** The System Status and Maintenance menu appears.
7	Go to "Dedicating ports" following this procedure.

**Procedure:
Dedicating ports**

To dedicate ports, follow these steps.

Starting Point: The System Status and Maintenance menu

Step	Action
1	Select Channel Allocation Table. ***Result:*** The Channel Allocation Table appears if you have a single-node system. ***Note:*** If you have a multi-node system, the system asks you for a node number. Once you enter this number, the Channel Allocation Table appears.

```
                        System Status and Maintenance
Channel Allocation Table (C=Card D=DSP P=Port)
Choice of Services:
ALL All Services          AN  AMIS Networking       AS  Announcement Service
EN  Enterprise Networking EM  Express Messaging      GS  Greetings Service
NW  Meridian Networking   PM  Prompt Maintenance     RA  Remote Activation
OC  RN/DNU Outcalling     TS  Thru-Dial Service      TR  Transcription Service
VF  Voice Forms Service   MS  Voice Menu Service     VM  Voice Messaging
VS  Voice Softkey

Limit; MaxVoice MinMulti; MaxFull;         --------Allocated--------
   4       4        0        4            M/F: 0   V/F: 4   V/B: 0

# C-D-P    TN       ACD DN    SCN     Type  Capability Cust Outbound
1 4-1-1 008-0-02-00 7000      7800    Voice Full Basic  ALL  ALL
2 4-1-2 008-0-02-08 7000      7801    Voice Full Basic  ALL  ALL
3 5-1-1 008-0-02-01 7000      7802    Voice Full Basic  ALL  ALL
4 5-1-2 008-0-02-09 7000      7803    Voice Full Basic  ALL  ALL


Select a softkey >

     Save           Cancel                                     Hide Choice of
                                                                  Services
```

2	Move the cursor to the port you want to dedicate.

Step	Action
3	Ensure that the Type field is set to Voice and the Capability field is set to Full because AMIS Networking requires a full voice port.
4	Move the cursor to the Cust field and set it to ALL.
5	Move the cursor to the Outbound field and enter AN for AMIS Networking.
6	Do you want to save your changes?

6 (continued):

If yes, press [Save].

If you do not want to save your changes, press [Cancel].

IF you have a	THEN the system
single-node system	returns to the System Status and Maintenance menu.
multi-node system	asks you for another node number. Repeat steps 1 to 5 if you have to dedicate ports on another node, or press the [Cancel] softkey to cancel the prompt for another node and return to the System Status and Maintenance menu.

Step	Action
7	Go to the DSP Port Status screen and enable any ports that you put out of service.

Field descriptions   The following table describes only the fields you set when
                            dedicating ports. For more information on these fields, refer
                            to your *System Administration Guide* (NTP 55x-70x1-30x).

Type	
Description	This field can be either Voice or Multi.
	AMIS Networking requires a Voice channel.

Capability	
Description	This field indicates the range of services supported on this port. The two ranges are Basic and Full.
	Note: Networking requires a full service port.

Cust (Customer)	
Description	This field allows you to dedicate ports to a specific customer.
	Set this field to ALL.
Default	None

Outbound	
Description	This is the service to which the DSP port and agent are dedicated.
	The entry in this field should be ALL, which indicates a shared DSP port, unless you are dedicating that port to AMIS Networking (AN).
Default	None

Section B Assigning a voice service DN to AMIS Networking

In this section

Overview of this section

Introduction

When you are assigning a voice service DN to AMIS Networking, you must identify which service will accept AMIS Networking calls.

This section explains how to add an AMIS Networking DN and how to use it with other VSDNs.

Sharing a VSDN

AMIS Networking can share its VSDN with Voice Menus, Thru-Dial services, Time-of-Day Controllers, and Enterprise Networking. Using one of these VSDNs makes administration easier, especially if it already exists.

You should be aware that when the AMIS Networking DN is shared with another voice service, Operational Measurement reports are affected.

An AMIS Networking call that is received on a voice service DN is logged for the first 15 to 20 seconds on the reports as a voice service call. When the AMIS service takes over, the remainder of the call is logged as an AMIS call.

If Operational Measurement report statistics are a concern, you should create a specific AMIS Networking VSDN.

ACD/UCD queue

Before you create a DN for AMIS Networking, confirm the ACD/UCD queue on the switch.

If you are configuring the Meridian 1, see Chapter 3, "Configuring the Meridian 1 for systems using AML" in this guide.

If you are configuring a PBX or DMS switch, see Chapter 4, "Configuring the PBX/DMS for systems using SMDI" in this guide.

Adding an AMIS Networking DN

Introduction A DN is required for AMIS Networking. This topic explains how to add an AMIS Networking DN in the Voice Services Directory Number (VSDN) table.

The VSDN table The VSDN table lists the Directory Numbers (DNs) associated with specific Meridian Mail services. The VSDN table maps this DN to AMIS Networking when Meridian Mail receives an incoming call.

ACD/UCD queue on switch Each VSDN corresponds to an ACD or UCD queue on the switch. The directory number assigned to the queue is known as the ACD or UCD DN.

The ACD/UCD DN and the VSDN (or Access DN) are the same number. Therefore, for the AMIS Networking DN, you must first ensure that an ACD/UCD queue is available on the switch and then configure the VSDN in Meridian Mail.

For instructions on defining the ACD/UCD queue, see one of the following chapters in this guide:

- Chapter 3, "Configuring the Meridian 1 for systems using AML"
- Chapter 4, "Configuring the PBX/DMS for systems using SMDI"

How the VSDN is used The VSDN defined for AMIS Networking must be communicated to the administrator at each remote site in the network. The VSDN that you define on your system is entered, along with required dialing prefixes, into the Connection DN field on Remote Site Maintenance screens at each remote Meridian Mail site. Other sites in the network use this DN to connect to your site.

Softkey descriptions

The following table describes the softkeys in the Add DN Information screen.

Softkey	Description
[Save]	Press this key to save the DN information you add.
[Cancel]	Press this key if you want to cancel the DN information you added.

Sharing the AMIS Networking DN with other services

If you want to share the AMIS Networking DN with another voice service, see "Using AMIS Networking with other VSDNs" on page 5-30.

Procedure

To add an AMIS Networking DN, follow these steps.

Note: This DN can be shared with Enterprise Networking.

Starting Point: The Main Menu (single customer) or Customer Administration menu (multi-customer)

Step	Action
1	Select Voice Administration. *Result:* The Voice Administration menu appears.
2	Select Voice Services Administration. *Result:* The Voice Services Administration menu appears.

Step	Action
3	Select Voice Services-DN Table.

Result: The Voice Services-DN Table screen appears.

```
                    Voice Services Administration
Voice Services-DN Table

              DN                        Service      Comment
              3650                       HM          Guest Msg Service
              3651                       EM          Express Messaging
              3652                       MS  101      Main service menu
              3653                       AS  212      voice order instruc
              3654                       FI  7766     fax order instructi
              3655                       TS  399      through dial serv.
              3656                       VF  9901     new cust voice form




Move the cursor to the item and press the space bar to select.

    Exit           Add        View/Modify      Delete         Find

```

4   Press [Add].

Result: The Add DN Information screen appears.

```
                    Voice Services Administration
Add DN Information

Choice of Services:
AN  AMIS Networking      AS  Announcement Service  EN  Enterprise Networking
EM  Express Messaging    FI  Fax Info Service       FIM Fax Item Maintenance
ACC Meridian ACCESS      NW  Meridian Networking    PM  Prompt Maintenance
RA  Remote Activation    TS  Thru-Dial Service      TD  Time-of-Day Control
TR  Transcription Service VF  Voice Forms Service   MS  Voice Menu Service
VM  Voice Messaging

Access DN:          _____

Service:            ___

Comment:            _____


Select a softkey >

    Save         Cancel

```

5   Enter the Access DN.

This is the number that users at remote AMIS sites will use when sending messages to the local site.

6   Enter AN (for AMIS Networking) into the Service field.

7   Enter a descriptive comment.

Step	Action
8	Do you want to keep the Voice Service DN?
	If yes, press [Save].
	Result: The changes are saved and you are returned to the Voice Services-DN Table screen.
	If no, press [Cancel].
	Result: Any changes made to this screen are not saved. You are returned to the Voice Services-DN Table screen.

Field descriptions

The following table describes the fields that appear on the Add DN information screen.

Choice of Services	
Description	This field lists the available voice services. The list is sorted horizontally according to the feature description, not the acronym. This can be changed in the Set Display Options screen.

Access DN	
Description	This is the DN that callers dial when accessing the voice service directly. It must be a numeric value without any embedded spaces.
	This is the ACD/UCD DN of the service queue that has been configured on the switch. If there are no available ACD/UCD DNs, they will have to be programmed into the switch by a technician (or by yourself if you are familiar with the procedure).
	Remote sites use this DN to connect to your site. If the remote site also has Virtual Node AMIS enabled, this DN is entered, along with dialing prefixes into the Connection DN field on Remote Site Maintenance screens at the remote site.

Description	(continued)
	Note: Ensure that the DN does not match any switch trunk route access codes. A match may cause calls to be disconnected under certain circumstances.

ATTENTION

Avoid duplication. Ensure that VSDNs do not duplicate mailbox numbers.

Service

Description	This field defines which service is to be activated when the Access DN is dialed.
	Enter AN for AMIS Networking.
Default	None

Comment

Description	This field is optional and can be used for descriptive purposes.
	In the VSDN table, you can have entries sorted alphabetically according to the comments entered here by making the appropriate selection in the Set Display Options screen.
Maximum length	19 characters
Invalid values	The following characters cannot be used in this field: "?", "+", and "_". These are reserved as wildcard characters (used when specifying search criteria for retrievals).

Using AMIS Networking with other VSDNs

Introduction

This topic explains how to use AMIS Networking with other VSDNs.

VSDNs that can be shared with AMIS Networking

You can use the following VSDNs with AMIS Networking:

- Announcement Service (AS)
- Enterprise Networking (EN)
- Fax Information Service (FI)
- Voice Menu (MS)
- Time-of-Day-Controller (TD)
- Thru-Dial (TS)

Voice service requirements

You can build a voice service so that it will accept AMIS Networking calls.

When you are building voice service applications that will accept AMIS Networking calls, the requirements listed in the following table must be met.

Note: For more information on building voice services, refer to the *Meridian Mail Voice Services Application Guide* (NTP 555-7001-325).

Voice service type	Requirement
All voice services	• In the Add DN Information screen, set the Service field to Full Voice (not Basic or Full MultiMedia).
	• In the Voice Services Profile, set the Command Entry field (a time-out) to the maximum value of five seconds. If this field is set to less than five seconds, the AMIS call may be prematurely disconnected.
	• In the Voice Services Profile, set the Act on AMIS/Enterprise Initiator Tone field to Yes.
	You must set this field to Yes so that any AMIS calls received by the voice service will be transferred to the AMIS service.

Voice service type	Requirement
Voice menus	In the Voice Menu Definition, set the Initial No Response action as RP (for Repeat Menu Choices) to ensure that a call remains connected to the voice menu for at least ten seconds; otherwise, the call may be prematurely disconnected.
	It takes about ten seconds for the voice menu to get a signal from AMIS and then transfer the call to the AMIS Networking service. By the time the menu choices are repeated a second time, ten seconds will have passed and the call will have been transferred.
Time-of-Day Controller	If you are using a Time-of-Day-Controller (TD), keep in mind that AMIS Networking does not support Express Messaging. Therefore, night calls transferred to this service will be disconnected.

Note: In multi-customer systems, you can create voice service applications only at the customer administration level since they are associated with a particular customer group.

5-32   **Configuring Meridian Mail**

Using AMIS Networking with other VSDNs

Section C Defining the dialing translations

In this section

Overview of this section

Introduction   This section describes what is required in order to generate
                            dialable DNs for AMIS Networking. Dialable DNs are
                            generated by using

                            • network dialing prefixes

                            • codes to access the local site

                            • translation tables (if required)

**Why dialing   Network dialing prefixes, local site access codes, and
translations are   translation tables are used
required**
                            • when a local user uses the Reply feature to respond to a
                              message that has been received from a user at an AMIS
                              site

                            • to create the local system access number that is sent with
                              a message

                              For more information, see "How Virtual Node AMIS
                              calls are set up" on page 8-20.

                            The AMIS Networking DN of the AMIS voice messaging
                            system is contained in the message header. However, to be
                            able to send a reply back to that number, Meridian Mail must
                            translate it into a number that is dialable from the local site.

                            Dialing translations may need to be used to translate the
                            "public access" networking connection DN that is used to
                            connect to the virtual node (AMIS site).

**Network dialing   Network dialing prefixes are the network access codes that
prefixes**   are used by your system for placing

                            • local calls

                            • long distance calls

                            • international calls

Local site access codes

The codes to access the local site are the country and area/ city codes for your Meridian Mail site. These codes are used to determine if the country and area/city codes entered by a caller need to be stripped out.

Translation tables

Translation tables are used to handle certain dialing exceptions. For example, in a normal local dialing scenario, the area/city code of the calling site is the same as the called site. An exception to this rule is when the area/city codes are different but the call is still considered local. Translation tables are used to define how the dialing exception is to be processed.

Dialing prefixes

Introduction

The Network Dialing Prefixes screen must be completed if AMIS Networking is installed. The screen contains the following:

- default prefixes for network dialing
- codes to access the local site

Default prefixes for network dialing

Default prefixes for network dialing are the network access codes that are used by your system for placing

- local calls
- long distance calls
- international calls

These prefixes are needed to generate dialable DNs from numbers that are entered by users sending AMIS messages.

If your site is part of a CDP network, users who want to dial another user on the private network enter a CDP number which already includes a steering code. This means that you do not have to enter a network dialing prefix for dialing on the CDP network. You will, however, have to enter a prefix for off-net local dialing. Enter whatever prefix is used to get NARS service for local numbers.

Example: A remote AMIS site sends 1#214#5552131# as its AMIS Networking DN. The country code is the same as that of the Meridian Mail site, but the area/city code is different. This indicates a long distance call.

To send a reply to this system, Meridian Mail looks up the long distance dialing prefix (91) and generates the DN 91-214-555-2131.

Codes to access the local site

Codes to access the local site are the country and area/city codes for your Meridian Mail site. These codes are used to

- determine if the country and area/city code for the AMIS Networking DN at a remote site needs to be stripped out
- create the local system access number sent with each AMIS call

Note: The country and area/city codes you define here are *not* included in the system access number on the View/Modify AMIS Networking Information screen.

Reference

Default dialing prefixes and the codes for accessing the local site must be defined before AMIS Networking can be used.

For instructions on defining the prefixes and access codes, refer to the "Setting up network dialing prefixes and local defaults" section in the "Dialing translations" chapter of your *System Administration Guide* (NTP 55x-7001-30x).

Translation tables

Introduction   Translation tables are intended to handle certain dialing
                          exceptions. For example, in a normal local dialing scenario,
                          the area/city code of the calling site is the same as the called
                          site. Exceptions to this rule are when

- the area/city codes are different but the call is still
  considered local
- the area/city codes are the same but the call is long
  distance

Deciding if you need   Translation tables may not be required on your system. If any
translation tables   of the following four exceptions apply to your system, you
                           will have to define a translation table for each area/city code
                           which is an exception:

- local dialing to a different area/city code (area/city code
  is required in DN)
- local dialing to a different area/city code (area/city code
  is not required in the DN)
- long distance dialing to the same area/city code (area/
  city code is required in the DN)
- long distance dialing to the same area/city code (area/
  city code is not required in the DN)

When network dialing   In all other dialing scenarios, such as long distance dialing to
prefixes are used   a different area/city code and local dialing to the same area/
                           city code, the network dialing prefixes only are required.

Maximum networking   If you are planning to define translation tables, then you
combinations   should be aware that the maximum number of sites and
                           locations you can define on your system will decrease. The
                           number of sites and locations defined will also decrease the
                           maximum number of translation tables that you can define.

                           For more information, see Appendix C, "Reference
                           information", at the end of this manual.

Reference   For instructions on defining translation tables, see the "Setting up dialing translation tables" section in the "Dialing translations" chapter of your *System Administration Guide* (NTP 55x-70x1-30x).

Section D   Defining the networking configuration

In this section

Overview of this section

Introduction

This section explains how to define the following for the AMIS Networking configuration:

- AMIS compose prefix
- system access number

All other networking configuration parameters are explained in Chapter 9, "Maintaining the network".

AMIS compose prefix

The AMIS compose prefix is the number that is used by users at the local site to identify to the system that an AMIS message is about to be composed and sent to an open-network user (that is, non Virtual Node AMIS systems).

When the compose prefix is entered, Meridian Mail prompts the user to enter the address of the open network user.

Note: The AMIS compose prefix is not required when local users address messages to users at AMIS sites that are defined in the network database (Virtual Node AMIS sites).

However, the AMIS compose prefix is required in order to perform the loop-back test. For more information about the loop-back test, see Chapter 6, "Testing the network".

System access number

The system access number identifies your system to other Virtual Node AMIS sites. It is sent with outgoing messages that originate from your site.

If the remote site is a Meridian Mail system with Virtual Node AMIS Networking, the system access number is compared with the connection DN of each site to determine the site ID. Otherwise, it is used by AMIS sites when replying to messages originating from the local site (with an equivalent of the Meridian Mail Reply feature).

System access number (continued)

The system access number includes the following components:

- the country code of the local site, up to four digits in length from the Network Dialing Prefixes screen
- the area code of the local site, up to four digits in length from the Network Dialing Prefixes screen
- the DN of the voice service (exchange code and directory number) that will accept AMIS Networking calls from the View/Modify AMIS Networking Information screen (voice menu, thru-dial service, or AMIS Networking service)

Single-customer systems

For single-customer systems, the View/Modify AMIS Networking Information screen is accessed from the Network Administration menu. It contains fields pertaining to all aspects of networking configuration:

- AMIS compose prefix
- system access number

Multi-customer systems

On multi-customer systems, the View/Modify AMIS Networking Information screen is accessed from the Network Administration menu at both the system and customer administration levels.

The screen at the customer level contains only the AMIS compose prefix and system access number. The screen at the system administration level contains all other fields.

When these parameters are defined

If you are configuring Meridian Mail for AMIS Networking for the first time, it is recommended that you change only the AMIS compose prefix and the system access number (explained in this chapter).

It is recommended that you do not change the remaining networking configuration fields until you are comfortable with the way your network is functioning.

For instructions on defining the remaining parameters, see Chapter 9, "Maintaining the network".

Defining the AMIS compose prefix and system access number on single-customer systems

Introduction   This topic explains how to define the AMIS compose prefix and the system access number for AMIS Networking.

When to use this procedure   Use this procedure if you are running a single-customer system.

AMIS compose prefix   The AMIS compose prefix is not required when local users address messages to users at Virtual Node AMIS sites (sites that are defined in the network database).

However, the AMIS compose prefix is required in order to perform the loop-back test. For more information about the loop-back test, see Chapter 6, "Testing the network".

Softkey descriptions   The following table describes the softkeys that are displayed on the View/Modify AMIS Networking Information screen.

Softkey	Description
[Save]	Press this key to save your configuration.
[Cancel]	Press this key if you do not want to save your configuration.

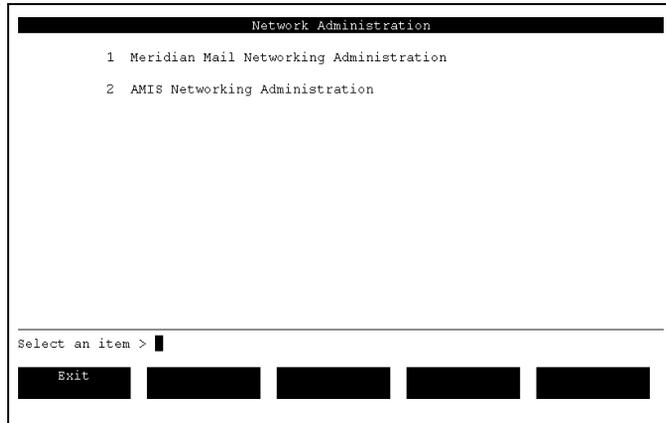**Procedure**   To configure AMIS compose prefix and the system access number, follow these steps.
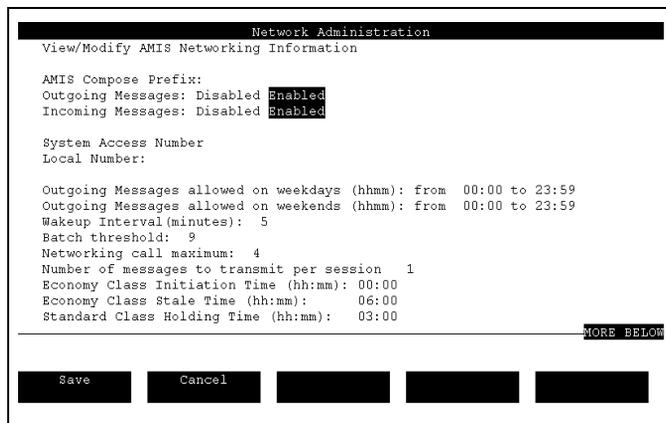
Starting Point: The Main Menu

Step	Action

1   Select Network Administration.

Result: The Network Administration menu is displayed.

```
                        Network Administration
            1   Meridian Mail Networking Administration

            2   AMIS Networking Administration








Select an item > █
       Exit
```

2   Select AMIS Networking Administration.

Result: The View/Modify AMIS Networking Information screen appears.

```
                        Network Administration
    View/Modify AMIS Networking Information

    AMIS Compose Prefix:
    Outgoing Messages: Disabled Enabled
    Incoming Messages: Disabled Enabled

    System Access Number
    Local Number:

    Outgoing Messages allowed on weekdays (hhmm): from  00:00 to 23:59
    Outgoing Messages allowed on weekends (hhmm): from  00:00 to 23:59
    Wakeup Interval(minutes):  5
    Batch threshold:  9
    Networking call maximum:  4
    Number of messages to transmit per session   1
    Economy Class Initiation Time (hh:mm): 00:00
    Economy Class Stale Time (hh:mm):      06:00
    Standard Class Holding Time (hh:mm):   03:00
                                                          MORE BELOW

        Save          Cancel
```

Step	Action
3	Enter the AMIS compose prefix.
4	Enter the local number.
5	Leave all other fields as they are.
	Note: These fields should be modified only when you are comfortable with the way your network is running. Instructions for modifying these fields are in Chapter 9, "Maintaining the network".
6	Do you want to save the AMIS Networking information?
	If yes, press [Save].
	Result: Your changes are saved and you are returned to the Network Administration menu.
	If no, press [Cancel].
	Result: Your changes are discarded and you are returned to the Network Administration menu.

Field descriptions

The following table describes the AMIS compose prefix and system access number fields. All other fields on this screen are discussed in Chapter 9, "Maintaining the network".

AMIS compose prefix	
Description	This is the number that is used by users at the local site to identify to the system that an AMIS message is about to be composed and sent to open-network AMIS users at remote voice messaging systems.
	The AMIS compose prefix is not actually used to compose messages to users at virtual nodes (that is, AMIS sites which have been defined in the network database). However, it is required in order to perform the loop-back test (see Chapter 6, "Testing the network").
	If this prefix conflicts with other network data such as ESN or CDP dialing codes, you will receive an error message.
Default	None

System access number (local number)	
Description	This number identifies your system to other AMIS sites.
	During a message transfer session, the information in this field, plus the country code and area/city code defined on the Network Dialing Prefixes screen are sent with outgoing messages that originate from your site.
	Users at remote sites can then reply to messages that originated from this site (by using an equivalent of the Meridian Mail Reply feature).
	The system access number includes the following components:
	• exchange code for your Meridian Mail site
	• the DN of the voice service that will accept AMIS Networking calls (voice menu, thru-dial service, or AMIS Networking service)
	Example: If the exchange code for your Meridian Mail site is 597, and the AMIS Networking VSDN is 3653, enter 5973653.
	If the country code is 1 and the area/city code is 416, the number that is sent with the message is 1#416#5973653#.
	Note: If remote sites are using Virtual Node AMIS Networking, they must enter the local site's system access number (country code, area/city code, and local number) in International Direct Distance Dialing (IDDD) format as one of the connection DNs to the local site in their network database.
	For more information about the relationship between the system access number and the site's connection DN, see "How sites communicate" on page 5-100.
Default	None

Defining the AMIS compose prefix and system access number on multi-customer systems

Introduction

This topic explains how to define the AMIS compose prefix and the system access number for AMIS Networking.

When to use this procedure

Use this procedure if you are running a multi-customer system.

Note: Only one customer on the system may use the network database. Therefore, only one customer may use AMIS Networking in conjunction with Meridian Mail Networking.

AMIS compose prefix

The AMIS compose prefix is not required when local users address messages to users at Virtual Node AMIS sites (sites that are defined in the network database).

However, the AMIS compose prefix is required in order to perform the loop-back test. For more information about the loop-back test, see Chapter 6, "Testing the network".

Softkey descriptions

The following table describes the softkeys that are displayed on the View/Modify AMIS Networking Information screen.

Softkey	Description
[Save]	Press this key to save your configuration.
[Cancel]	Press this key if you do not want to save your configuration.

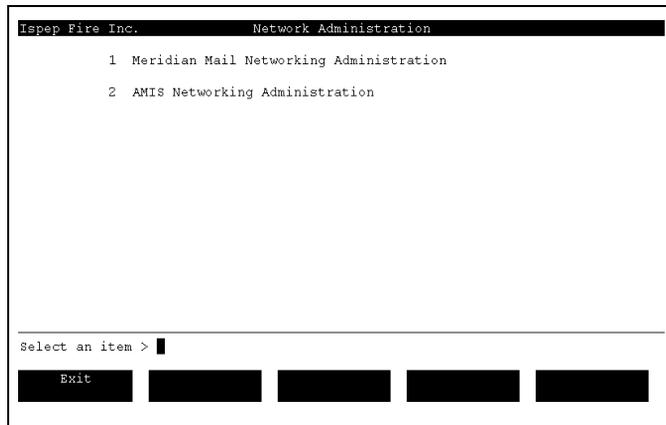**Procedure**   To configure AMIS compose prefix and the system access
                                 number, follow these steps.

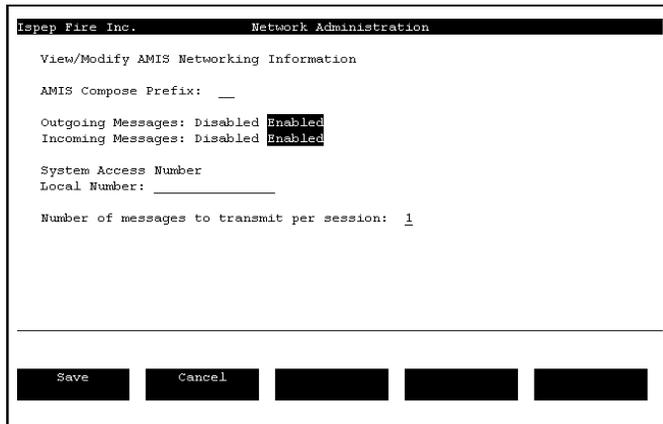   **Starting Point:** The Main Menu

Step	Action
1	Select Customer Administration.
2	Select the Meridian Mail Networking customer group.
	If necessary, use the [Find] then [List] softkeys.
	Result: The Customer Administration menu appears.
3	Select Network Administration from the Customer Administration menu.
	Result: The Network Administration menu appears.

```
Ispep Fire Inc.              Network Administration

        1  Meridian Mail Networking Administration

        2  AMIS Networking Administration






_____
Select an item > █
   Exit
```

Step	Action
4	Select AMIS Networking Administration.

Result: The View/Modify AMIS Networking Information screen appears.

```
Ispep Fire Inc.                 Network Administration

  View/Modify AMIS Networking Information

  AMIS Compose Prefix:  __

  Outgoing Messages: Disabled  Enabled
  Incoming Messages: Disabled  Enabled

  System Access Number
  Local Number: _____

  Number of messages to transmit per session:  1




  _____


     Save          Cancel
```

Step	Action
5	Enter the AMIS compose prefix.
6	Enter the local number.
7	Leave all other fields as they are.
8	Do you want to save the configuration?

If yes, press [Save].

Result: The data entered in the screen is saved. The Network Administration menu is displayed.

If no, press [Cancel].

Result: Any changes you have made are not saved and the Network Administration menu is displayed.

Field descriptions

The following table describes the AMIS compose prefix and system access number fields. All other fields on this screen are discussed in Chapter 9, "Maintaining the network".

AMIS compose prefix

Description   This is the number that is used by users at the local site to identify to the system that an AMIS message is about to be composed and sent to open-network AMIS users at remote voice messaging systems.

The AMIS compose prefix is not actually used to compose messages to users at virtual nodes (that is, AMIS sites which have been defined in the network database). However, it is required in order to perform the loop-back test (see Chapter 6, "Testing the network").

If this prefix conflicts with other network data such as ESN or CDP dialing codes, you will receive an error message.

Default   None

System access number (local number)

Description   This number identifies your system to other AMIS sites.

During a message transfer session, the information in this field, plus the country code and area/city code defined on the Network Dialing Prefixes screen are sent with outgoing messages that originate from your site.

Users at remote sites can then reply to messages that originated from this site (by using an equivalent of the Meridian Mail Reply feature).

The system access number includes the following components:

- exchange code for your Meridian Mail site
- the DN of the voice service that will accept AMIS Networking calls (voice menu, thru-dial service, or AMIS Networking service)

Description	(continued)
	Example: If the exchange code for your Meridian Mail site is 597, and the AMIS Networking VSDN is 3653, enter 5973653.
	If the country code is 1 and the area/city code is 416, the number that is sent with the message is 1#416#5973653#.
	Note: If remote sites are using Virtual Node AMIS Networking, they must enter the local site's system access number (country code, area/city code, and local number) in International Direct Distance Dialing (IDDD) format as one of the connection DNs to the local site in their network database.
	For more information about the relationship between the system access number and the site's connection DN, see "How sites communicate" on page 5-100.
Default	None

Section E   Adding the local site

In this section

Overview of this section

Introduction
This section shows you how to add and configure the local site with the following dialing plans:

- Hybrid (combination of ESN and CDP)
- ESN (Electronic Switched Network)
- CDP (Coordinated Dialing Plan)
- "None"

Meridian Networking users
If you are also using Meridian or Enterprise Networking, or both, and you have already defined the local site, you can ignore this section. You do not need to define the local site again.

AMIS Networking users
If you are using AMIS Networking and are now implementing Virtual Node AMIS Networking, the system will have automatically defined the local site. This may cause a conflict in site IDs if one or more remote sites is also implementing Virtual Node AMIS Networking over AMIS Networking at the same time. You may need to change the local site ID.

For more information, see "Modifying the local site ID" in Appendix B, "Miscellaneous tasks".

Where this is done
You add and configure the local site in the Add Local Site screen.

Fields
Certain fields in the Add Local Site screen are common to all dialing plans. Other fields change according to the dialing plan you use.

Before you begin
To prepare for defining the local site, you need to obtain one of the following:

- the Meridian 1 Network Information forms
- ESN or CDP overlay printouts, or both

These are obtained from Chapter 2, "Gathering information for the network".

IF you are	THEN you
defining the local site for the first time	need the NWP-004, "Meridian 1 Network Information—Site Information" form. For more information, see "Accessing the Add Local Site screen" on page 5-69.
entering Hybrid dialing plan information	need the following: • NWP-005, "Meridian 1 Network Information—ESN Data Block" or ESN (LD 86) printout • NWP-007, "Meridian 1 Network Information—CDP Steering Codes" or CDP (LD 87) printout • NWP-012, "Meridian 1 Network Information—Network Translation Location codes" or NET (LD 90) printout For more information, see "Entering local site Hybrid dialing plan information" on page 5-78.
entering ESN dialing plan information	need the following: • NWP-005, "Meridian 1 Network Information—ESN Data Block" or ESN (LD 86) printout • NWP-012, "Meridian 1 Network Information—Network Translation Location Codes" or NET (LD 90) printout For more information, see "Entering local site ESN dialing plan information" on page 5-85.
entering CDP dialing plan information	need the following: • NWP-005, "Meridian 1 Network Information—ESN Data Block" or ESN (LD 86) printout • NWP-007, "Meridian 1 Network Information—CDP Steering Codes" or CDP (LD 87) printout For more information, see "Entering local site CDP dialing plan information" on page 5-91.
entering "None" dialing plan information	do not need any data entry forms. For more information, see "Entering "None" dialing plan information for the local site" on page 5-95.

Filling out data entry forms

Introduction

This topic explains how to complete the data entry forms that are recommended for defining the local site.

Data entry forms required

Before you define the local site, you should complete the following Meridian Mail Network Information forms:

- NWP-024, "Meridian Mail Network Information—Local Site Maintenance" (two pages)

  Samples are shown on pages 5-59 and 5-60.

- NWP-027, "Meridian Mail Network Information—CDP Steering Codes" (if you choose the Hybrid or CDP dialing plan)

  A sample is shown on page 5-61.

Full-size versions of these forms are in Appendix A, "Networking implementation forms", at the back of this manual. They may be photocopied.

How to complete the forms

The Meridian Mail Network Information forms are basically hard copies of the Meridian Mail local site maintenance screens. Therefore, the instructions for completing the forms are the same as for entering the information into Meridian Mail.

Information for the local site is obtained from the

- Meridian 1 Network Information forms
  or
- the ESN or CDP overlay printouts, or both

These were completed in Chapter 2, "Gathering information for the network".

How to complete the forms (continued)

The following table identifies where you can find instructions for completing these forms (and for completing the fields on the screens).

For instructions on entering	See the field description table in
fields common to all dialing plans	"Accessing the Add Local Site screen" on page 5-69.
Hybrid dialing plan information	"Entering local site Hybrid dialing plan information" on page 5-78.
ESN dialing plan information	"Entering local site ESN dialing plan information" on page 5-85.
CDP dialing plan information	"Entering local site CDP dialing plan information" on page 5-91.
"None" dialing plan information	"Entering "None" dialing plan information for the local site" on page 5-95.

**Form sample:
NWP-024 (page 1)**

The following is a sample of form NWP-024, page 1.

Meridian Mail Network Information—Local Site Maintenance   **NWP-024**
                                                                        Page 1 of 2

Site Information

Site number:	Site name:

Site is network message center? ☐ Yes (Complete NWP-026 for each NMS satellite location) ☐ No	Message transfer ☐ Enabled ☐ Disabled

Dialing Plan
(Check one of these boxes to choose the dialing plan.)

☐ ESN	☐ CDP	☐ Hybrid	☐ None

Maximum number of digits in local mailbox:

Hybrid dialing plan information
(Complete this section if you have selected both the ESN and CDP dialing plans.)

ESN access codes:
Number of overlapping digits between ESN prefixes and local extension:
ESN prefixes:
Number of overlapping digits between CDP steering code and local extension:
CDP Steering Codes: (Complete and attach NWP-027, "CDP Steering codes" form.)
Mailbox numbering follows the dialing plan: ☐ Yes ☐ No (Complete the Mailbox prefixes field.)
Mailbox prefixes: (This field appears if your mailbox does not follow the dialing plan.)

ESN dialing plan information
(Complete this section if you have selected the ESN dialing plan.)

ESN access codes:
Number of overlapping digits between ESN prefixes and local extension:
ESN prefixes:
Mailbox numbering follows the dialing plan: ☐ Yes ☐ No (Complete the Mailbox prefixes field.)
Mailbox prefixes (This field appears if your mailbox does not follow the dialing plan.):

**Form sample:
NWP-024 (page 2)**

The following is a sample of form NWP-024, page 2.

Meridian Mail Network Information—Local Site Maintenance   **NWP-024**
                                                                  Page 2 of 2

CDP dialing plan information
(Complete this section if you have selected the CDP dialing plan.)

Number of overlapping digits between CDP steering code and local extension:

CDP Steering Codes: (complete and attach NWP-027, "CDP Steering codes" form)

Mailbox numbering follows the dialing plan:
☐ Yes
☐ No (Complete the Mailbox prefixes field.)

Mailbox prefixes: (This field appears if your mailbox does not follow the dialing plan):

None dialing plan information
(Complete this section if you have selected the None dialing plan.)

Mailbox numbering equals local extension:
☐ Yes
☐ No

Mailbox prefixes: (This field appears whether or not mailbox numbering equals the local extension.)

Completed by

Administrator:	Date:

**Form sample:
NWP-027**

If the local site will be using the CDP or Hybrid dialing plans, complete the NWP-027, "Meridian Mail Network Information—CDP Steering Codes" form and attach it to form NWP-024.

The following shows a sample of form NWP-027.

Meridian Mail Network Information—CDP Steering codes   **NWP-027**

Complete and attach this form to NWP-024, NWP-025 or NWP-026.

Site/Location Information

Site/Location number:	Site/Location name:

CDP Steering codes
(You can enter up to 50 steering codes for the CDP dialing plan or the Hybrid dialing plan.)

_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

Completed by

Administrator:	Date:

Calculating the number of overlapping digits in the ESN prefixes

Introduction

When you are entering dialing plan information for the local site, you need to define the number of digits in the ESN prefixes that overlap the digits in the local extensions.

For more information on this field, see the field descriptions on page 5-86.

Definition: overlap

An overlap is the number of right-most digits in the ESN prefixes that are not removed when digit deletion is performed by the switch. If the digits that remain after digit deletion are the same as leading digits in mailbox numbers, then these are considered to be overlaps.

Digit manipulation tables

The Meridian 1 uses digit manipulation tables to define how many leading digits of a dialed number will be deleted. (They are also used to define how many digits are to be inserted before a dialed number. However, digit insertion is not supported by AMIS Networking.)

Digit manipulation tables are associated with trunks and are used by ESN to convert a dialed number into a format that can be used by the trunk.

In contrast, the number of overlapping digits (on Meridian Mail) gives the number of digits to leave on the number.

The following procedure shows how to use the "number of digits to delete" value from the Meridian 1 (DEL on a DMI) to determine how many digits in the ESN prefixes overlap with digits in mailbox numbers.

Procedure

To calculate the number of digits in the ESN prefixes that overlap the digits in the local extensions, follow these steps.

Step	Action
1	Using form NWP-016, determine the number of digits in the Home Location Code (HLOC).
	Example: If the HLOC is 338, there are three digits in the HLOC.
2	Use the DMI from form NWP-016 to locate the appropriate DMI in the Digit Manipulation Tables (form NWP-006). Find the number of leading digits to be deleted (DEL field).
	Note: Virtual Node AMIS Networking does not support digit insertion.
3	Subtract the DEL number (found in step 2) from the number of digits in the HLOC (found in step 1).
	Result: This calculation provides the number of overlapping digits.
	Example: If the ESN HLOC is 338 and the DEL number is 1, the number of overlapping digits is $3 - 1 = 2$. This means that ESN 338-1234 is translated into local DN 381234.
4	Repeat the above steps for each ESN prefix.
	Note: ESN prefixes must have the same "number of overlapping digits" values.

Example

Virtual Node AMIS Networking supports only equal "number of overlapping digits" values for each ESN prefix. Below are examples of how to calculate the number of overlapping digits.

Only one ESN prefix (simple case)
If the HLOC is 338 and the DEL number is 1, then the number of overlapping digits is $3 - 1 = 2$. This means that ESN 338-1234 is translated into local DN 381234.

Multiple ESN prefixes
In this example, the first HLOC = 754 with DEL = 2. The number of overlapping digits is $3 - 2 = 1$.

The second HLOC = 66 with DEL = 1. The number of overlapping digits is $2 - 1 = 1$.

Example (continued)   Since the number of overlapping digits for both HLOCs is the same (1), ESN 754-1234 becomes local DN 41234, and ESN 66-1234 becomes local DN 61234.

Calculating the number of overlapping digits in CDP steering codes

Introduction

When you are entering dialing plan information, you need to calculate the number of digits in the CDP steering code that overlap the digits in the local extensions.

For more information on this field, see the field descriptions on page 5-92.

Definition: overlap

An overlap is the number of right-most digits in the CDP steering code that are not removed when digit deletion is performed by the switch. If the digits that remain after digit deletion are the same as leading digits in mailbox numbers, then these are considered to be overlaps.

Digit manipulation tables

The Meridian 1 uses digit manipulation tables to define how many leading digits of a dialed number will be deleted. (They are also used to define how many digits are to be inserted before a dialed number. However, digit insertion is not supported by AMIS Networking.)

Digit manipulation tables are associated with trunks and are used by CDP to convert a dialed number into a format that can be used by the trunk.

In contrast, the number of overlapping digits (on Meridian Mail) gives the number of digits to leave on the number.

The following procedure shows how to use the "number of digits to delete" value from the Meridian 1 (DEL on a DMI) to determine how many digits in CDP steering codes overlap with digits in mailbox numbers.

Procedure   To calculate the number of digits in the CDP steering code that overlap the digits in the local extensions, follow these steps.

Step	Action
1	Using form NWP-007, determine the number of digits in the Local Steering Code (LSC).
	Example: If the LSC is 21, then there are two digits in the LSC.
2	Use the DMI from form NWP-007 to locate the appropriate DMI in the Digit Manipulation Tables (form NWP-006). Find the number of leading digits to be deleted (DEL field).
	Note: Virtual Node AMIS Networking does not support digit insertion.
3	Subtract the DEL number (found in step 2) from the number of digits in the LSC (found in step 1).
	Result: This calculation provides the number of overlapping digits.
4	Repeat the above steps for each steering code.
	Note: Virtual Node AMIS Networking does not support steering codes if they have different "number of overlapping digits" values.

Example

Virtual Node AMIS Networking supports only equal "number of overlapping digits" values for each steering code. Below are examples of how to calculate the number of overlapping digits.

Only one steering code (simple case)
If the LSC is 21 and the DEL value is 1, then the number of overlapping digits is 2 – 1 = 1. This means that 211234 is translated into local DN 11234.

Multiple codes
In this example, the first LSC = 754 with DEL = 2. The number of overlapping digits is 3 – 2 = 1.

The second LSC = 66 with DEL = 1. The number of overlapping digits is 2 – 1 = 1.

Since the number of overlapping digits for both codes is the same (1), 7541234 becomes local DN 41234, and 661234 becomes local DN 61234.

Unsupported codes

Virtual Node AMIS Networking does not support different "number of overlapping digits" values for each steering code. For example, if there are some codes that require two digits to be removed, some with three digits to be removed, and others with none, this cannot be supported.

Unsupported multiple codes
In this example, the first LSC = 754 with DEL = 1. The number of overlapping digits is 3 – 1 = 2.

The second LSC = 66 with DEL = 1. The number of overlapping digits is 2 – 1 = 1.

Since the number of overlapping digits is different, Virtual Node AMIS Networking cannot support this.

Exception to unsupported multiple codes

In this example, the first LSC = 754 with DEL = 1. The number of overlapping digits is 3 − 1 = 2.

The second LSC = 66 with DEL = 0. The number of overlapping digits is 2 − 0 = 2.

The third LSC = 8 with DEL = 0. The number of overlapping digits is 1 − 0 = 1.

Virtual Node AMIS Networking supports setups where the number of overlapping digits is different if *all* of the shorter values remove the entire code—for example, LSC = 66 and DEL = 0.

In this case, the number of overlapping digits is 2, 2, and 1 respectively, and

- 7541234 becomes 541234
- 661234 becomes 661234
- 81234 becomes 81234

However, for the last case, the entire code overlaps the local number—for example, 81234 translates to local DN 81234. Thus, when the lower numbers map to DEL = 0, you can ignore them.

For this scenario, set the "Number of overlapping digits between CDP steering code and local ext:" to 2. Then 7541234 becomes 541234 (because the last two digits of the steering code 754 overlap), 661234 becomes 661234 and 81234 correctly becomes 81234 (because the last two digits of eight overlap, but since there is only one digit, you just include it).

Accessing the Add Local Site screen

Introduction

This topic explains how to access the Add Local Site screen. It also explains how to enter information that is common to all dialing plans.

Meridian 1 Network Information forms required

You will need the NWP-004, "Meridian 1 Network Information—Site Information" form that was completed in Chapter 2, "Gathering information for the network".

Meridian Mail Networking users

If you are also using Meridian or Enterprise Networking, or both, and you have already defined the local site, you can ignore this section. You do not need to define the local site again.

If you are implementing Virtual Node AMIS Networking

If you are using AMIS Networking and are now implementing Virtual Node AMIS Networking, the system will have automatically defined the local site. This may cause a conflict in site IDs if one or more remote sites is also implementing Virtual Node AMIS Networking over AMIS Networking at the same time. You may need to change the local site ID by using System Administration Tools.

For instructions, see "Modifying the local site ID" in Appendix B, "Miscellaneous tasks", at the end of this manual.

Softkey descriptions   The following table describes the softkeys on the Add Local Site screen that are common to all dialing plans.

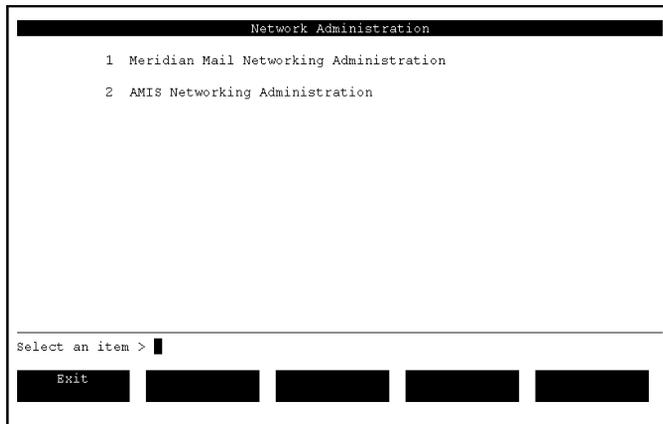| Softkey	Description
[Save]	Press this softkey to add the local site.
	Once the local site is saved, the system provides access to the Network Administration menu.
[Cancel]	Press this softkey if you do not want to add the local site.
[More CDP fields]	This softkey appears if you choose the CDP or Hybrid dialing plan. Press this softkey if you want to add more CDP steering codes.

Procedure:
Adding the local site

To add the local site, follow these steps.

Starting Point: The Main Menu (single customer) or Customer
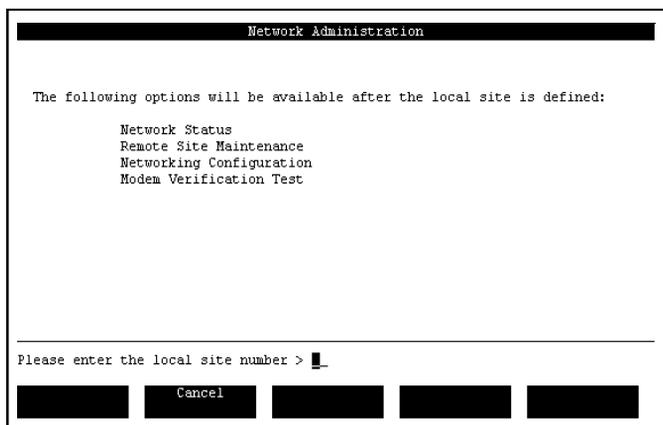Administration menu (multi-customer)

Step	Action

1   Select Network Administration.

   Result: The Network Administration menu appears.

```
                          Network Administration

               1  Meridian Mail Networking Administration

               2  AMIS Networking Administration




Select an item > █
     Exit
```

2   Select Meridian Mail Networking Administration.

   Result: The following screen appears.

```
                          Network Administration


   The following options will be available after the local site is defined:

               Network Status
               Remote Site Maintenance
               Networking Configuration
               Modem Verification Test




Please enter the local site number > █
               Cancel
```

Step Action

3   Enter the local site number. This number must be in the range
     of 1 to 500.

     Choose a number that is not used by any remote site in the
     network. If possible, obtain a site number from the Network
     Administrator.

     Note: Two sites cannot share the same number.

     Result: The Add Local Site screen appears.

```
                        Network Administration
 Add Local Site

 Site number:      1
 Site name:        █

 Message transfer: Enabled Disabled
 Site is network message center?      No Yes

 Dialing plan:    ESN CDP HYBRID NONE
 Max number of digits in local mailbox:      4

 ESN access codes:       ___        __
 Number of overlapping digits between ESN prefix and local ext:         0
 ESN prefixes (they must begin with   ):
 _____  _____  _____  _____  _____
 _____  _____  _____  _____  _____

 Number of overlapping digits between CDP steering code and local ext: 10
                                                            MORE BELOW

      Save          Cancel                     More CDP
                                               Fields
```

4   Complete the common fields as required. (See the field
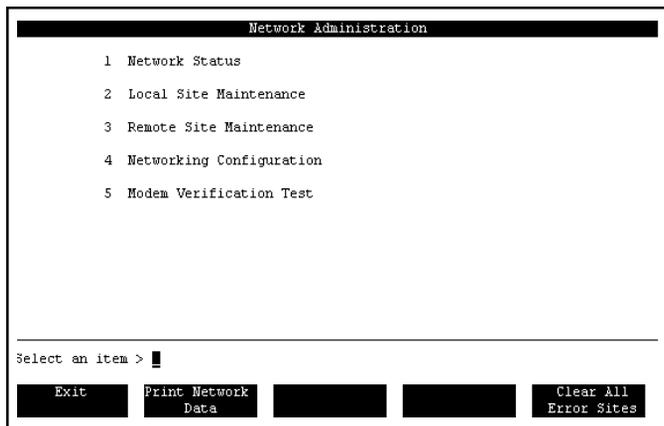   descriptions following this procedure.)

Step	Action

5   Once the common fields have been completed, enter the dialing plan information. The following table identifies where to find the instructions.

IF your dialing plan is	THEN
Hybrid	see "Entering local site Hybrid dialing plan information" on page 5-78.
ESN	see "Entering local site ESN dialing plan information" on page 5-85.
CDP	see "Entering local site CDP dialing plan information" on page 5-91.
"None"	see "Entering "None" dialing plan information for the local site" on page 5-95.

6   Do you want to save the local site?

If yes, press [Save].

Result: The system adds the local site, then allows you to access the Network Administration menu.

```
                        Network Administration

            1  Network Status

            2  Local Site Maintenance

            3  Remote Site Maintenance

            4  Networking Configuration

            5  Modem Verification Test




       _____
       Select an item > █
        _____  _____  _____  _____  _____
         Exit        Print Network                              Clear All
                        Data                                   Error Sites
```

If you do not want to save the local site, press [Cancel].

Result: The system discards your changes and returns you to the previous menu.

Step Action

6   (continued)

```
                         Network Administration
            1   Meridian Mail Networking Administration
            2   AMIS Networking Administration




Select an item >  ▮
      Exit
```

Field descriptions   The following table describes the fields in the Add Local Site screen that are common to all dialing plans.

Site number	
Description	This field is read-only.
	The site number uniquely identifies the local site in the Meridian Mail network.
Valid range	1 to 500
Site name	
Description	This field is mandatory.
	The site name identifies the local site. You should enter a descriptive name for the local site.
Maximum length	32 alphanumeric characters
Default	None

Message transfer: Enabled Disabled

Description	Set this field to Enabled to allow local users to send messages to the remote sites.
	Set this field to Disabled to temporarily disable message delivery to all remote sites.
Default	Enabled

Site is network message center? No/Yes

Description	This field appears only if the Network Message Service feature is installed.
	Set this field to Yes only if you want to implement the Network Message Service feature at the local site (on this Meridian Mail system).
	To determine if the site is a network message center, see the site type section on the NWP-004, "Meridian 1 Network Information—Site Information" form.
	For more information, refer to the *Network Message Service Installation and Administration Guide* (NTP 555-7001-243).
Default	No

Dialing plan

Description	Select the dialing plan for the local site.
	There are four dialing plans:
	To determine which dialing plan to use, see the "Dialing plan table" on page 5-77.
	• *Hybrid* Both the ESN and CDP dialing plans are configured on the switch.
	To set up this dialing plan, see "Entering local site Hybrid dialing plan information" on page 5-78.
	• *ESN* This dialing plan is configured on the switch.
	To set up this dialing plan, see "Entering local site ESN dialing plan information" on page 5-85.
	• *CDP* This dialing plan is configured on the switch.
	To set up this dialing plan, see "Entering local site CDP dialing plan information" on page 5-91.
	• *None* The switch does not have a configured dialing plan.
	To set up this dialing plan, see "Entering "None" dialing plan information for the local site" on page 5-95.
Default	Hybrid

Max number of digits in local mailbox	
Description	Enter the maximum length of mailbox numbers used at the local site.
	For example, if some mailbox numbers have four digits (for example, 8050) and other mailbox numbers have seven digits (for example, 5551234), enter seven digits in this field.
	Note: The value of this field is used to determine the value of "The maximum length of network mailboxes is" field, which is found on the Networking Configuration screen and is used for the Network Broadcast Messaging feature.
Default	4
Maximum length	16 digits

Dialing plan table   The following table will help you to identify which dialing plan you should define for the local site.

IF the dialing plan used to call remote sites from the local site is	**AND the dialing plan used to call the local site from remote sites is**	**THEN set the dialing plan field to**
ESN	ESN	ESN
ESN	CDP	Hybrid
ESN	ESN and CDP	Hybrid
ESN	None	ESN
CDP	ESN	Hybrid
CDP	CDP	CDP
CDP	ESN and CDP	Hybrid
CDP	None	CDP
ESN and CDP	ESN, CDP, Hybrid, or None	Hybrid
None	not applicable	None

Entering local site Hybrid dialing plan information

Introduction

This topic explains how to enter Hybrid dialing plan information for the local site on the Add Local Site screen.

Definition: Hybrid dialing plan

A hybrid network combines the ESN and CDP dialing plans. Each site in the network can support one or both of these dialing plans.

Meridian 1 Network Information forms required

You will need the following Meridian 1 Network Information forms that were completed in Chapter 2, "Gathering information for the network":

- NWP-005, "ESN Data Block" or ESN (LD 86) printout
- NWP-007, "CDP Steering Codes" or CDP (LD 87) printout
- NWP-012, "Network Translation Location Codes" or NET (LD 90) printout

Calculating the number of overlapping digits

When entering Hybrid dialing plan information, you need to calculate the following:

- the number of digits in the ESN prefixes that overlap the digits in the local extensions

  For more information, see page 5-62.

- the number of digits in the CDP steering codes that overlap the digits in the local extensions

  For more information, see page 5-65.

For more information on these fields, see the field descriptions on page 5-79.

Entering Hybrid dialing plan information	To enter Hybrid dialing plan information, follow these steps.

Starting Point: You should have already completed the common fields in the Add Local Site screen.

Step	Action
1	Complete the fields as required. (See the field descriptions following this procedure.)
2	Do you want to save the local site?
	If yes, press [Save].
	If no, press [Cancel].

Field descriptions

The following table describes the additional fields that appear when you choose the Hybrid dialing plan.

ESN access codes

Description	This field is mandatory.
	This code is used to access the ESN network from the local site's switch. You can enter two different ESN access codes, each with up to three digits. A typical access code is 6.
	Usually only one access code is required.
	To determine the ESN access codes, see the AC1 and AC2 fields on the NWP-005, "Meridian 1 Network Information—ESN Data Block" form.
	Note: The ESN access code cannot match the left-most digits of any local mailbox number. For example, if there is a local mailbox number 6122, the access code cannot be 6.
	If there is a conflict, you must either
	• change the access code
	or
	• change the mailbox numbers for the conflicting mailboxes
Default	None

Number of overlapping digits between ESN prefix and local ext

Description	This field indicates the number of digits in the ESN prefixes that overlap with extensions at the local site.
	For example: Users' extensions at the local site are five digits long and all begin with 8, and the local ESN prefix is 6338. Enter 0 (no overlap) in this field if users at other sites have to dial the nine-digit DN to call users at this site (such as 633883000).
	Enter 1 in this field, indicating that the last digit of the prefix and the first digit of the extension overlap, if users have to dial an eight-digit DN (63383000).
	The selection you make here must conform with the local site's dialing plan.
	For information about calculating the overlap, see "Calculating the number of overlapping digits in the ESN prefixes" on page 5-62.
	Note: You must enter a value in this field. If you leave this field blank, it reverts to the previous value. If there are no numbers in common between the ESN prefixes and the local extensions, use the default setting of 0.
Default	0

ESN prefixes (they must begin with)	
Description	The starting digits of the ESN prefixes must be the same as the digits in the first ESN access code (as described earlier).
	The ESN prefixes are the ESN location prefixes that identify mailboxes at the local site within the network. Therefore, the prefixes must be unique within the ESN network. Remote users must precede the mailbox numbers of local users with the appropriate ESN prefix.
Multiple ESN prefixes	If a site has more than one ESN prefix, then you may be required to define the number of overlapping digits in order for Call Sender to work properly.
Maximum number	You can define up to 10 ESN prefixes for one site.
Determining the ESN prefixes	To determine the ESN prefixes, see the • AC1 field on the NWP-005, "Meridian 1 Network Information—ESN Data Block" form • LOC field on the NWP-012, "Meridian 1 Network Information—Network Translation Location Codes" form
	The ESN prefixes are made up of the AC1 field followed by the LOC field. For example, if the AC1 field is 6 and the LOC field is 338, enter 6338 in this field.
	Note: The value "they must begin with" in the ESN prefixes is the AC1 from this screen.
Default	None

**Number of overlapping digits between CDP steering code and
local ext**

Description	This field indicates the number of digits in the CDP steering code that overlap with the local users' extensions. These codes need not overlap. Refer to your dialing plan.

Example: Say that the steering code is 22 and the local extension is 22345. If remote users call the extension by dialing

- 22 22345, then the full steering code precedes the extension

  Thus, there is no overlap and this field is set to 0.

- 2 22345, then the last digit of the steering code overlaps the extension number

  Set this field to 1.

- 22345, then the entire code overlaps the extension

  In this case, the steering code is the first digit of the local extension, which is normally the case. Set the field to 2 or greater.

Normally, the CDP code is the first few digits of the local extension. If this is the case, set this field to or leave this field as, 10.

For information about calculating the overlap, see "Calculating the number of overlapping digits in CDP steering codes" on page 5-65.

Meridian Mail Networking does not support multiple steering codes with differing overlaps (for example, 7231 with 2 overlap and 667 with no overlap).

Default	10

Note: The default of 10 means that all codes overlap the extension.

CDP steering codes

Description	CDP steering codes are site prefixes that identify the local site within the network. Therefore, this prefix must be unique within all sites in the network.
	If the local site is part of a CDP network, the CDP steering code may already be part of the mailbox number as far as users are concerned. (Even though this is the case, the CDP steering codes must still be defined here because the system must be able to identify the steering code in the mailbox number in order to determine the site.)
	To define CDP steering codes, see the NWP-007, "Meridian 1 Network Information—CDP Steering Codes" form.
	Hint: It may be possible to reduce the number of codes. For example, if you have three codes (774, 775, and 776) and there are no other sites which use 77x in their CDP dialing plan, simply enter 77 as the code instead.
Maximum number	You can enter up to 50 steering codes.
Default	None

Mailbox numbering follows dialing plan? Yes/No

Description	This field indicates whether the local users' mailbox numbers are the same as their telephone extensions.
	Set this field to Yes if a user can be dialed by combining the ESN prefix/CDP steering code with their mailbox number.
	For example, if the local ESN prefix is 6222 and the local mailbox is 1234, remote users can dial the local user with the numbers 62221234 (ESN prefix and mailbox number).
	Set this field to No if the mailbox numbering does not follow the dialing plan of the local site.
	Note: If you set this field to No, the Mailbox prefixes field appears (see next field).
Default	Yes

Mailbox prefixes

Description	This field appears if the "Mailbox numbering follows dialing plan" field is set to No.
	Mailbox prefixes are placed in front of the mailbox number to send networking messages to the local site.
	For example, if the mailbox prefix is 22 and a remote user needs to compose a message to local mailbox 4444, the user must enter 224444 as the address.
	These prefixes do not have any overlap with local mailbox numbers and are independent of the ESN location prefix and CDP steering codes.
	You can enter up to two prefixes. Either prefix can be used to address any mailbox at the local site. Normally, however, only one prefix is required.
	Ensure that these prefixes do not conflict with other network data.
Default	None

Entering local site ESN dialing plan information

Introduction

This topic explains how to enter ESN dialing plan information for the local site in the Add Local Site screen.

Meridian 1 Network Information forms required

You will need the following Meridian 1 Network Information forms that were completed in Chapter 2, "Gathering information for the network":

- NWP-005, "ESN Data Block" or ESN (LD 86) printout
- NWP-012, "Network Translation Location Codes" or NET (LD 90) printout

Before you begin

Before you can enter the ESN dialing plan information, you need to calculate how many digits in the ESN prefixes overlap with digits in mailbox numbers. For instructions, see "Calculating the number of overlapping digits in the ESN prefixes" on page 5-62.

Procedure

To enter ESN dialing plan information, follow these steps.

Starting Point: You should have already defined the common fields in the Add Local Site screen.

Step	Action
1	Enter the ESN dialing plan information.
	For more information, see the following field descriptions.
2	Do you want to add the local site?
	If yes, press [Save].
	If no, press [Cancel].

Field descriptions   The following table describes the additional fields that appear
                                  when you choose the ESN dialing plan.

                                  For a description of the fields common to all dialing plans,
                                  see "Accessing the Add Local Site screen" on page 5-69.

ESN access codes

Description	This field is mandatory.
	This code is used to access the ESN network from the local site's switch. You can enter two different ESN access codes, each with up to three digits. A typical access code is 6.
	Usually, only one access code is required.
	To determine the ESN access codes, see the AC1 and AC2 fields on the NWP-005, "Meridian 1 Network Information—ESN Data Block" form.
	Note: The ESN access code cannot match the left-most digits of any local mailbox number. For example, if there is a local mailbox number 6122, the access code cannot be 6.
	If there is a conflict, you must either
	• change the access code
	• change the mailbox numbers for the conflicting mailboxes
Default	None

Number of overlapping digits between ESN prefix and local ext

---

Description	This field indicates the number of digits in the ESN prefixes that overlap with extensions at the local site.
	Example: If users' extensions at the local site are five digits long and all begin with 8, and the local ESN prefix is 6338, enter 0 (no overlap) in this field if users at other sites have to dial the nine-digit DN to call users at this site (such as 633883000).

Description	(continued)
	Enter 1 in this field, indicating that the last digit of the prefix and the first digit of the extension overlap, if users have to dial an eight-digit DN (63383000).
	The selection you make here must conform with the local site's dialing plan.
	For information about calculating the overlap, see "Calculating the number of overlapping digits in the ESN prefixes" on page 5-62.
	Note: You must enter a value in this field. If you leave this field blank, it reverts to the previous value. If there are no numbers in common between the ESN prefixes and the local extensions, use the default setting of 0.
Default	0

ESN prefixes (they must begin with)

Description	The starting digits of the ESN prefixes must be the same as the digits in the first ESN access code (as described earlier).
	The ESN prefixes are the ESN location prefixes that identify mailboxes at the local site within the network. Therefore, the prefixes must be unique within the ESN network. Remote users must precede the mailbox numbers of local users with the appropriate ESN prefix.
Multiple ESN prefixes	If a site has more than one ESN prefix, then you may be required to define the number of overlapping digits in order for Call Sender to work properly.
Maximum number	You can define up to 10 ESN prefixes for one site.
Determining the ESN prefixes	To determine the ESN prefixes, see the
	• AC1 field on the NWP-005, "Meridian 1 Network Information—ESN Data Block" form
	• LOC field on the NWP-012, "Meridian 1 Network Information—Network Translation Location codes" form
	The ESN prefixes are made up of the AC1 field followed by the LOC field. For example, if the AC1 field is 6 and the LOC field is 338, enter 6338 in this field.
	Note: The value "they must begin with" in the ESN prefixes is the AC1 from this screen.
Default	None

Mailbox numbering follows dialing plan? Yes/No

Description | This field indicates whether the local users' mailbox numbers are the same as their telephone extensions.

Set this field to Yes if a user can be dialed by combining the ESN prefix with their mailbox number.

For example, if the local ESN prefix is 6222 and the local mailbox is 1234, remote users can dial the local user with the numbers 62221234 (ESN prefix and mailbox number).

Set this field to No if the mailbox numbering does not follow the dialing plan of the local site.

Note: If you set this field to No, the Mailbox prefixes field appears (see next field).

Default | Yes

Mailbox prefixes

Description	This field appears if the "Mailbox numbering follows dialing plan" field is set to No.
	Mailbox prefixes are placed in front of the mailbox number to send networking messages to the local site.
	For example, if the mailbox prefix is 22 and a remote user needs to compose a message to local mailbox 4444, the user will need to enter 224444 as the address.
	These prefixes do not have any overlap with local mailbox numbers and are independent of the ESN location prefix.
	You can enter up to two prefixes. Either prefix can be used to address any mailbox at the local site. Normally, however, only one prefix is required.
	Ensure that these prefixes do not conflict with other network data.
Default	None

Entering local site CDP dialing plan information

Introduction

This topic explains how to enter CDP dialing plan information for the local site in the Add Local Site screen.

Meridian 1 Network Information forms required

You will need the NWP-007, "Meridian 1 Network Information—CDP Steering Codes" form or the CDP (LD 87) printout that were completed in Chapter 2, "Gathering information for the network".

Before you begin

Before you can enter the CDP dialing plan information, you need to calculate how many digits in the CDP steering code overlap with digits in mailbox numbers. For instructions, see "Calculating the number of overlapping digits in CDP steering codes" on page 5-65.

Procedure

To enter CDP dialing plan information, follow these steps.

Starting Point: You should have already completed the common fields in the Add Local Site screen.

Step	Action
1	Enter the CDP dialing plan information.
	For more information, see the field descriptions on page 5-92.
2	Do you want to add the local site?
	If yes, press [Save].
	If no, press [Cancel].

Field descriptions   The following table describes the additional fields that appear
                            when you choose the CDP dialing plan.

                            For a description of the fields common to all dialing plans,
                            see "Accessing the Add Local Site screen" on page 5-69.

**Number of overlapping digits between CDP steering code and
local ext**

Description	This field indicates the number of digits in the CDP steering code that overlap with the local users' extensions. These codes need not overlap. Refer to your dialing plan.
	For example, if the steering code is 22 and the local extension is 22345, and remote users call the extension by dialing
	• 22 22345, then the full steering code precedes the local extension
	Thus, there is no overlap and this field is set to 0.
	• 2 22345, then the last digit of the steering code overlaps the extension number
	Set this field to 1.
	• 22345, then the entire code overlaps the extension
	In this case, the steering code is the first digit of the local extension, which is the normal case. Set the field to 2 or greater.
	Normally, the steering code is the first few digits of the local extension. If this is the case, set this field to or leave it as 10.
	For information about calculating the overlap, see "Calculating the number of overlapping digits in CDP steering codes" on page 5-65.

Description	(continued)
	Note: Meridian Mail Networking does not support multiple steering codes with differing overlaps (for example, 7231 with 2 overlap, and 667 with no overlap).
Default	10
	Note: This means that all codes overlap the extension.

CDP steering codes

Description	CDP steering codes are site prefixes that identify the local site within the network. Therefore, this prefix must be unique within all sites in the network.
	If the local site is part of a CDP network, the CDP steering code may already be part of the mailbox number as far as users are concerned. (Even though this is the case, the CDP steering codes must still be defined here because the system must be able to identify the steering code in the mailbox number in order to determine the site.)
	To define CDP steering codes, see the NWP-007, "Meridian 1 Network Information—CDP Steering Codes" form.
	Hint: It may be possible to reduce the number of codes. For example, if you have three codes (774, 775, and 776) and there are no other sites that use 77x in their CDP dialing plan, simply enter 77 as the code instead.
Maximum number	You can enter up to 50 steering codes.
Default	None

Mailbox numbering follows dialing plan? Yes/No

Description	This field indicates whether the local users' mailbox numbers are the same as their telephone extensions.
	Set this field to Yes if a user can be dialed by combining the CDP steering code with the user's mailbox number.
	For example, if the CDP steering code is 22 and the local mailbox is 1234, remote users can dial the local user with the numbers 221234 (steering code and mailbox number).
	Set this field to No if the mailbox numbering does not follow the dialing plan of the local site.
	Note: If you set this field to No, the Mailbox prefixes field appears (see next field).
Default	Yes

Mailbox prefixes

Description	This field appears if the "Mailbox numbering follows dialing plan" field is set to No.
	Mailbox prefixes are placed in front of the mailbox number to send networking messages to the local site.
	For example, if the mailbox prefix is 22 and a remote user needs to compose a message to local mailbox 4444, the user will need to enter 224444 as the address.
	These prefixes do not have any overlap with local mailbox numbers and are independent of CDP steering codes.
	You can enter up to two prefixes. Either prefix can be used to address any mailbox at the local site. Normally, however, only one prefix is required.
	Ensure that these prefixes do not conflict with other network data.
Default	None

Entering "None" dialing plan information for the local site

Introduction   This topic explains how to enter "None" dialing plan information for the local site in the Add Local Site screen.

Meridian 1 Network Information forms required   There are no Meridian 1 Network Information forms for systems using no dialing plan.

Procedure   To enter "None" dialing plan information, follow these steps.

> **Starting Point:** You should have already completed the common fields in the Add Local Site screen.

Step	Action
1	Enter the "None" dialing plan information.
	For more information, see the following field descriptions.
2	Do you want to add the local site?
	If yes, press [Save].
	If no, press [Cancel].

Field descriptions

The following table describes the additional fields that appear when you choose the "None" dialing plan.

For a description of the fields common to all dialing plans, see "Accessing the Add Local Site screen" on page 5-69.

Mailbox number equals local extension? Yes/No	
Description	In this field, specify whether mailbox numbering equals the local extension at the local site. If local users' extension DNs match their mailbox numbers, set this field to Yes. Otherwise, set this field to No.
Default	Yes

Mailbox prefixes	
Description	These prefixes are used by users at remote sites to address local users.
	For example, if the mailbox prefix is 22 and the local user's mailbox number is 6565, remote users address the local user by dialing 226565.
	These prefixes do not have any overlap with local mailbox numbers.
	You can enter up to two prefixes. Either prefix can be used to address any mailbox at the local site. Normally, however, only one prefix is required.
	The mailbox prefixes can be any number provided that they do not conflict with other network data.
Default	None

Section F   **Adding remote sites**

In this section

Overview of this section

Introduction

This section explains how to add and configure remote sites with the following dialing plans:

- Hybrid (combination of ESN and CDP)
- ESN (Electronic Switched Network)
- CDP (Coordinated Dialing Plan)
- "None"

This section also explains how to convert existing remote sites to Virtual Node AMIS Networking.

Maximum number of sites

You can define up to 150 remote sites on the system.

This number can be less if you add NMS locations or dialing translations. For more information, see Appendix C at the end of this manual.

Before you begin

To prepare for defining remote sites, you need to obtain one of the following:

- the Meridian 1 Network Information forms
- ESN or CDP overlay printouts, or both

These are located in Chapter 2, "Gathering information for the network". To identify the forms you need, see the following table.

IF you are	THEN you
adding a new remote site	need the NWP-004, "Meridian 1 Network Information—Site Information" form.
	For more information, see "Accessing the Add Remote Site screen" on page 5-112.
entering Hybrid dialing plan information for the remote site	need the following:
	• NWP-005, "Meridian 1 Network Information—ESN Data Block" or the ESN (LD 86) printout
	• NWP-007, "Meridian 1 Network Information—CDP Steering Codes" or the CDP (LD 87) printout
	• NWP-012, "Meridian 1 Network Information—Network Translation Location Codes" or the NET (LD 90) printout
	For more information, see "Entering remote site Hybrid dialing plan information" on page 5-123.
entering ESN dialing plan information for the remote site	need the following:
	• NWP-005, "Meridian 1 Network Information—ESN Data Block" or the ESN (LD 86) printout
	• NWP-012, "Meridian 1 Network Information—Network Translation Location Codes" or the NET (LD 90) printout
	For more information, see "Entering remote site ESN dialing plan information" on page 5-132.
entering CDP dialing plan information for the remote site	need the following:
	• NWP-005, "Meridian 1 Network Information—ESN Data Block" or the ESN (LD 86) printout
	• NWP-007, "Meridian 1 Network Information—CDP Steering Codes" or the CDP (LD 87) printout
	For more information, see "Entering remote site CDP dialing plan information" on page 5-139.
entering "None" dialing plan information for the remote site	do not need any data entry forms.
	For more information, see "Entering "None" dialing plan information for the remote site" on page 5-144.

How sites communicate

Introduction   Meridian Mail uses the following to initiate and establish
                          network calls:

- system access numbers
- message transfer protocol

     Note: Message transfer protocol is used only between two
     sites that have been defined as virtual nodes.

- networking connection DN

Note: Virtual nodes are remote sites that have been defined as
using the AMIS protocol in the local site's network database.
They can use a Meridian Mail system or some other vendor's
voice messaging system that supports AMIS Networking.

This topic describes each element and provides examples of
how two Meridian Mail sites (Toronto and Ottawa) are defined
as virtual node sites in each other's systems. A more complex
example (with Montreal as a third site) is shown at the end of
this topic.

For a detailed description of how the elements all work to
establish a network session, see Chapter 8, "Really
understanding how Virtual Node AMIS Networking works".

Obtaining the correct   You need to contact the remote site administrator for each site
information   in order to identify the correct information (or to coordinate the
                            information) for each of these elements.

System access numbers and network connection DNs

The system access number uniquely identifies a virtual node in the Meridian Mail network.

For the local site, the system access number is defined as follows:

- country and area code on the Network Dialing Prefixes screen
- local number on the View/Modify AMIS Networking Information screen

For remote Meridian Mail sites using Virtual Node AMIS Networking, the system access number (containing the country code, area/city code, and the remote site's AMIS Networking DN) is defined in the Connection DN field for the remote site. The system access number is entered in International Direct Distance Dialing (IDDD) format (including pound signs [#]). Each connection DN can be either a private network DN or a public network DN.

Private network DNs are preceded by 0## and are referred to as private access numbers.

Example: 0##63381234#

Public network DNs are entered in the format <country code>#<area/city code>#<local number>#, and are referred to as public access numbers.

Example: 1#416#5973653#

Notes:

1. If at least one of the DN1, DN2, or DN3 fields is not a public access number, then the system will not be able to match it with the system access number that is sent with the message from the sending site. In this case, the message will be tagged as a message from an open-network user. For more information, see "How it works" on page 5-102.
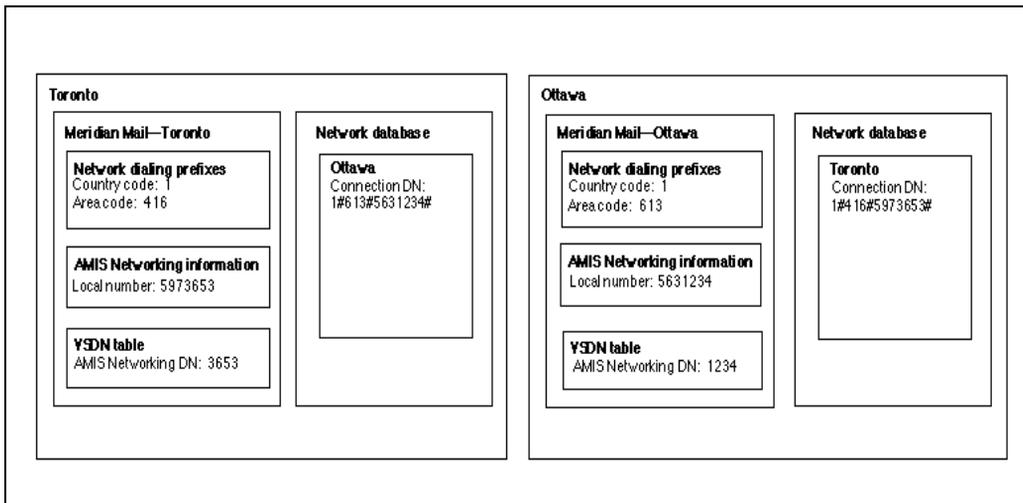
System access numbers and network connection DNs (continued)

2. If the remote site is using Meridian Mail, the AMIS Networking DN is defined in the VSDN table at the remote site. If the remote site is sharing its AMIS Networking DN with Enterprise Networking or a voice service, then the networking connection DN is the DN that will accept network calls.

Diagram

The following diagram shows how two sites (Toronto and Ottawa) are configured. It assumes the following:

- Meridian Mail is being used at both sites.
- Each site is defined as a virtual node (remote site using AMIS message transfer protocol) in the other's network database.

How it works

When a message is sent to a virtual node, the local (sending) site looks up the connection DN for the virtual node and initiates the network call. It identifies itself to the remote (receiving) site by sending its own system access number.

System access numbers and network connection DNs (continued)

The receiving site searches its network database for a site that contains the system access number it received.

| IF Meridian Mail	THEN
finds the system access number	it has identified the site from which the message is coming. When the local user listens to the message, Meridian Mail identifies it as coming from a particular site.
does not find the system access number	the message is treated as an "open-network AMIS" message. When the local user listens to the message, Meridian Mail identifies it as coming from an open network user.

Message transfer protocol

The message transfer protocol is defined on remote sites (that have been defined in the network database at the local site) only, and identifies which networking service is used to transmit messages to and, (if the remote site is also using Virtual Node AMIS), from a remote site. The same protocol must be used for both incoming and outgoing messages on both sites.

If they do not match, the following occurs:

- Messages are not delivered.
- A SEER is generated.
- The call is dropped.
- The remote site is put into error status.

Example

The Toronto site has defined (in its network database) the Ottawa remote site as using the AMIS message transfer protocol. This means that Ottawa must define, in its own network database (assuming that Meridian Mail is being used at the remote site), the Toronto remote site as using the same message transfer protocol.
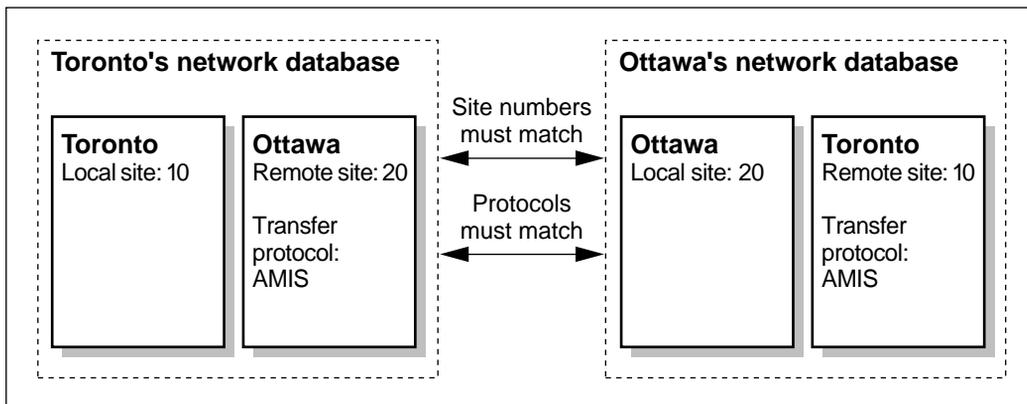
G100622
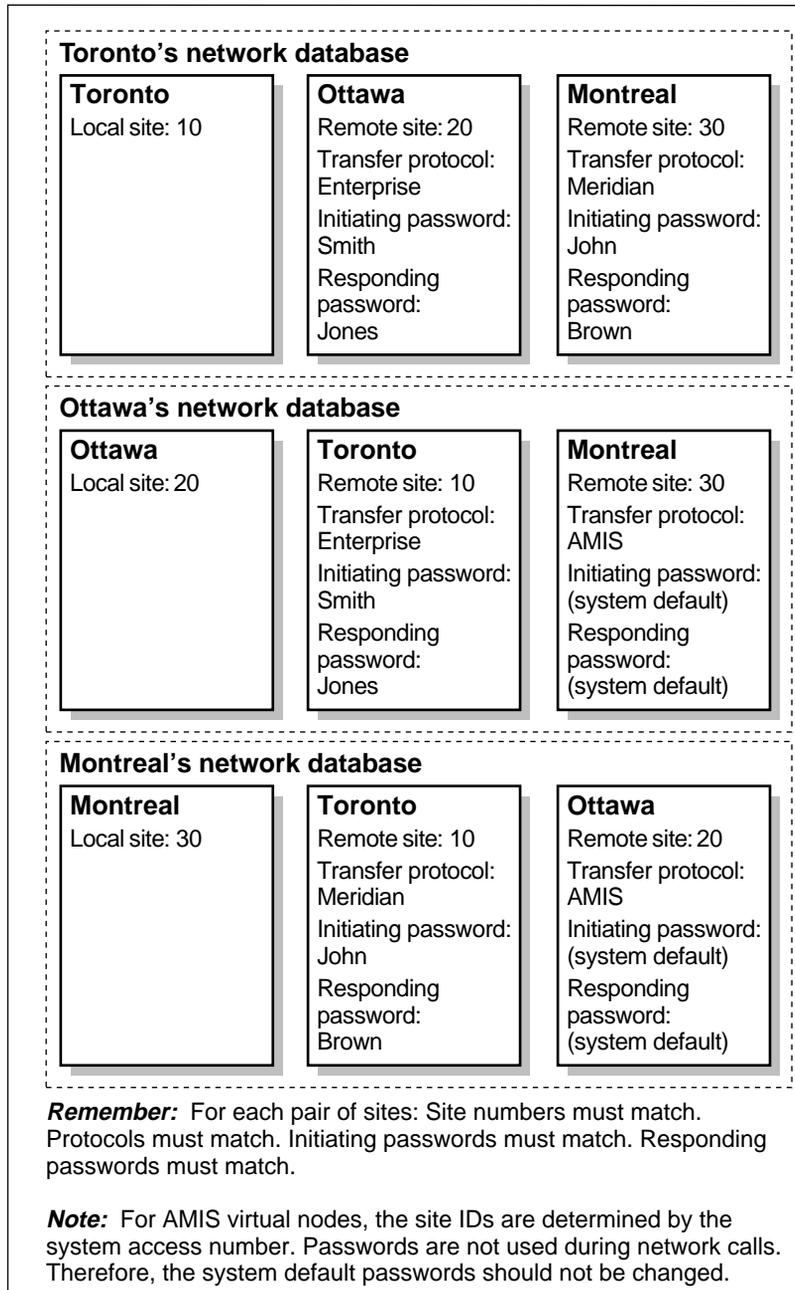

How a more complex network would look

Now that you have seen how two sites are defined, here is how a network with more than two Virtual Node AMIS sites could look. The following diagram shows three sites, each using a different message transfer protocol.

When reviewing the diagram, compare each pair of remote sites for

- Toronto and Ottawa
- Toronto and Montreal
- Ottawa and Montreal

Notes:

1. In order for the Montreal and Ottawa sites to be defined with the AMIS message transfer protocol, AMIS Networking (as well as Meridian Mail Networking) must be installed at both the Montreal and Ottawa sites. AMIS Networking is not required at the Toronto site.

2. For Virtual Node AMIS sites, the site IDs are determined by the system access number.

3. Passwords are not used for Virtual Node AMIS Networking. Therefore, the system default passwords should not be changed.

Toronto's network database

Toronto	**Ottawa**	**Montreal**
Local site: 10	Remote site: 20	Remote site: 30
	Transfer protocol: Enterprise	Transfer protocol: Meridian
	Initiating password: Smith	Initiating password: John
	Responding password: Jones	Responding password: Brown

Ottawa's network database

Ottawa	**Toronto**	**Montreal**
Local site: 20	Remote site: 10	Remote site: 30
	Transfer protocol: Enterprise	Transfer protocol: AMIS
	Initiating password: Smith	Initiating password: (system default)
	Responding password: Jones	Responding password: (system default)

Montreal's network database

Montreal	**Toronto**	**Ottawa**
Local site: 30	Remote site: 10	Remote site: 20
	Transfer protocol: Meridian	Transfer protocol: AMIS
	Initiating password: John	Initiating password: (system default)
	Responding password: Brown	Responding password: (system default)

Remember: For each pair of sites: Site numbers must match. Protocols must match. Initiating passwords must match. Responding passwords must match.

Note: For AMIS virtual nodes, the site IDs are determined by the system access number. Passwords are not used during network calls. Therefore, the system default passwords should not be changed.

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Filling out data entry forms

Introduction
This topic explains how to complete the data entry forms that are recommended for defining remote sites.

Data entry forms required
Before you define any remote sites, you should complete the following Meridian Mail Network Information forms:

- NWP-025, "Meridian Mail Network Information—Remote Site Maintenance" (two pages)

  Samples are shown on pages 5-109 and 5-110.

- NWP-027, "Meridian Mail Network Information—CDP Steering Codes" (if you choose the Hybrid or CDP dialing plan)

  A sample is shown on page 5-111.

Full-size versions of these forms are in Appendix A, "Networking implementation forms", at the back of this manual. They may be photocopied.

How to complete the forms
The Meridian Mail Network Information forms are basically hard copies of the Meridian Mail remote site maintenance screens. Therefore, the instructions for completing the forms are the same as for entering the information into Meridian Mail.

Information for each remote site is obtained from the

- Meridian 1 Network Information forms
  or
- the ESN or CDP overlay printouts, or both

These were completed in Chapter 2, "Gathering information for the network".

How to complete the   The following table identifies where you can find instructions
forms (continued)   for completing these forms (and for completing the fields on the
                                 screens).

For instructions on entering	See the field description table in
fields common to all dialing plans	"Accessing the Add Remote Site screen" on page 5-112.
Hybrid dialing plan information	"Entering remote site Hybrid dialing plan information" on page 5-123.
ESN dialing plan information	"Entering remote site ESN dialing plan information" on page 5-132.
CDP dialing plan information	"Entering remote site CDP dialing plan information" on page 5-139.
"None" dialing plan information	"Entering "None" dialing plan information for the remote site" on page 5-144.

**Form sample:
NWP-025 (page 1)**

The following is a sample of form NWP-025, page 1. Complete
this form for each remote site in the network.

Meridian Mail Network Information—Remote Site Maintenance   **NWP-025**
                                                                 Page 1 of 2

Site Information

Site number:	Site name:

Message transfer protocol: ☐ Enterprise ☐ Meridian ☐ AMIS	Message transfer: ☐ Enabled ☐ Disabled	Site is network message center? ☐ Yes ☐ No

Password: Initiating password: _____ Responding password: _____	Networking Connection: DN 1: _____ DN 2: _____ DN 3: _____

Maximum number of digits in local mailbox:	Do you want to record a spoken name for the site? (Applies to ESN, Hybrid, or None dialing plans.) ☐ Yes (Use the [Voice] softkey to record it.) ☐ No

Enterprise Networking Options
(Complete this section if you have selected Enterprise as the message transfer protocol.)

Send the message text information? ☐ Yes ☐ No	Send the sender's text name and personal verification? ☐ Yes ☐ No

Dialing Plan
(Check one of these boxes to choose the dialing plan.)

☐ ESN	☐ CDP	☐ Hybrid	☐ None
Maximum number of digits in local mailbox:			

Hybrid dialing plan information
(Complete this section if you have selected both the ESN and CDP dialing plans.)

ESN access codes:
Number of overlapping digits between ESN prefixes and local extension:
ESN prefixes:
Number of overlapping digits between CDP steering code and local extension:
CDP Steering Codes: (Complete and attach NWP-027, "CDP Steering codes" form.)
Mailbox numbering follows the dialing plan: ☐ Yes ☐ No (Complete the Mailbox prefixes field.)
Mailbox prefixes: (This field appears if your mailbox does not follow the dialing plan.)

**Form sample:
NWP-025 (page 2)**

The following is a sample of form NWP-025, page 2. Complete
this form for each remote site in the network.

Meridian Mail Network Information—Remote Site Maintenance   **NWP-025**
Page 2 of 2

ESN dialing plan information
(Complete this section if you have selected the ESN dialing plan.)

ESN access codes:
Number of overlapping digits between ESN prefixes and local extension:
ESN prefixes:
Mailbox numbering follows the dialing plan: ☐ Yes ☐ No (Complete the Mailbox prefixes field.)
Mailbox prefixes: (This field appears if your mailbox does not follow the dialing plan.)

CDP dialing plan information
(Complete this section if you have selected the CDP dialing plan.)

Number of overlapping digits between CDP steering code and local extension:
CDP Steering Codes (Complete and attach NWP-027, "CDP Steering codes" form.)
Mailbox numbering follows the dialing plan: ☐ Yes ☐ No (Complete the Mailbox prefixes field.)
Mailbox prefixes: (This field appears if your mailbox does not follow the dialing plan.)

None dialing plan information
(Complete this section if you have selected the None dialing plan.)

Mailbox numbering equals local extension: ☐ Yes (Complete the Dial Prefix field.) ☐ No
Dial prefix: (This field appears if the mailbox numbering is the same as local extensions.)
Mailbox prefixes: (This field appears whether or not mailbox numbering equals the local extension.)

Completed by

Administrator:	Date:

**Form sample:
NWP-027**

If the remote site will be using the CDP or Hybrid dialing plans, complete the NWP-027, "Meridian Mail Network Information—CDP Steering Codes" form and attach it to form NWP-025.

The following is a sample of form NWP-027.

Meridian Mail Network Information—CDP Steering codes   **NWP-027**

Complete and attach this form to NWP-024, NWP-025 or NWP-026.

Site/Location Information

Site/Location number:	Site/Location name:

CDP Steering codes
(You can enter up to 50 steering codes for the CDP dialing plan or the Hybrid dialing plan.)

Completed by

Administrator:	Date:

Accessing the Add Remote Site screen

Introduction

This topic explains how to access the Add Remote Site screen. It also explains how to enter fields that are common to all dialing plans.

Meridian 1 Network Information forms required

You will need the NWP-004, "Meridian 1 Network Information—Site Information" form that was completed in Chapter 2, "Gathering information for the network".

What to do if the site is a message center

If the remote site is using Network Message Service (NMS) to provide voice messaging service to other Meridian 1s, you need to add those Meridian 1 locations as remote NMS satellite locations.

For instructions on how to add those locations, see Section G on page 5-151.

Softkey descriptions

The following table describes the softkeys on the Add Remote Site screen.

Softkey	Description
[Save]	Press this softkey to add the remote site. The system returns you to the List of Remote Sites screen.
[Cancel]	Press this softkey if you no longer want to add the remote site.
[More CDP fields]	Press this softkey if you want to add another row of five CDP steering codes.
[Voice]	Press this softkey to record or delete a spoken name for this site. *Note:* The softkey does not appear if you define the "Dialing plan" field to CDP and the "Mailbox numbering follows dialing plan" field to Yes.

Before you begin If you have not yet defined the local site, you cannot access the Remote Site Maintenance screen.

To add the local site, see "Accessing the Add Local Site screen" on page 5-69.
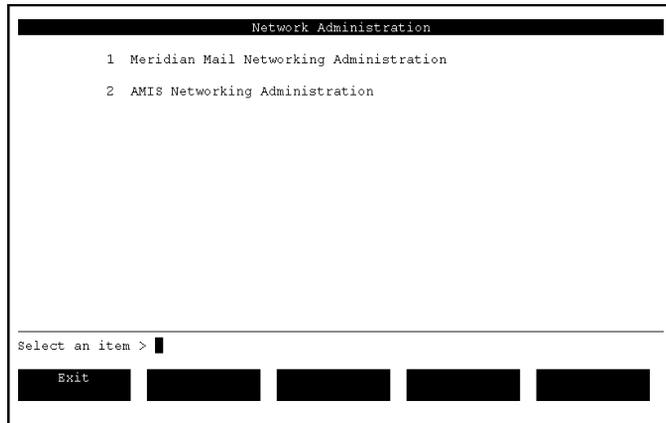
Procedure To add a remote site, follow these steps.

Starting Point: The Main Menu (single customer) or Customer Administration menu (multi-customer)

Step	Action
1	Select Network Administration.

Result: The Network Administration menu appears.

```
┌─────────────────────────────────────────────────────────────┐
│                    Network Administration                     │
│                                                               │
│        1   Meridian Mail Networking Administration            │
│                                                               │
│        2   AMIS Networking Administration                     │
│                                                               │
│                                                               │
│                                                               │
│                                                               │
│                                                               │
│                                                               │
│                                                               │
│                                                               │
│ ────────────────────────────────────────────────────────────│
│ Select an item > █                                            │
│  ┌────────┐  ┌────────┐  ┌────────┐  ┌────────┐  ┌────────┐  │
│  │  Exit  │  │        │  │        │  │        │  │        │  │
│  └────────┘  └────────┘  └────────┘  └────────┘  └────────┘  │
└─────────────────────────────────────────────────────────────┘
```

Step	Action

2   Select Meridian Mail Networking Administration.

Result: The next Network Administration menu appears.

```
                          Network Administration
              1  Network Status

              2  Local Site Maintenance

              3  Remote Site Maintenance

              4  Networking Configuration

              5  Modem Verification Test




Select an item > █
   Exit        Print Network                                    Clear All
                   Data                                        Error Sites
```

3   Select Remote Site Maintenance.

Result: The Find Remote Sites screen appears.

```
                          Network Administration
Find Remote Sites

Site Id:                   █_

Site Name:                 _____

Message Transfer Protocol: Any Enterprise Meridian AMIS

Dialing Plan:              Any ESN CDP Hybrid None

Network Message Center:    Any No Yes

Spoken Name Recorded:      Any No Yes




Select a softkey>
   Exit                      List        Print
```

Step	Action
4	Press the [List] softkey.
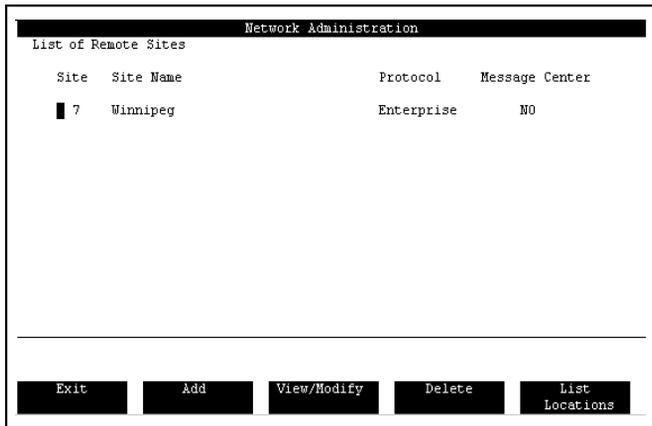
Result: The List of Remote Sites screen appears.

```
                          Network Administration
    List of Remote Sites

       Site    Site Name                    Protocol      Message Center

    ▌ 7      Winnipeg                     Enterprise      NO




    ─────────────────────────────────────────────────────────────────

       Exit           Add        View/Modify      Delete         List
                                                               Locations
```

This is a read-only screen. It lists the site number, site name,
protocol, and dialing plan, and indicates whether the site is a
message center and if the spoken name has been recorded for
that site.

Note: If you do not have any remote sites on your system, the
List Sites screen is empty. Only the [Add] and [Exit] softkeys
appear.

| 5 | Press [Add]. |

Result: The system prompts you for the remote site number.

Step	Action

6   Enter the remote site number. This number must be in the
     range from 1 to 500, and must not be defined for any other site
     in the network, including the local site.

     Result: The Add Remote Site screen appears.

```
                          Network Administration
    Add Remote Site

    Site number:        7
    Site name:         █_____

    Message transfer protocol:   Enterprise Meridian AMIS
    Message transfer:   Enabled Disabled
    Site is network message center?       No Yes

    Enterprise Networking Options
       Send the message text information:                        No Yes
       Send the sender's text name and personal verification:    No Yes

    Networking Connection
       DN 1:  _____
       DN 2:  _____
       DN 3:  _____
    _____ MORE BELOW


      Save            Cancel                      More CDP        Voice
                                                  Fields
```

7   Complete the common fields as required. (See the field
     descriptions following this procedure.)

8   Once the common fields have been completed, enter the
     dialing plan information. The following table identifies where to
     find the instructions.

IF your dialing plan is	THEN
Hybrid	see "Entering remote site Hybrid dialing plan information" on page 5-123.
ESN	see "Entering remote site ESN dialing plan information" on page 5-132.
CDP	see "Entering remote site CDP dialing plan information" on page 5-139.
"None"	see "Entering "None" dialing plan information for the remote site" on page 5-144.

9   If you want to record a spoken name for a site, see "Recording
     names for remote sites and locations" on page 5-193.

Step	Action

10   Do you want to save the remote site?

If yes, press [Save]. Any changes you have made are saved.

Result: The system asks you to enter the next remote site number.

IF you	THEN
want to add more remote sites	enter the site number and press <Enter>. Go back to step 7.
do not want to add more remote sites	press [Cancel].

If no, press [Cancel].

Result: Any changes you have made are discarded and the List of Remote Sites screen appears.

Field descriptions   The following describes the fields that are common to all dialing plans.

Site number	
Description	This field is mandatory.
	Enter the local site ID that is defined in Meridian Mail at the remote site.
	The site number uniquely identifies the remote site in the Meridian Mail network. If this remote site is a Meridian Mail system using Virtual Node AMIS, this value must be the same as the local site ID defined on Meridian Mail at the remote site.
	Contact the remote site administrator to obtain the site ID.
	For more details about how this field is used, see "How sites communicate" on page 5-100.
Valid range	1 to 500
Default	None
Site name	
Description	This field is mandatory.
	The site name appears on the List Sites and Network Status screens. It may be advantageous to choose a name which uniquely identifies this remote site.
Maximum length	32 alphanumeric characters
Default	None
Message transfer protocol	
Description	This field allows you to select which networking protocol is used to deliver messages to this site.
	Set the protocol to AMIS to use AMIS Networking to (and from) this site.
	For more details about how this field is used, see "How sites communicate" on page 5-100.
Default	Enterprise

Message transfer: Enabled Disabled

Description	Set this field to Enabled to allow local users to send messages to this remote site.
	Set this field to Disabled if you must temporarily disable message delivery to this remote site.
	Note: Regardless of the setting of this field, messages can still be received from this remote site.
Default	Enabled

Site is network message center? No/Yes

Description	Set this field to Yes if this remote site is a network message center. To determine if the site is a network message center, see the site type section on the NWP-004, "Meridian 1 Networking Information—Site Information" form.
	When you define this remote site as a message center, the information on this screen is used to create the prime location (location 0). To add satellite locations, see Section G on page 5-151.
	Note: If you change the value of this field, the change will take effect when you save the screen.
Default	None

Networking Connection DN 1, DN 2, DN 3

Description	The networking connection DN is the private or public system access number for this remote site.
	Private access number format: 0##n# (where n is the AMIS VSDN, up to 30 digits in length). The 0 indicates a private network and must be followed by two pound signs.
	Example: 0##63381234#

Description	(continued)
	Public access number format: ccc#aaa#nnnnnnn# (where ccc is the country code, aaa is the area code, and nnnnnnn is the AMIS VSDN preceded by the local exchange code). The pound signs separate the codes and terminate the number.
	Example: 1#214#5551234#
	Note: You do not have to enter the network access code, such as 9.
	Notes:
	1 You must enter a DN in DN1. The DN2 and DN3 fields are optional. If you choose to enter DNs into DN2 and DN3, enter the least costly DN in DN1 (if there is one) and the most expensive DN in DN3.
	2 The least costly DN is not necessarily based on cost but may also be based on trunk usage. The route list index and route data block may help to determine the "least costly" DN.
	3 For Virtual Node AMIS to work, one of the connection DNs must be in public access number format.
	4 The connection DN must match the system access number that is defined at the remote site. (That is, the country and area/city codes from the Network Dialing Prefixes screen plus the local number used to connect to the remote site from the AMIS Networking Information screen.)
Default	None
Maximum length	Up to 30 digits
Characters used	0 to 9 and #

Password\: Initiating/Responding

Description	The initiating and responding passwords are not used by Virtual Node AMIS Networking. Leave them at their default values.
Default	Password
Minimum length	4 alphanumeric characters
Maximum length	10 alphanumeric characters
Characters used	Any visible characters that can be typed by using the keyboard. (Control characters are not allowed.)

Dialing plan

Description	Select the dialing plan that is
	• configured on the switch
	• used to dial this remote site from the local site
	There are four dialing plans:
	• *Hybrid* Both the ESN and CDP dialing plans are configured on the switch.
	To set up this dialing plan, see "Entering remote site Hybrid dialing plan information" on page 5-123.
	• *ESN* This dialing plan is configured on the switch.
	To set up this dialing plan, see "Entering remote site ESN dialing plan information" on page 5-132.

Description	(continued)
	• *CDP* This dialing plan is configured on the switch.
	To set up this dialing plan, see "Entering remote site CDP dialing plan information" on page 5-139.
	• *None* The switch does not have a configured dialing plan.
	To set up this dialing plan, see "Entering "None" dialing plan information for the remote site" on page 5-144.
Default	Hybrid

Max number of digits in local mailbox

Description	Enter the maximum length of mailbox numbers used at the remote site.
	For example, if some mailboxes have four digits and others have seven digits, enter 7 for this field.
Default	4
Maximum length	16 digits

Spoken name recorded (Voice)

Description	This field is read-only. It indicates whether a spoken name has been recorded for this site.
	This field does not appear if the dialing plan is CDP and "Mailbox numbering follows dialing plan" is Yes.
	If you have recorded a spoken name, voice mail users hear the site name followed by the mailbox number of users at this remote site—for example, *"Toronto Site, 2346."*
	You can record a site name from this screen by using the [Voice] softkey.

Entering remote site Hybrid dialing plan information

Introduction   This topic explains how to enter Hybrid dialing plan information for remote sites in the Add Remote Site screen.

Definition: Hybrid dialing plan   A hybrid network combines the ESN and CDP dialing plans. Each site in the network can support one or both of the dialing plans.

Meridian 1 Network Information forms required   You will need the following Meridian 1 Network Information forms that were completed in Chapter 2, "Gathering information for the network":

- NWP-005, "ESN Data Block" or the ESN (LD 86) printout
- NWP-007, "CDP Steering Codes" or the CDP (LD 87) printout
- NWP-012, "Network Translation Location Codes" or the NET (LD 90) printout

Calculating the number of overlapping digits   When entering Hybrid dialing plan information, you need to calculate the following:

- the number of digits in the ESN prefixes that overlap the digits in the local extensions

  For more information, see page 5-62.
- the number of digits in the CDP steering code that overlap the digits in the local extensions

  For more information, see page 5-65.

For more information on these fields, see the field descriptions on page 5-125.

Procedure   To enter Hybrid dialing plan information, follow these steps.

Starting Point: You should have already completed the common fields in the Add Remote Site screen.

Step	Action
1	Enter the ESN dialing plan information.
	For instructions, see "Entering remote site ESN dialing plan information" on page 5-132.
2	Enter the CDP dialing plan information.
	For instructions, see "Entering remote site CDP dialing plan information" on page 5-139.
3	Do you want to save the remote site?
	If yes, press [Save].

Result: Any changes you have made are saved. The system asks you to enter the next remote site number.

IF you	THEN
want to add more remote sites	enter the site number and press <Enter>.
do not want to add more remote sites	press [Cancel].

If you do not want to save the remote site configuration, press [Cancel].

Result: Any changes you have made are discarded and the List of Remote Sites screen appears.

Field descriptions   The following table describes the additional fields that appear when you choose the Hybrid dialing plan.

ESN access codes	
Description	This field is mandatory.
	This code is used to access the ESN network from the remote site's switch. You can enter two different ESN access codes, each with up to three digits. A typical access code is 6.
	Usually only one access code is required.
	To determine the ESN access codes, see the AC1 and AC2 fields on the NWP-005, "Meridian 1 Network Information—ESN Data Block" form.
	Note: The ESN access code cannot match the left-most digits of any local mailbox number. For example, if there is a local mailbox number 6122, the access code cannot be 6.
	If there is a conflict, you must either
	• change the access code
	• change the mailbox numbers for the conflicting mailboxes
Default	None

Number of overlapping digits between ESN prefix and local ext	
Description	This field indicates the number of digits in the ESN prefixes that overlap with extensions at the remote site.
	For example, if users' extensions at the remote site are five digits long, and all begin with 8, and the local ESN prefix is 338, enter 0 (no overlap) in this field if users at other sites have to dial the nine-digit DN to call users at this site (such as 633883000).

Description	(continued)
	Enter 1 in this field, indicating that the last digit of the prefix and the first digit of the extension overlap if users have to dial an eight-digit DN (63383000).
	The selection you make here must conform with the remote site's dialing plan.
	For information about calculating the overlap, see "Calculating the number of overlapping digits in the ESN prefixes" on page 5-62.
	Note: You must enter a value in this field. If you leave this field blank, it reverts to the previous value. If there are no numbers in common between the ESN prefixes and the local extensions, use the default setting of 0.
Multiple ESN prefixes	If there is more than one ESN prefix for this site, you need to enter a value in this field other than 0 in order for Call Sender to work properly. If you enter 0 in this field and the site has multiple ESN prefixes, Call Sender will dial the first ESN prefix regardless of whether or not that is the correct ESN prefix.
Default	0

ESN prefixes (they must begin with)	
Description	The starting digits of the ESN prefixes must be the same as the digits in the first ESN access code (as described earlier).
	The ESN prefixes are the ESN location prefixes that identify mailboxes at the remote site within the network. Therefore, the prefixes must be unique within the ESN network. Local users must precede the mailbox numbers of remote users with the appropriate ESN prefix.
Multiple ESN prefixes	If a site has more than one ESN prefix, then you may be required to define the number of overlapping digits in order for Call Sender to work properly.
Maximum number	You can define up to 10 ESN prefixes for one site.
Determining the ESN prefixes	To determine the ESN prefixes, see the • AC1 field on the NWP-005, "Meridian 1 Network Information—ESN Data Block" form • LOC field on the NWP-012, "Meridian 1 Network Information—Network Translation Location Codes" form
	The ESN prefixes are made up of the AC1 field followed by the LOC field. For example, if the AC1 field is 6 and the LOC field is 338, enter 6338 in this field.
	Note: The value "they must begin with" in the ESN prefixes is the AC1 from this screen.
Default	None

Number of overlapping digits between CDP steering code and local ext

Description	This field indicates the number of digits in the CDP steering code that overlap with the remote users' extensions. These codes need not overlap. Refer to your dialing plan.
	One example is if the steering code is 22 and the extension is 22345. If local users call the remote extension by dialing
	• 22 22345, then the full steering code precedes the extension
	Thus, there is no overlap and this field is set to 0.
	• 2 22345, then the last digit of the steering code overlaps the extension number
	Set this field to 1.
	• 22345, then the entire code overlaps the extension
	In this case, the steering code is the first digit of the extension, which is normally the case. Set the field to 2 or greater.
	Normally, the steering code is the first few digits of the extension. If this is the case, set this field to or leave it as 10.
	Note: For information about calculating the overlap, see "Calculating the number of overlapping digits in CDP steering codes" on page 5-65.
	Meridian Mail Networking does not support multiple steering codes with differing overlaps (for example, 7231 with 2 overlap and 667 with no overlap).
Default	10
	Note: The default of 10 means that all codes overlap the extension.

CDP steering codes

Description	CDP steering codes are site prefixes that identify the remote site within the network. Therefore, this prefix must be unique within all sites in the network.
	If the remote site is part of a CDP network, the CDP steering code may already be part of the mailbox number as far as users are concerned. (Even though this is the case, the CDP steering codes must still be defined here because the system must be able to identify the steering code in the mailbox number in order to determine the remote site.)
	To define CDP steering codes, see the NWP-007, "Meridian 1 Network Information—CDP Steering Codes" form.
	Hint: It may be possible to reduce the number of codes. For example, if you have three codes (774, 775, and 776), and there are no other sites that use 77x in their CDP dialing plan, simply enter 77 as the code instead.
Maximum number	You can enter up to 50 steering codes.
Default	None

Mailbox numbering follows dialing plan? Yes/No

Description	This field indicates whether the users' mailbox numbers at the remote site are the same as their telephone extensions.
	Set this field to Yes if a user can be dialed by combining the ESN prefix/CDP steering code with his or her mailbox number.
	For example, if the ESN prefix is 6555 and the user's mailbox number at this remote site is 4444, this user can be dialed from this site with the numbers 65554444 (ESN prefix and mailbox).
	Set this field to No if the mailbox numbering does not follow the dialing plan of the remote site.
	Note: If you set this field to No
	• the Mailbox prefixes field appears (see next field)
	• the Call Sender feature will only be available to users at remote sites who have been added as remote voice users by the administrator
Relation to overlapping digits	If there is more than one ESN prefix and the number of overlapping digits is set to 0 for ESN prefixes, then Call Sender will not work consistently. In order to disallow Call Sender in this circumstance, set the "Mailbox numbering follows dialing plan" field to No.
Default	Yes

Mailbox prefixes

Description | This field appears if the "Mailbox numbering follows dialing plan" field is set to No.

Mailbox prefixes are placed in front of the mailbox number to send networking messages to this remote site.

For example, if the mailbox prefix is 456 and a local user needs to compose a message to mailbox 1234 at this remote site, the user will need to enter 4561234 as the address.

These prefixes do not have any overlap with mailbox numbers and are independent of the ESN location prefix and CDP steering codes.

You can enter up to two prefixes. Either prefix can be used to address any mailbox at this remote site. Normally, however, only one prefix is required.

Ensure that these prefixes do not conflict with other network data.

Default | None

Entering remote site ESN dialing plan information

Introduction   This topic explains how to enter ESN dialing
                            plan information for remote sites in the Add Remote Site
                            screen.

Meridian 1 Network   You will need the following Meridian 1 Network Information
Information forms   forms that were completed in Chapter 2, "Gathering
required   information for the network".

- NWP-005, "ESN Data Block" or the ESN (LD 86) printout
- NWP-012, "Network Translation Location Codes" or the
  NET (LD 90) printout

Before you begin   Before you can enter the ESN dialing plan information, you
                            need to calculate the number of digits of the ESN prefixes that
                            overlap with digits in the local extensions. For more
                            information, see "Calculating the number of overlapping digits
                            in the ESN prefixes" on page 5-62.

Procedure   To enter ESN dialing plan information, follow these steps.

                            Starting Point: You should have already completed the common
                            fields in the Add Remote Site screen.

Step	Action
1	Enter the ESN dialing plan information.
	For more information, see the field descriptions following this procedure.
2	Do you want to save the remote site?
	If yes, press [Save].
	Result: Any changes you have made are saved. The system asks you to enter the next remote site number.

Step Action

2   (continued)

IF you	THEN
want to add more remote sites	enter the site number and press <Enter>.
do not want to add more remote sites	press [Cancel].

If you do not want to save the remote site, press [Cancel].

Result: Any changes you have made are discarded and the List of Remote Sites screen appears.

Field descriptions   The following table describes the additional fields that appear
when you choose the ESN dialing plan.

For a description of the fields common to all dialing plans, see
"Accessing the Add Remote Site screen" on page 5-112.

ESN access codes	
Description	This field is mandatory.
	This code is used to access the ESN network from the remote site's switch. You can enter two different ESN access codes, each with up to three digits. A typical access code is 6.
	Usually, only one access code is required.
	To determine the ESN access codes, see the AC1 and AC2 fields on the NWP-005, "Meridian 1 Network Information—ESN Data Block" form.
	Note: The ESN access code cannot match the left-most digits of any local mailbox number. For example, if there is a local mailbox number 6122, the access code cannot be 6.
	If there is a conflict, you must either
	• change the access code
	• change the mailbox numbers for the conflicting mailboxes
Default	None

Number of overlapping digits between ESN prefix and local ext	
Description	This field indicates the number of digits in the ESN prefixes that overlap with extensions at the remote site.
	For example, if users' extensions at the remote site are five digits long, and all begin with 8, and the local ESN prefix is 338, enter 0 (no overlap) in this field if users at other sites have to dial the nine-digit DN to call users at this site (such as 633883000).
	Enter 1 in this field, indicating that the last digit of the prefix and the first digit of the extension overlap if users have to dial an eight-digit DN (63383000).
	The selection you make here must conform with the remote site's dialing plan.
	For information about calculating the overlap, see "Calculating the number of overlapping digits in the ESN prefixes" on page 5-62.
	Note: You must enter a value in this field. If you leave this field blank, it reverts to the previous value. If there are no numbers in common between the ESN prefixes and the local extensions, use the default setting of 0.
Multiple ESN prefixes	If there is more than one ESN prefix for this site, you need to enter a value in this field other than 0 in order for Call Sender to work properly. If you enter 0 in this field and the site has multiple ESN prefixes, Call Sender will dial the first ESN prefix regardless of whether or not that is the correct ESN prefix.
Default	0

ESN prefixes (they must begin with)

Description	The starting digits of the ESN prefixes must be the same as the digits in the first ESN access code (as described earlier).
	The ESN prefixes are the ESN location prefixes that identify mailboxes at the remote site within the network. Therefore, the prefixes must be unique within the ESN network. Local users must precede the mailbox numbers of remote users with the appropriate ESN prefix.
Multiple ESN prefixes	If a site has more than one ESN prefix, then you may be required to define the number of overlapping digits in order for Call Sender to work properly.
Maximum number	You can define up to 10 ESN prefixes for one site.
Determining the ESN prefixes	To determine the ESN prefixes, see the

• AC1 field on the NWP-005, "Meridian 1 Network Information—ESN Data Block" form

• LOC field on the NWP-012, "Meridian 1 Network Information—Network Translation Location codes" form

The ESN prefixes are made up of the AC1 field followed by the LOC field. For example, if the AC1 field is 6 and the LOC field is 338, enter 6338 in this field.

Note: The value "they must begin with" in the ESN prefixes is the AC1 from this screen.

Default	None

Mailbox numbering follows dialing plan? Yes/No

Description	This field indicates whether the users' mailbox numbers at the remote site are the same as their telephone extensions.
	Set this field to Yes if a user can be dialed by combining the ESN prefix with the user's mailbox number.
	For example, if the ESN prefix is 6222 and the mailbox at the remote site is 1234, local users can dial the remote user with the numbers 62221234 (ESN prefix and mailbox number).
	Set this field to No if the mailbox numbering does not follow the dialing plan of the remote site.
	Note: If you set this field to No
	• the Mailbox prefixes field appears (see next field)
	• the Call Sender feature will only be available to users at remote sites who have been added as remote voice users by the administrator
Relation to overlapping digits	If there is more than one ESN prefix and the number of overlapping digits is set to 0 for ESN prefixes, then Call Sender will not work consistently. In order to disallow Call Sender in this circumstance, set the "Mailbox numbering follows dialing plan" field to No.
Default	Yes

Mailbox prefixes

Description	This field appears if the "Mailbox numbering follows dialing plan field" is set to No.
	Mailbox prefixes are placed in front of the mailbox number to send networking messages to this remote site.
	For example, if the mailbox prefix is 22 and a local user needs to compose a message to remote mailbox 4444, the user will need to enter 224444 as the address.
	These prefixes do not have any overlap with remote mailbox numbers and are independent of the ESN location prefix.
	You can enter up to two prefixes. Either prefix can be used to address any mailbox at this remote site. Normally, however, only one prefix is required.
	Ensure that these prefixes do not conflict with other network data.

Entering remote site CDP dialing plan information

Introduction

This topic explains how to enter CDP dialing plan information for remote sites in the Add Remote Site screen.

Meridian 1 Network Information forms required

You will need the NWP-007, "Meridian 1 Network Information—CDP Steering Codes" form or the CDP (LD 87) printout that were completed in Chapter 2, "Gathering information for the network".

Before you begin

Before you can enter CDP dialing plan information, you need to calculate the number of digits in the CDP steering code that overlap with digits in the local extensions. For more information, see "Calculating the number of overlapping digits in CDP steering codes" on page 5-65.

Procedure

To enter CDP dialing plan information, follow these steps.

Starting Point: You should have already completed the common fields in the Add Remote Site screen.

Step	Action
1	Enter the CDP dialing plan information. For more information, see the field descriptions on page 5-140.
2	Do you want to save the remote site configuration? If yes, press [Save]. ***Result:*** Any changes you have made are saved. The system asks you to enter the next remote site number.

IF you	THEN
want to add more remote sites	enter the site number and press <Enter>.
do not want to add more remote sites	press [Cancel].

Step	Action
2	(continued)
	If you do not want to save the remote site configuration, press [Cancel].
	Result: Any changes you have made are discarded, and the List of Remote Sites screen appears.

Field descriptions

The following table describes the additional fields that appear when you choose the CDP dialing plan.

For a description of the fields common to all dialing plans, see "Accessing the Add Remote Site screen" on page 5-112.

Number of overlapping digits between CDP steering code and local ext

Description	This field indicates the number of digits in the CDP steering code that overlap with the remote users' extensions. These codes need not overlap. Refer to your dialing plan.
	For example, if the steering code is 22 and the remote extension is 22345, and local users call the remote extension by dialing
	• 22 22345, then the full steering code precedes the extension
	Thus, there is no overlap and this field is set to 0.
	• 2 22345, then the last digit of the steering code overlaps the extension number
	Set this field to 1.
	• 22345, then the entire code overlaps the extension
	In this case, the steering code is the first digit of the extension, which is the normal case. Set the field to 2 or greater.
	Normally, the steering code is the first few digits of the extension. If this is the case, set this field to or leave it as, 10.

Description	(continued)
	For information about calculating the overlap, see "Calculating the number of overlapping digits in CDP steering codes" on page 5-65.
	Note: Meridian Mail Networking does not support multiple steering codes with differing overlaps (for example, 7231 with 2 overlaps, and 667 with no overlap).
Default	10
	Note: The default of 10 means that all codes overlap the extension.

CDP steering codes

Description	CDP steering codes are site prefixes that identify the remote site within the network. Therefore, this prefix must be unique within all sites in the network.
	If the remote site is part of a CDP network, the CDP steering code may already be part of the mailbox number as far as users are concerned. (Even though this is the case, the CDP steering codes must still be defined here because the system must be able to identify the steering code in the mailbox number in order to determine the remote site.)
	To define CDP steering codes, see the NWP-007, "Meridian 1 Network Information—CDP Steering Codes" form.
	Hint: It may be possible to reduce the number of codes. For example, if you have three codes (774, 775, and 776), and there are no other sites that use 77x in their CDP dialing plan, simply enter 77 as the code instead.
Maximum number	You can enter up to 50 steering codes.
Default	None

Mailbox numbering follows dialing plan? Yes/No

Description	This field indicates whether the users' mailbox numbers at the remote site are the same as their telephone extensions.
	Set this field to Yes if a user can be dialed by combining the CDP steering code with his or her mailbox number.
	For example, if the remote ESN prefix is 6222 and the mailbox is 1234, local users can dial the remote user with the numbers 62221234 (ESN prefix and mailbox number).
	Set this field to No if the mailbox numbering does not follow the dialing plan of the remote site.
	Note: If you set this field to No
	• the Mailbox prefixes field appears (see next field)
	• the Call Sender feature will only be available to users at remote sites who have been added as remote voice users by the administrator
Default	Yes

Mailbox prefixes	
Description	This field appears if the "Mailbox numbering follows dialing plan" field is set to No.
	Mailbox prefixes are placed in front of the mailbox number to send networking messages to this remote site.
	For example, if the mailbox prefix is 22 and a local user needs to compose a message to remote mailbox 4444, the user will need to enter 224444 as the address.
	These prefixes do not have any overlap with mailbox numbers and are independent of CDP steering codes.
	You can enter up to two prefixes. Either prefix can be used to address any mailbox at this remote site. Normally, however, only one prefix is required.
	Ensure that these prefixes do not conflict with other network data.
Default	None

Entering "None" dialing plan information for the remote site

Introduction   This topic explains how to enter "None" dialing plan information for remote sites in the Add Remote Site screen.

Meridian 1 Network   There are no Meridian 1 Network Information forms for
Information forms   systems using no dialing plan.
required

Procedure   To enter "None" dialing plan information, follow these steps.

Starting Point: You should have already completed the common fields in the Add Remote Site screen.

Step	Action
1	Enter the "None" dialing plan information.
	For more information, see the following field descriptions.
2	Do you want to save the remote site configuration?
	If yes, press [Save].
	Result: Any changes you have made are saved. The system asks you to enter the next remote site number.

IF you	THEN
want to add more remote sites	enter the site number and press <Enter>.
do not want to add more remote sites	press [Cancel].

If no, press [Cancel].

Result: Any changes you have made are discarded, and the List of Remote Sites screen appears.

Field descriptions   The following describes the additional fields that appear when you choose the "None" dialing plan.

For a description of the fields common to all dialing plans, see "Accessing the Add Remote Site screen" on page 5-112.

Mailbox number equals local extension? Yes/No

Description	In this field, specify whether mailbox numbering equals the local extension at the remote site. Therefore, if the users' extension DNs match their mailbox numbers, set this field to Yes. Otherwise, set this field to No.
	If you set this field to Yes, the Dial prefix field appears.
	Hint: If you want to disable the Call Sender feature to this remote site, set this field to No.
Default	Yes

Dial prefix

Description	This field appears if the "Mailbox number equals extension" field is set to Yes.
	This is an optional prefix that allows users at the local site to use the Call Sender feature to automatically dial the number of a user at this remote site who has sent a message.
	Example 1: If mailboxes are 7xxx and users are dialed by 9597-7xxx, then the dial prefix is 9597.
	Example 2: If users can be dialed from the local site by 7xxx, then leave the dial prefix blank.
Default	None
	Note: Leaving this field blank does not disable this feature. If the extensions cannot be dialed from the local site, then set the "Mailbox number equals local extension" field to No.

Mailbox prefixes

Description	This field contains the prefixes that local users use to address messages to users at this remote site.
	For example, if the mailbox prefix is 22 and the remote user's mailbox number is 6565, local users address the remote user by dialing 226565.
	These prefixes do not have any overlap with mailbox numbers at the remote site.
	You can enter up to two prefixes. Either prefix can be used to address any mailbox at this remote site. Normally, however, only one prefix is required.
	The mailbox prefixes can be any number provided that they do not conflict with other network data.
Default	None

Converting remote sites to AMIS Networking

Introduction

This topic explains how to

- convert sites from Meridian Networking to AMIS Networking
- convert sites from Enterprise Networking to AMIS Networking

How the conversion is done

Sites are converted to another networking service by changing the following fields on the Modify Remote Site screen:

- Message transfer protocol
- Network connection DN1, DN2, DN3

  The network connection DN must be changed to the AMIS Networking VSDN defined at the remote site.

Local site must also be changed

If you change a remote site, then your site (the local site) must also be changed at the remote site. To clarify, you must ensure that the following are changed:

- the remote site in your network database
- your site in the network database at the remote site

Before you begin

Before you convert the remote site, change the Message transfer field on the Remote Site Maintenance screen to Disabled so that messages cannot be delivered to the remote site.

After the remote site has been converted, and the remote site has updated your site in its network database, reenable message transfer.

Procedure   To convert a remote site to AMIS Networking, follow these
                      steps.

> **Starting Point:** The Main Menu (single customer) or Customer
> Administration menu (multi-customer)

> **Step Action**

> 1   Select Network Administration.
>
>   *Result:* The Network Administration menu appears.

```
                            Network Administration

          1   Meridian Mail Networking Administration

          2   AMIS Networking Administration








Select an item > █
     Exit
```

> 2   Select Meridian Mail Networking Administration.
>
>   *Result:* The next Network Administration menu appears.

```
                            Network Administration

          1   Network Status

          2   Local Site Maintenance

          3   Remote Site Maintenance

          4   Networking Configuration

          5   Modem Verification Test





Select an item > █
     Exit      Print Network                                    Clear All
                  Data                                        Error Sites
```
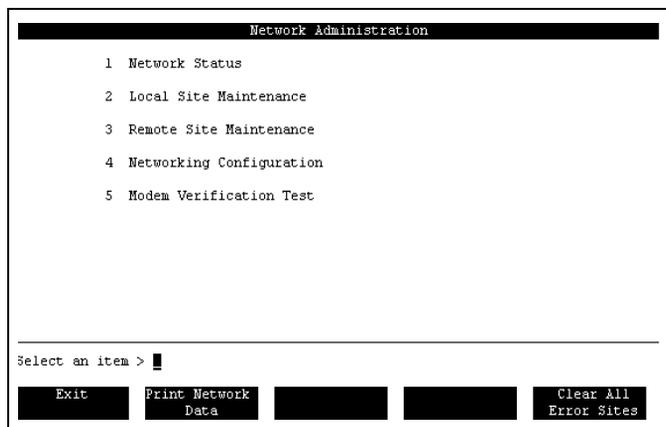
Step	Action

3 Select Remote Site Maintenance.

Result: The Find Remote Sites screen appears.

```
                          Network Administration
Find Remote Sites

Site Id:                     ▮_

Site Name:                   _____

Message Transfer Protocol: Any Enterprise Meridian AMIS

Dialing Plan:              Any ESN CDP Hybrid None

Network Message Center:    Any No Yes

Spoken Name Recorded:      Any No Yes




Select a softkey>
     Exit                        List        Print
```

4 Enter search criteria. For example, move the Message Transfer Protocol selection to the type of site you wish to convert.

5 Press the [List] softkey.

Result: The List of Remote Sites screen appears. The sites that match the search criteria are listed.

```
                          Network Administration
  List of Remote Sites

   Site   Site Name                    Protocol     Message Center

  ▮ 7     Winnipeg                     Enterprise       NO







     Exit        Add      View/Modify     Delete        List
                                                       Locations
```

This is a read-only screen. It lists the site number, site name, protocol, and dialing plan, and indicates whether the site is a message center and if the spoken name has been recorded for that site.

Step	Action
6	Move the cursor to the site you want to convert, and press <space bar> to select it. **Result:** The site you chose is highlighted.
7	Press [View/Modify]. **Result:** The View/Modify Remote Site screen appears.

```
                         Network Administration
  View/Modify Remote Site

  Site number:        7
  Site name:          Winnipeg_____

  Message transfer protocol:    Enterprise Meridian AMIS
  Message transfer:    Enabled Disabled
  Site is network message center?      No Yes

  Enterprise Networking Options
      Send the message text information:                    No Yes
      Send the sender's text name and personal verification: No Yes

  Networking Connection
      DN 1:  5555_____
      DN 2:  _____
      DN 3:  _____
                                                          MORE BELOW


       Save            Cancel                                  Voice
```

Step	Action
8	Move the cursor to the Message transfer protocol field and change it to AMIS.
9	Move the cursor to the Networking connection DN field, and change it to the AMIS Networking VSDN for this remote site. **Note:** Ensure that you enter the DN(s) in private access number or public access number format. For details, see page 5-119. At lease one connection DN must be in public access number format.
10	Do you want to save your changes? If yes, press [Save]. **Result:** The system saves your changes, and the List of Remote Sites screen appears. If no, press [Cancel]. **Result:** The system discards your changes, and the List of Remote Sites screen appears.

Section G Adding remote Network Message Service (NMS) satellite locations

In this section

Overview of this section

Introduction

This section explains how to add remote Network Message Service (NMS) locations (also known as satellite locations) with the following dialing plans:

- Hybrid (combination of ESN and CDP)
- ESN (Electronic Switched Network)
- CDP (Coordinated Dialing Plan)
- "None"

This section is applicable to Meridian 1 (or Meridian 1 with SL-100) networks only.

Network Message Service

Network Message Service (NMS) allows a number of Meridian 1s to be serviced by a single Meridian Mail system. The Meridian 1 that has its own Meridian Mail system is called the prime location (location 0). It is also referred to as a *message center*.

The other Meridian 1s are called satellite locations (locations 1 to 59).

Up to 60 Meridian 1 switches are supported by Network Message Service.

Meridian Mail Networking and NMS

When Meridian Mail Networking is used in conjunction with Network Message Service, the prime location (message center) is called a remote NMS site. Therefore, the terms message center, prime location, and remote NMS site all mean the same thing.

When you can do this

You can add NMS locations to a site once you define it as a remote NMS site (message center). These locations are the satellite locations. When you define the site as a message center, the prime location is automatically added.

Note: Your Meridian Mail system does not require the NMS feature to define remote NMS sites.

Before you begin   To prepare for defining remote NMS locations, you need to obtain one of the following:

- the Meridian 1 Network Information forms
- ESN or CDP, or both, overlay printouts

These are located in Chapter 2, "Gathering information for the network".

IF you are	THEN you
adding a remote NMS location	need the NWP-004, "Meridian 1 Network Information—Site Information" form.
	For more information, see "Accessing the Add Remote Location screen" on page 5-160.
entering Hybrid dialing plan information	need the following:
	• NWP-005, "Meridian 1 Network Information—ESN Data Block" or the ESN (LD 86) printout
	• NWP-007, "Meridian 1 Network Information—CDP Steering Codes" or the CDP (LD 87) printout
	• NWP-012, "Meridian 1 Network Information—Network Translation Location Codes" or the NET (LD 90) printout
	For more information, see "Entering NMS location Hybrid dialing plan information" on page 5-170.
entering ESN dialing plan information	need the following:
	• NWP-005, "Meridian 1 Network Information—ESN Data Block" or the ESN (LD 86) printout
	• NWP-012, Meridian 1 Network Information—Network Translation Location Codes" or the NET (LD 90) printout
	For more information, see "Entering NMS location ESN dialing plan information" on page 5-179.
entering CDP dialing plan information	need the following:
	• NWP-005, "Meridian 1 Network Information— ESN Data Block" or the ESN (LD 86) printout
	• NWP-007, "Meridian 1 Network Information—CDP Steering Codes" or the CDP (LD 87) printout
	For more information, see "Entering NMS location CDP dialing plan information" on page 5-185.

IF you are	THEN you
entering "None" dialing plan information	do not need any data entry forms. For more information, see "Entering "None" dialing plan information for NMS locations" on page 5-190.

Filling out data entry forms

Introduction

This topic explains how to complete the data entry forms that are recommended for defining the remote NMS locations.

Data entry forms required

Before you define remote NMS locations, you should complete the following Meridian Mail Network Information forms:

- NWP-026, "Meridian Mail Network Information—Remote NMS Location Maintenance" (2 pages)

  Samples are shown on pages 5-157 and 5-158.

  Note: This form is used for satellite locations only. For the prime location, use NWP-025, "Meridian Mail Network Information Remote Site Maintenance."

- NWP-027, "Meridian Mail Network Information—CDP Steering Codes" (if you choose the Hybrid or CDP dialing plan)

  A sample is shown on page 5-159.

Full-size versions of these forms are in Appendix A, "Networking implementation forms", at the back of this manual. They may be photocopied.

How to complete the forms

The Meridian Mail Network Information forms are basically hard copies of the Meridian Mail location maintenance screens. Therefore, the instructions for completing the forms are the same as for entering the information into Meridian Mail.

Information for each remote NMS location is obtained from

- the Meridian 1 Network Information forms
  or
- the ESN or CDP, or both, overlay printouts

These were completed in Chapter 2, "Gathering information for the network".

The following table identifies where you can find instructions for completing these forms (and for completing the fields on the screens).

For instructions on entering	See the field description table in
fields common to all dialing plans	"Accessing the Add Remote Location screen" on page 5-160.
Hybrid dialing plan information	"Entering NMS location Hybrid dialing plan information" on page 5-170.
ESN dialing plan information	"Entering NMS location ESN dialing plan information" on page 5-179.
CDP dialing plan information	"Entering NMS location CDP dialing plan information" on page 5-185.
"None" dialing plan information	"Entering "None" dialing plan information for NMS locations" on page 5-190.

Form sample: NWP-026 (page 1)

The following shows a sample of form NWP-026, page 1. Complete this form for each NMS location in the network.

Meridian Mail Network Information—Remote NMS Location Maintenance NWP-026

Page 1 of 2

Location Information

Location number:	Location name:

Do you want to record a spoken name for the location? (Applies to ESN, Hybrid, or None dialing plans.)
☐ Yes (Use the [Voice] softkey to record it.)
☐ No

Dialing Plan
(Check one of these boxes to choose the dialing plan. The dialing plan must be the same as the prime location.)

☐ ESN	☐ CDP	☐ Hybrid	☐ None
Maximum number of digits in local mailbox:			

Hybrid dialing plan information
(Complete this section if you have selected both the ESN and CDP dialing plans.)

ESN access codes:
Number of overlapping digits between ESN prefixes and local extension:
ESN prefixes:
Number of overlapping digits between CDP steering code and local extension:
CDP Steering Codes: (Complete and attach NWP-027, "CDP Steering codes" form.)
Mailbox numbering follows the dialing plan: ☐ Yes ☐ No (Complete the Mailbox prefixes field.)
Mailbox prefixes: (This field appears if your mailbox does not follow the dialing plan.)

ESN dialing plan information
(Complete this section if you have selected the ESN dialing plan.)

ESN access codes:
Number of overlapping digits between ESN prefixes and local extension:
ESN prefixes:
Mailbox numbering follows the dialing plan: ☐ Yes ☐ No (Complete the Mailbox prefixes field.)
Mailbox prefixes (This field appears if your mailbox does not follow the dialing plan.)

**Form sample:
NWP-026 (page 2)**

The following shows a sample of form NWP-026, page 2.
Complete this form for each NMS location in the network.

Meridian Mail Network Information—Remote NMS Location Maintenance NWP-026
Page 2 of 2

CDP dialing plan information
(Complete this section if you have selected the CDP dialing plan.)

Number of overlapping digits between CDP steering code and local extension:

CDP Steering Codes: (Complete and attach NWP-027, "CDP Steering codes" form.)

Mailbox numbering follows the dialing plan:
☐ Yes
☐ No (Complete the Mailbox prefixes field.)

Mailbox prefixes: (This field appears if your mailbox does not follow the dialing plan.)

None dialing plan information
(Complete this section if you have selected the None dialing plan.)

Mailbox numbering equals local extension:
☐ Yes (Complete the Dial Prefix field.)
☐ No

Dial prefix: (This field appears if the mailbox numbering is the same as local extensions.)

Mailbox prefixes: (This field appears whether or not mailbox numbering equals the local extension.)

Completed by

Administrator:	Date:

Form sample: If the remote NMS location will be using the CDP or Hybrid
NWP-027   dialing plans, complete the NWP-027, "Meridian Mail Network
                          Information—CDP Steering codes" form and attach it to form
                          NWP-026.

                          The following shows a sample of form NWP-027.

Meridian Mail Network Information—CDP Steering codes   **NWP-027**

Complete and attach this form to NWP-024, NWP-025 or NWP-026.

Site/Location Information

Site/Location number:	Site/Location name:

CDP Steering codes
(You can enter up to 50 steering codes for the CDP dialing plan or the Hybrid dialing plan.)

_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

Completed by

Administrator:	Date:

Accessing the Add Remote Location screen

Introduction

This topic explains how to access the Add Remote Location screen. This screen allows you to add Network Message Service (NMS) satellite locations to a particular site.

Requirement

Before you can add satellite locations, you must already have defined the prime location. This is done by defining a remote site as a message center. For instructions, see "Accessing the Add Remote Site screen" on page 5-112 in Section F, "Adding remote sites".

Information defined for satellite locations

For each satellite location, only the dialing plan and mailbox numbering are defined. Messages are sent to the location by using the network connection DN, passwords, and message transfer protocol that are defined for the remote NMS site (prime location).

Meridian 1 Network Information forms required

You will need the NWP-004, "Meridian 1 Network Information—Site Information" form that was completed in Chapter 2, "Gathering information for the network".

Dialing plan consideration

When you are adding satellite locations to a site, keep the following in mind.

IF the prime location is using	THEN the satellite location
the Hybrid dialing plan	must use Hybrid or ESN.
CDP	must use only CDP.
ESN	must use only ESN.
the "None" dialing plan	must use only "None."

Softkey descriptions The following table describes the softkeys on the Add Remote Location screen that are common to all dialing plans.

Softkey	Description
[Save]	Press this softkey to save the location in the network database. The List Locations screen reappears.
[Cancel]	Press this softkey to exit without saving the new location in the network database.
	When you are finished saving the new NMS location, press this softkey to exit the Add Remote Location screen.
[More CDP fields]	Press this softkey to add more CDP steering codes.
[Voice]	Press this softkey to record or delete a spoken name for this site.
	The softkey will not appear if you define the "Dialing plan" field as CDP and the "Mailbox numbering follows dialing plan" field as Yes.

Procedure To add NMS satellite locations, follow these steps.

Starting Point: The Main Menu (single customer) or Customer Administration menu (multi-customer)

Step	Action

1 Select Network Administration.

Result: The Network Administration menu appears.

```
                         Network Administration
            1  Meridian Mail Networking Administration

            2  AMIS Networking Administration




Select an item >  ▮
      Exit
```

2 Select Meridian Mail Networking Administration.

Result: The next Network Administration menu appears.

```
                         Network Administration
            1  Network Status

            2  Local Site Maintenance

            3  Remote Site Maintenance

            4  Networking Configuration

            5  Modem Verification Test




Select an item >  ▮
      Exit        Print Network                              Clear All
                      Data                                  Error Sites
```

Step	Action

3   Select Remote Site Maintenance.

Result: The Find Remote Sites screen appears.

```
                        Network Administration
Find Remote Sites

Site Id:                      █_

Site Name:                    _____

Message Transfer Protocol: Any Enterprise Meridian AMIS

Dialing Plan:              Any ESN CDP Hybrid None

Network Message Center:    Any No Yes

Spoken Name Recorded:      Any No Yes



_____
Select a softkey>

    Exit                      List      Print
```

4   Press the [List] softkey.

Result: The List of Remote Sites screen appears.

```
                        Network Administration
List of Remote Sites

   Site   Site Name                Protocol    Message Center

   █ 7    Winnipeg                 Enterprise     YES




_____

    Exit       Add     View/Modify    Delete      List
                                                Locations
```
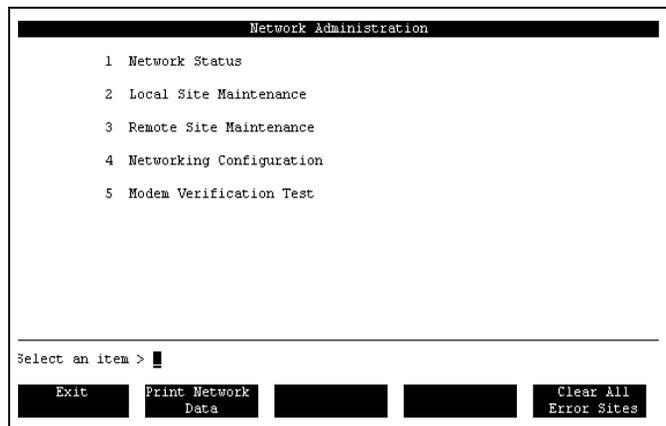
This is a read-only screen. It lists the site number, site name, protocol, and dialing plan, and indicates whether the site is a message center and if the spoken name has been recorded for that site.

Step Action

5   Select the site to which you want to add the NMS location by
       moving the cursor to the site and pressing <space bar> to
       highlight it.

       Note: The site you select must show Yes in the Message
       Center column. For Virtual Node AMIS sites, the Protocol
       column should be AMIS.

6   Press [List Locations].

       Result: The system lists the existing NMS locations. Location 0
       always appears on the list.

```
                          Network Administration
    List of Remote Locations


                  Location          Location Name

                     0              Winnipeg
                     8              oshawa










    _____

      Exit            Add        View/Modify      Delete
```
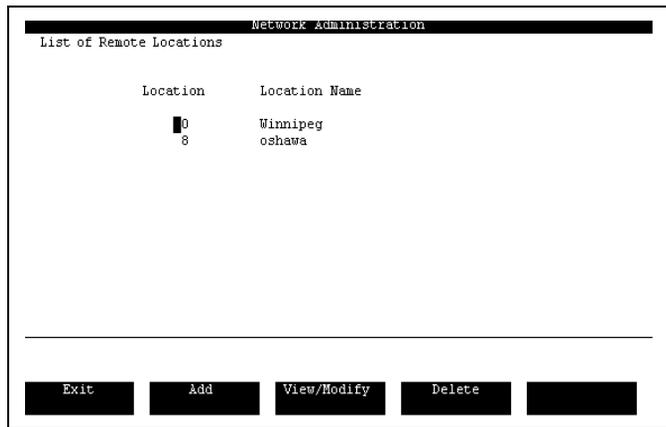
7   Press [Add].

       Result: The system asks you for the location number. The
       number must be in the range of 1 to 59.

Step	Action

8   Enter the location number.

Result: The Add Remote Location screen appears.

```
                         Network Administration
        Add Remote Location

        Location number:  8
        Location name:    █_____

        Dialing plan:     ESN
        Max number of digits in local mailbox:        4_

        ESN access codes:          ___      ___
        Number of overlapping digits between ESN prefix and local ext:      0_
        ESN prefixes (they must begin with   ):
        _____   _____   _____   _____   _____
        _____   _____   _____   _____   _____

        Mailbox numbering follows dialing plan:     Yes No

        Spoken name recorded (Voice)      No
        _____

          Save          Cancel                                    Voice
```

9   Complete the common fields as required. (See the field descriptions on page 5-167.)

10   Once the common fields have been completed, enter the dialing plan information. The following table identifies where to find the instructions.

IF your dialing plan is	THEN
Hybrid	see "Entering NMS location Hybrid dialing plan information" on page 5-170.
ESN	see "Entering NMS location ESN dialing plan information" on page 5-179.
CDP	see "Entering NMS location CDP dialing plan information" on page 5-185.
"None"	see "Entering "None" dialing plan information for NMS locations" on page 5-190.

Step Action

11 Do you want to save the new NMS location?

If yes, press [Save].

Result: The system saves the new NMS location and asks you if you want to add another NMS location.

IF you	THEN
want to add another NMS location	enter the new NMS location number. *Result:* The Add Remote Location screen appears.
you do not want to add another NMS location	press [Cancel] to exit the Add Remote Location screen. *Result:* The system takes you back to the List of Remote Locations screen. Notice that the new NMS location(s) you have just added are included in the list of locations.

If you do not want to save the new NMS location, press [Cancel].

Result: The system discards the new NMS location.

Field descriptions

The following table describes the fields in the Add Remote Location screen that are common to all dialing plans.

Location number	
Description	This is a read-only field. This field displays the ID of the location you are adding.
	When you press the [Add] softkey in the List Locations screen, the system asks you for a new location ID.
	To change the location number, you must delete the location and add it again.
Valid range	0 to 59
	Note: You cannot change the ID of location 0 without deleting the entire remote site.

Location name	
Description	This field is the location name. It is a mandatory field. This name appears on the List Locations screen to help identify this location.
Maximum length	32 alphanumeric characters
Default	None

Dialing plan	
Description	Select the dialing plan that is
	• configured on the switch
	• used to dial the location from the local site
	There are four dialing plans:
	• *Hybrid* Both the ESN and CDP dialing plans are configured on the switch.
	To set up this dialing plan, see "Entering NMS location Hybrid dialing plan information" on page 5-170.

Description	(continued)
	• *ESN* This dialing plan is configured on the switch.
	To set up this dialing plan, see "Entering NMS location ESN dialing plan information" on page 5-179.
	• *CDP* This dialing plan is configured on the switch.
	To set up this dialing plan, see "Entering NMS location CDP dialing plan information" on page 5-185.
	• *None* The switch does not have a configured dialing plan.
	To set up this dialing plan, see "Entering "None" dialing plan information for NMS locations" on page 5-190.
Default	Hybrid

Max number of digits in local mailbox

Description	Enter the maximum length of mailbox numbers used at the location.
	For example, if some mailboxes have four digits and others have seven digits, enter 7 for this field.
Default	4
Maximum length	16 digits

Spoken name recorded (Voice)

Description	This field is read-only. It does not appear if the dialing plan field is set to CDP and the "Mailbox numbering follows dialing plan" field is set to Yes.
	It indicates whether a spoken name has been recorded for this location.
	If you have recorded a spoken name, voice mail users hear the location name followed by the local mailbox digits—for example, *"Toronto Location, 2346."*
	You can record a location name from this screen by using the voice key.

Entering NMS location Hybrid dialing plan information

Introduction   This topic explains how to enter Hybrid dialing plan
                          information for remote NMS satellite locations in the Add
                          Remote Location screen.

Definition: The hybrid network combines the ESN and CDP dialing plans.
Hybrid dialing plan   Each network location can support one or both of the dialing
                          plans.

Meridian 1 Network   You will need the following Meridian 1 Network Information
Information forms   forms that were completed in Chapter 2, "Gathering
required   information for the network".

- • NWP-005, "ESN Data Block" or the ESN (LD 86) printout
- • NWP-007, "CDP Steering Codes" or the CDP (LD 87)
     printout
- • NWP-012, "Network Translation—Location Codes" or the
     NET (LD 90) printout

Before you begin   Before you can enter Hybrid dialing plan information, you need
                          to calculate the following:

- • the number of digits in the ESN prefixes that overlap with
     digits of the local extensions
     For more information, see "Calculating the number of
     overlapping digits in the ESN prefixes" on page 5-62.
- • the number of digits of the CDP steering code that overlap
     with digits of the local extension
     For more information, see "Calculating the number of
     overlapping digits in CDP steering codes" on page 5-65.

Procedure   To enter Hybrid dialing plan information, follow these steps.

Starting Point: You should already have defined the common fields in the Add Remote Location screen.

Step	Action
1	Enter the ESN dialing plan information.
	For instructions, see "Entering NMS location ESN dialing plan information" on page 5-179.
2	Enter the CDP dialing plan information.
	For instructions, see "Entering NMS location CDP dialing plan information" on page 5-185.
3	Do you want to save the new NMS location?
	If yes, press [Save].
	Result: The system saves the new NMS location and asks you if you want to add another NMS location.

IF you	THEN
want to add another NMS location	enter the new NMS location number.
	Result: The Add Remote Location screen appears.
do not want to add another NMS location	press [Cancel] to exit the Add Remote Location screen.
	Result: The system takes you back to the List of Remote Locations screen. Notice that the new NMS location you have just added is included in the list of locations.

If you do not want to save the new NMS location, press [Cancel].

Result: The system discards the new NMS location.

Field descriptions   The following table describes the additional fields that appear
when you choose the Hybrid dialing plan.

For a description of the fields common to all dialing plans, see
"Accessing the Add Remote Location screen" on page 5-160.

ESN access codes	
Description	This field is mandatory.
	This code is used to access the ESN network from the location's switch. You can enter two different ESN access codes, each with up to three digits. A typical access code is 6.
	Usually only one access code is required.
	To determine the ESN access codes, see the AC1 and AC2 fields on the NWP-005, "Meridian 1 Network Information—ESN Data Block" form.
	Note: The ESN access code cannot match the left-most digits of any local mailbox number. For example, if there is a local mailbox number 6122, the access code cannot be 6.
	If there is a conflict, you must either
	• change the access code
	• change the mailbox numbers for the conflicting mailboxes
Default	None

Number of overlapping digits between ESN prefix and local ext	
Description	This field indicates the number of digits in the ESN prefixes that overlap with extensions at the location.
	For example, if users' extensions at the location are five digits long and all begin with 8, and the local ESN prefix is 338, enter 0 (no overlap) in this field if users at other sites have to dial the nine-digit DN to call users at this location (such as 633883000).
	Enter 1 in this field, indicating that the last digit of the prefix and the first digit of the extension overlap, if users have to dial an eight-digit DN (63383000).
	The selection you make here must conform with the location's dialing plan.
	For information about calculating the overlap, see "Calculating the number of overlapping digits in the ESN prefixes" on page 5-62.
	Note: You must enter a value in this field. If you leave this field blank, it reverts to the previous value. If there are no numbers in common between the ESN prefixes and the local extensions, use the default setting of 0.
Multiple ESN prefixes	If there is more than one ESN prefix for this site, you need to enter a value in this field other than 0 in order for Call Sender to work properly. If you enter 0 in this field and the site has multiple ESN prefixes, Call Sender will dial the first ESN prefix regardless of whether or not that is the correct ESN prefix.
Default	0

ESN prefixes (they must begin with)

Description	The starting digits of the ESN prefixes must be the same as the digits in the first ESN access code (as described earlier).
	The ESN prefixes are the ESN location prefixes that identify mailboxes at the remote site within the network. Therefore, the prefixes must be unique within the ESN network. Local users must precede the mailbox numbers of remote users with the appropriate ESN prefix.
Multiple ESN prefixes	If a site has more than one ESN prefix, then you may be required to define the number of overlapping digits in order for Call Sender to work properly.
Maximum number	You can define up to 10 ESN prefixes for one site.
Determining the ESN prefixes	To determine the ESN prefixes, see the
	• AC1 field on the NWP-005, "Meridian 1 Network Information—ESN Data Block" form
	• LOC field on the NWP-012, "Meridian 1 Network Information—Network Translation Location Codes" form
	The ESN prefixes are made up of the AC1 field followed by the LOC field. For example, if the AC1 field is 6 and the LOC field is 338, enter 6338 in this field.
	Note: The value "they must begin with" in the ESN prefixes is the AC1 from this screen.
Default	None

Number of overlapping digits between CDP steering code and local ext

---

Description	This field indicates the number of digits in the CDP steering code that overlap with the remote users' extensions. These codes need not overlap. Refer to your dialing plan.
	One example is if the steering code is 22 and the remote extension is 22345. If local users call the remote extension by dialing
	• 22 22345, then the full steering code precedes the extension Thus, there is no overlap and this field is set to 0.
	• 2 22345, then the last digit of the steering code overlaps the extension number Set this field to 1.
	• 22345, then the entire code overlaps the extension In this case, the steering code is the first two digits of the remote extension, which is normally the case. Set the field to 2 or greater.
	Normally, the steering code is the first few digits of the remote extension. If this is the case, set this field to or leave it as, 10.
	For information about calculating the overlap, see "Calculating the number of overlapping digits in CDP steering codes" on page 5-65.
	Note: Meridian Mail Networking does not support multiple steering codes with differing overlaps (for example, 7231 with 2 overlap, 667 with no overlap).
Default	10
	Note: The default of 10 means that all codes overlap the extension.

CDP steering codes

Description	CDP steering codes are location prefixes that identify the location within the network. Therefore, this prefix must be unique within all locations (and sites) in the network.
	If the location is part of a CDP network, the CDP steering code may already be part of the mailbox number as far as users are concerned. (Even though this is the case, the CDP steering codes must still be defined here because the system must be able to identify the steering code in the mailbox number in order to determine the location.)
	To define CDP steering codes, see the NWP-007, "Meridian 1 Network Information— CDP Steering Codes" form.
	Hint: It may be possible to reduce the number of codes. For example, if you have three codes (774, 775, and 776), and there are no other sites that use 77x in their CDP dialing plan, simply enter 77 as the code instead.
Maximum number	You can enter up to 50 steering codes.
Default	None

Mailbox numbering follows dialing plan? Yes/No

Description	This field indicates whether the local users' mailbox numbers at the location are the same as their telephone extensions.
	Set this field to Yes if a user can be dialed by combining the ESN prefix/CDP steering code with his or her mailbox number.
	For example, if the ESN prefix is 6555 and the user's mailbox number at this location is 4444, this user can be dialed from this site by 65554444 (ESN prefix and mailbox).
	Set this field to No if the mailbox numbering does not follow the dialing plan of the location.
	Note: If you set this field to No
	• the Mailbox prefixes field appears (see next field)
	• the Call Sender feature will only be available to users at remote locations who have been added as remote voice users by the administrator
Relation to overlapping digits	If there is more than one ESN prefix and the number of overlapping digits is set to 0 for ESN prefixes, then Call Sender will not work consistently. In order to disallow Call Sender in this circumstance, set the "Mailbox numbering follows dialing plan" field to No.
Default	Yes

Mailbox prefixes

Description	This field appears if the "Mailbox numbering follows dialing plan" field is set to No.
	Mailbox prefixes are placed in front of the mailbox number to send networking messages to this location.
	For example, if the mailbox prefix is 456 and a local user needs to compose a message to mailbox 1234 at this location, he or she will need to enter 4561234 as the address.
	These prefixes do not have any overlap with mailbox numbers and are independent of the ESN location prefix and CDP steering codes.
	You can enter up to two prefixes. Either prefix can be used to address any mailbox at this location. Normally, however, only one prefix is required.
	Ensure that these prefixes do not conflict with other network data.
Default	None

Entering NMS location ESN dialing plan information

Introduction   This topic explains how to enter ESN dialing plan information for remote NMS satellite locations in the Add Remote Location screen.

Meridian 1 Network Information forms required   You will need the following Meridian 1 Network Information forms that were completed in Chapter 2, "Gathering information for the network".

- NWP-005, ESN Data Block or the ESN (LD 86) printout
- NWP-012, Network Translation Location Codes or the NET (LD 90) printout

Before you begin   Before you can enter ESN dialing plan information, you need to calculate the number of digits in the ESN prefixes that overlap with digits in the local extensions. For more information, see "Calculating the number of overlapping digits in the ESN prefixes" on page 5-62.

Procedure   To enter ESN dialing plan information, follow these steps.

Starting Point: You should have already defined the common fields in the Add Remote Location screen.

Step	Action
1	Enter the ESN dialing plan information. For instructions, see the following field descriptions.
2	Do you want to save the location? If yes, press [Save]. ***Result:*** Any changes you have made are saved. The system asks you to enter the next location number.

Step Action

2   (continued)

IF you	THEN
want to add another NMS location	enter the location number and press [Return].
do not want to add another NMS location	press [Cancel].

If you do not want to save the NMS location, press [Cancel].

Result: Any changes you have made are discarded and the List of Remote Locations screen appears.

Field descriptions   The following table describes the additional fields that appear when you choose the ESN dialing plan.

For a description of the fields common to all dialing plans, see "Accessing the Add Remote Location screen" on page 5-160.

ESN access codes

Description	This field is mandatory.
	This code is used to access the ESN network from the location's switch. You can enter two different ESN access codes, each with up to three digits. A typical access code is 6.
	Usually, only one access code is required.
	To determine the ESN access codes, see the AC1 and AC2 fields on the NWP-005, "Meridian 1 Network Information—ESN Data Block" form.
Restriction	The ESN access code cannot match the left-most digits of any local mailbox number. For example, if there is a local mailbox number 6122, the access code cannot be 6.
Conflicts	If there is a conflict, you must either
	• change the access code
	• change the mailbox numbers for the conflicting mailboxes
Default	None

Number of overlapping digits between ESN prefix and local ext	
Description	This field indicates the number of digits in the ESN prefixes that overlap with extensions at the location.
	For example, if users' extensions at the location are five digits long, and all begin with 8, and the local ESN prefix is 338, enter 0 (no overlap) in this field if users at other sites have to dial the nine-digit DN to call users at this site (such as 633883000).
	Enter 1 in this field, indicating that the last digit of the prefix and the first digit of the extension overlap, if users have to dial an eight-digit DN (63383000).
	The selection you make here must conform with the location's dialing plan.
	For information about calculating the overlap, see "Calculating the number of overlapping digits in CDP steering codes" on page 5-65.
	Note: You must enter a value in this field. If you leave this field blank, it reverts to the previous value. If there are no numbers in common between the ESN prefixes and the local extensions, use the default setting of 0.
Multiple ESN prefixes	If there is more than one ESN prefix for this site, you need to enter a value in this field other than 0 in order for Call Sender to work properly. If you enter 0 in this field and the site has multiple ESN prefixes, Call Sender will dial the first ESN prefix regardless of whether or not that is the correct ESN prefix.
Default	0

ESN prefixes (they must begin with)

Description	The starting digits of the ESN prefixes must be the same as the digits in the first ESN access code (as described earlier).
	The ESN prefixes are the ESN location prefixes that identify mailboxes at the remote site within the network. Therefore, the prefixes must be unique within the ESN network. Local users must precede the mailbox numbers of remote users with the appropriate ESN prefix.
Multiple ESN prefixes	If a site has more than one ESN prefix, then you may be required to define the number of overlapping digits in order for Call Sender to work properly.
Maximum number	You can define up to 10 ESN prefixes for one site.
Determining the ESN prefixes	To determine the ESN prefixes, see the
	• AC1 field on the NWP-005, "Meridian 1 Network Information—ESN Data Block" form
	• LOC field on the NWP-012, "Meridian 1 Network Information—Network Translation Location Codes" form
	The ESN prefixes are made up of the AC1 field followed by the LOC field. For example, if the AC1 field is 6 and the LOC field is 338, enter 6338 in this field.
	Note: The value "they must begin with" in the ESN prefixes is the AC1 from this screen.
Default	None

Mailbox numbering follows dialing plan? Yes/No

Description	This field indicates whether the users' mailbox numbers at the location are the same as their telephone extensions.
	Set this field to Yes if a user can be dialed by combining the ESN prefix with his or her mailbox number.
	For example, if the ESN prefix is 6222 and the remote mailbox is 1234, local users can dial the remote user with the numbers 62221234 (ESN prefix and mailbox number).
	Set this field to No if the mailbox numbering does not follow the dialing plan of the location.
	Note: If you set this field to No
	• the Mailbox prefixes field appears (see next field)
	• the Call Sender feature will only be available to users at remote locations who have been added as remote voice users by the administrator
Relation to overlapping digits	If there is more than one ESN prefix and the number of overlapping digits is set to 0 for ESN prefixes, then Call Sender will not work consistently. In order to disallow Call Sender in this circumstance, set the "Mailbox numbering follows dialing plan" field to No.
Default	Yes

Mailbox prefixes

Description	This field appears if the "Mailbox numbering follows dialing plan" field is set to No.
	Mailbox prefixes are placed in front of the mailbox number to send networking messages to this location.
	For example, if the mailbox prefix is 22 and a local user needs to compose a message to mailbox 4444, the user will need to enter 224444 as the address.
	These prefixes do not have any overlap with mailbox numbers and are independent of the ESN location prefix.
	You can enter up to two prefixes. Either prefix can be used to address any mailbox at this location. Normally, however, only one prefix is required.
	Ensure that these prefixes do not conflict with other network data.

Entering NMS location CDP dialing plan information

Introduction

This topic explains how to enter CDP dialing plan information for remote NMS satellite locations in the Add Remote Location screen.

Meridian 1 Network Information forms required

You will need the NWP-007, "Meridian 1 Network Information—CDP Steering Codes" form or the CDP (LD 87) printout that were completed in Chapter 2, "Gathering information for the network".

Before you begin

Before you can enter CDP dialing plan information, you need to calculate the number of digits of the CDP steering code that overlap with digits of the local extensions. For more information, see "Calculating the number of overlapping digits in CDP steering codes" on page 5-65.

Procedure

To enter CDP dialing plan information, follow these steps.

Starting Point: You should already have defined the common fields in the Add Remote Location screen.

Step	Action
1	Enter the CDP dialing plan information.
	For instructions, see the following field descriptions.
2	Do you want to save the location?
	If yes, press [Save].
	Result: Any changes you have made are saved. The system asks you to enter the next location number.

IF you	THEN
want to add another NMS location	enter the location number and press <Enter>.
do not want to add another NMS location	press [Cancel].

If you do not want to save the NMS location, press [Cancel].

Result: Any changes you have made are discarded and the List of Remote Locations screen appears.

Field descriptions   The following table describes the additional fields that appear when you choose the CDP dialing plan.

For a description of the fields common to all dialing plans, see "Accessing the Add Remote Location screen" on page 5-160.

Number of overlapping digits between CDP steering code and local ext	
Description	For example, if the steering code is 22 and the extension is 22345, and local users call the remote extension by dialing
	• 22 22345, then the full steering code precedes the extension
	Thus, there is no overlap and this field is set to 0.
	• 2 22345, then the last digit of the steering code overlaps the extension number
	Set this field to 1.
	• 22345, the entire code overlaps the extension
	In this case, the steering code is the first digit of the remote extension, which is the normal case. Set the field to 2 or greater.
	Normally, the steering code is the first few digits of the remote extension. If this is the case, set this field to or leave it as, 10.
	For information about calculating the overlap, see "Calculating the number of overlapping digits in CDP steering codes" on page 5-65.
	Note: Meridian Mail Networking does not support multiple steering codes with differing overlaps (for example, 7231 with 2 overlap, and 667 with no overlap).
Default	10
	Note: This means that all codes overlap the extension.

CDP steering codes

Description	CDP steering codes are location prefixes that identify the location within the network. Therefore, this prefix must be unique within all locations in the network.
	If the location is part of a CDP network, the CDP steering code may already be part of the mailbox number as far as users are concerned. (Even though this is the case, the CDP steering codes must still be defined here because the system must be able to identify the steering code in the mailbox number in order to determine the location.)
	To define CDP steering codes, see the NWP-007, "Meridian 1 Network Information—CDP Steering Codes" form.
	Hint: It may be possible to reduce the number of codes. For example, if you have three codes (774, 775, and 776), and there are no other sites that use 77x in their CDP dialing plan, simply enter 77 as the code instead.
Maximum number	You can enter up to 50 steering codes.
Default	None

Mailbox numbering follows dialing plan? Yes/No

Description   This field indicates whether the users' mailbox
                   numbers at the location are the same as their
                   telephone extensions.

                   Set this field to Yes if a user can be dialed by
                   combining the CDP steering code with his or her
                   mailbox number.

                   For example, if the location's steering code is 62
                   and the mailbox is 1234, local users can dial the
                   remote user with the numbers 621234 (steering
                   code and mailbox number).

                   Set this field to No if the mailbox numbering does
                   not follow the dialing plan of the location.

                   Note: If you set this field to No

                   • the Mailbox prefixes field appears (see next
                     field)
                   • the Call Sender feature will only be available to
                     users at remote locations who have been added
                     as remote voice users by the administrator

Default   Yes

Mailbox prefixes

Description	This field appears if the "Mailbox numbering follows dialing plan" field is set to No.
	Mailbox prefixes are placed in front of the mailbox number to send networking messages to this location.
	For example, if the mailbox prefix is 22 and a local user needs to compose a message to mailbox 4444, the user will need to enter 224444 as the address.
	These prefixes do not have any overlap with mailbox numbers and are independent of CDP steering codes.
	You can enter up to two prefixes. Either prefix can be used to address any mailbox at this location. Normally, however, only one prefix is required.
	Ensure that these prefixes do not conflict with other network data.
Default	None

Entering "None" dialing plan information for NMS locations

Introduction   This topic explains how to enter "None" dialing plan
                            information for remote NMS locations in the Add Remote
                            Location screen.

Meridian 1 Network   There are no Meridian 1 Network Information forms for
Information forms   systems using "no dialing plan."
required

Procedure   To enter "None" dialing plan information, follow these steps.

                            Starting Point: You should already have defined the common fields
                            in the Add Remote Location screen.

Step	Action
1	Enter the "None" dialing plan information.
	For instructions, see the following field descriptions.
2	Do you want to save the location?

                            If yes, press [Save].

                            Result: Any changes you have made are saved. The system
                            asks you to enter the next location number.

IF you	THEN
want to add another NMS location	enter the location number and press <Enter>.
do not want to add another NMS location	press [Cancel].

                            If you do not want to save the location, press [Cancel].

                            Result: Any changes you have made are discarded and the
                            List of Remote Locations screen appears.

Field descriptions

The following describes the additional fields that appear when you choose the "None" dialing plan.

For a description of the fields common to all dialing plans, see "Accessing the Add Remote Location screen" on page 5-160.

Mailbox number equals local extension? Yes/No	
Description	In this field, specify whether mailbox numbering equals the local extensions at the location. Therefore, if users' extension DNs and mailbox numbers are identical, set this field to Yes. If the users' extensions do not match their mailbox numbers, then set this field to No.
	If you set this field to Yes, the Dial prefix field appears.
	Hint: If you want to disable the Call Sender feature to this remote site, set this field to No.
Default	Yes

Dial prefix	
Description	This field appears if the "Mailbox number equals extension" field is set to Yes.
	This is an optional prefix that allows users at the local site to use the Call Sender feature to automatically dial the number of a user at this location who has sent a message.
	Enter the digits that must precede the mailbox number in order to dial a user at this location.
	Example 1: If mailboxes are 7xxx and users are dialed by 9597-7xxx, then the dial prefix is 9597.
	Example 2: If users can be dialed from the local site by 7xxx, then leave the dial prefix blank.
	Example 3: If the extension DN 1234 must be dialed through the public network as 914165551234, then the dialing prefix is 91416555.
Default	None

Mailbox prefixes

Description	Local users use these prefixes to address messages to users at this location.
	For example, if the mailbox prefix is 22 and the user's mailbox number is 6565, local users address the user by dialing 226565.
	These prefixes do not have any overlap with the location's mailbox numbers.
	You can enter up to two prefixes. Either prefix can be used to address any mailbox at this location. Normally, however, only one prefix is required.
	The mailbox prefixes can be any number provided that they do not conflict with other network data.
Default	None

Recording names for remote sites and locations

Introduction

Use the [Voice] softkey to record a spoken name for remote sites or locations in the network. Your recording is played to identify the remote site or location when users compose messages to or receive messages from users at the remote site or location.

This topic explains how to record names for remote sites and locations.

Where the [Voice] softkey is found

The [Voice] softkey is available on the

- Add Remote Site and View/Modify Remote Site screens
- Add Remote Location and View/Modify Remote Location screens

Recording a verification

When you record a verification for a remote site or location, the "Spoken name recorded (Voice)" field that appears on the Add and Modify screens is set to Yes. When there is no recording, this field is set to No.

Note: The "Spoken name recorded (Voice)" field does not appear if the "Dialing plan" field is set to CDP and the "Mailbox numbering follows dialing plan" field is set to Yes.

Requirement

You need a telephone set to record spoken names. Ensure that a phone set is available near the administration terminal where you are working.

How the dialing plan affects the verification

If a remote site or location is part of a CDP dialing plan only, and the "Mailbox numbering follows dialing plan" field is set to Yes, the [Voice] softkey does not appear and you cannot record a spoken name.

How the dialing plan affects the verification (continued)

If a spoken name is recorded for a remote site or location which is then changed to CDP, and the "Mailbox numbering follows dialing plan" field is set to Yes, the verification is removed. If the dialing plan is changed, the verification must be recorded again.

Before you begin

Before you record the remote site or location name, read the "Making voice recordings" chapter of your *System Administration Guide* (NTP 55x-70x1-30x).

Softkey descriptions

The following table describes the softkeys that are available when you press the [Voice] softkey.

Softkey	Description
[Return]	If you are satisfied with the recording, press this softkey to return to the recording softkeys.
	When you press [Return], the line is not disconnected (unless you hang up the receiver).
	This means that if you decide to rerecord or listen to the recording, you do not have to reenter the telephone extension after pressing the [Voice] softkey.
[Play]	Press this softkey to play the recorded verification over the phone.
[Record]	Press this softkey to record the site name.
	When you press [Record], the [Stop] softkey appears.
[Stop]	Press this softkey to end the recording.
[Delete]	Press this softkey to delete the recorded verification. The system plays a prompt advising you that the recording was deleted.

Softkey	Description
[Disconnect]	If you are satisfied with the recording, press this softkey.
	When you press [Disconnect], the line is disconnected.
	If you press [Voice] to access the recording softkeys again, you will have to reenter the telephone extension.

Procedure

To record a site or location name, follow these steps.

Starting Point: A Remote Site Maintenance screen for sites or locations

Step	Action
1	Press [Voice].
	Result: The system asks you to enter a phone number.
2	Enter the number of the phone set you are going to use to record a spoken name.
	Result: The row of softkeys changes to display a set of recording softkeys.
3	Pick up the handset of the phone.
	Result: After a slight pause, the [Record] softkey appears.
4	Press [Record].
	Result: The [Stop] softkey appears.
5	Wait for the beep and record the site name.
6	Press [Stop] to stop the recording when you are finished.
7	Press [Play] to listen to the recording.
8	Are you satisfied with the recording?
	If yes, press [Disconnect].
	If no, press [Delete], and go back to step 4.

Chapter 6

Testing the network

In this chapter

Overview of this chapter

Introduction
This chapter explains how to verify that the network is working properly. To do this, the following types of tests are done:

- local site tests
- local and remote site tests

Local site tests
Local site tests verify that everything is working properly at your site. The following table shows descriptions of the various types of tests that are performed while implementing networking at your site.

Test name	Description
Call routing access test	The call routing access test verifies that the networking service
	• can make outbound calls to other sites in the network
	• *cannot* make outbound calls to numbers that should be restricted
	ACD agents must not be allowed to access trunks directly. They must use the NARS/BARS database on the switch to make outbound calls.
	This test is performed by doing the following:
	• programming a telephone set with the same NCOS and TGAR used by one of the Meridian Mail agents
	• using the telephone to perform the test
	For instructions, see "Testing call routing access" on page 6-8.

Test name	Description
ACD/UCD agent test	The ACD/UCD agent test verifies that the ports on Meridian Mail are working and confirms that the Channel Allocation Table has been correctly defined. This test can be performed by using a telephone set to connect to Meridian Mail. Port access is confirmed by one of the following methods: • watching port status on the Meridian Mail DSP Port Status screen • watching the digital display of the telephone set you are using The digital display shows the Meridian Mail DN and the agent position ID. To help you complete the test, a checklist form is available. For instructions, see "Testing the ACD/UCD agents" on page 6-11.
Networking Voice Services Directory Number (VSDN) test	The AMIS Networking VSDN test verifies that the local site can receive messages from Virtual Node AMIS sites. The test is performed by composing and sending a message to the local site. This test is known as a loop-back test. This test is done after the local site has been defined. For instructions, see "Testing the AMIS Networking VSDN" on page 6-17.

Local and remote site tests

Local and remote site tests verify that everything is working properly at both your site and at each remote site. The following table shows descriptions of the various types of tests that are performed throughout the implementation of networking at remote sites.

Test name	Description
AMIS loop-back test	The loop-back test verifies that messages can be received by the local site.
	This particular test is done by composing and sending a message to an empty system distribution list (SDL) at a remote site. The empty SDL indicates to the receiving site, that the message is to be returned to the sending site.
	For instructions, see "Performing an AMIS loop-back test" on page 6-23.
End-to-end test	The end-to-end test verifies that the remote site can receive messages from the local site.
	This test is done by composing and sending a message to a mailbox at the remote site. It is performed after each remote site (or NMS location at a remote site) has been added to the network (and added to the network database at the local site).
	For instructions, see "Sending a message to a remote site (end-to-end test)" on page 6-27.

Section A   Testing the local site

In this section

Overview of this section

Introduction This section explains how to

- test call routing access
- test ACD/UCD agents (and the corresponding ports on Meridian Mail)

Call routing access test The call routing access verifies that the networking service

- can make outbound calls to other sites in the network
- *cannot* make outbound calls to numbers that should be restricted

Note: ACD agents must not be allowed to access trunks directly. They must use the NARS/BARS database to make outbound calls.

This test is performed when changes to the network class of service (NCOS) and trunk group access restriction (TGAR) settings are made on ACD agents and/or trunks. Verifying that outbound calls cannot be made to restricted numbers ensures that your system is protected from system abuse by hackers.

This test is performed by doing the following:

- programming a telephone set with the same NCOS and TGAR used by one of the Meridian Mail agents
- using the telephone to dial out to
  — telephone numbers allowed for Meridian Mail outcalling
  — telephone numbers *not allowed* for Meridian Mail outcalling

ACD/UCD agents test   The ACD/UCD agents test verifies that the ports on Meridian
                           Mail are working. It confirms that the Channel Allocation
                           Table has been correctly defined.

                           This test can be performed by using a telephone set to
                           connect to Meridian Mail. Port access is confirmed by one of
                           the following methods:

                           •   watching port status on the Meridian Mail DSP Port
                                Status screen
                           •   watching the digital display of the telephone set you are
                                using

                                The digital display shows the Meridian Mail DN and the
                                agent position ID.

                           To help you complete the test, a checklist form (NWP-030) is
                           available in Appendix A, "Networking implementation
                           forms," at the back of this manual.

Testing call routing access

Introduction   When you test call routing access, you are verifying that the
                                 networking service

- can make outbound calls to other sites in the network
- *cannot* make outbound calls to numbers that should be
  restricted

  (You want to protect your system from hackers.)

Note: ACD/UCD agents must not be allowed to access
trunks directly. They must use the NARS/BARS database on
the switch to make outbound calls.

When to perform this   You would perform this test if any changes to the network
test   class of service (NCOS) and trunk group access restriction
                                 (TGAR) settings were made on ACD/UCD agents, trunks, or
                                 both.

How this test is   This test is performed by doing the following:
performed

- programming a telephone set with the same NCOS and
  TGAR used by one of the Meridian Mail agents
- using the telephone to dial out to
    — telephone numbers allowed for Meridian Mail
      outcalling
    — telephone numbers *not allowed* for Meridian Mail
      outcalling

Skills required   Understanding call routing requires the skills of an
                                 experienced switch technician. If you are a Meridian Mail
                                 administrator who is implementing networking, then consult
                                 a switch technician for advice.

                                 For a flowchart that explains how Meridian 1 calls are
                                 processed, see Chapter 8, "Really understanding how Virtual
                                 Node AMIS Networking works".

Procedure   To test call routing access, do the following.

Step	Action
1	Obtain the ACD/UCD agent and trunk printouts you printed in one of the following chapters: • "Configuring the Meridian 1 for systems using AML" • "Configuring the PBX/DMS for systems using SMDI"
2	Pick an ACD/UCD agent.
3	Program a telephone set to use the same NCOS and TGAR as the agent. For instructions, see the *X11 input/output guide* (NTP 553-3001-400).
4	Dial a network address.

IF the	THEN enter the following
mailbox numbering is the same as user DNs (dialing plan)	*For ESN:* ESN access code, ESN location code, and mailbox number ***Example:*** 63387460 *For CDP:* DN of user at remote site (CDP steering code and mailbox number) ***Example:*** 737673 *For Hybrid:* use ESN or CDP as appropriate
mailbox numbering is not the same as user DNs (dialing plan) or the dialing plan is None	dialing prefix and mailbox number ***Example:*** 95977460 or 914165977460.

Step	Action
5	Did the call go through? • If yes, this test was successful. • If no, see "What to do if the test fails" following this procedure.
6	Dial a number that you know should be restricted. **Example:** Attempt to access a trunk directly.

Step	Action
7	Did the call go through?
	• If yes, this test was not successful. See "What to do if the test fails" following this procedure.
	• If no, this test was successful.

What to do if the test fails

If the test fails or produces unexpected results, consult a switch technician. The following may not have been defined correctly:

• NARS/BARS database

• NCOS and TGAR settings

• routing controls

Testing the ACD/UCD agents

Introduction
When you test the ACD/UCD agents, you are actually testing the ports on Meridian Mail and ensuring that the Channel Allocation Table has been correctly defined.

You can perform this test by using one of the methods shown in the following table.

Method	For instructions, see
Use the Meridian Mail DSP Port Status screen.	• "Procedure: Preparing for the test" on page 6-12 • "Procedure: Verifying port status" on page 6-13 • "Procedure: Testing the agents with the DSP Port Status screen" on page 6-14
Use a digital display telephone.	• "Procedure: Preparing for the test" on page 6-12 • "Procedure: Verifying port status" on page 6-13 • "Procedure: Testing the agents with the digital display telephone set" on page 6-15

When to perform this test
Normally, ACD/UCD agents (ports) are tested immediately after system installation or modification. However, at a later date, if you dedicate ports to networking, you need to perform the test on just those ports.

Procedure:
Preparing for the test

Before you can perform the test, you need to do some preparation. Do the following.

Step	Action
1	Obtain a working copy of the NWP-030, "Testing Meridian Mail Ports (ACD/UCD Agents)" form.
	To obtain a working copy, see Appendix A, "Networking implementation forms", at the back of this manual.
2	Display the Channel Allocation Table screen.
	For instructions, see your *System Administration Guide* (NTP 55x-70x1-30x).
3	Record on the form, for each port that needs to be tested, the following information:
	• terminal number (TN)
	Note: The terminal number is optional, but is recommended if you need to troubleshoot later.
	• port number
	• agent (position) ID
	Obtain this information from the Channel Allocation Table screen.
4	Exit the Channel Allocation Table screen.
5	Ensure that the ports you want to test are idle. For instructions, see "Verifying port status," following this procedure.

Procedure:
Verifying port status

Before you can actually test the ports, you need to verify that the ports are idle (that is, ready to accept incoming calls). Do the following.

Step	Action
1	Display the DSP Port Status screen.

For instructions, see the DSP Port Status section in your *System Administration Guide* (NTP 55x-70x1-30x).

Result: A screen similar to the following is displayed.

```
                        System Status and Maintenance
DSP Port Status for Node 1 (C=Card D=DSP P=Port)

System Status: InService          Alarm Status: Critical=Off Major=Off Minor=Off

C-D-P         DSP Port Status

4-1-*           1-Idle          2-Idle

5-1-*           3-Idle          4-Idle




Select a softkey > ▉

    Exit        Enable Port     Disable Port      Courtesy       Change to
                                                Disable Port    Range Mode
```

2   Ensure that the ports you want to test show Idle or Active as the status.

For instructions, see one of the following:

If they do not, then enable them.

3   Perform the test.

For instructions, see one of the following:

- "Procedure: Testing the agents with the DSP Port Status screen" on page 6-14

  Do not exit the DSP Port Status screen.

- "Procedure: Testing the agents with the digital display telephone set" on page 6-15

Procedure:
Testing the agents
with the DSP Port
Status screen

To test the ACD/UCD agents (and their corresponding ports) by using the DSP Port Status screen, do the following.

Note: We recommend that you only use this procedure in the following situations:

- *before* the system is made available to users
- after the system has been courtesy disabled

If users are still using the system while you are performing the test, it will be hard for you to determine if *you* accessed the port.

Starting Point: DSP Port Status screen

Step	Action
1	At a telephone set, dial Meridian Mail.
2	Watch the DSP Port Status screen. *Result:* When Meridian Mail answers, one of the ports shows Active as the port status.
3	Locate the port number on your form and record a check mark beside it. The check mark identifies that the port worked correctly.
4	Disconnect the call.
5	Repeat steps 1 to 4 until you are satisfied that all ports have been tested. *Note:* The ports that have been idle the longest are accessed first. This may mean that ports are not accessed in numerical sequence.
6	Are there any ports on the form that do not have a check mark? • If yes, see "Procedure: What to do if the test fails" on page 6-16. • If no, then all agents worked correctly. The test was successful.

Procedure:
Testing the agents
with the digital display
telephone set

To test the ACD agents (and their corresponding ports) by using a digital display telephone, do the following.

Step	Action
1	Dial Meridian Mail.
2	Watch the telephone display. ***Result:*** When Meridian Mail answers, the display shows the Meridian Mail DN followed by the agent position ID.
3	Locate the agent position ID on your form, and record a check mark beside it. The check mark identifies that the agent worked correctly.
4	Disconnect the call.
5	Repeat steps 1 to 4 until you are satisfied that all ports have been tested. ***Note:*** The ports that have been idle the longest are accessed first. This may mean that ports are not accessed in numerical sequence.
6	Are there any ports on the form that do not have a check mark? • If yes, see "Procedure: What to do if the test fails" on page 6-16. • If no, then all agents worked correctly. The test was successful.

Procedure:
What to do if the test
fails

If the ports did not respond during the test, do the following.

Step	Action
1	Review the information in the Channel Allocation Table and compare it with the ACD/UCD agent information in the Meridian 1.
	Check the following for each port and ACD/UCD agent:
	• TN
	• primary ACD DN and agent position (Key 0 on Meridian 1)
	If there are any discrepancies, make the necessary corrections.
2	Review the key assignments on the ACD agents in the Meridian 1. They should be defined as follows:
	• *Key 1:* SCN xxxxxxx (where "xxxxxxx" is the originating DN for outbound calls)
	• *Key 2:* MSB (make set busy key)
	• *Key 3:* NRD (not ready key)
	• *Key 6:* TRN (transfer key)
	• *Key 7:* AOS (conference key)
	• *Key 9:* RLS (release key)
3	Ensure that the failure is not the result of a hardware or other configuration problem. For instructions, see your *System Administration Guide* (NTP 55x-70x1-30x).

Testing the AMIS Networking VSDN

Introduction

When you test the AMIS Networking VSDN, you are actually verifying that the local site can receive messages from other sites. It simply confirms that the AMIS Networking VSDN is working.

How the test is done

The test is performed by composing and sending a message to a mailbox at your site (the local site). The message is addressed by using the (Open) AMIS addressing scheme.

Note: The system access number is entered in dialable format. For this test, the system access number consists of the following:

- access code required to dial out of the Meridian Mail system
- your site's local number (exchange code and networking VSDN)

Example: 95983540

When to perform this test

This test is done after the local site and the networking VSDN have been defined.

Consideration for shared DNs

If you are planning to use a voice menu, Time-of-day controller, or Thru-dial service VSDN to service AMIS Networking, note that AMIS is then tested by entering that VSDN as the system access number.

You should also consider testing the time-of-day controllers if they are also used on shared service DNs.

Before you begin   Before you can perform this test, do the following:

1. Define the AMIS compose prefix. For instructions, see "Defining the networking configuration" in Chapter 5, "Configuring Meridian Mail".

2. Define the AMIS Networking VSDN. For instructions, see "Assigning a voice service DN to AMIS Networking" on page 5-23".

3. Change the wakeup interval and batch threshold settings on the Networking Configuration screen to "1" at both the local and remote sites (if the remote sites are also Meridian Mail systems). This change will allow messages to be delivered immediately instead of at the default "scheduled" times.

    For instructions, see Section F on page 9-83.

    Note: Before you make the changes, print the Networking Configuration screens so that you have a copy of the original configuration.

ATTENTION

Once you are satisfied that all remote sites are correctly configured, ensure that you remember to reset the wakeup interval and batch threshold to their previous settings.

Procedure   To test the AMIS Networking DN, do the following at a telephone set.

Step	Action
1	Log in to Meridian Mail
2	Press 75 to compose a message. **Result:** Meridian Mail responds with "Enter a list of mailboxes..."
3	Enter the following: • AMIS compose prefix The AMIS compose prefix identifies that a message is about to be composed to an "open network" user. • system access number For more information, see page 6-17. • # sign The # sign signifies the end of the system access number. **Result:** You are prompted to enter the mailbox number of the open network user.
4	Enter the number of the mailbox (at your site) that you logged in to, followed by the # sign. **Result:** Meridian Mail responds with "Open network user <mailbox number> at <system access number (in this case, the networking VSDN)>."
5	Press the # sign again. The # sign signifies the end of the list of people to whom the message will be sent. **Result:** You are prompted to record a message.
6	Press 5 to record.
7	Record the message, then press # (to stop recording).
8	Press 79 to send the message. **Result:** Meridian Mail responds with "Message sent."
9	Log out from Meridian Mail. **Result:** Meridian Mail responds with "Goodbye."

What happens next   The message is sent according to the scheduling parameters
                          defined in the networking configuration.

If the test	THEN you receive
was successful	the message you recorded
failed	a non-delivery notification message

What to do if the test   If the test failed, check both the networking VSDN and the
fails   mailbox number you used and ensure they are both valid.

Section B   Testing the local and remote sites

In this section

Overview of this section

Introduction   This section explains how to

- perform an AMIS loop-back test
- send a message to a remote site

AMIS loop-back test   The AMIS loop-back test verifies that messages can be sent to the remote site and received by the local site.

This particular test is done by composing and sending a message to an empty system distribution list (SDL) at a remote site. The empty SDL indicates to the receiving site, that the message is to be returned to the sending site.

Note: An empty SDL is a distribution list that does not contain any mailbox addresses. It must be defined at the remote site before this test can be performed.

Once the local site has been defined, the AMIS loop-back test is performed after each remote site is added to the system.

Message delivery to remote site (end-to-end test)   Message delivery to a remote site (or the end-to-end test) verifies that users at the remote site can receive messages from the local site.

This test is done by composing and sending a message to a mailbox at the remote site.

It is performed after each remote site (or NMS location at a remote site) has been added to the network.

Performing an AMIS loop-back test

Introduction

When you perform the AMIS loop-back test, you are verifying that messages can be sent to the remote site and received by the local site.

This particular test is done by composing and sending a message to an empty system distribution list (SDL) at a remote site. The empty SDL indicates to the receiving site, that the message is to be returned to the sending site.

Note: An empty SDL is a distribution list that does not contain any mailbox addresses. It must be defined at the remote site before this test can be performed.

ATTENTION

This test can be run only if the remote site is a Meridian Mail system. If the remote site is another type of voice messaging system, skip this test and run the end-to-end test discussed on page 6-27.

When to perform this test

Once the local site is defined, this test is performed after each remote site is added to the system.

Before you begin

Before you perform this test, you should do the following.

1. Create an empty SDL at the local site. The empty SDL will be used by each remote site to perform the loop-back test.

   An empty SDL is a distribution list that does not contain any mailbox addresses.

   Note: You may need to contact the administrator at the remote site to ensure that an empty SDL has been created.

Before you begin (continued)

2. Change the wakeup interval and batch threshold settings on the Networking Configuration screen to "1" at both the local and remote sites (if the remote sites are also Meridian Mail systems).

    This change will allow messages to be delivered immediately instead of at the default "scheduled" times.

    For instructions, see the "Modifying local site information" and "Modifying remote sites" sections in Chapter 9, "Maintaining the network".

    Note: Before you make the changes, print the Networking Configuration screens so that you have a copy of the original configuration.

ATTENTION

Once you are satisfied that all remote sites are correctly configured, ensure that you reset the wakeup interval and batch threshold to their previous settings.

Procedure: Performing an Enterprise loop-back test

To perform the AMIS loop-back test, do the following at a telephone set.

Step	Action
1	Log in to a mailbox at the local site.
2	Press 75 to compose a message.
3	Enter the network address for a mailbox at the remote site.

IF the	THEN enter the following
mailbox numbering is the same as user DNs (dialing plan)	*For ESN:* ESN access code, ESN location code and SDL number
	Example: 63387460
	For CDP: DN of user at remote site (CDP steering code and SDL number)
	Example: 737673
	For Hybrid: use ESN or CDP as appropriate
mailbox numbering is not the same as user DNs (dialing plan) or the dialing plan is "None"	mailbox prefix and SDL number

Step	Action
4	Enter the remote site's system distribution list number.
5	Press # twice.
6	Press 5 (to record a short message).
7	Record the message, then press # (to stop recording).
8	Press 79 to send the message.
9	Wait for the message waiting indication (MWI) to be activated for the mailbox (indicating that the message is returned).

Step	Action
10	Log in and listen to the message.
	It should be the message that you sent.
	If a non-delivery notification (NDN) is returned instead, listen to the reason why the message was not delivered. Then perform step 12.
11	Log out of Meridian Mail and hang up.
12	If you received a non-delivery notification, do the following:
	a. Make corrections as required in Meridian Mail.
	b. Repeat the test.

What happens next

If the loop-back test is successful, the remote site will return the message to the sending mailbox. The test will take approximately 5 to 10 minutes.

Procedure: What to do if the test fails

If the loop-back test does not work, do the following.

Step	Action
1	Ensure that the SDL at the remote site
	• does exist
	• does not contain any mailboxes
2	Ensure that you addressed the message correctly.
3	Consult the SEERs at both the local and remote sites.
	Since all previous tests have succeeded, the probable cause of the error is with the remote site information (defined in the local network database or the network database at the remote site.).
	The following are examples of errors:
	• Connection DNs do not terminate on the networking DN.
	• A remote site that is not yet operational was specified.
	• Incorrect message transfer protocols do not match at both the local and remote sites.

Sending a message to a remote site (end-to-end test)

Introduction

When you send a message to a remote site, you are verifying that users at the remote site can receive messages from the local site.

This test (known as an end-to-end test) is done by composing and sending a message to a mailbox at the remote site.

When to perform this test

This test is performed after each remote site (or NMS location at a remote site) has been added to the network.

Before you begin

Before you perform this test, you should change the wakeup interval and batch threshold settings on the Networking Configuration screen to 1 at both the local and remote sites. For instructions, see Chapter 9, "Maintaining the network".

This change will allow messages to be delivered immediately instead of at the default "scheduled" times.

Note: Before you make the changes, print the Networking Configuration screens so that you have a copy of the original configuration.

ATTENTION

Once you are satisfied that all remote sites are correctly configured, ensure that you reset the wakeup interval and batch threshold to their previous settings.

Procedure:
Performing the end-to-end test

To perform the end-to-end test, do the following at a telephone set.

Step	Action
1	Log in to a mailbox.
2	Press 75 to compose a message.
3	Enter the network address for a mailbox at the remote site.

IF the	THEN enter the following
mailbox numbering is the same as user DNs (dialing plan)	*For ESN:* ESN access code, ESN location code and mailbox number **Example:** 63387460 *For CDP:* DN of user at remote site (CDP steering code and mailbox number) **Example:** 737673 *For Hybrid:* use ESN or CDP as appropriate
mailbox numbering is not the same as user DNs (dialing plan) or the dialing plan is "None"	mailbox prefix and mailbox number

Step	Action
4	Press #. If Meridian Mail responds with "There is no mailbox at xxx", do the following: a. Ensure that the ESN prefix or CDP steering code is correct. b. Ensure that the "number of digits in local mailbox number" is large enough.
5	Press # again.
6	Press 5 (to record a message).
7	Record the message, then press # (to stop recording).
8	Press 79 to send the message.
9	Log out of Meridian Mail and hang up.

Step	Action
10	Watch the Network Status screen (and press the Update softkey) until the message is sent.
	You will know the message has been sent when there are "0" messages waiting and the status is "Idle".
11	Log in to the remote site mailbox and listen to the message.
	Note: If you cannot perform this step yourself, get the site administrator to do it.
12	Wait for the acknowledgment message to be returned to you.
13	Log in to the local mailbox and listen to the acknowledgment.

What happens
The message is sent according to the scheduling parameters defined in the networking configuration.

If the test	THEN
was successful	• the message was successfully delivered to the remote site • an acknowledgment was delivered to the local mailbox *Note:* The acknowledgment indicates that the message was received by the site. You must listen to the message you sent, to confirm that the message was actually delivered to the mailbox.
failed	you receive a non-delivery notification indicating that the message could not be delivered. Listen to the non-delivery notification (NDN) message to determine why it was not delivered.

Confirming the delivery of the message

To confirm that the message was indeed delivered to the remote site, log in to the remote mailbox and read the message, or ask the administrator at the remote site to log in and read the message.

If the remote site is a Meridian Mail system, listen to the message header. If it states that the message is from "open network user" then the system access number (SAN) is not set up correctly. The error may be

- the dialing defaults or the local number is incorrect on the sending site
- the SAN is not defined correctly in the connection DN field at the remote site

Procedure:
What to do if the test fails

If the end-to-end test did not work, do the following.

Step	Action
1	Ensure that the mailbox at the remote site does exist.
2	Ensure that you addressed the message correctly.
3	What did the non-delivery notification message say?

IF the NDN said	THEN
it took too many attempts to send the message	the cause may be: • incorrect message transfer protocol • incorrect site ID • incorrect connection DN • incorrect passwords • the remote site is disabled
the address was incorrect	the message was sent to the remote site but could not be delivered. The cause may be: • the mailbox does not exist • wrong mailbox number was used • the "Receive composed messages" field in the Class of Service Administration screen is set to No • the disk at the remote site is full

Step	Action
4	Consult the SEERs for descriptions of non-delivery reasons. Since all previous tests have succeeded, the probable cause of the error is with the remote site information. The following are examples of errors: • Channels were not available. • Addresses were incorrect. • Connection DNs do not terminate on the networking DN. • A remote site that is not yet operational was specified. • At least one connection DN is not defined as a public network DN.

Chapter 7

Creating a backup of the system

In this chapter

Overview of this chapter

Introduction

After you have configured your Meridian Mail network and it is working properly, you should create a backup record of it.

This chapter explains

- why a backup of the network database is required
- how to perform a system backup of
  — Meridian Mail
  — your switch
- how to obtain printouts of networking information

Why a backup is important

A backup is extremely important; if your Meridian Mail system or switch ever experiences a disk failure and your data is lost, the backup is used to restore the system.

A backup should be done

- immediately after the network is configured and working properly
- whenever changes are made

Definition: system backup

A system backup is a copy of the Meridian Mail system or switch as of a specific date. The backup is used to restore your system if system problems are experienced.

Definition: network information printouts

The networking information printouts consist of

- *for Meridian Mail:* site and networking configuration information
- *for the switch:* dialing plan information

Section A   Creating a backup of Meridian Mail

In this section

Overview of this section

Introduction

This section explains how to create a backup set of networking records for Meridian Mail. There are two types of backup records. They are

- system backup
- network database printouts

System backup

A system backup is a copy of the Meridian Mail system as of a specific date. The backup is used to restore your system if system problems are experienced.

A backup of the system should be done on a regular basis.

Network database printouts

There are two types of printouts for the network database. They are

- site information
- networking configuration information

You should print the information for networking even though you may have performed a backup of your Meridian Mail system. If, for some reason, the backup copy of the system is damaged, the printouts will provide the information necessary to get the network running again.

Why a backup is required

If you do not create a backup of your system, and your system experiences disk failure, then you will have to reenter all the information required for networking.

When the backup should be done

A backup should be done

- immediately after the network has been configured and is working correctly
- each time any information is changed or deleted from Meridian Mail

Backing up Meridian Mail

Introduction
After you have configured your Meridian Mail system for networking, you should create a backup of the system.

What the backup should include
For networking, the backup should include the following:

- volume 1 (this is where the network database is located)
- user volumes (for remote voice users)

Reference
For instructions on performing the backup, see the Backups section in the "Back up and restore Meridian Mail data" chapter of your *System Administration Guide* (NTP 55x-70x1-30x).

ATTENTION

You should perform a manual backup even if your Meridian Mail system has been configured to perform a backup automatically each night.

If your system experiences disk failure before the automatic backup can take place, then all your networking information may be lost.

Printing Meridian Mail network information

Introduction
We recommend that you print the information for networking even though you may have performed a backup of your Meridian Mail system.

If, for some reason, the backup copy of the system is damaged, the printouts will provide the information necessary to get the network running again.

Note: The printouts are also handy for sending or faxing to other sites when they are configuring Meridian Mail for networking.

Types of printouts
There are two types of networking printouts you can get from Meridian Mail. They are

• site information (for both the local and remote sites)

This printout is obtained by using the [Print Network Data] softkey on the Network Administration menu.

Note: If the printer is assigned to the RSM printer port, the [Print Network Data] softkey will not work (that is, the report will not print).

On the General Options screen, temporarily remove the printer name from the SEER and Reports Printer Port Name fields. Print the data listing, then reinstate the printer port name fields to their previous settings.

• networking configuration information

This printout is obtained by printing the Networking Configuration screen and the View/Modify AMIS Networking Information screen on the MMI.

When the printouts should be obtained

The networking information should be printed

- immediately after the network has been configured and is working correctly
- each time any information is changed or deleted from Meridian Mail

Procedures in this topic

This topic contains seven procedures as indicated in the following table.

For instructions on	see
how to obtain the site information printout	"Procedure: Printing the site information" on page 7-8.
how to obtain the networking configuration printout	"Procedure: Printing the networking configuration information" on page 7-11.
how to obtain the AMIS networking information printout(s)	• "Printing the AMIS networking information—single customer systems" on page 7-13 • "Printing the AMIS networking information—multi-customer systems" on page 7-14 (for system-wide parameters) • "Printing the AMIS networking information—multi- customer systems" on page 7-15 (for customer-specific parameters)
what to do with the printouts	"Procedure: What to do with the printout" on page 7-17.
how to restore Meridian Mail with information from the printouts	"Procedure: Restoring the networking information from the printouts" on page 7-18.

Procedure:
Printing the site
information

To print the site information, do the following.

Starting Point: Main Menu

Step	Action

1   Select Network Administration.

    Result: The Network Administration menu appears.

```
                    Network Administration
          1  Meridian Mail Networking Administration

          2  AMIS Networking Administration




Select an item > █
    Exit
```

2   Select Meridian Mail Networking Administration.

    Result: The next Network Administration menu appears.
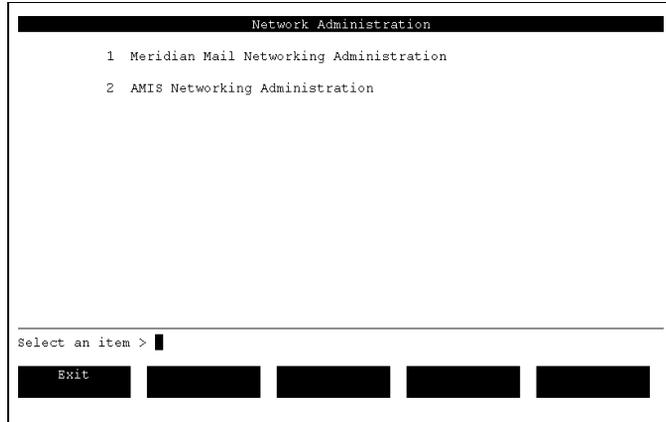
```
                    Network Administration
          1  Network Status

          2  Local Site Maintenance

          3  Remote Site Maintenance

          4  Networking Configuration

          5  Modem Verification Test




Select an item > █
    Exit    Print Network                              Clear All
              Data                                    Error Sites
```
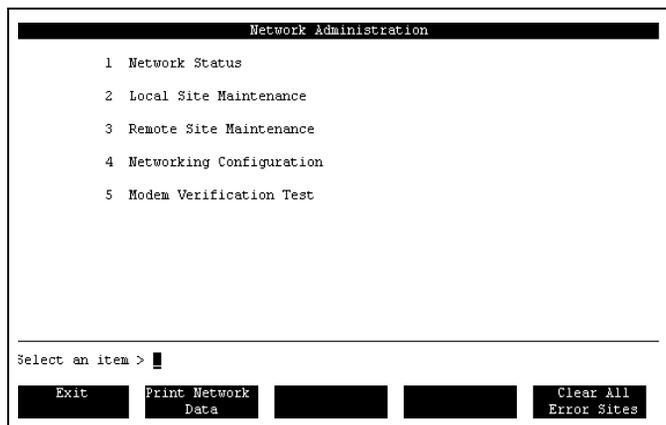
Step	Action
3	Press [Print Network Data].

Result: The following message is displayed:

```
Please ensure that the printer is ready
```

and the [Cancel Printing] and [Continue Printing] softkeys are displayed.

```
                        Network Administration
              1  Network Status

              2  Local Site Maintenance

              3  Remote Site Maintenance

              4  Networking Configuration

              5  Modem Verification Test




 ────────────────────────────────────────────────────────────

 Please ensure that the printer is ready

          Cancel              Continue
          Printing            Printing
```
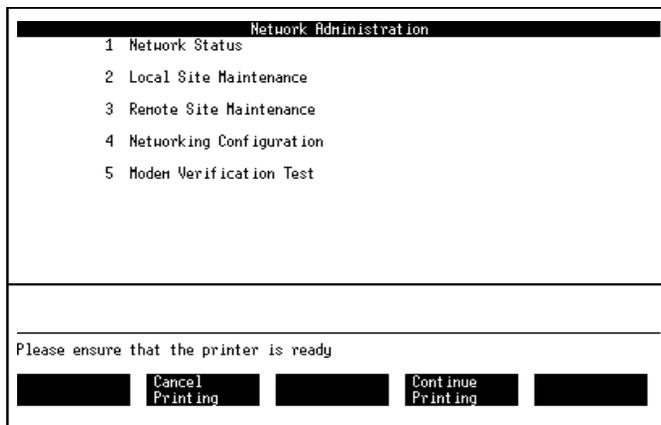
4   Ensure that the printer
    - is enabled for printing
    - is loaded with paper

5   Do you want to continue printing?

    If yes, press [Continue Printing].

    Result: The Meridian Mail Network Data Listing is printed on your printer. A sample of the printout follows this procedure.

    When printing is completed, the Network Administration menu shown in step 2 is displayed.

    If no, press [Cancel Printing].

    Result: The Network Administration menu shown in step 2 is displayed.

6   Go to the next procedure (see "Procedure: Printing the networking configuration information" on page 7-11).

**Sample:
Meridian Mail Network
Data Listing**

The following is an example of the Meridian Mail Network
Data Listing (site information) printout.

```
----------------------------------------------------------------------------
                    Meridian Mail Network Data Listing
----------------------------------------------------------------------------

REMOTE SITE: Enterprise Networking site    89

Networking is ENABLED

Initiating Password : password
Responding Password : password

Connection number 1 : 627893653
           number 2 : 627893653
           number 3 : 627893653
        Ottawa

No spoken name present

Mailbox numbering follows dialing plan

Numbering Plan     ESN  CDP   Hybrid    none

ESN Access codes :  62

Local MB length :                            4

ESN prefix overlap with local extension :        0

ESN prefix :      62789
```

Procedure: Printing the networking configuration information

To print the networking configuration information, do the following.

Starting Point: Network Administration menu

Step	Action
1	Select Networking Configuration.

Result: The Networking Configuration screen is displayed.

```
                         Network Administration
 Networking Configuration

 Networking Scheduling Parameters
    Economy class initiation time    (hh:mm):      18:00
    Economy class stale time         (hh:mm):      06:00

    Standard class holding time      (hh:mm):      03:00
    Standard class stale time        (hh:mm):      09:00

    Urgent class holding time        (hh:mm):      00:30
    Urgent class stale time          (hh:mm):      01:30

    Batch threshold:                               20
    Wakeup interval (mins) :                       5

 Network Broadcast Mailbox: 627865555

 Meridian Networking Configuration
                                                            MORE BELOW


       Save            Cancel
```

2   Press the <Print> key on your keyboard.

Result: The screen is printed on your printer.

Step Action

3   Press <PageDown> to display the rest of the fields.

     Result: The following screen is displayed.

```
                          Network Administration               MORE ABOVE
         Networking Configuration

           Batch threshold:                        20
           Wakeup interval (mins) :                5

         Network Broadcast Mailbox: 627865555

         Meridian Networking Configuration
           Maximum number of ports for Meridian Networking:    4

         Enterprise Networking Configuration
           Maximum number of ports for Enterprise Networking:  4
           Receive the message text information:              No Yes
           Add/Update Remote Voice Users:                     No Yes

         Remote Voice User Default Settings
           Name dialable by external callers:                No Yes
           Maximum number of temporary remote voice users:  1000



          Save            Cancel
```

4   Press the <Print Screen> key on your keyboard.

     Result: The screen is printed on your printer.

5   Press [Cancel] to return to the menu.

     Result: The Network Administration menu is displayed.

Printing the AMIS networking information—single customer systems

To print the AMIS Networking information, do the following.

Starting Point: Main Menu

Step	Action

1   Select Network Administration.

        Result: The Network Administration menu is displayed.

```
                         Network Administration
            1   Meridian Mail Networking Administration

            2   AMIS Networking Administration










Select an item > █

      Exit
```

2   Select AMIS Networking Administration.

        Result: The View/Modify AMIS Networking Information screen appears.

```
                          Network Administration
     View/Modify AMIS Networking Information

     AMIS Compose Prefix:
     Outgoing Messages: Disabled Enabled
     Incoming Messages: Disabled Enabled

     System Access Number
     Local Number:

     Outgoing Messages allowed on weekdays (hhmm): from  00:00 to 23:59
     Outgoing Messages allowed on weekends (hhmm): from  00:00 to 23:59
     Wakeup Interval(minutes):  5
     Batch threshold:  9
     Networking call maximum:  4
     Number of messages to transmit per session   1
     Economy Class Initiation Time (hh:mm): 00:00
     Economy Class Stale Time (hh:mm):      06:00
     Standard Class Holding Time (hh:mm):   03:00
                                                              MORE BELOW

          Save          Cancel
```
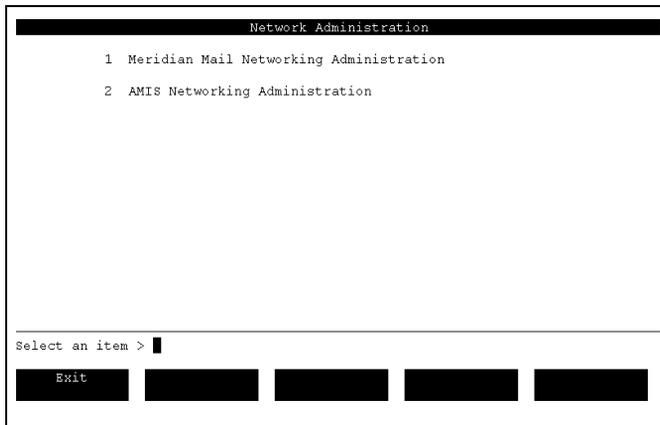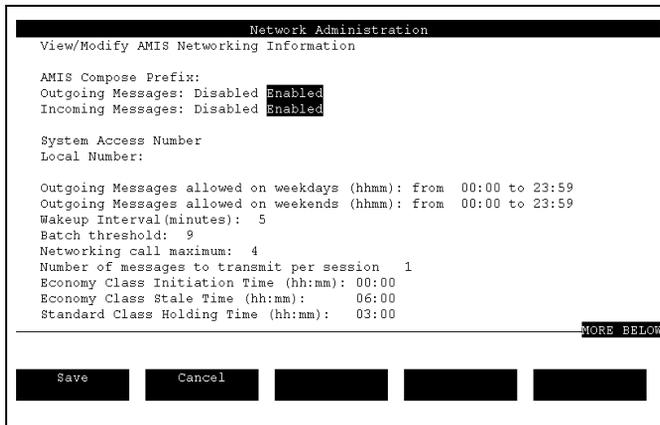
3   Press the <Print Screen> key on your keyboard.

        Result: The screen is printed on your printer.

Step	Action
4	Tab through the fields until the rest of the fields are displayed.
5	Press the <Print Screen> key on your keyboard.
	Result: The screen is printed on your printer.
6	Press [Cancel] to return to the menu.

Printing the AMIS networking information—multi-customer systems

For system-wide parameters, to print the AMIS networking information for multi-customer systems, do the following.

Starting Point: Main Menu

Step	Action
1	Select Network Administration.
	Result: The Network Administration menu is displayed.

```
                        Network Administration

          1  Meridian Mail Networking Administration

          2  AMIS Networking Administration




Select an item > █
    Exit
```
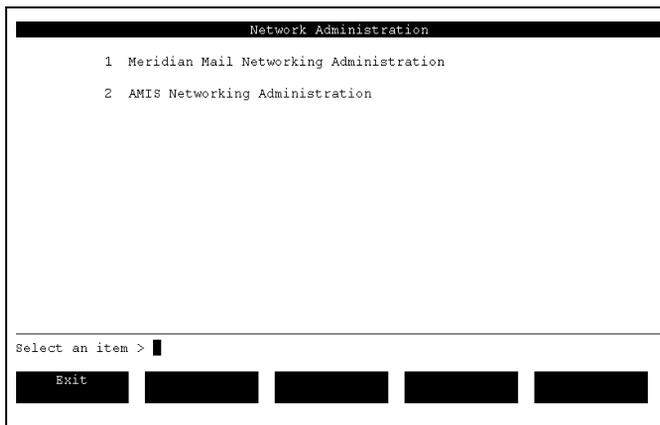
Step	Action
2	Select AMIS Networking Administration.

Result: The View/Modify AMIS Networking Information screen appears.

```
                        Network Administration
        View/Modify AMIS Networking Information

        AMIS Compose Prefix:
        Outgoing Messages: Disabled Enabled
        Incoming Messages: Disabled Enabled

        System Access Number
        Local Number:

        Outgoing Messages allowed on weekdays (hhmm): from  00:00 to 23:59
        Outgoing Messages allowed on weekends (hhmm): from  00:00 to 23:59
        Wakeup Interval(minutes):   5
        Batch threshold:   9
        Networking call maximum:   4
        Number of messages to transmit per session   1
        Economy Class Initiation Time (hh:mm): 00:00
        Economy Class Stale Time (hh:mm):      06:00
        Standard Class Holding Time (hh:mm):   03:00
                                                            MORE BELOW


            Save            Cancel
```

Step	Action
3	Press the <Print Screen> key on your keyboard.

Result: The screen is printed on your printer.

Step	Action
4	Press [Cancel] to return to the menu.

Printing the AMIS networking information—multi-customer systems

For customer-specific parameters, to print the AMIS networking information for multi-customer systems, do the following.

    Starting Point: Customer Administration menu

Step	Action

1   Select Network Administration from the Customer
     Administration menu.

     Result: The Network Administration menu appears.

```
Ispep Fire Inc.              Network Administration

              1  Meridian Mail Networking Administration

              2  AMIS Networking Administration




Select an item >  █
    Exit
```

2   Select AMIS Networking Administration.

     Result: The View/Modify AMIS Networking Information screen
     appears.

```
Ispep Fire Inc.              Network Administration

   View/Modify AMIS Networking Information

   AMIS Compose Prefix:  __

   Outgoing Messages: Disabled  Enabled
   Incoming Messages: Disabled  Enabled

   System Access Number
   Local Number: _____

   Number of messages to transmit per session:  1




       Save           Cancel
```
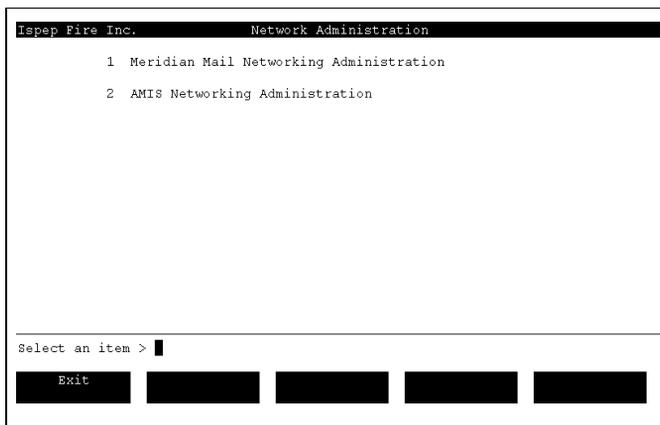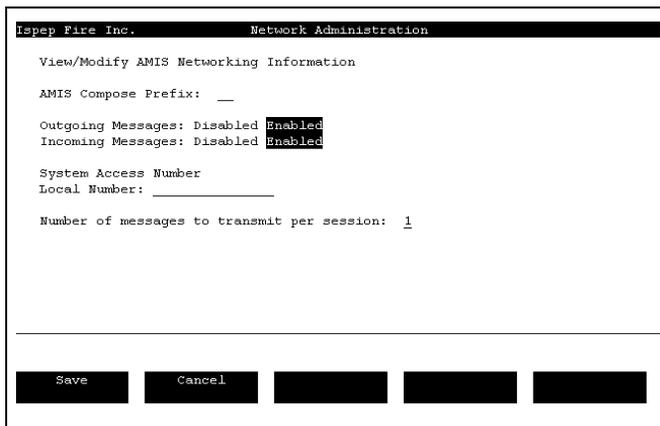
3   Press the <Print Screen> key on your keyboard.

     Result: The screen is printed on your printer.

4   Press [Cancel] to return to the menu.

**Procedure:
What to do with the
printout**

After you have printed the networking information, do the
following.

Step	Action
1	Record today's date on each of the printouts.
2	Create the following file folders: • Meridian Mail Network Data Listing for the site • Meridian Mail Networking Configuration Information • AMIS Networking Information • Meridian Mail Dataport Configuration Information (if Meridian Networking is being used)
3	Put the printouts into the labeled file folders.
4	Store the file folders in a secure location.

**Procedure:
Restoring the
networking
information from the
printouts**

To restore your system from the printouts, do the following.

Note: The site information printout does not match the way the site maintenance screens are laid out.

Step	Action
1	Complete the following site data entry forms (as required) from the Meridian Mail Network Data Listing: • NWP-024, "Meridian Mail Network Information—Local Site Maintenance" • NWP-025, "Meridian Mail Network Information—Remote Site Maintenance" • NWP-026, "Meridian Mail Network Information—Remote NMS Location Maintenance" Copies of these forms can be obtained (and photocopied) from Appendix A, "Networking implementation forms", at the back of this manual.
2	Reenter the information into Meridian Mail. Use the following: • Meridian Mail Network Information site maintenance forms • networking configuration printout For instructions, see one of the following chapters: • Chapter 5, "Configuring Meridian Mail" • Chapter 9, "Maintaining the network"

Section B   Creating a backup of the switch

In this section

Overview of this section

Introduction

This section explains how to create a backup set of networking records for your switch. There are two types of backup records:

- system backup
- switch configuration printouts

System backup

A system backup is a copy of the switch as of a specific date. The backup is used to restore your system if system problems are experienced.

A backup of the system should be done on a regular basis.

Switch configuration printouts

For Virtual Node AMIS Networking, the switch configuration printouts are a hard copy record of the dialing plan used in the network.

You should print the dialing plan information even though you may have performed a backup of your switch. If for some reason the backup copy of the system is damaged, the printouts will provide the information necessary to get the network running again.

When the backup should be done

You should perform the backup

- immediately after the switch has been configured
- whenever changes or deletions are made

Backing up the switch

Introduction   After you have configured your switch with the dialing plan information required for networking, you should

- create a backup (Meridian 1 and non-Nortel switches)
- take an image of the switch (DMS family and SL-100 switches)

    (For simplicity, this is referred to as creating a backup.)

When the backup should be performed   You should perform the backup

- immediately after the switch has been configured
- whenever changes or deletions are made

ATTENTION

You should perform the backup even if your switch has been configured to perform a backup automatically each night.

If your system experiences disk failure before the automatic backup can take place, then all your information may be lost.

Backing up the switch   For instructions on how to create a backup of your switch, see the following table.

For	Refer to
Meridian 1	LD 43 in the *X11 input/output guide* (NTP 553-3001-400).
non-Nortel switches (AT&T and ROLM)	your vendor's documentation.
DMS family and SL-100 switches	not applicable. Your service provider will do the backup.

Printing switch network information

Introduction   It is a good idea to print the information for networking even though you may have performed a backup of your switch.

If, for some reason, the backup copy of the system is damaged, the printouts will provide the information necessary to get the network running again.

Reference   See Chapter 2, "Gathering information for the network," for
                                 instructions on

- printing information related to networking from the
  switch

  and

- what to do with the printouts

Chapter 8

Really understanding how Virtual Node AMIS Networking works

In this chapter

Overview of this chapter

Introduction

This chapter explains

- how the Meridian 1 processes ESN and CDP calls
- how Meridian Mail initiates network calls to other sites in the network
- how Virtual Node AMIS Networking transfers messages

How CDP and ESN calls are processed

This chapter provides a high-level description of how ESN and CDP calls are processed by the Meridian 1. Calls are processed by using the elements described in "What a dialing plan needs in order to work" in Chapter 1, Understanding Virtual Node AMIS Networking".

For both ESN and CDP, the Meridian 1 process is

- summarized in a flowchart
- described in detail

When messages are sent

Network calls are not initiated by Meridian Mail until one of the following occurs:

- The economy class initiation time is reached.
- Holding times are reached for standard and urgent messages.
- The batch threshold is reached or exceeded for standard and urgent messages.

**How messages are
transferred**

The message header is transmitted to the receiving site over the
voice port by DTMF tones.

The recorded message is played over the voice port by the
sending site and recorded by the receiving site.

Section A Understanding call processing

In this section

Overview of this section

Introduction   This section provides a high-level description of how ESN and
                            CDP calls are processed by the Meridian 1. Calls are processed
                            by using the elements described in "What a dialing plan needs
                            in order to work" in Chapter 1, "Understanding Virtual Node
                            AMIS Networking."

How the information is   For both ESN and CDP, the process used by the Meridian 1 is
presented

                            •   summarized in a flowchart
                            •   described in detail

How the Meridian 1 processes ESN calls

Introduction   This topic provides a high-level description of how ESN calls are processed by the Meridian 1. Calls are processed by using the following elements:

- ESN data block
- access codes
- time-of-day schedules
- network translation tables
- steering codes
- route lists
- network class of service groups
- free calling area screening tables
- digit manipulation tables

These elements are described in "What a dialing plan needs in order to work" in Chapter 1, "Understanding Virtual Node AMIS Networking."

Flowchart: process

The following flowchart shows a high-level overview of how the Meridian 1 processes an ESN call. The flowchart shows the Meridian 1 overlays that are being used. At stage 18, an outgoing call was successfully completed.

A description of each stage follows the flowchart.
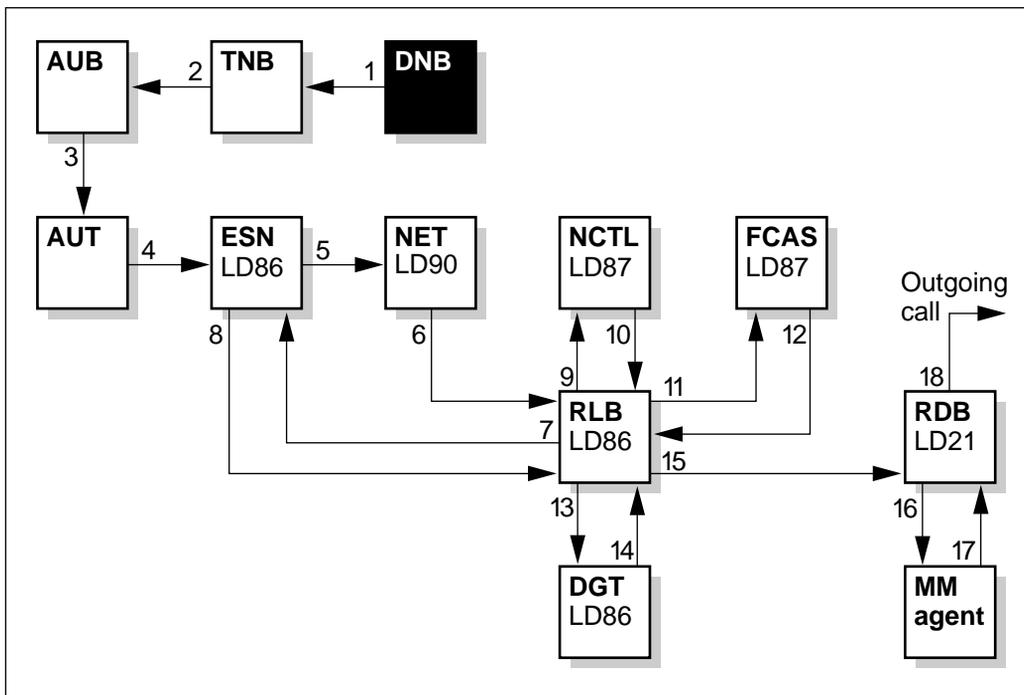
G100406

Description: process	The following describes how an ESN network call is processed by the Meridian 1. The process begins when a station user or Meridian Mail initiates the call.

Stage	Data block	Description
1	directory number block (DNB)	The Meridian 1 determines if SPRE+6+Authcode is dialed. • If yes, it proceeds to the AUB data block (stage 3). • If no, it checks to see if the number dialed is a NARS access code (AC1). If yes, it proceeds to the ESN data block (stage 5). If no, the call cannot access NARS; the call is blocked.
2	terminal number block (TNB)	The Meridian 1 determines the following on the originating station: • network class of service (NCOS) • class of service (CLS) • trunk group access restriction (TGAR)
3	authorization code (AUB)	The Meridian 1 performs some validation on AUB that is unrelated to networking.
4	authorization code entries (AUT)	The Meridian 1 performs some validation on AUT that is unrelated to networking. The station user dials access code 1 (AC1) and the Meridian 1 returns to stage 1.
5	ESN data block (ESN)	The station user (Meridian Mail) completes dialing the call. The Meridian 1 checks the network time and date and compares them with the time-of-day schedules. Then, it identifies and stores the time-of-day schedule number that applies, and checks to see if routing control is in effect. • If yes, it checks the station data block (Meridian Mail agent) and identifies the original NCOS of the station. It identifies and stores the alternate NCOS to replace the original NCOS. It goes to the appropriate translation table (stage 6). • If no, the Meridian 1 accesses the appropriate translation table (stage 6).

Stage	Data block	Description
6	network translation (NET)	The Meridian 1 locates the digits dialed after the access code. • If the digits are found, it identifies the route list index number and stores it. The Meridian 1 checks to see if supplemental digit restriction or recognition (SDRR) applies. If part or all of remaining digits are denied, the call is sent to intercept as a NARS-restricted call. If SDRR does not apply, the call continues to the route list data block (stage 7). • If the digits are not found, the call is sent to intercept as invalid NARS translation.
7	route list index (RLB)	The Meridian 1 finds the appropriate route list and determines which entries are in the ISET. Then it checks to see if entry 0 is idle. • If yes, it begins checking entry 0's eligibility (stage 8). • If no, it proceeds to the next entry (stage 9).
8	ESN data block (ESN)	The Meridian 1 checks to see if the time-of-day schedule allows access. • If yes, the Meridian 1 proceeds to the network control data block (stage 10). • If no, it proceeds to entry 1 (stage 9).
9	route list index (RLB)	The Meridian 1 checks to see if entry 1 is idle. • If yes, it begins checking entry 1's eligibility (back to stage 8). • If no, it proceeds to entry 2. The Meridian 1 repeats stages 7 to 9 until a time-of-day schedule that allows access is found.
10	network control (NCTL)	The Meridian 1 identifies the FRL of the originating station's NCOS and stores it.
11	route list index (RLB)	The Meridian 1 compares the route list entry's FRL with the NCOS's FRL. If acceptable, the Meridian 1 proceeds to the FCI and checks for a value other than 0. • If FCI is 0, it proceeds to DGT (stage 14). • If FCI is other than 0, it proceeds to FCAS (stage 12).

Stage	Data block	Description
12	free calling area screening (FCAS)	The Meridian 1 checks to see if the NPA dialed is in the FCAS table. • If yes, it checks to see if NXX dialed is allowed or denied. If denied, it proceeds to route list entry 1 (back to stage 9); otherwise, it proceeds to stage 13. • If no, it returns to route list entry 0 to process the call.
13	route list index (RLB)	The Meridian 1 checks the DMI for a number other than 0. • If DMI is 0, it proceeds to stage 15. *Note:* DMI 0 means that no digit deletion or insertion is performed. • If DMI is other than 0, it proceeds to DGT (stage 14).
14	digit manipulation (DGT)	The Meridian 1 performs appropriate deletions and insertions and returns to the route list index (stage 15).
15	route list index (RLB)	The Meridian 1 determines whether to provide expensive route warning tone. Then it checks the route and proceeds to the route data block.
16	route data block (RDB)	The Meridian 1 identifies the trunk route type. It proceeds to the station data block. In the case of Virtual Node AMIS Networking, this is the Meridian Mail agent (stage 17).
17	Meridian Mail agent	The Meridian 1 identifies the station's COS. • If COS denies the call, it proceeds to the next route list entry (back to stage 9). • IF COS allows the call, it returns to the route data block.
18	route data block (RDB)	The Meridian 1 identifies the trunk route access code at ACOD. Then it • outpulses the trunk route access code, thereby seizing the trunk • outpulses the call's digits and completes the call

How the Meridian 1 processes CDP calls

Introduction   This topic provides a high-level description of how CDP calls are processed by the Meridian 1. Calls are processed by using the following elements:

- time-of-day schedules
- steering codes
- route lists
- network class of service groups
- digit manipulation tables

These elements are described in "What a dialing plan needs in order to work" in Chapter 1, "Understanding Virtual Node AMIS Networking."

Flowchart: process   The following flowchart shows a high-level overview of how the Meridian 1 processes a CDP call. A description of each stage follows the flowchart.
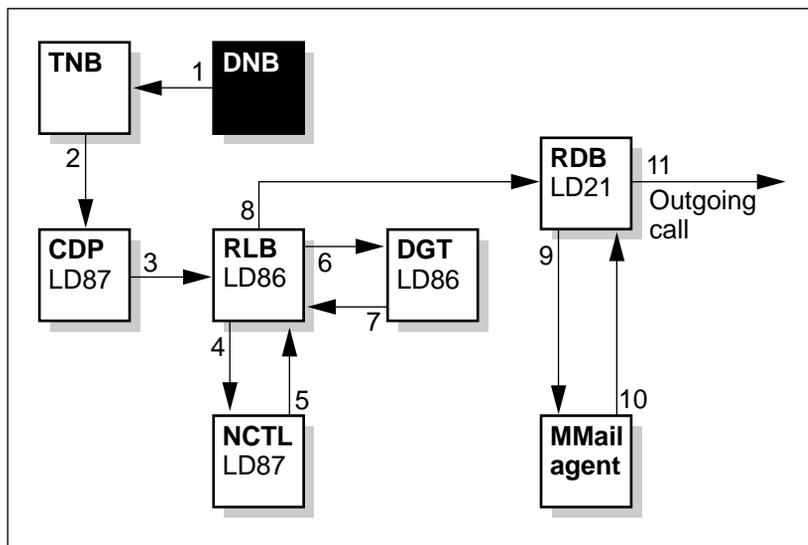
G100580

Description: process

The following describes how an outgoing CDP network call is processed by the Meridian 1. The process begins when a station user or Meridian Mail initiates the call.

Stage	Data block	Description
1	directory number block (DNB)	The Meridian 1 checks to see if the number dialed is a CDP steering code. If yes, it proceeds to the CDP data block (stage 3).
2	terminal number block (TNB)	The Meridian 1 determines the following on the originating station: • network class of service (NCOS) • class of service (CLS) • trunk group access restriction (TGAR)
3	CDP data block (CDP)	The Meridian 1 checks the steering code type. • If the steering code is distant (DSC), the Meridian 1 identifies the route list index number and goes to stage 4. • If the steering code is local (LSC), the Meridian 1 deletes digits according to the DMI defined for the LSC and completes the call.
4	route list index (RLB)	The Meridian 1 finds the appropriate route list and determines which entries are in the ISET. • It checks to see if entry 0 is idle. If yes, it begins checking entry 0's eligibility. If no, it proceeds to the next entry. • It checks the network time and date, and compares them with time-of-day schedules. It identifies and remembers the time-of-day schedule number that applies. • It then proceeds to stage 5.
5	network control (NCTL)	The Meridian 1 identifies the FRL of the originating station's NCOS and stores it. Then it returns to the route list index (stage 6).

Stage	Data block	Description
6	route list index (RLB)	The Meridian 1 compares the route list entry's FRL with the NCOS's FRL. • If acceptable, the Meridian 1 identifies and remembers the route list entry's digit manipulation index table number. If the DMI is not 0, the Meridian 1 proceeds to stage 7. *Note:* DMI 0 means that no digit insertion or deletion is applied. • If not acceptable, it selects the next route list entry (back to stage 4). The Meridian 1 repeats stages 4 to 6 until an acceptable route list entry is found.
7	digit manipulation (DGT)	The Meridian 1 performs appropriate deletions and insertions and returns to the route list index.
8	route list index (RLB)	The Meridian 1 determines whether to provide expensive route warning tone. Then it checks the route and proceeds to the route data block.
9	route data block (RDB)	The Meridian 1 identifies the trunk route type, then proceeds to the station data block. In the case of Virtual Node AMIS Networking, this is the Meridian Mail agent (stage 10).
10	Meridian Mail agent	The Meridian 1 identifies the station's COS. • If COS denies the call, it proceeds to the next route list entry (back to stage 4). • IF COS allows the call, it returns to the route data block (stage 11).
11	route data block (RDB)	The Meridian 1 identifies the trunk route access code at ACOD. Then it • outpulses the trunk route access code, thereby seizing the trunk • outpulses the call's digits and completes the call

Section B Understanding how messages are transferred between sites

In this section

Overview of this section

Description   This section provides detailed descriptions of

- the components used by Virtual Node AMIS Networking to send and receive messages
- how Virtual Node AMIS Networking calls to remote sites are initiated by Meridian Mail
- how the call is established between network sites
- how messages are transferred between sites

What Virtual Node AMIS Networking messages contain

Each message contains the message header and the recorded message. The message header contains the following:

- the sender's and the recipient's mailbox numbers

  Note: Each Virtual Node AMIS message can only contain one recipient. As a result, a message to ten recipients at a Virtual Node AMIS site will result in ten separate messages being sent (one for each recipient).

- type of message (regular or NDN)
- the actual voice portion of the message
- any attachments

The message header is transmitted to the receiving site over the voice port by DTMF tones.

The recorded message is played over the voice port by the sending site and recorded by the receiving site.

Components and criteria used to send and receive messages

Introduction   Meridian Mail uses the following networking components and criteria when sending messages to other network sites:

- the Network Message Transfer Agent (NMTA)
- the Open Access Transfer Agent (OTA)
- wake-up interval
- initiation and holding times
- batch threshold

NMTA responsibilities   The NMTA is responsible for the following tasks:

- queuing outgoing network messages
- determining when to start an outgoing session to a remote site
- tracking how many concurrent sessions there are to one site
- receiving incoming messages for delivery to the local site recipients
- placing sites in error (and clearing the error status after one hour)
- collecting the networking traffic operational measurements

The NMTA reports system event and error reports (SEERs) under SEER class 36.

OTA responsibilities   The OTA is responsible for sending Meridian, Enterprise, and AMIS Networking messages to, or receiving messages from, remote sites. There is one OTA for each active voice port used for an Enterprise and AMIS Networking session.

The OTA reports SEERs under SEER class 42.

Wake-up interval
The wake-up interval defines how often the NMTA

- checks the status of networking
- initiates networking sessions to remote sites

By default, the NMTA wakes up every five minutes. When it wakes up, the NMTA

- initiates calls to remote sites
- checks for stale messages
- checks whether any sites in error status should be cleared

Hint: If your system typically sends one or two short messages (less than one minute in length) to many remote sites, you may wish to lower the wake-up interval value. If your system sends many or longer messages to the same sites, you may wish to increase the wake-up interval value.

Increasing the value will decrease the amount of time Meridian Mail spends administering the network queues, thereby freeing it to do other tasks.

Example: At 5 minutes, the NMTA checks the queues 12 times per hour. At 15 minutes, the NMTA checks the queues just 4 times per hour.

Initiation time
Economy messages are sent when the economy class initiation time is reached. By default, economy messages are sent at 6:00 p.m.

Set this value to the time when network calls are cheapest.

Hint: If you wish to use this feature, you must instruct users to tag messages as economy when it does not matter if the messages do not arrive until the next day. (Messages sent today are delivered overnight.)

Note: To tag a message as economy, press <7> <0> <3>.

Components and criteria used to send and receive messages

Holding times and batch threshold

Standard and urgent messages are sent to a site when one of the following conditions are met:

- An urgent message has been queued for at least as long as the urgent class holding time.

  Example: If the urgent class holding time is defined as 30 minutes, and an urgent message has been in the queue for 30 minutes, a message transfer session is initiated.

- A standard message has been queued for at least as long as the standard class holding time.

  Example: If the standard class holding time is defined as 1 hour and 30 minutes, then a message transfer session is initiated when at least one standard message has been in the queue for 1 hour and 30 minutes.

- The total number of urgent and standard messages is equal to or greater than the batch threshold.

  (The batch threshold overrides the standard and urgent class holding times.)

  Example: If the batch threshold is defined as 20 (the default), then a message transfer session is initiated when the queue contains 20 messages (combination of urgent and standard) for one remote site. It does not matter how long the messages have been in the queue.

  Note: The batch threshold *does not apply* to economy messages.

Regardless of which of the previous criteria are met, urgent messages are always sent first.

How Virtual Node AMIS calls are set up

Introduction   This topic provides a detailed description of how Meridian Mail initiates an AMIS Networking call to a virtual node.

When messages are sent   Network calls are not initiated by Meridian Mail until one of the following occurs:

- either the wake-up interval or the initiation time for economy messages is reached
- holding times are exceeded
- the batch threshold is exceeded for standard and urgent messages

Description: process   At the appointed wake-up intervals, Meridian Mail does the following.

Note: The following description is from the local (sending) site's point of view. and applies as follows:

- messages are being sent from the local site to a virtual node Meridian Mail site which also has Virtual Node AMIS installed
- messages are being sent from the local site to a virtual node Meridian Mail site without the Virtual Node AMIS feature installed (that is, a site that is not defined in the network database at the local site).
- messages are being sent from the local site to a virtual node non-Meridian Mail voice messaging site

**Diagram:
call setup**

The following diagram illustrates how a call to a remote
Meridian Mail system is set up.
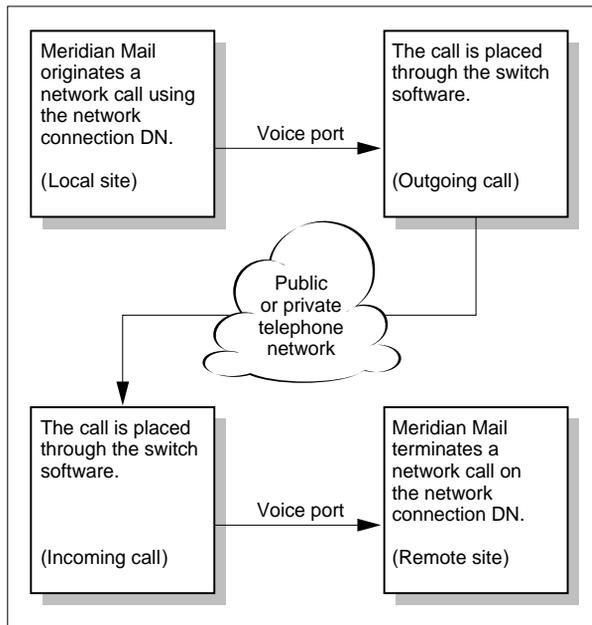
G100479

Example: establishing a network session

To illustrate the process, here is an example of how a network session is established between two Meridian Mail systems using Virtual Node AMIS. Site 10 (Toronto) wants to send messages to site 20 (Ottawa).

The following diagram reviews the configuration information in each site's system (as discussed earlier in "How sites communicate" in Chapter 5, "Configuring Meridian Mail").
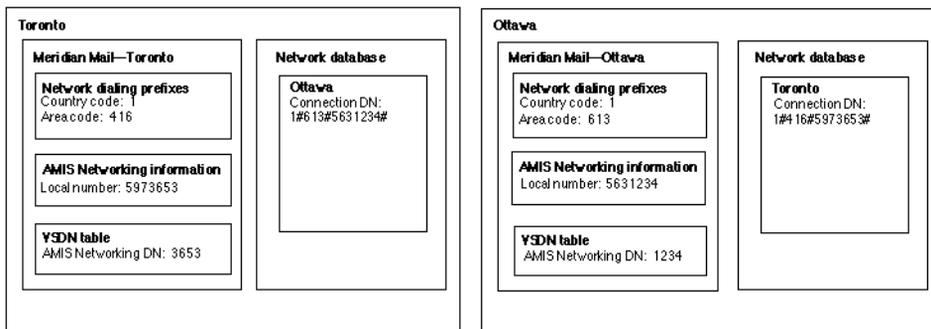
The following describes the process.

Site	Action
10—Toronto	Initiates the network call by using the networking connection DN defined for site 20.
20—Ottawa	Answers the call.
10—Toronto	Sends its system access number **Example:** 1#416#597#3653#
20—Ottawa	Checks its network database to determine if the system access number matches a connection DN for a remote site • If the system access number does not match, treats this incoming message as one from an open-network user. • If the system access number does match, checks the message transfer protocol to ensure that it is set to AMIS. 　—If the message transfer protocol does not match, informs the sending site that the system access number and/or message transfer protocol do not match and hangs up. 　—If the message transfer protocol does match, informs the sending site that it is okay to proceed.
10—Toronto	Begins message transfer

How messages are transferred

Introduction   Once the call has been established, message transfer can begin.

What messages   Each message contains the message header and the recorded
contain   message. The message header includes (this is only a partial
                          list)

- the sender's mailbox number
- the recipient's mailbox number
- the type of message (regular or NDN)

System distribution   If a system distribution list (SDL) at a remote site contains
lists which contain   remote voice users whose mailboxes reside at other sites in the
remote voice users   network, the message that is addressed to the SDL is sent only
                          to the local users at the remote site. The message is not
                          automatically sent to the remote voice users at other remote
                          sites. A non-delivery notification and SEER *are not* generated.

                          Example: A user in Toronto wants to send a message to a
                          system distribution list in Ottawa. The system distribution list
                          contains local voice users in Ottawa and remote voice users in
                          Montreal. The message sent from the Toronto site is sent only to
                          users in Ottawa. It is not sent to the remote voice users in
                          Montreal.

Description: The following is a description of how messages are transferred.
process

Stage	The sending site	The receiving site
1	sends by DTMF tones, the message header to the receiving site (virtual node). The message header contains • sender's mailbox number without location prefixes • recipient's mailbox without location prefixes	receives the DTMF tones, interprets them, and creates the message.

Stage	The sending site	The receiving site
2	plays the voice portion of the message across the voice port.	records the message body and adds it to the message.
3	repeats stages 1 and 2 for each message it needs to send. *Note:* The maximum number of messages in a transfer session is 9 (as defined in the "Number of messages to transmit per session" field on the View/ Modify AMIS Networking Administration screen).	repeats stages 1 and 2 for each message.
4	terminates the message transfer session.	hangs up.

Diagram: message transfer   The following diagram illustrates the message transfer process just described.
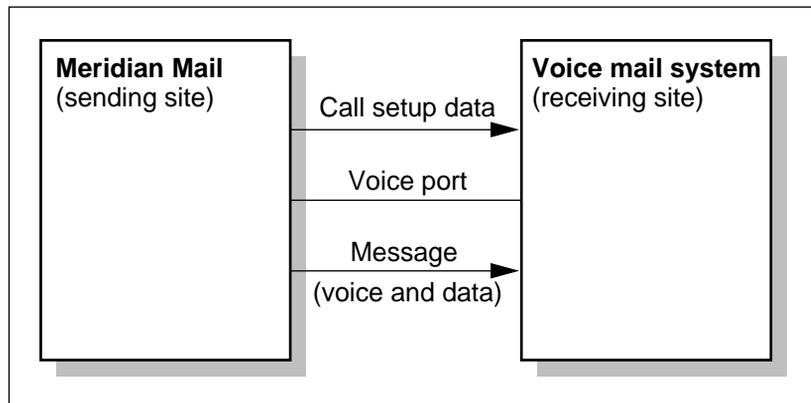
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Chapter 9

Maintaining the network

In this chapter

Overview of this chapter

Introduction   Now that your network is running, the hard work is done. From
                             here on, you simply have to maintain the network. Normally,
                             very little work is required to maintain the network.

                             Network maintenance can be done on a weekly basis for some
                             tasks, or as required for others.

Weekly tasks   Weekly tasks include

                             • viewing network status
                             • reviewing Operational Measurement reports

"As required" tasks   The tasks you perform on an "as required" basis include

                             • modifying, disabling, and deleting sites and locations
                             • adding remote voice users
                             • clearing sites in error
                             • modifying the following aspects of the networking
                               configuration:
                               — scheduling parameters
                               — Remote Voice User propagation
                               — sending and receiving text information for ACCESS
                                 applications

What this chapter contains

This chapter provides detailed explanations and instructions for network maintenance tasks as described in the following table.

Section	Description
Section A: Modifying sites	This section explains how to • modify local and remote site information • change the local site ID • disable sites • delete remote sites
Section B: Modifying remote NMS sites and locations	This section explains how to change the configuration of • sites that have been defined as message centers • locations associated with those message centers
Section C: Deleting remote NMS sites and locations	This section explains how to delete • sites that have been defined as message centers • locations associated with those message centers You must delete locations before deleting the remote NMS site.
Section D: Adding remote voice users	This section explains when and how remote voice users are added, and some things to consider. For the actual instructions for adding remote voice users, see your *System Administration Guide* (NTP 55x-70x1-30x).
Section E: Viewing the network status and clearing remote error sites	This section explains how to • view the network status to identify sites in error, as well as to view the status of messages waiting to be sent • clear sites in error one at a time • clear multiple sites in error all at once
Section F: Modifying the Meridian Mail Networking configuration	Use networking scheduling parameters to define when messages are sent, how long they should be retained, and when the system should stop attempting to send them (they become stale). This section explains how to • identify the changes that are required (by completing the NWP-028, "Meridian Mail Networking Configuration" form) • enter the changes into Meridian Mail

Section	Description
Section G: Modifying the AMIS Networking information	In order to use Virtual Node AMIS Networking, the following aspects of AMIS Networking must be defined: • AMIS compose prefix (for testing purposes only) • system access number • maximum number of AMIS Networking sessions that can be active at one time (Networking call maximum) • maximum number of messages that can be transmitted during an AMIS Networking session This section explains how to • identify the changes that are required (by completing the NWP-034, "AMIS Networking Information" form • enter the changes into Meridian Mail
Section H: Printing and reviewing Operational Measurement reports	This section explains how to print and interpret the following reports related to networking: • Services Summary Traffic report • Networking Detail Traffic report • User Usage report

Multi-customer system users

Introduction   If you are using a multi-customer system, you need to access the
Customer Administration Menu of the networking customer to
administer your system.

Procedure   To access the Customer Administration Menu, follow these
steps.

Starting Point: The Main Menu

Step	Action
1	Select Customer Administration.

Result: The following screen appears.

```
                          Customer Administration




                    To display the List of Customers select the
                    Find softkey followed by the List softkey.







Select a softkey >
      Exit            Add        View/Modify       Delete          Find
```
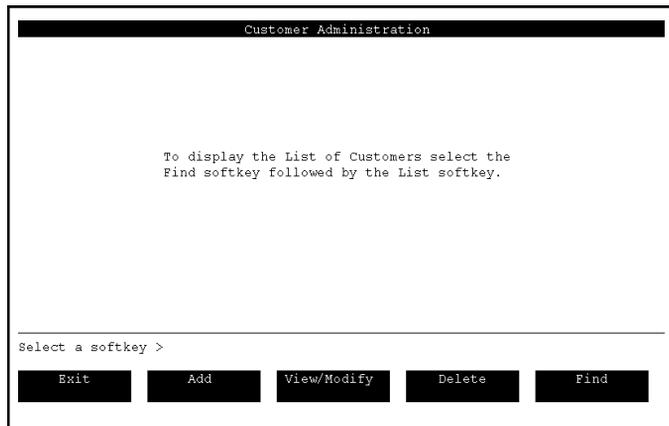
2   Do you know the customer number?

If yes, go to step 4.

If no, do the following:

a. Press [Find].

b. Press [List].

c. Move the cursor to the customer you want and press
   <Spacebar> to select it.

d. Press [View/Modify].

Result: The Customer Administration menu appears. See the
screen example shown in step 4.

Step	Action
3	Press [View/Modify].
	The system prompts for the number of the customer you want to modify.
4	Enter the customer's number.
	Result: The Customer Administration Menu appears.

```
Hollywood Tours            Customer Administration Menu

              1  User Administration

              2  General Administration

              3  Voice Administration

              4  SEER Retrieval

              5  Operational Measurements

              6  Network Administration

              7  Class of Service Administration



Select an item > █
    Exit                        iew/Modify      Delete
```
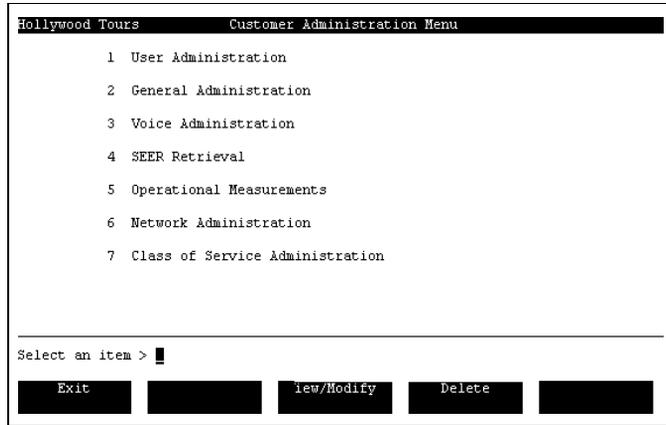
Section A   Modifying sites

In this section

Overview of this section

Introduction   This section explains how to

- modify local and remote site information
- modify the local site ID by using the TOOLS menu
- disable local and remote sites so that networking messages cannot be sent to those sites
- delete sites

ATTENTION

Before you make any changes to the network database, be sure to have printouts of the current database.

Local and remote site information

When you modify local and remote site information, you may want to complete some data entry forms. Completing these forms will make it easier to enter data. (This depends on the complexity of the changes, and how comfortable you are with network administration.)

If you are changing dialing plan information on your Meridian 1, you will need the forms shown in the following table.

For	**you need**
site information	the NWP-004, "Meridian 1 Network Information—Site Information" form
Hybrid dialing plans	the following: • NWP-005, "Meridian 1 Network Information—ESN Data Block" or the ESN (LD 86) printout • NWP-007, "Meridian 1 Network Information—CDP Steering Codes" or the CDP (LD 87) printout • NWP-012, "Meridian 1 Network Information—Network Translation Location Codes" or the NET (LD 90) printout

For	you need
the ESN dialing plan	the following:
	• NWP-005, "Meridian 1 Network Information—ESN Data Block" or the ESN (LD 86) printout
	• NWP-012, "Meridian 1 Network Information—Network Translation Location Codes" or the NET (LD 90) printout
the CDP dialing plan	the following:
	• NWP-005, "Meridian 1 Network Information—ESN Data Block" or the ESN (LD 86) printout
	• NWP-007, "Meridian 1 Network Information—CDP Steering Codes" or the CDP (LD 87) printout
the "None" dialing plan	no forms.
	Note: No data entry forms are required.

Once you have completed the Meridian 1 Network Information forms for dialing plans, you may want to complete the following forms for Meridian Mail:

- NWP-024, "Meridian Mail Network Information—Local Site Maintenance"

- NWP-025, "Meridian Mail Network Information—Remote Site Maintenance"

- NWP-027, "Meridian Mail Network Information—CDP Steering Codes"

For instructions on completing these forms, see Chapter 5, "Configuring Meridian Mail".

Field descriptions   The screens used to modify the local and remote sites are
                         identical to the screens used to add local and remote sites. The
                         only differences are the screen titles.

                         Descriptions of fields on these screens are located in Chapter 5,
                         "Configuring Meridian Mail".

Change local site ID   Once you create the local site, you cannot change the local site
                           ID by using the View/Modify Local Site screen. Instead, you
                           must use the Change local site ID option on the TOOLS menu.

                           Then, when you use the TOOLs menu, the system will request
                           the ID of that remote site. Once entered and saved, the system
                           will convert that site to the local site, and the old local site to a
                           remote site.

ATTENTION

Do not change the local site ID unless it conflicts with
another site in the network.

Disable sites   You would disable a site for one or more of the following
                    reasons:

- The Meridian Mail system at the remote site is down
  because of hardware problems or system upgrades.
- The remote site does not wish to receive network messages
  for a specific period of time.
- You do not want local users to send network messages for a
  specific period of time.

Disabling a site is accomplished by changing a field on the
View/Modify Site screen.

Delete sites

You would delete a site from the network database when the site is being removed from the network, or if you defined the site by mistake.

If AMIS Networking attempts to send messages to a site that has been deleted, then users who sent the messages will receive non-delivery notifications.

Impact of changes on the network

Before you make any changes to site information, you must consider what the impact of those changes might be.

Any changes that you make to the local or remote sites may also need to be made on other sites in the network. Some examples of this requirement are

- message transfer protocol
- connection DNs and VSDNs
- ESN access codes and prefixes
- CDP steering codes

If you want to make any changes to dialing plans, you will also have to modify all affected switches in your network. See the following chapters for more information:

- Chapter 2, "Gathering information for the network"
- Chapter 3, "Configuring the Meridian 1 for systems using AML"
- Chapter 4, "Configuring the PBX/DMS for systems using SMDI"

You should only make changes to the dialing plans for a site (either local or remote) if the dialing plan has changed on the switch(es), or if there is a conflict between sites.

Using data entry forms

Introduction   When preparing to modify sites, you may want to use some data
                          entry forms. This topic identifies the forms that are
                          recommended.

Meridian 1 Network   The following table lists the Meridian 1 Network Information
Information forms   forms you may need when modifying information for any site.

IF you are	THEN you
accessing the site maintenance screens	need the NWP-004, "Meridian 1 Network Information—Site Information" form.
changing dialing plans to Hybrid	need the following: • NWP-005, "Meridian 1 Network Information—ESN Data Block" or the ESN (LD 86) printout • NWP-007, "Meridian 1 Network Information—CDP Steering Codes" or the CDP (LD 87) printout • NWP-012, "Meridian 1 Network Information—Network Translation Location Codes" or the NET (LD 90) printout
changing dialing plans to ESN	need the following: • NWP-005, "Meridian 1 Network Information—ESN Data Block," or the ESN (LD 86) printout • NWP-012, "Meridian 1 Network Information—Network Translation Location Codes" or the NET (LD 90) printout
changing dialing plans to CDP	need the following: • NWP-005, "Meridian 1 Network Information—ESN Data Block" or the ESN (LD 86) printout • NWP-007, "Meridian 1 Network Information—CDP Steering Codes" or the CDP (LD 87) printout
changing dialing plans to "None"	do not need any data entry forms.

Meridian Mail Network Information forms

Once you have completed the Meridian 1 Network Information forms for dialing plans, you may want to complete the following forms for Meridian Mail:

- NWP-024, "Meridian Mail Network Information—Local Site Maintenance" (two pages)
- NWP-025, "Meridian Mail Network Information—Remote Site Maintenance" (two pages)
- NWP-027, "Meridian Mail Network Information—CDP Steering Codes"

Full-size versions of these forms are provided in, at the back of this manual. They may be photocopied.

Instructions for completion

The forms and screens used for modifying sites and locations are identical to those used for adding sites and locations.

Samples of the forms and instructions for completing them (and for completing fields on Meridian Mail screens) are shown in Chapter 5, "Configuring Meridian Mail".

Modifying local site information

Introduction   Once you have added the local site to the network, you can
                          modify it by using the View/Modify Local Site screen.

Field description   The View/Modify Local Site screen is identical to the Add
                          Local Site screen, if the local site is not a message center (that
                          is, using Network Message Service).

                          If the local site is using Network Message Service, see the
                          *Network Message Service Installation and Administration
                          Guide* (NTP 555-7001-243) for instructions on modifying a
                          location.

                          For descriptions of the fields, see Section E: Adding the local
                          site in Chapter 5, "Configuring Meridian Mail".

Local site ID   You cannot change the local site ID on the View/Modify Local
                          Site screen. If you need to change the local site ID, you must
                          use the TOOLS menu. For instructions, see "Modifying the
                          local site ID" on page 9-18.

Impact of changes on When modifying local site information, do not change the
system administration dialing plan unless

                          •   your dialing plan changes on the switch
                               or
                          •   a prefix or steering code conflicts with a remote site that
                               you are adding to the network

Softkey descriptions The following table describes the softkeys in the View/Modify Local Site screen.

Softkey	Description
[Save]	Press this softkey to save your changes.
[Cancel]	Press this softkey if you do not want to save your changes.

Procedure To modify the local site information, follow these steps.

Starting Point: The Main Menu (single customer) or the Customer Administration menu (multi-customer)

Step	Action
1	Select Network Administration.

Result: The Network Administration menu appears.

```
                        Network Administration
            1   Meridian Mail Networking Administration

            2   AMIS Networking Administration












Select an item > █
    Exit
```
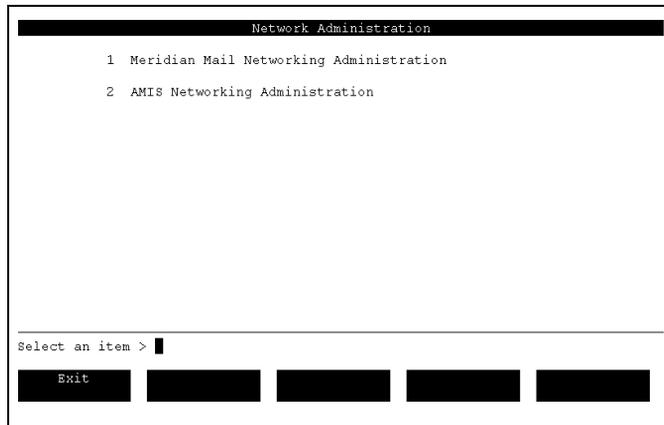
Step	Action

2   Select Meridian Mail Networking Administration.

      Result: The next Network Administration menu appears.

```
                        Network Administration

          1   Network Status

          2   Local Site Maintenance

          3   Remote Site Maintenance

          4   Networking Configuration

          5   Modem Verification Test




_____

Select an item > █

   Exit        Print Network                                   Clear All
                   Data                                       Error Sites
```

3   Select Local Site Maintenance.

      Result: The View/Modify Local Site screen appears.

```
                       Network Administration
   View/Modify Local Site

   Site number:      1
   Site name:        Toronto█

   Message transfer: Enabled Disabled
   Site is network message center?      No Yes

   Dialing plan:     ESN CDP HYBRID NONE
   Max number of digits in local mailbox:      4

   ESN access codes:     72
   Number of overlapping digits between ESN prefix and local ext:      1
   ESN prefixes (they must begin with 72):
   725_____  _____  _____  _____  _____
   _____    _____  _____  _____  _____

   Mailbox numbering follows dialing plan:      Yes No


      Save         Cancel
```

Step	Action
4	Modify the necessary fields.
	Use the NWP-024 and NWP-027 forms if necessary.
	For more information, see Section E: Adding the local site in Chapter 5, "Configuring Meridian Mail".
5	Do you want to save your modifications to the local site?
	If yes, press the [Save] softkey.
	Result: The system saves your modifications and returns you to the Network Administration menu.
	If no, press [Cancel].
	Result: The system discards your modifications and returns you to the Network Administration menu.

Modifying the local site ID

Introduction   This topic provides considerations for modifying the local site
ID. The local site ID is modified in the TOOLS menu.

When to change the   You may need to change the local site ID if, for example, you
local site ID   entered it incorrectly when you defined the site.

ATTENTION

Do not change the local site ID unless it conflicts with
another site in the network.

Impact of change on   You can use the Change local site ID tool if you have installed
system administration   networking on your system (although the option appears in the
TOOLS menu even if networking is not installed).

Before you change the local site ID, you need to add a dummy
remote site with the new local site ID. For instructions on
adding a remote site, see "Adding remote sites" in Chapter 5,
"Configuring Meridian Mail".

When you use the TOOLs menu, the system requests the ID of
the dummy remote site. Once entered and saved, the system
converts

•   the remote site to the new local site
•   the old local site to a remote site

Reference   For instructions on how to modify the local site ID, see
"Modifying the local site ID" in Appendix B, "Miscellaneous
tasks", at the back of this manual.

Listing remote sites

Introduction
This topic explains how to list remote sites that are part of the network.

Using the Find Remote Sites screen
The Find Remote Sites screen gives you the option of listing all sites, or using selection criteria to list a specific set of sites. The selected sites are displayed on the List of Remote Sites screen.

When to list sites
You access the List of Remote Sites screen if you want to

- view and modify site information for a remote site
- delete a remote site
- list the locations associated with an NMS site

Softkey descriptions for the Find Remote Sites screen
The following table describes the softkeys on the Find Remote Sites screen.

Softkeys	Description
[Exit]	Press this softkey to return to the Network Administration screen.
[List]	Press this softkey to display the List of Remote Sites screen. If you enter no selection criteria, all remote sites are displayed.
[Print]	Press this softkey to display the [Continue Printing] softkey and the [Cancel Printing] softkey.
[Cancel Printing]	Press this softkey to cancel printing and redisplay the Find Remote Sites screen.
[Continue Printing]	Press this softkey to print a listing of the selected remote sites (or all remote sites if no selection criteria is entered). When printing is completed, the Find Remote Sites screen is redisplayed.

Softkey descriptions for the List of Remote Sites screen

The following table describes the softkeys on the List of Remote Sites screen.

Softkeys	Description
[Exit]	Press this softkey to exit the List of Remote Sites screen.
[Add]	Press this softkey to add a remote site.
[View/Modify]	Press this softkey to view, modify or disable the highlighted remote site.
[Delete]	Press this softkey to delete a remote site.
[List locations]	If the highlighted remote site is a message center, press this softkey to list the locations associated with the site.

Procedure   To list remote sites, follow these steps.

Starting Point: The Main Menu (single customer) or Customer Administration menu (multi-customer)

Step	Action
1	Select Network Administration.

Result: The Network Administration menu appears.

```
              Network Administration

        1   Meridian Mail Networking Administration

        2   AMIS Networking Administration








Select an item > █
     Exit
```

2   Select Meridian Mail Networking Administration.

Result: The next Network Administration menu appears.

```
              Network Administration

        1   Network Status

        2   Local Site Maintenance

        3   Remote Site Maintenance

        4   Networking Configuration

        5   Modem Verification Test




Select an item > █
     Exit      Print Network                              Clear All
               Data                                      Error Sites
```
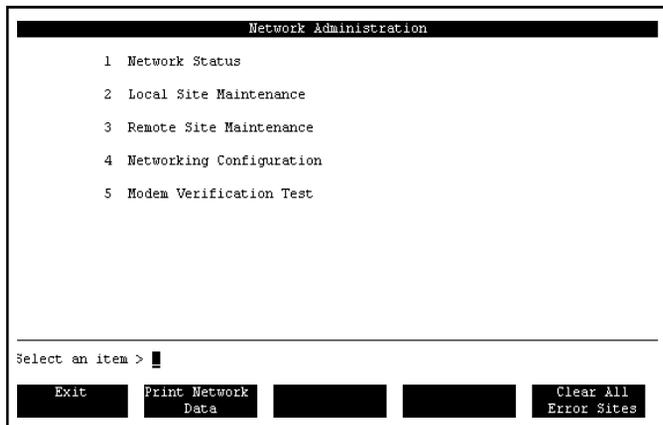
Step	Action

3   Select Remote Site Maintenance.

Result: The Find Remote Sites screen appears.

```
                      Network Administration
Find Remote Sites

Site Id:                   █_

Site Name:                 _____

Message Transfer Protocol: Any Enterprise Meridian AMIS

Dialing Plan:              Any ESN CDP Hybrid None

Network Message Center:    Any No Yes

Spoken Name Recorded:      Any No Yes




_____
Select a softkey>

     Exit                        List       Print
```

4   Enter your selection criteria (see the field descriptions that
     follow this procedure); or leave the Site Id and Site Name blank
     and the remaining fields set to "Any" if you want to see a listing
     of all remote sites on the network.

Step Action

5   Press the [List] softkey.

       Result: The List of Remote Sites screen appears, listing the
       remote sites that match your selection criteria.

```
                        Network Administration
  List of Remote Sites

     Site   Site Name                    Protocol     Message Center

   ▮ 7      Winnipeg                    I Meridian         NO
  _____

    Exit           Add        View/Modify      Delete         List
                                                             Locations
```
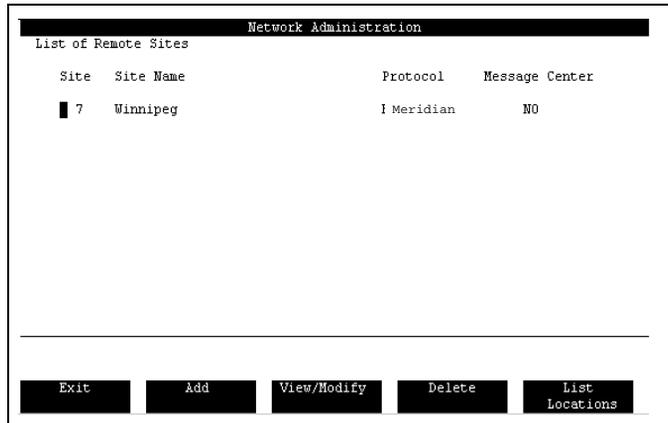
       This is a read-only screen. These fields are described in the
       field descriptions that follow this procedure.

       The first 15 sites are listed. If there are more than 15 sites in
       your network, press <Page Down>, or <arrow down> until the
       site you want appears.

       Note: If you do not have any remote sites on your system, the
       List Sites screen is empty, and only the [Add] and [Exit]
       softkeys appear.

IF you are	THEN see
modifying site information	"Modifying remote sites" on page 9-27.
disabling or enabling a site	"Disabling and enabling a site" on page 9-30.
deleting a site	"Deleting remote sites" on page 9-35.

Field descriptions for the Find Remote Sites screen

The following table describes the fields on the Find Remote Sites screen.

Site Id	
Description	This is the site number (ID) for the remote site.
Wildcards	You cannot use wildcard characters.
	You can search for a partial match by entering part of the site ID. All sites with a site ID that begins with the value you enter are displayed in the List of Remote Sites screen.

Site Name	
Description	This is the name of the remote site.
Wildcards	You cannot use wildcard characters.
	You can search for a partial match by entering part of the site name. All sites with a site name that begins with the characters you enter are displayed in the List of Remote Sites screen.

Message Transfer Protocol	
Description	This is the message transfer protocol used to transmit messages to and from this site. The protocol could be Enterprise, Meridian, or AMIS (if the AMIS feature is installed).
	Set this field to AMIS when adding or modifying Virtual Node AMIS Networking sites.

Dialing Plan

Description   Use this field to list sites with a particular type of
                    dialing plan (ESN, CDP, Hybrid, or None).

Network Message Center

Description   Use this field to list NMS sites. If this field is set
                    to Yes, only NMS sites are listed.

                    For information on adding NMS sites, see the
                    "Adding remote sites" section in Chapter 5,
                    "Configuring Meridian Mail".

                    For information on adding NMS locations, see
                    Section G: Adding remote Network Message
                    Service (NMS) satellite locations in Chapter 5,
                    "Configuring Meridian Mail".

Spoken Name Recorded

Description   Set this field to Yes to list sites with the Spoken
                    Name recorded.

                    Note: This field is ignored for NMS remote sites.

**Field descriptions for
the List of Remote
Sites screen**

The following table describes the fields on the List of Remote
Sites screen.

Site

| Description | The site number (ID) for the remote site. |

Site Name

| Description | The name of the remote site. |

Msg Transfer Protocol

| Description | The message transfer protocol used to transmit messages to and from this site. The protocol could be Enterprise, Meridian, or AMIS (if the AMIS feature is installed). |
| | Set this field to AMIS when adding or modifying Virtual Node AMIS Networking sites. |

Dialing Plan

| Description | The type of dialing plan used at the remote site (ESN, CDP, Hybrid, or None). |

Message Center

Description	This field is set to Yes if the remote site is an NMS site.
	For information on adding NMS sites, see the "Adding remote sites" section in Chapter 5, "Configuring Meridian Mail".
	For information on adding NMS locations, see the section "Adding remote NMS satellite locations" in Chapter 5, "Configuring Meridian Mail".

Spoken Name

| Description | This field is set to Yes if the spoken name is recorded at the remote site. |

Modifying remote sites

Introduction Once you have added remote sites to the network, you can modify them by using the View/Modify Remote Site screen.

Field descriptions The View/Modify Remote Site screen is identical to the Add Remote Site screen.

For descriptions of fields on this screen, see "Adding remote sites" in Chapter 5, "Configuring Meridian Mail".

Impact of changes on system administration Some of the changes you make on your remote site may affect the networking service between the remote site and your local site. Some of the things you must consider are

- site IDs
- connection DN
- dialing plans
- message transfer protocol
-

⚠ CAUTION

Risk of message transfer failure

Never change the remote site ID unless the administrator at the remote site notifies you that the local site ID has changed, or the remote site ID is incorrect.

If you change the site ID to an invalid number, this prevents messages from being sent to or received from the site.

Impact of changes on system administration (continued)

Connection DN

Do not change the DN used to connect to a remote site unless

• the administrator at the remote site notifies you that they changed the DN in their VSDN table

  or

• you are changing the message transfer protocol

Dialing plans

Do not change the dialing plan unless the dialing plan changes on the switch.

Message transfer protocol

Do not change the Message Transfer protocol unless the administrator at the remote site notifies you that they changed the network protocol for their local site or you notify the remote site to change theirs.

When you change the protocol to Meridian, you will probably have to change the connection DN to reflect the Meridian Networking VSDN of the remote site.

Softkey descriptions

The following table describes the softkeys on the View/Modify Remote Site screen.

Softkey	Description
[Save]	Press this softkey to save your changes.
[Cancel]	Press this softkey if you do not want to save your changes.
[Voice]	Press this softkey to record or delete a spoken name for this site.
	The softkey does not appear if you set the Dialing plan field to CDP and the Mailbox numbering follows dialing plan field to Yes.

Procedure	To modify a remote site, follow these steps. (See "Procedure" on page 9-21.)

Starting Point: The List of Remote Sites screen

Step Action

1   Move the cursor to the remote site you want to modify.

2   Press <Spacebar> to select the site.
     Result: Your selection is highlighted.

3   Press [View/Modify].
     Result: The View/Modify Remote Site screen appears.

```
                        Network Administration
 View/Modify Remote Site

 Site number:      7
 Site name:        Winnipeg

 Message transfer protocol:   Enterprise Meridian AMIS
 Message transfer:   Enabled Disabled
 Site is network message center?        No Yes

 Enterprise Networking Options
    Send the message text information:                     No Yes
    Send the sender's text name and personal verification: No Yes

 Networking Connection
    DN 1:  5555
    DN 2:  _____
    DN 3:  _____
                                                               MORE BELOW


      Save          Cancel                                         Voice
```

This screen is identical to the Add Remote Site screen.

4   Modify the necessary fields. For more information, see "Adding remote sites" in Chapter 5, "Configuring Meridian Mail".

5   Do you want to save the modified remote site?

     If yes, press [Save].

     Result: The system saves your changes and returns you to the List of Remote Sites screen.

     If no, press [Cancel].

     Result: The system discards your changes and returns you to the List of Remote Sites screen.

Disabling and enabling a site

Introduction
This topic explains how to use the View/Modify Site screen to disable and enable a local or remote site.

Reasons for disabling the local site
You disable a local site if

- the local system is being modified
- there are problems with the switch network affecting all or most sites
- many voice ports are disabled and you wish to prevent Virtual Node AMIS Networking from using channels

Impact of disabling the local site
If the local site is disabled, messages waiting to be transmitted to remote sites will not be delivered. Network messages remain in the queue until the local site is enabled or the message becomes stale. A non-delivery notification (NDN) will be returned to the message sender if the message becomes stale.

Reasons for disabling a remote site
You disable a remote site if

- the remote system is being modified
- there are problems with the switch network affecting a particular remote site
- the Meridian Mail system at that site is down because of hardware problems or system upgrade
- the site is in error status and you are trying to find out why
- the site is being removed from the network

Impact of disabling a remote site
Disabling a remote site prevents any messages from being delivered to that site. However, messages can be delivered to other remote sites.

The message remains in the queue until the site is enabled, or the message becomes stale.

> **ATTENTION**
>
> Messages are still received from remote sites regardless of whether the local site, or remote sites, or both, are disabled. If you want to prevent messages from being sent to this site, get the administrator at the appropriate sites to disable message transfer to this site.

Reasons for enabling a site

You can then enable a site if

- you are adding a new site to your network
- the site is no longer in error status
- you solved any hardware problems you may have experienced
- you finished upgrading your system

Softkey descriptions

The following table describes the softkeys you use in the View/Modify screen.

Softkey	Description
[Save]	Press this softkey to save your changes.
[Cancel]	Press this softkey to cancel your changes.

**Procedure:
Disabling or enabling
a remote site**

To disable or enable a remote site, follow these steps.

Starting Point: The List of Remote Sites screen

Step	Action
1	Move the cursor to the remote site you want to modify.
2	Press <Spacebar> to select the site. *Result:* Your selection is highlighted.
3	Press [View/Modify]. *Result:* The View/Modify Remote Site screen appears.

```
                         Network Administration
 View/Modify Remote Site

 Site number:      7
 Site name:        Winnipeg█_____

 Message transfer protocol:  Enterprise Meridian AMIS
 Message transfer:    Enabled Disabled
 Site is network message center?      No Yes

 Enterprise Networking Options
    Send the message text information:                    No Yes
    Send the sender's text name and personal verification: No Yes

 Networking Connection
    DN 1: 5555_____
    DN 2: _____
    DN 3: _____
                                                           MORE BELOW

      Save         Cancel                                   Voice
```

This screen is identical to the Add Remote Site screen.

4	Move the cursor to the remote site you want to disable or enable.
5	Press <Spacebar> to select it. *Result:* Your selection is highlighted.

Step	Action
6	Move the cursor to the Message transfer field.

IF you want to	THEN change this field to
enable a site	Enabled.
disable a site	Disabled.

Result: The system enables or disables the site.

Step	Action
7	Do you want to save your modifications to the site?

If yes, press [Save].

Result: The system saves your changes and returns you to the Network Administration menu.

If no, press [Cancel].

Result: The system discards your changes and returns you to the Network Administration menu.

Procedure: Disabling or enabling the local site

To disable or enable a local site, follow these steps.

Step	Action
1	Access the View/Modify Local Site screen as instructed in "Modifying local site information" on page 9-14.

Result: The View/Modify Local Site screen appears.

```
                        Network Administration
        View/Modify Local Site

        Site number:      1
        Site name:        Toronto

        Message transfer: Enabled Disabled
        Site is network message center?      No Yes

        Dialing plan:     ESN CDP HYBRID NONE
        Max number of digits in local mailbox:      4

        ESN access codes:      72
        Number of overlapping digits between ESN prefix and local ext:      1
        ESN prefixes (they must begin with 72):
        725

        Mailbox numbering follows dialing plan:      Yes No


            Save         Cancel
```

Step	Action
2	Move the cursor to the Message transfer field.

IF you want to	THEN change this field to
enable a site	Enabled.
disable a site	Disabled.

Result: The system enables or disables the local site.

3	Do you want to save your modifications to the site?

If yes, press [Save].

Result: The system saves your changes and returns you to the Network Administration menu.

If no, press [Cancel].

Result: The system discards your changes and returns you to the Network Administration menu.

Deleting remote sites

Introduction   This topic explains how to delete remote sites from the network database.

Note: You cannot delete the local site.

When to delete a remote site   Delete a remote site when you no longer need it as part of your network.

Impact of deletion on system administration   If you send a message to a remote site that has been deleted, the system will not deliver your message. Your message will be returned with a non-delivery notification (NDN).

Before you begin   Before you delete the site, Nortel recommends that you print the remote site information (in case you delete the wrong site, or you wish to add it back onto the system later).

For instructions, see "Printing Meridian Mail network information" in Chapter 7, "Creating a backup of the system".

Softkey descriptions   The following table describes the softkeys you use to delete a remote site.

Softkey	Description
[OK to delete]	Press this key to delete the site you selected.
[Cancel]	Press this key if you do not want to delete the site you selected.

Procedure

To delete a remote site, follow these steps.

Starting Point: The List of Remote Sites screen

Step	Action
1	Move the cursor to the remote site you want to delete.
2	Press <Spacebar> to select the site. ***Result:*** Your selection is highlighted.
3	Press [Delete]. The Delete Remote Site screen appears. ***Note:*** This screen is a read-only screen.

```
                         Network Administration
  Delete Remote Site

  Site number:     7
  Site name:       Winnipeg

  Message transfer protocol:   Enterprise Meridian AMIS
  Message transfer:   Enabled Disabled
  Site is network message center?     No Yes

  Enterprise Networking Options
     Send the message text information:                    No Yes
     Send the sender's text name and personal verification:  No Yes

  Networking Connection
     DN 1:  5555
     DN 2:
     DN 3:
                                                                  MORE BELOW


  OK to Delete      Cancel
```

Step	Action
4	Do you still want to delete the remote site? If yes, press the [OK to Delete] softkey. ***Result:*** The system deletes the site and asks you for another site number. If no, press the [Cancel] softkey. ***Result:*** The system returns to the List of Remote Sites screen.

Section B Modifying remote NMS sites and locations

In this section

Overview of this section

Introduction   This section explains how to

- modify remote sites that have been defined as message centers

  In this manual, message centers at remote sites are referred to as "remote NMS sites."

  Note: If you want to modify the local site that has been defined as a message center, refer to the *Network Message Service Installation and Administration Guide* (NTP 555-7001-243).

- modify locations that have been associated with remote NMS sites

Remote NMS site and location information   When you modify remote NMS site and location information, you may want to complete some data entry forms. (This depends on the complexity of the changes, and how comfortable you are with network administration.)

If you are changing dialing plan information on your Meridian 1, you will need the forms shown in the following table.

For	you need
site information	the NWP-004, "Meridian 1 Network Information—Site Information" form.
Hybrid dialing plans	the following:
	• NWP-005, "Meridian 1 Network Information—ESN Data Block" or the ESN (LD 86) printout
	• NWP-007, "Meridian 1 Network Information—CDP Steering Codes" or the CDP (LD 87) printout
	• NWP-012, "Meridian 1 Network Information—Network Translation Location Codes" or the NET (LD 90) printout

For	you need
the ESN dialing plan	the following: • NWP-005, "Meridian 1 Network Information—ESN Data Block" or the ESN (LD 86) printout • NWP-012, "Meridian 1 Network Information—Network Translation Location Codes" or the NET (LD 90) printout
the CDP dialing plan	• NWP-005, "Meridian 1 Network Information—ESN Data Block" or the ESN (LD 86) printout • NWP-007, "Meridian 1 Network Information—CDP Steering Codes" or the CDP (LD 87) printout
the "None" dialing plan	no data entry forms

Meridian Mail forms   If you have completed the Meridian 1 Network Information forms for dialing plans, you may want to complete the following forms for Meridian Mail:

- NWP-025, "Meridian Mail Network Information—Remote Site Maintenance"
- NWP-026, "Meridian Mail Network Information—Remote NMS Location Maintenance"
- NWP-027, "Meridian Mail Network Information—CDP Steering Codes"

Field descriptions   The screens used to modify remote NMS sites and locations are identical to the screens used to add remote NMS sites and locations. The only differences are the screen titles.

Descriptions of fields on these screens are provided in Chapter 5, "Configuring Meridian Mail".

Impact of changes on the network

Before you make any changes to remote NMS site or location information, you must carefully consider what the impact of those changes might be.

Any changes that you make to the sites or locations may also need to be made on other sites in the network. Some examples of this requirement are

- initiating and responding passwords
- connection DNs
- ESN access codes and prefixes
- CDP steering codes

If you want to make any changes to dialing plans, you will also have to modify all affected switches in your network. See the following chapters for more information:

- Chapter 2, "Gathering information for the network"
- Chapter 3, "Configuring the Meridian 1 for systems using AML"
- Chapter 4, "Configuring the PBX/DMS for systems using SMDI"

Using data entry forms

Introduction   When preparing to modify remote NMS locations, you may want to use some data entry forms. This topic identifies the forms that are recommended.

Meridian 1 Network Information forms   The following table lists the data entry forms you may need when modifying remote NMS locations.

IF you are	THEN you
accessing the View/Modify Remote Site screen	need the NWP-004, "Meridian 1 Network Information—Site Information" form.
changing your dialing plan to Hybrid	need the following: • NWP-005, "Meridian 1 Network Information—ESN Data Block" or the ESN (LD 86) printout • NWP-007, "Meridian 1 Network Information—CDP Steering Codes" or the CDP (LD 87) printout • NWP-012, "Meridian 1 Network Information—Network Translation Location Codes" or the NET (LD 90) printout
changing your dialing plan to ESN	need the following: • NWP-005, "Meridian 1 Network Information—ESN Data Block" or the ESN (LD 86) printout • NWP-012, "Meridian 1 Network information—Network Translation Location Codes" or the NET (LD 90) printout
changing your dialing plan to CDP	need the following: • NWP-005, "Meridian 1 Network Information—ESN Data Block" or the ESN (LD 86) printout • NWP-007, "Meridian 1 Network information—CDP Steering Codes" or the CDP (LD 87) printout
changing your dialing plan to "None"	do not need any data entry forms.

Meridian Mail Network Information forms

Once you have completed the Meridian 1 Network Information forms for dialing plans, you may want to complete the following forms for Meridian Mail:

- NWP-025, "Meridian Mail Network Information—Remote Site Maintenance" (2 pages)
- NWP-026, "Meridian Mail Network Information—Remote NMS Location Maintenance" (2 pages)
- NWP-027, "Meridian Mail Network Information—CDP Steering Codes"

Full-size versions of these forms are provided in Appendix A, "Networking implementation forms", at the back of this manual. They may be photocopied.

Instructions for completion

The forms and screens used for modifying sites and locations are identical to those used for adding sites and locations.

Samples of the forms, and instructions for completing them (and for completing fields on Meridian Mail screens) are shown in Chapter 5, "Configuring Meridian Mail".

Modifying NMS remote sites

Introduction

This topic explains how to modify NMS remote sites. An NMS site is a site that has been defined as a message center.

Field descriptions

The View/Modify Remote Site screen is used to modify an NMS remote site.

For descriptions of the fields on the screen, see "Adding remote sites" in Chapter 5, "Configuring Meridian Mail". This section does explain how to define a remote site as a message center.

Impact of changes on system administration

Some of the changes you make on your NMS remote site may affect the networking service between the NMS remote site and local site. Therefore, when modifying the NMS remote site, you must consider the following:

- site IDs
- connection DN
- dialing plans
- message transfer protocol

⚠ CAUTION

Risk of data loss

If the remote NMS site is also using Meridian Mail, then you should never change the remote NMS site ID unless the administrator at the remote site notifies you that the local site ID has been changed.

If you change the NMS site ID to an invalid number, this prevents messages from being sent to or received from the site.

Impact of changes on system administration (continued)

Connection DN

Do not change the DN used to connect to the NMS remote site or location unless the administrator at that site informs you that the VSDN has been changed on their system.

Message transfer protocol

Do not change the Message transfer protocol unless the administrator at the remote site notifies you that they change the network protocol for their local site, or you notify the remote site to change theirs.

Softkey descriptions

The following table describes the softkeys in the View/Modify Remote Site screen.

Softkey	Description
[Save]	Press this softkey to save your changes and return to the Network Administration menu.
[Cancel]	Press this softkey to discard your changes and return to the Network Administration menu.
[Voice]	Press this softkey to record or delete a spoken name for this site.
	This softkey appears only if the dialing plan is ESN, Hybrid, or "None."
	The softkey does not appear if you set both the Dialing plan field to CDP and the Mailbox numbering follows dialing plan field to Yes.

Procedure   To modify an NMS remote site, follow these steps.

Starting Point: The List of Remote Sites screen

Step Action

1   Move the cursor to the site (message center) you want to modify.

2   Press <Spacebar>.

Result: Your selection is highlighted.

3   Press [View/Modify].

Result: The View/Modify Remote Site screen appears.

```
                          Network Administration
 View/Modify Remote Site

 Site number:     7

 Message transfer protocol:    Enterprise Meridian AMIS
 Message transfer:    Enabled Disabled
 Site is network message center?      No Yes

 Enterprise Networking Options
    Send the message text information:                        No Yes
    Send the sender's text name and personal verification:    No Yes

 Networking Connection
    DN 1:  5555_____
    DN 2:         _____
    DN 3:         _____

 Password                                                           MORE BELOW


      Save          Cancel
```
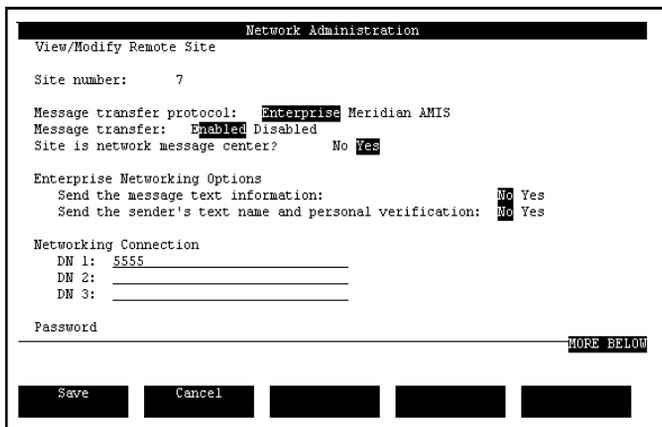
4   Modify the fields as required.

For a description of the fields, see "Adding remote sites" in Chapter 5, "Configuring Meridian Mail".

5   Do you want to save the modifications to the site?

If yes, press the [Save] softkey.

Result: The system saves your changes and returns you to the List Sites screen.

If no, press [Cancel].

Result: The system discards your changes and returns you to the List Sites screen.

Modifying locations associated with remote NMS sites

Introduction   This topic explains how to modify remote NMS satellite and
                          prime locations.

                          Once you have added remote Network Message Service (NMS)
                          satellite locations, you can modify them from the View/Modify
                          Location screen. This screen is identical to the Add Location
                          screen.

Field descriptions   The View/Modify Remote Location screen is identical to the
                          Add Remote Location screen.

                          For descriptions of the fields, see "Adding remote Network
                          Message Service (NMS) satellite locations" in Chapter 5,
                          "Configuring Meridian Mail".

Impact of changes on Some of the changes you make on the location may affect the
system administration networking service between the remote site and the local site.

                          Some of the things to consider are

                          •   location IDs
                          •   dialing plans

Impact of changes on system administration (continued)

<table>
<tr>
<td>

⚠️

</td>
<td>

CAUTION

Risk of data loss

If the remote NMS site is also using Meridian Mail, then you should never change the remote NMS site ID unless the administrator at the remote site notifies you that the local site ID has been changed.

If you change the NMS site ID to an invalid number, this prevents messages from being sent to or received from the site.

</td>
</tr>
</table>

Dialing plans

Do not change the dialing plan unless the dialing plan changes on the switch associated with the location.

Softkey descriptions

The following table describes the softkeys you use in the View/Modify Remote Location screen.

Softkey	Description
[Save]	Press this softkey to save your changes and return to the List Locations screen.
[Cancel]	Press this softkey to exit the View/Modify screen and discard any changes. The system takes you back to the List Locations screen.

Softkey	Description
[Voice]	Press this softkey to record or delete a spoken name for this site.
	This softkey appears only if the dialing plan is ESN, Hybrid, or "None."
	The softkey does not appear if you set the Dialing plan field to CDP and the Mailbox numbering follows dialing plan field to Yes.

Procedure

To modify locations associated with remote NMS sites, follow these steps.

Starting Point: The List of Remote Sites screen (See "Listing remote sites" on page 9-19.)

Step	Action
1	Move the cursor to the site (message center) you want to modify.
2	Press <Spacebar>.
	Result: Your selection is highlighted.

Step	Action
3	Press the [List Locations] softkey.
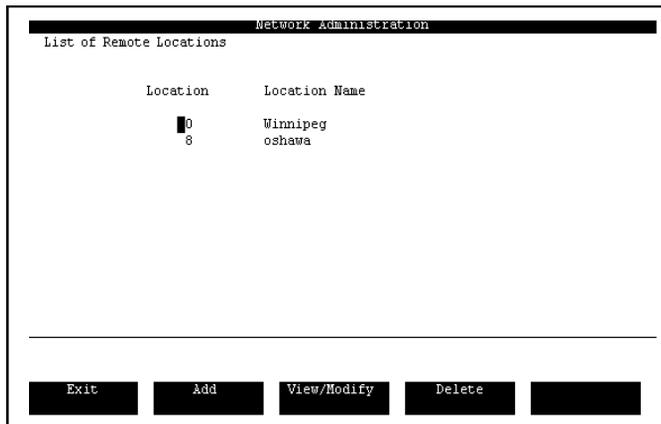
Result: The List of Remote Locations screen appears.

```
                         Network Administration
  List of Remote Locations


                Location          Location Name

                    0             Winnipeg
                    8             oshawa










  _____


      Exit          Add        View/Modify       Delete
```

The List Locations screen lists the first 15 locations.

If there are more than 15 locations associated with the remote NMS site, press <PageDown>, or <arrow down> until the location you want appears.

| 4 | Move the cursor to the location you want to modify. |

Step	Action

5   Press <Spacebar>.

Result: Your selection is highlighted.

6   Press the [View/Modify] softkey.

Result: The View/Modify Remote Location screen appears.

```
                          Network Administration
     View/Modify Remote Location

     Location number:  8
     Location name:    oshawa▊_____

     Dialing plan:     ESN
     Max number of digits in local mailbox:          4

     ESN access codes:      62      ___
     Number of overlapping digits between ESN prefix and local ext:      1
     ESN prefixes (they must begin with 62):
     627_____    _____    _____    _____    _____
     _____    _____    _____    _____    _____

     Mailbox numbering follows dialing plan:          Yes No

     Spoken name recorded (Voice)      No



          Save          Cancel                                      Voice
```

7   Modify the fields as required. See Section G on page 5-151.

8   Do you want to save your changes?

If yes, press [Save].

Result: The system saves your changes and returns you to the List Locations screen.

If no, press [Cancel]

Result: The system discards your changes and returns you to the List Locations screen.

Section C Deleting remote NMS sites and locations

In this section

Overview of this section

Introduction   This section explains how to

- delete locations that have been associated with remote NMS sites
- delete remote NMS sites that have been defined as message centers

In this manual, message centers are referred to as NMS remote sites.

Reasons for deleting an NMS location   You would delete an NMS location from the network database when the location is being removed from the network, or if you defined it by mistake.

If Virtual Node AMIS Networking attempts to send messages to a location that has been deleted, then non-delivery notifications will be returned to the users who sent the messages.

Reasons for deleting a remote NMS site   You would delete a remote NMS site from the network database when the site is being removed from the network, or if you defined the site by mistake.

If Virtual Node AMIS Networking attempts to send messages to a site that has been deleted, then non-delivery notifications will be returned to the users who sent the messages.

You cannot delete a remote NMS site (message center) from the network database until all of its associated locations have been deleted.

Impact of changes on the network   If you are the network administrator and you delete any NMS sites and locations, those NMS sites and locations will also have to be deleted from the network databases of all sites in the network.

Deleting locations associated with remote NMS sites

Introduction
This topic explains how to delete locations associated with remote NMS sites.

Note: A remote NMS site is a site that has been defined as a message center.

When to delete a location
Locations are deleted when

- they have been removed from the remote site
- the location was added by mistake

Impact of deletions on the system
If Virtual Node AMIS Networking attempts to send messages to a location that has been deleted, then non-delivery notifications will be returned to the users who sent the messages.

Softkey descriptions
The following table describes the softkeys you use to delete locations associated with remote NMS sites.

Softkey	Description
[OK to delete]	Press this softkey to delete the location you selected.
[Cancel]	Press this softkey if you do not want to delete the location you selected.

Procedure   To delete locations associated with remote NMS sites, follow
these steps.

Starting Point: The List of Remote Sites screen (See "Listing remote
sites" on page 9-19.)

Step Action

1   Move the cursor to the site (message center) with which the
location is associated.

2   Press <Spacebar>.
Result: Your selection is highlighted.

3   Press the [List Locations] softkey.
Result: The List of Remote Locations screen appears.
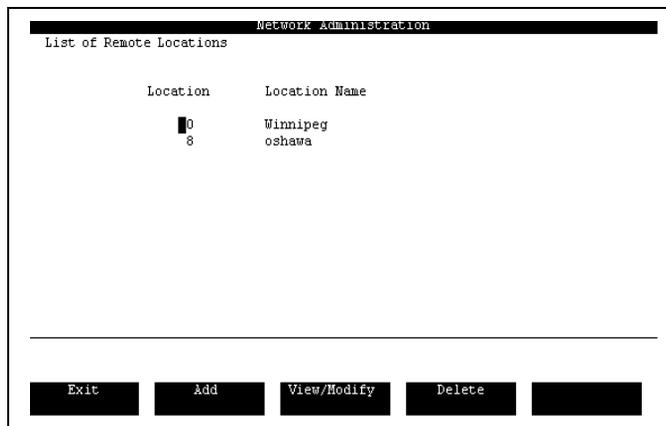
```
                        Network Administration
  List of Remote Locations


              Location        Location Name
                  0          Winnipeg
                  8          oshawa








  _____



     Exit          Add       View/Modify      Delete
```

The List Locations screen lists the first 15 locations.

If there are more than 15 locations associated with the remote
NMS site, press <PageDown>, or <arrow down> until the
location you want appears.

4   Move the cursor to the location you want to delete.

5   Press <Spacebar>.
Result: Your selection is highlighted.

Step	Action
6	Press [Delete].

Result: The Delete Remote Location screen appears.

Note: This is a read-only screen.

```
                         Network Administration
 Delete Remote Location

 Location number:  8
 Location name:    oshawa█

 Dialing plan:     ESN
 Max number of digits in local mailbox:      4

 ESN access codes:      62
 Number of overlapping digits between ESN prefix and local ext:        1
 ESN prefixes (they must begin with 62):
 627


 Mailbox numbering follows dialing plan:      Yes No

 Spoken name recorded (Voice)      No



 OK to Delete      Cancel
```

7   Do you still want to delete the location?

If yes, press [OK to Delete].

Result: The system deletes the location and returns to the List of Remote Locations screen.

If no, press [Cancel].

Result: The system returns to the List of Remote Locations screen.

Deleting remote NMS sites

Introduction   This topic explains how to delete remote NMS sites. A remote
                           NMS site is a site that has been defined as a message center.

When to delete a   You would delete a remote NMS site after all its associated
remote NMS site   locations have been deleted and when the remote NMS site is
                           being removed from the network.

Impact of deletion on If Virtual Node AMIS Networking attempts to send messages to
the system   a site that has been deleted, then non-delivery notifications will
                           be returned to the users who sent the messages.

Softkey descriptions   The following table describes the softkeys you use to delete a
                           remote NMS site.

Softkey	Description
[OK to delete]	Press this softkey to delete the remote NMS site you selected.
[Cancel]	Press this softkey if you do not want to delete the remote NMS site you selected.

Before you begin   Before you delete an NMS remote site, you have to delete all its
                           associated locations. See "Deleting locations associated with
                           remote NMS sites" on page 9-53.

Procedure   To delete remote NMS sites, follow these steps.

Starting Point: The List of Remote Sites screen

Step Action

1   Move the cursor to the site (message center) you want to delete.

2   Press <Spacebar>.

       Result: Your selection is highlighted.

3   Press [Delete].

       Result: The Delete Remote Site screen appears.

       Note: This is a read-only screen.

```
                          Network Administration
 Delete Remote Site

 Site number:      7

 Message transfer protocol:   Enterprise Meridian AMIS
 Message transfer:   Enabled Disabled
 Site is network message center?     No Yes

 Enterprise Networking Options
    Send the message text information:                    No Yes
    Send the sender's text name and personal verification:  No Yes

 Networking Connection
    DN 1:  5555
    DN 2:
    DN 3:

 Password                                                        MORE BELOW


 OK to Delete      Cancel
```

4   Do you still want to delete the site?

       If yes, press the [OK to Delete] softkey.

       Result: The system deletes the site and returns you to the List of Remote Sites screen.

       If no, press the [Cancel] softkey.

       Result: The system returns you to the List of Remote Sites screen.

Section D Adding remote voice users

In this section

Adding remote voice users

Introduction   This section explains the basic concepts for adding remote voice users.

Definition: remote voice user (RVU)

A remote voice user (RVU) is a user whose mailbox resides on another site in the network.

You can add users whose mailboxes reside on remote sites onto the local site as a remote voice user (RVU). You can then record a spoken name for the RVU on the remote voice user's behalf.

Benefits to local users   The benefits to local users are as follows:

- Spoken names are played whenever messages are addressed to or received from the RVU.
- Local users can use name-dialing or name-addressing.
- Call sender is available to users at sites which do not have mailbox numbers that follow the dialing plan at that site.

  Hint: If you wish to add large numbers of RVUs, you might want to consider using Bulk Provisioning.

Considerations   When adding remote voice users, you need to take the following into consideration:

- Adding all the users from each remote site would be very time-consuming and impractical, since many remote users would rarely, if ever, send or receive network messages. Consequently, carefully select which users to add (if any).
- The spoken names for the RVUs are recorded in the administrator's voice and not the RVU's own voice.

Types of remote voice users

A remote voice user can be temporary or permanent. RVUs added by the administrator or by Bulk Provisioning can be either temporary or permanent. The administrator can convert any RVU from permanent to temporary and vice versa. For more details, see your *System Administration Guide* (NTP 55x-7001-30x).

Temporary RVU

Temporary RVUs can be deleted by the administrator. They may also be deleted automatically by the system.

The database of temporary remote voice users is maintained by the system. For more information, see your S*ystem Administration Guide* (NTP 55x-7001-30x).

Permanent RVU

Permanent RVUs can only be deleted from the system by the administrator. RVUs which existed on a Meridian Mail system prior to Release 12.0 are converted to permanent RVUs when the system is converted to Release 12.0.

When RVUs can be added

You can add remote voice users

- manually at the local site
- through Bulk Provisioning

For instructions on adding remote voice users manually, see the "Remote voice users" in the *System Administration Guide* (NTP 55x-7001-30x).

For instructions on adding remote voice users through Bulk Provisioning, see the "Bulk Provisioning" chapter in the *System Administration Guide* (NTP 55x-7001-30x).

Section E **Viewing the network status and clearing remote error sites**

In this section

Overview of this section

Introduction   This section explains how to

- view the network status
- clear sites in error—one at a time
- clear all sites in error at once

View network status   You use the Network Status screen to

- view the activity status of networking to each site in the network
- view the number of economy, standard, and urgent messages that are waiting to be sent to other sites
- clear a site that is in error

When sites are put into error status

The system puts a site into error status if problems are encountered while connecting, or transmitting messages, or both, to the remote site.

When a remote site is in error, the system will not attempt to send any messages to the remote site. However, the system will continue to receive messages from the remote site. If a message is successfully received from a site in Error, the error status is automatically cleared.

A site can go into error status for one of the following reasons:

- The site is not configured correctly. (Site IDs, passwords, or message transfer protocol are incorrect.)
- The system made three consecutive attempts to send messages to the remote site and failed.

Clearing sites in error   You can clear sites in error by one of the following methods:

- one at a time from the Network Status screen

  Use this method when

  — there are only one or two error sites and the problem is
    fixed

  — there are many error sites but only the problems with
    some of the sites are fixed

- all sites at once from the Network Administration menu

  Use this method when there are many error sites and all of
  the problems are fixed.

Note: The system will automatically clear a site under the
following conditions:

- if the site has been in error for one hour
- if a message is received from the remote site

Viewing the network status

Introduction   This topic explains how to view the network status for all
                     remote sites or for a selected set of remote sites.

Using the Find   The [Network Status] softkey on the Network Administration
Network Status screen menu accesses the Find Network Status screen. The Find
                     Network Status screen gives you the option of listing all remote
                     sites, or using selection criteria to list a specific set of remote
                     sites. The selected sites are displayed on the Network Status
                     screen.

When to view the   You access the Network Status screen if you want to view
Network Status screen

                     •   the activity status of the networking service to each site in
                          the network
                     •   the number of economy, standard, and urgent messages
                          that are queued for transmission to remote sites

                     This screen is not dynamic (that is, it does not automatically
                     update while it is displayed). You can, however, use the
                     [Update] softkey to refresh the screen and update the status
                     while you are viewing it.

Softkey descriptions This table describes the softkeys that are displayed on the Find
for the Find Network Network Status screen.
Status screen

Softkey	Description
[Exit]	Press this key to exit the Find Network Status screen.
[List]	Press this softkey to display the Network Status screen. If you enter no selection criteria, all remote sites are displayed.

Softkey descriptions for the Network Status screen

This table describes the softkeys that are displayed on the Network Status screen.

Softkey	Description
[Exit]	Press this key to exit the Network Status screen.
[Enterprise Diag. Test]	This softkey runs the Enterprise Diagnostic test. It can be run only on sites that use the Enterprise message transfer protocol. For more information, refer to the *Enterprise Networking Installation and Administration Guide* (NTP 555-7001-246).
[Clear Error Site]	Move the arrow keys to the site that is in error status, then press \<Spacebar\> to select the site. Then, press this softkey to clear the site. *Note:* You can use this softkey to clear any remote site that is in error status regardless of the networking transfer protocol.
[Update]	Press this softkey to refresh and update the data on the Network Status screen.

Procedure   To view the network status, follow these steps.

Starting Point: The Main Menu (single customer) or the Customer
Administration menu (multi-customer)

Step	Action

1   Select Network Administration.

Result: The Network Administration menu appears.

```
                        Network Administration

              1  Meridian Mail Networking Administration

              2  AMIS Networking Administration









Select an item >  █
     Exit
```

2   Select Meridian Mail Networking Administration.

Result: The next Network Administration menu appears.

```
                        Network Administration

          1  Network Status

          2  Local Site Maintenance

          3  Remote Site Maintenance

          4  Networking Configuration

          5  Modem Verification Test




Select an item >  █
     Exit      Print Network                                Clear All
                   Data                                   Error Sites
```
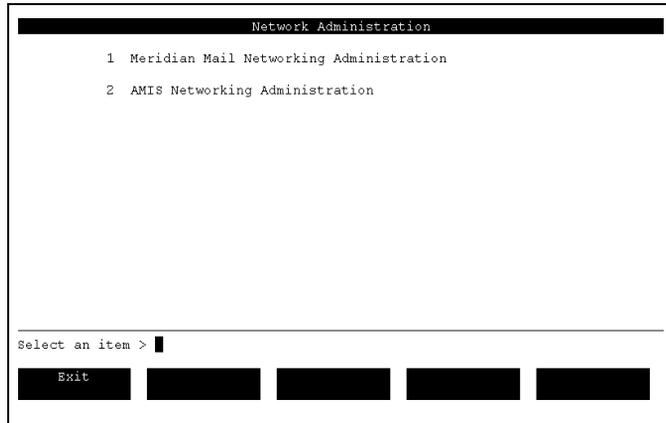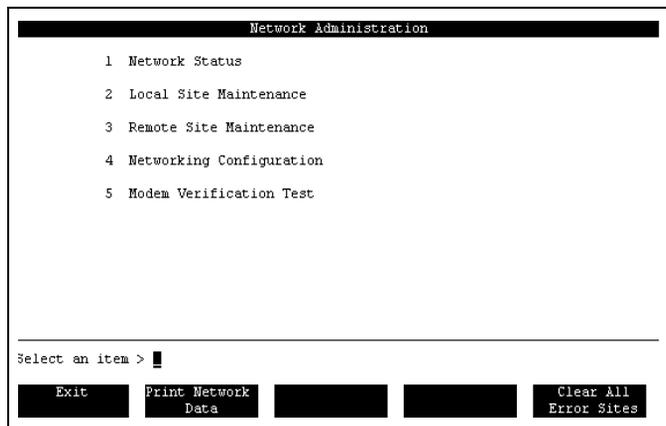
Step Action

3   Select Network Status.

         Result: The Find Network Status screen appears.

```
                        Network Administration
Find Network Status

Site Id:        █_

Site Name:        _____

Status:         Any Idle Ready Active Error Disabled DiagTest

Protocol:       Any Enterprise Meridian AMIS




Select a softkey>

      Exit                          List
```

4   Enter your selection criteria (see the field descriptions that
         follow this procedure); or leave the Site Id and Site Name blank
         and the remaining fields set to "Any" if you want to see a listing
         of all remote sites on the network.

Step	Action
5	Press the [List] softkey.

Result: The Network Status screen appears, listing the remote sites that match your selection criteria.

```
                           Network Administration
Network Status - Total number of remote sites: 2

Site  Site Name            Status    Protocol    #Economy  #Standard  #Urgent
█ 7   Winnipeg             Idle      Enterprise      0         0         0
  8   Edmonton             Idle      Enterprise      0         0         0













        Exit                       Enterprise      Clear         Update
                                    Diag. Test    Error Site
```

The Network Status screen lists up to 15 sites in one screen.

If there are more than 15 sites that matched the selection criteria, press <Page Down>, or <arrow down> to display more sites.

Included with each site is its current status and the number of pending Economy, Standard, and Urgent messages.

Field descriptions for the Find Network Status screen

The following table describes the fields in the Find Network Status screen.

Site ID	
Description	This is the site number (ID).
Wildcards	You cannot use wildcard characters.
	You can search for a partial match by entering part of the site ID. All sites with a site ID that begins with the value you enter are displayed in the Network Status screen.

Site Name	
Description	This is the name of the site.
Wildcards	You cannot use wildcard characters.
	You can search for a partial match by entering part of the site name. All sites with a site name that begins with the characters you enter are displayed in the Network Status screen.

Status

Description	Use this field to select sites that have a particular status. The status can be one of the following:

- *Idle* indicates that the networking service is operational but that there are no networking messages waiting to be delivered.
- *Ready* indicates that networking messages are queued and are ready to be transmitted.
- *Active* indicates that the networking service is operational and is currently sending or receiving messages.
- *Error* indicates that the networking service failed to deliver a message to the specified remote site (after three attempts), or the site is not configured correctly. Messages waiting to be delivered will not be sent.
- *Disabled* indicates that message transfer has been disabled for the site. This usually indicates that a site has been taken down for maintenance.
- *Diag Test* indicates that the site is currently undergoing a diagnostic test that was started by selecting the [Enterprise Diag. Test] softkey on the Network Status screen.

Protocol

Description	The message transfer protocol corresponds to the type of Networking. Use this field to list sites that have a particular type of Networking installed.

Field descriptions for the Network Status screen

The following table describes the fields in the Network Status screen.

Note: These fields are read-only on the Network Status screen.

Total number of remote sites	
Description	This field displays the number of remote sites that are currently configured in the Meridian Mail network database.

Site	
Description	This is the site number (ID).

Site Name	
Description	This is the name of the site.

Status

Description   This is the current status of the networking service
                   at the specified remote site.

                   The status can be one of the following:

                   • *Active* indicates that the networking service is
                     operational and is currently sending or receiving
                     messages.
                   • *Idle* indicates that the networking service is
                     operational but that there are no networking
                     messages waiting to be delivered.
                   • *Ready* indicates that networking messages are
                     queued and are ready to be transmitted.
                   • *Error* indicates that the networking service
                     failed to deliver a message to the specified
                     remote site (after three attempts) or that the site
                     is not configured correctly. Messages waiting to
                     be delivered will not be sent.
                     The site is moved out of Error state
                     automatically after one hour. Alternatively, the
                     site can be moved out of Error state by the
                     administrator (see "Clearing one error site at a
                     time" on page 9-76 or see "Clearing all error
                     sites at once" on page 9-79).
                   • *Disabled* indicates that message transfer has
                     been disabled for the site. This usually indicates
                     that a site has been taken down for maintenance.

Protocol

Description   This column shows the message transfer protocol
                   that is used to deliver messages to each site. It will
                   be set to AMIS for sites on which the AMIS
                   Protocol is used.

#Economy

Description   The number of economy messages that are queued
                   to be transmitted to this remote site.

                   Note: If the status is idle, this field displays 0
                   (zero) since no messages are in the queue.

#Standard

Description	The number of standard messages that are queued to be transmitted to this remote site.
	Note: If the status is idle, this field displays 0 (zero) since no messages are in the queue.

#Urgent

Description	The number of urgent messages that are queued to be transmitted to this remote site.
	Note: If the status is idle, this field displays 0 (zero) since no messages are in the queue.

Clearing one error site at a time

Introduction   This topic explains how to clear a single site in error. You clear
                       a single site in error from the Network Status screen.

When to use this   Use this procedure when
procedure
                       •   there are only one or two error sites and the problem is
                            fixed
                       •   there are many error sites, but only the problems to some of
                            the error sites are fixed

When sites are put The system puts a site into error status if problems are
into error status encountered while connecting to, or transmitting messages, or
                       both, to the remote site.

                       This could be an indication of problems with the switch
                       network, the remote site, or an error in the configuration of the
                       network database.

                       Note: The system will automatically clear a site under two
                       conditions:

                       •   if the site has been in error for one hour
                       •   if a message is successfully received from the remote site

Impact of error sites When a remote site is in error, the system will not attempt to
                       send any messages to the remote site. However, the system will
                       continue to receive messages from the remote site. If a message
                       is successfully received from a site in Error, the error status is
                       automatically cleared.

                       A site can go into error status for one of the following reasons:

                       •   The site is not configured correctly. (Site IDs, passwords,
                            or message transfer protocol are incorrect.)
                       •   The system made three consecutive attempts to send
                            messages to the remote site and failed.

What you need to do Identify the problem and fix it. Once you rectify the problem, you can clear the error status of the site. When the error status is cleared, the site is put into either

- idle status (no messages are queued for the remote site) or

- ready status (messages are waiting to be sent to this remote site)

Which error sites can be cleared You can clear all types of error sites, regardless of the message transfer protocol used by the remote site.

Procedure To clear an error site, follow these steps.

Starting Point: The Network Status screen

```
                          Network Administration
Network Status - Total number of remote sites: 2

Site  Site Name              Status    Protocol    #Economy  #Standard  #Urgent
█ 7   Winnipeg               Idle      Enterprise      0         0         0
  8   Edmonton               Idle      Enterprise      0         0         0




         Exit                        Enterprise      Clear           Update
                                     Diag. Test    Error Site
```

Step Action

1 Use the arrow keys to move to the site in error, then press <Spacebar> to select the site.

   Result: Your selection is highlighted.

   Note: If there are more than 15 sites in your network and the remote site you want is not displayed on the screen, press <Page Down> or <arrow down> until it appears.

Step	Action
2	Press [Clear Error Site].
	Result: The system resets the site and an information SEER is printed.
	Note: If the site you select is not currently in error, the system displays the following message:
	"The selected site is not in error condition."

Clearing all error sites at once

Introduction

If there is a problem with more than one site, you can clear or reset all the sites at once rather than clearing them one at a time.

This topic explains how to clear all the error sites at the same time from the Network Administration menu.

When to use this procedure

Use this procedure when there are many error sites and all the problems are fixed.

When sites are put into error status

The system puts a site into error status if problems are encountered while connecting to, or transmitting messages, or both, to the remote site.

This could be an indication of problems with the switch network, the remote site, or an error in the configuration of the network database.

Note: The system will automatically clear a site under two conditions:

•   if the site has been in error for one hour
•   if a message is successfully received from the remote site

Impact of error sites

When a remote site is in error, the system will not attempt to send any messages to the remote site. However, the system will continue to receive messages from the remote site. If a message is successfully received from a site in Error, the error status is automatically cleared.

A site can go into error status for one of the following reasons:

•   The site is not configured correctly. (The message transfer protocol is incorrect.)
•   The system made three consecutive attempts to send messages to the remote site and failed.

What you need to do   Before you start to troubleshoot the problem, you need to reset
or clear the site. Once you rectify the problem, you can clear the
error status of the site. When the error status is cleared, the site
is put into either

- idle status (no messages are queued for the remote site)
  or
- ready status (messages are waiting to be sent to this remote
  site)

Which error sites can   You can clear all types of error sites regardless of the message
be cleared   transfer protocol.

Softkey descriptions   The following table describes the softkeys that are displayed on
the Network Administration screen.

Softkey	Description
[Exit]	Press this softkey to exit the Network Administration screen.
[Print Network Data]	Press this softkey to print local and remote site information from the network database. *Note:* Ensure that the printer is on-line before making this selection.
[Clear All Error Sites]	Press this softkey to clear all the error sites.

Procedure To clear all the error sites at once, follow these steps.

Starting Point: The Main Menu (single customer) or the Customer Administration menu (multi-customer)

Step	Action
1	Select Network Administration.

Result: The Network Administration menu appears.

```
                          Network Administration
              1  Meridian Mail Networking Administration

              2  AMIS Networking Administration






Select an item > █
    Exit
```

2	Select Meridian Mail Networking Administration.

Result: The next Network Administration menu appears.
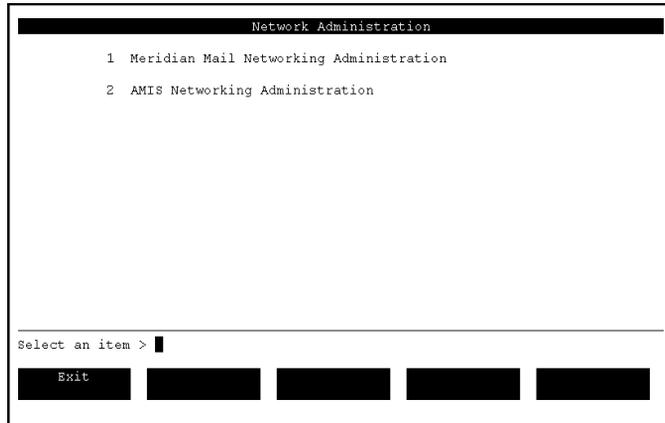
```
                          Network Administration
              1  Network Status

              2  Local Site Maintenance

              3  Remote Site Maintenance

              4  Networking Configuration

              5  Modem Verification Test




Select an item > █
    Exit      Print Network                                  Clear All
                  Data                                      Error Sites
```
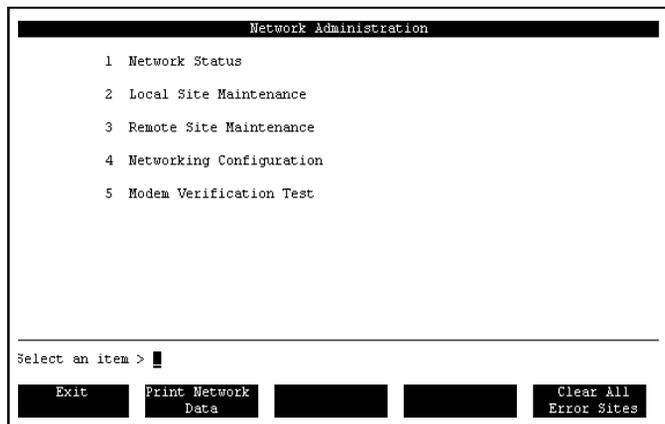
3	Press [Clear All Error Sites].

Result: The system clears all the error sites at the same time and prints an information SEER.

Section F   Modifying the Meridian Mail Networking configuration

In this section

Overview of this section

Introduction This section explains how to modify the Meridian Mail Networking configuration. Specific information is provided for, networking scheduling parameters and network broadcast administration fields.

Note: Network broadcast messaging is not supported for AMIS networking. Therefore, the network broadcast administration fields are not applicable to AMIS Networking.

Meridian Mail Networking configuration versus AMIS Networking information In order to for Virtual Node AMIS Networking to work, two types of networking configuration information need to be defined. They are:

• Meridian Mail Networking configuration

The Meridian Mail Networking configuration defines when messages are to be sent to remote sites.

Instructions for defining the networking scheduling parameters are contained within this section.

• AMIS Networking information

AMIS Networking information used only for Virtual Node AMIS Networking consists of the following:

— AMIS compose prefix (for testing purposes only)

— system access number

— number of AMIS sessions that can be active at one time (networking call maximum)

— number of messages that can be transmitted during each AMIS Networking session

For instructions on defining these parameters, see the section "Modifying the Meridian Mail Networking configuration" on page 9-83.

Note: The AMIS Networking information also defines when messages are to be sent. However, these parameters are used for determining when AMIS messages are to be sent to remote voice messaging systems that *have not* been defined in the network database.

Definition: scheduling parameters

Networking scheduling parameters are used to define the following:

- when economy messages are to be sent
- *Holding time*   The maximum length of time that either standard or urgent messages can be queued before an attempt is made to send them
- *Stale time*   When economy, standard, and urgent messages become stale

  Messages become stale if they are not delivered within the stale time. When messages become stale, a non-delivery notification is returned to the sender.
- *Wake-up interval*   Defines how often Virtual Node AMIS Networking checks for the status of messages that are waiting to be sent and initiates a connection to a remote site
- *Batch threshold*   Defines the maximum number of messages that can be queued to a remote site before a session is initiated to that site

For a detailed description of these parameters, see "Relationship between the batch threshold and holding times" on page 9-86, or see "Field descriptions" on page 9-91.

Data entry form

Before you change the networking configuration, you may want to complete the NWP-028, "Meridian Mail Networking Configuration" form. See Appendix A, "Networking implementation forms", at the back of this manual for a sample of this form for copying.

Relationship between the batch threshold and holding times

Introduction	This topic provides an overview of how the batch threshold and standard and urgent message holding times are used to determine when a networking session is initiated.
Definition: holding time	A holding time is the maximum length of time that a message is retained before the system attempts to send it. There are holding times for both standard and urgent messages.
Definition: batch threshold	The batch threshold defines the maximum number of messages that can be queued for one site before Meridian Mail starts sending messages. The batch threshold overrides the holding time.
Why batch threshold and holding times are needed	It takes time to set up each networking session. Less network time is used if larger numbers of messages are transmitted per session. Meridian Mail uses the holding times and batch threshold to determine when to start sending standard and urgent messages to a site. The system will begin attempting to send messages to a particular site if at least one standard or urgent message has been waiting in the queue for longer than the associated holding time. Regardless of when the holding time or batch threshold is used to trigger the transfer of messages, the session will remain active until all standard and urgent messages are sent. Urgent messages are always sent first.

Example   For example, by default

- urgent messages are held for 30 minutes
- standard messages are held for 3 hours
- the batch threshold is 20 (messages)

The system will begin to transmit messages to a site as soon as any of the preceding limitations has been exceeded.

Identifying the networking configuration changes required

Introduction   This topic explains how to identify the configuration changes
                          you need to make in your network.

Recommendation   We recommend that you do not change the networking
                          scheduling parameters until you are comfortable with how your
                          network is functioning.

Data entry form   Before you make any changes to the networking configuration,
                          you should complete the NWP-028, "Meridian Mail
                          Networking Configuration" form.

Form sample: The following is page 1 of a sample of form NWP-028.
NWP-028 (page 1 of 2)

Meridian Mail Networking Configuration   **NWP-028**
                                                                              Page 1 of 2

Networking Scheduling parameters

Economy class initiation time	(hh:mm)
Economy class stale time	(hh:mm)
Standard class holding time	(hh:mm)
Standard class stale time	(hh:mm)
Urgent class holding time	(hh:mm)
Urgent class stale time	(hh:mm)
Batch threshold	
Wakeup interval (mins)	

Network Broadcast Administration
(These fields are not applicable to Virtual Node AMIS Networking.)

Accept broadcast messages from remote sites: ☐ Yes ☐ No
Allow broadcast messages to remote sites: ☐ Yes ☐ No
Network-Wide broadcast prefix: (This field is displayed only if "Allow broadcast messages to remote sites" is Yes.)

Form sample:
NWP-028 (page 2 of 2)

The following is page 2 of a sample of form NWP-028.

Meridian Mail Networking Configuration　　　　　　　　　　**NWP-028**
Page 2 of 2

Meridian Networking Configuration
(Complete this section if you are using Meridian Networking.)

Maximum number of ports for Meridian Networking

Enterprise Networking Configuration
(Complete this section if you are using Enterprise Networking.)

Maximum number of ports for Enterprise Networking:

Receive the message text information:
☐ Yes
☐ No

Add/Update Remote Voice Users:
☐ Yes
☐ No

Remote Voice User Default Settings

Name dialable by external callers: ☐ Yes ☐ No	Maximum number of temporary remote voice users:

Completed by

Administrator:	Date:

Procedure   To complete the data entry form, follow these steps.

Step	Action
1	Obtain a working copy of the NWP-028 "Meridian Mail Networking Configuration" form.
	See Appendix A, "Networking implementation forms", at the back of this manual for a sample of the form for copying.
2	Complete the fields as required. For instructions, see the field descriptions following this procedure.

Field descriptions   The following table describes the fields on the Networking Configuration screen. The Network Broadcast Administration fields are not applicable to Virtual Node AMIS Networking.

Network Broadcast Administration	
Description	These fields are not applicable to Virtual Node AMIS Networking.

Accept broadcast messages from remote sites	
Description	This field is not applicable to Virtual Node AMIS Networking.

Allow broadcast messages to remote sites	
Description	This field is not applicable to Virtual Node AMIS Networking.

Network-Wide broadcast prefix	
Description	This field is not applicable to Virtual Node AMIS Networking.

The maximum length of network mailboxes is	
Description	This field is not applicable to Virtual Node AMIS Networking.

Economy class initiation time

Description	This is the time at which delivery of economy messages begins. Economy messages, unlike urgent and standard messages, are delivered only once a day at a particular time.
	Set this field to a time when costs for making calls are cheaper, or when there is less traffic on the network.
	Hint: If you wish to use this feature, you must instruct users to tag messages as economy when it does not matter if the messages do not arrive until the next day. (Messages sent today are delivered overnight.)
	Note: To tag a message as economy, press <7> <0> <3>.
Valid format	Enter the time in hours and minutes in the range 00:00 to 23:59.
Default	18:00

Economy class stale time

Description	The value entered in this field determines the maximum retention time for messages tagged as economy. When this threshold is reached, a non-delivery notice is sent to the originator and the message has to be composed and sent again.
	Example: By default, economy messages are sent at 6:00 p.m. and become stale six hours later. Any economy messages still on the system at midnight will become stale.
Valid format	Enter the time in hours and minutes in the range 03:00 to 99:59.
Default	06:00

Standard class holding time

Description	The value entered in this field determines the length of time that a standard priority message is retained before the system attempts to send it. A standard message may be transferred before this holding time expires if a connection is established for delivering urgent messages, or if the batch threshold has been reached.
Valid format	Enter the time in hours and minutes in the range 00:00 to 33:20.
Default	03:00

Standard class stale time

Description	The value entered in this field specifies the maximum retention time for messages tagged as standard. If a message is not delivered before this time, a non-delivery notice is sent to the originator. These messages have to be composed and sent again.
	Note: The standard stale time must be at least three times greater than the holding time. (Enter the holding time first.)
	The holding time you enter affects the range of stale times that you can enter.
	Example 1: If you entered a standard holding time of 00:20, your standard stale time would have to be in the range 01:00 to 99:59.
	Example 2: If you entered a standard holding time of 05:00, your stale time would have to be in the range 15:00 to 99:59.
Valid format	Enter the time in hours and minutes.
Maximum value	99:59
Default	09:00

Urgent class holding time

Description	The value entered in this field determines the length of time that an urgent priority message is retained before the system attempts to send it. A message may be transferred before this holding time expires if a connection is established for delivering standard messages or because the batch threshold has been reached.
Valid format	Enter the time in hours and minutes in the range 00:00 to 33:20.
Default	00:30

Urgent class stale time

Description	The value entered in this field is the maximum retention time for messages tagged as urgent. If a message is not delivered before this time, a non-delivery notice is sent to the originator. These messages have to be composed and sent again.
	Note: The urgent stale time must be at least three times greater than the holding time. (Enter the holding time first.)
	The holding time you enter affects the range of stale times that you can enter.
	Example 1: If you entered an urgent holding time of 00:20, your urgent stale time would have to be in the range 01:00 to 99:59.
	Example 2: If you entered an urgent holding time of 05:00, your urgent stale time would have to be in the range 15:00 to 99:59.
Valid format	Enter the time in hours and minutes.
Maximum value	99:59
Default	00:90

Batch threshold	
Description	The batch threshold specifies the maximum number of urgent and standard messages that can be in the queue to a given site before a connection to that site is attempted.
	This threshold is designed to handle burst conditions that may arise during busy hours. If a large number of standard or urgent messages, or both, are submitted to the networking service in a period shorter than the holding time, delivery connections are established to process the overload.
	Economy messages are not subject to this threshold.
Minimum value	1
Maximum value	99
Default	20

Wakeup interval (mins)

Description	This is the periodic interval at which the networking software

- checks for messages that are waiting to be sent, against the holding times, stale times, and batch threshold
- sets up the connections required to send those messages

Hint: If you have low network traffic, you may consider increasing this value. If you find the system is frequently inactive when the batch threshold or holding times are reached, you should consider increasing this value.

Notes:

1: For more information about the wake-up interval, see "Components and criteria used to send and receive messages" in Chapter 8, "Really understanding how Virtual Node AMIS Networking works".

2: If you find that remote sites have trouble making a connection to this site (that is, no modems available) you may want to set this value to 1 (or 2) less than the total number of modems. This guarantees that at least one modem is always available for incoming messages.

Value range	1 to 99
Default	5

Maximum number of ports for Meridian Networking

Description	For details about this field, refer to the *Meridian Networking Installation and Administration Guide* (NTP 555-7001-244).

Maximum number of ports for Enterprise Networking

Description	For details about this field, refer to the *Enterprise Networking Installation and Administration Guide* (NTP 555-7001-246).

Receive message text information

Description | For details about this field, refer to the *Enterprise Networking Installation and Administration Guide* (NTP 555-7001-246).

Add/Update Remote Voice Users

Description | For details about this field, refer to the *Enterprise Networking Installation and Administration Guide* (NTP 555-7001-246).

Name dialable by external callers

Description | This field applies to remote voice users (RVUs) that are added by Remote Voice User propagation or by Bulk Provisioning.

Users added by the Bulk Provisioning will only be name dialable by external users if you set this field to Yes.

If you set this field to No, all RVUs that are added by Bulk Provisioning cannot be name-dialed by external callers.

Notes:

1: You can change this value for a particular RVU through User Administration.

2: This field also controls the default value for this field on the Add Remote Voice User screen (under User Administration).

Default | Yes

Maximum number of temporary remote voice users

Description	This field controls the maximum number of temporary RVUs that can be present on the system at any given time.
	It is used by the RVU nightly audit program to determine if any RVUs need to be deleted.
	For details about how the nightly audit program does this, see your *System Administration Guide* (NTP 55x-70x1-30x).
Valid range	0–1000 (on systems with less than three nodes)
	0–10000 (on systems with more than three nodes)
	Hint 1: Setting this value to 0 will delete all temporary RVUs overnight. Use this if you wish to remove all temporary RVUs, or if you are removing networking from this customer group.
	Hint 2: If you wish to reduce the number of temporary RVUs, set this value to twice the number of temporary RVUs you wish to have. Then, during the audit, the system will reduce the total number of temporary RVUs to 50% of this value.
	Example: To reduce the total number of temporary RVUs to 200, set this field to 400. When there are 300 or more (75% of 400) temporary RVUs, the audit will delete the least used until only 200 (50% of 400) remain.
Default	1000

Entering networking configuration changes into Meridian Mail

Introduction

This topic explains how to enter the networking scheduling parameter changes into Meridian Mail.

Impact of changes on system administration

If you change your networking configuration, this may adversely affect the delivery of messages to other sites.

Recommendation

Nortel recommends that you do not change the networking configuration until you are comfortable with how your network is functioning.

Softkey descriptions

The following table describes the softkeys that are displayed on the Networking Configuration screen.

Softkey	Description
[Save]	Press this key to save the new configuration.
[Cancel]	Press this key if you do not want to save the new configuration.

Procedure   To modify the networking configuration for Virtual Node AMIS Networking, follow these steps.

Starting Point: The Main Menu (single customer) or the Customer Administration menu (multi-customer)

Step Action

1   Select Network Administration.

Result: The Network Administration menu appears.

```
                      Network Administration
        1   Meridian Mail Networking Administration

        2   AMIS Networking Administration






Select an item > ▮
    Exit
```

2   Select Meridian Mail Networking Administration.

Result: The next Network Administration menu appears.

```
                      Network Administration
        1   Network Status

        2   Local Site Maintenance

        3   Remote Site Maintenance

        4   Networking Configuration

        5   Modem Verification Test




Select an item > ▮
    Exit      Print Network                                    Clear All
                  Data                                       Error Sites
```
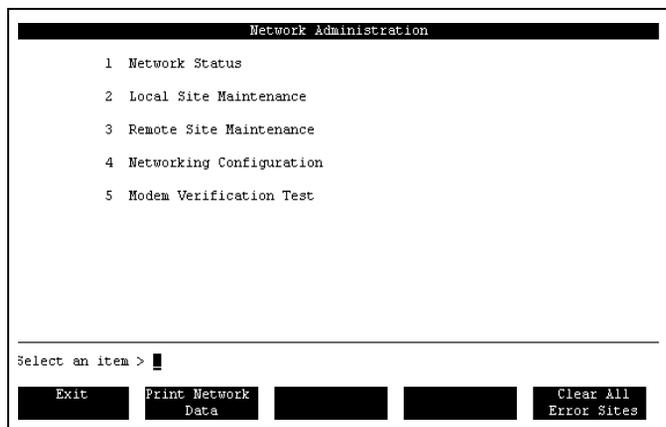
Step	Action

3   Select Networking Configuration.

      Result: The Networking Configuration screen appears.

```
                      Network Administration
 Networking Configuration

 Networking Scheduling Parameters
     Economy class initiation time   (hh:mm):     18:00
     Economy class stale time        (hh:mm):     06:00

     Standard class holding time     (hh:mm):     03:00
     Standard class stale time       (hh:mm):     09:00

     Urgent class holding time       (hh:mm):     00:30
     Urgent class stale time         (hh:mm):     01:30

     Batch threshold:                             20
     Wakeup interval (mins) :                     5

 Network Broadcast Mailbox: 627865555

 Meridian Networking Configuration
                                                         MORE BELOW

        Save            Cancel
```

4   Modify the fields as required. For instructions, see the field
      description table on page 9-91.

      When you press <Enter> to move past the last field on this
      screen, more fields are displayed as shown in the following
      screen example.

```
                      Network Administration          MORE ABOVE
 Networking Configuration

     Batch threshold:                             20
     Wakeup interval (mins) :                     5

 Network Broadcast Mailbox: 627865555

 Meridian Networking Configuration
     Maximum number of ports for Meridian Networking:    4

 Enterprise Networking Configuration
     Maximum number of ports for Enterprise Networking:  4
     Receive the message text information:               No Yes
     Add/Update Remote Voice Users:                      No Yes

 Remote Voice User Default Settings
     Name dialable by external callers:                  No Yes
     Maximum number of temporary remote voice users:     1000

        Save            Cancel
```

5   Continue modifying the fields as required.

Step	Action
6	Do you want to save the new configuration?
	If yes, press [Save].
	Result: Any changes that you have made are saved and the Network Administration menu appears.
	If no, press [Cancel].
	Result: Any changes that you have made are discarded and the Network Administration menu appears.

Section G Modifying the AMIS Networking information

In this section

Overview of this section

Introduction   This section explains how to modify the AMIS Networking
                                     information.

Meridian Mail   In order to for Virtual Node AMIS Networking to work, two
Networking   types of networking configuration information need to be
configuration versus   defined. They are:
AMIS Networking
information   •   Meridian Mail Networking configuration

                                         The Meridian Mail Networking configuration defines
                                         when messages are to be sent to remote sites.

                                         For instructions on defining these parameters, see the
                                         section "Modifying the Meridian Mail Networking
                                         configuration" on page 9-83.

                                     •   AMIS Networking information

                                         AMIS Networking information used only for Virtual
                                         Node AMIS Networking consists of the following:

                                         —   AMIS compose prefix (for testing purposes only)

                                         —   system access number

                                         —   number of AMIS sessions that can be active at one
                                             time (networking call maximum)

                                         —   number of messages that can be transmitted during
                                             each AMIS Networking session

                                         Instructions for defining these parameters are contained
                                         within this section.

                                         Note: The AMIS Networking information also defines
                                         when messages are to be sent. However, these
                                         parameters are used for determining when AMIS
                                         messages are to be sent to remote voice messaging
                                         systems that *have not* been defined in the network
                                         database.

Data entry form   Before you change the networking configuration, you may
                                     want to complete the NWP-034, "AMIS Networking
                                     Information" form. See Appendix A, "Networking
                                     implementation forms", at the back of this manual for a
                                     sample of this form for copying.

Single-customer systems

For single-customer systems, the View/Modify AMIS Networking Information screen is accessed from the Network Administration menu. It contains the following fields used by Virtual Node AMIS:

- AMIS compose prefix
- system access number
- Networking call maximum
- number of messages to transmit per session

Note: All other fields on this screen are used by AMIS Networking. For more details, refer to the *AMIS Networking Installation and Administration Guide* (NTP 555-7001-242).

Multi-customer systems

On multi-customer systems, the View/Modify AMIS Networking Information screen is accessed from the Network Administration menu at both the system and customer administration levels.

The screen at the customer level contains only the AMIS compose prefix and system access number. The screen at the system administration level contains all the other fields.

Identifying the AMIS Networking information changes required

Introduction   This topic explains how to identify the AMIS Networking
                          information changes you need to make in your network.

Recommendation   Nortel recommends that you do not change the networking
                          scheduling parameters until you are comfortable with how your
                          network is functioning.

Data entry form   Before you make any changes to the networking configuration,
                          you should complete the NWP-034,"AMIS Networking
                          Information" form.

Form sample: The following is a sample of form NWP-034.
NWP-034

AMIS Networking Information   **NWP-034**

For systems using Virtual Node AMIS Networking (that is, both AMIS Networking and
Meridian Mail Networking)

Customer-specific parameters

AMIS compose prefix:

Local system access number:

Number of messages to transmit per session:

System-wide parameters

Networking call maximum:

Completed by

Administrator:	Date:

Completing this form for single-customer and multi-customer systems

This form is used for both single-customer and multi-customer systems. If you are using a single-customer system, complete both sections. The fields in both these sections are located on one screen.

For multi-customer systems, the fields in each section are located on two different screens:

- View/Modify AMIS Networking Information screen at the customer level of administration
- View/Modify AMIS Networking Information screen at the system level of administration

Procedure

To complete the data entry form, follow these steps.

Step	Action
1	Obtain a working copy of the NWP-034 "AMIS Networking Information" form.
	See Appendix A, "Networking Implementation Forms", at the back of this manual for a sample of the form for copying.
2	Complete the fields as required. For instructions, see the field descriptions following this procedure.
3	Enter the changes into Meridian Mail.
	For instructions, see "Modifying the AMIS Networking information" on page 9-103.

Field descriptions

The following table describes only the fields on the View/Modify AMIS Networking Information screen that are required for Virtual Node AMIS Networking.

All other fields apply to AMIS Networking, and are therefore not discussed in this manual. For details about fields that apply to AMIS Networking only, refer to the *AMIS Networking Installation and Administration Guide* (NTP 555-7001-242).

Note: If you are using a multi-customer system, these fields are displayed on two screens. On single-customer systems, all fields are located on one screen.

AMIS compose prefix

Description | This is the number that is used by users at the local site to identify to the system that an AMIS message is about to be composed and sent to users of remote voice messaging systems.

The AMIS compose prefix is not actually used to compose messages to users at virtual nodes (that is, AMIS sites which have been defined in the network database). However, it is required in order to perform the loop-back test (see Chapter 6, "Testing the network").

If this prefix conflicts with other network data, such as ESN or CDP dialing codes, you will receive an error message.

Note: There is a conflict if the first two digits of a DN match this prefix.

Default | None

System access number (local number)

Description | This number identifies your system to other AMIS sites.

During a message transfer session, the information in this field, plus the country code and area/city code defined on the Network Dialing Prefixes screen are sent with outgoing messages that originate from your site.

Users at remote sites can then reply to messages that originated from this site (by using an equivalent of the Meridian Mail Reply feature).

The system access number includes the following components:

- exchange code for your Meridian Mail site
- the DN of the voice service that will accept AMIS Networking calls (voice menu, thru-dial service, or AMIS Networking service)

Example: If the exchange code for your Meridian Mail site is 597, and the AMIS Networking VSDN is 3653, enter 5973653.

Default | None

Networking call maximum

Description	You can control the maximum number of Meridian Mail ports that are used at any one time for all outgoing AMIS Networking calls.
	For example, if you set this field to 4, the total number of outgoing AMIS Networking sessions that can be active at one time is 4.
Valid range	1 to 20
Default	4

Number of messages to transmit per session

Description	This is the maximum number of messages that will be sent during each AMIS Networking session.
	Note: If the Billing DN field on the Voice Services Profile screen is blank, Meridian Mail will send only one message per AMIS Networking session regardless of how this field is defined.
	If there are no plans to use the Billing DN field, then enter any number in the Billing DN field. (The number does not need to be a valid DN.) This will allow Meridian Mail to send multiple messages per AMIS session.
	For more information about the Billing DN field, refer your System Administration Guide (NTP 55x-70x1-30x).
Maximum	Up to 9 messages may be sent per AMIS Networking session.
Valid range	1 to 9
Default	9

Entering the system-wide parameters changes into Meridian Mail

Introduction This topic explains how to enter changes to the AMIS Networking information at the system administration level.

When to use this procedure Use this procedure if you are using either a single-customer or a multi-customer system.

Impact of changes on system administration If you change your AMIS Networking information, this may adversely affect the delivery of messages to other sites.

Recommendation We recommend that you do not change the AMIS Networking information until you are comfortable with how your network is functioning.

Softkey descriptions The following table describes the softkeys that are displayed on the View/Modify AMIS Networking Information screen.

Softkey	Description
[Save]	Press this key to save the new configuration.
[Cancel]	Press this key if you do not want to save the new configuration.

Procedure   To modify the AMIS Networking information, follow these
                           steps.

    Starting Point: The Main Menu

    Step Action

1   Select Network Administration.

        Result: The Network Administration menu is displayed.

```
                         Network Administration

            1  Meridian Mail Networking Administration

            2  AMIS Networking Administration







Select an item > █

      Exit
```

2   Select AMIS Networking Administration.

        Result: The View/Modify AMIS Networking Information screen
        appears.

```
                         Network Administration
     View/Modify AMIS Networking Information

     AMIS Compose Prefix:
     Outgoing Messages: Disabled Enabled
     Incoming Messages: Disabled Enabled

     System Access Number
     Local Number:

     Outgoing Messages allowed on weekdays (hhmm): from  00:00 to 23:59
     Outgoing Messages allowed on weekends (hhmm): from  00:00 to 23:59
     Wakeup Interval(minutes):  5
     Batch threshold:  9
     Networking call maximum:  4
     Number of messages to transmit per session   1
     Economy Class Initiation Time (hh:mm): 00:00
     Economy Class Stale Time (hh:mm):      06:00
     Standard Class Holding Time (hh:mm):   03:00
                                                          MORE BELOW

        Save            Cancel
```

Step Action

3   Complete the fields as follows.

IF your system is	THEN
single-customer	copy information from both the Customer-specific parameters and the System-wide parameters of form NWP-034.
multi-customer	copy information from only the System-wide parameters section of form NWP-034.

4   Do you want to save the AMIS Networking information?

If yes, press [Save].

Result: Your changes are saved and you are returned to the Network Administration menu.

If no, press [Cancel].

Result: Your changes are discarded and you are returned to the Network Administration menu.

Entering the customer-specific parameters into Meridian Mail

Introduction   This topic explains how to enter changes to the AMIS
                           Networking information at the customer administration level.

When to use this   Use this procedure if you are running a multi-customer system.
procedure
                           Note: Only one customer on the system may use the network
                           database. Therefore, only one customer may use AMIS
                           Networking in conjunction with Meridian Mail Networking
                           (that is, Virtual Node AMIS Networking).

Softkey description   The following table describes the softkeys that are displayed on
table   the View/Modify AMIS Networking Information screen.

Softkey	Description
[Save]	Press this key to save your configuration.
[Cancel]	Press this key if you do not want to save your configuration.

Procedure   To modify the AMIS Networking information, follow these
                          steps.

                          Starting Point: The Main Menu

Step	Action
1	Select Customer Administration.
2	Select the Meridian Mail Networking customer group.
	If necessary, use the [Find] then [List] softkeys.
	Result: The Customer Administration menu appears.

Step	Action

3   Select Network Administration from the Customer Administration menu.

         Result: The Network Administration menu appears.

```
┌──────────────────────────────────────────────────────────┐
│Ispep Fire Inc.          Network Administration           │
│                                                            │
│          1  Meridian Mail Networking Administration       │
│                                                            │
│          2  AMIS Networking Administration                │
│                                                            │
│                                                            │
│                                                            │
│                                                            │
│                                                            │
│                                                            │
│                                                            │
│Select an item >  ▊                                         │
│  ┌────────┐ ┌────────┐ ┌────────┐ ┌────────┐ ┌────────┐  │
│  │  Exit  │ │        │ │        │ │        │ │        │  │
│  └────────┘ └────────┘ └────────┘ └────────┘ └────────┘  │
└──────────────────────────────────────────────────────────┘
```

4   Select AMIS Networking Administration.

         Result: The View/Modify AMIS Networking Information screen appears.

```
┌──────────────────────────────────────────────────────────┐
│Ispep Fire Inc.          Network Administration           │
│                                                            │
│  View/Modify AMIS Networking Information                  │
│                                                            │
│  AMIS Compose Prefix:  __                                 │
│                                                            │
│  Outgoing Messages: Disabled Enabled                      │
│  Incoming Messages: Disabled Enabled                      │
│                                                            │
│  System Access Number                                     │
│  Local Number: _____                            │
│                                                            │
│  Number of messages to transmit per session: 1           │
│                                                            │
│                                                            │
│                                                            │
│  ┌────────┐ ┌────────┐ ┌────────┐ ┌────────┐ ┌────────┐  │
│  │  Save  │ │ Cancel │ │        │ │        │ │        │  │
│  └────────┘ └────────┘ └────────┘ └────────┘ └────────┘  │
└──────────────────────────────────────────────────────────┘
```

Step	Action
5	Copy information from the Customer-specific parameters section of form NWP-034.
6	Do you want to save the configuration.
	If yes, press [Save].
	Result: The data entered in the screen is saved. The Network Administration menu is displayed.
	If no, press [Cancel].
	Result: Any changes that you have made are not saved and the Network Administration menu is displayed.

Section H Printing and reviewing Operational Measurement reports

In this section

Overview of this section

Introduction   Operational Measurement (OM) reports show how much the
                            system is being used by Virtual Node AMIS Networking.

                            This section describes and analyzes the following reports that
                            contain Virtual Node AMIS Networking information:

                            •   Services Summary Traffic report
                            •   Networking Detail Traffic report
                            •   User Usage report

Services Summary   The Services Summary Traffic report provides statistics for
Traffic report   each of the voice services installed in your system, including
                            Virtual Node AMIS Networking. It also reports the total
                            number of times a user dials each service (number of accesses),
                            and the average length of each access.

Networking Detail   The Networking Detail report displays traffic totals for each
Traffic report   active site within the Meridian Mail network. Statistics are
                            shown for the number of messages received at each site from
                            other network sites and the messages delivered to network sites.
                            Statistics are also displayed for network usage and failures.

User Usage report   The User Usage report provides statistics for local voice
                            messaging usage on a per-user basis, including any network
                            usage. For AMIS Networking, the report also displays users'
                            daily networking activity.

Requesting the Operational Measurement reports

Introduction   Traffic and usage reports can be generated only by the system administrator. These report screens allow you to choose which reports you want to view and print. Also, for some reports, you can choose Report Start and Report End date and time.

Procedure   For instructions on viewing or printing reports, see the "Generating traffic reports" section in the "Operational Measurements traffic reports" chapter of your *System Administration Guide* (NTP 555x-7001-30x).

Interpreting the Services Summary Traffic report

Description   The Services Summary Traffic report provides statistics for
each of the voice services installed in your system. This report
gives the total number of times a user dials a service (number of
accesses), and the average length of each access.

ATTENTION

Use the Services Summary Traffic report to get an
overview of traffic on your system.

The Services Summary Traffic report captures *all*
activity on your system, including, for example, the
number of physical accesses to the system, busy signals,
calls dropped, and so on.

For this reason, data in the Services Summary report
may not correlate directly with data in other reports. If
you are trying to track information specific to a
particular networking activity, use the information in the
specific report rather than the Services Summary report.

Report sample and   For a sample of the report and descriptions of the fields, refer to
field descriptions   the "Traffic reports" section in the "Operational Measurements
traffic reports" chapter of your *System Administration Guide*
(NTP 55x-7001-30x).

Interpreting the Networking Detail traffic report

Description
The Networking Detail report displays traffic totals for each active site within the Meridian Mail network. Statistics are shown for the number of messages received at each site from other network sites and the messages delivered to network sites. Statistics are also displayed for network usage and failures.

Report sample and field descriptions
For a sample of this report and descriptions of the fields on it, refer to the "Traffic reports" section in the "Operational Measurements traffic reports" chapter of your *System Administration Guide* (NTP 55x-7001-30x).

Interpreting the User Usage report

Introduction   The User Usage report provides statistics for local voice
                            messaging usage on a per-user basis. If AMIS Networking is
                            installed, the report also displays users' daily networking
                            activity. To generate User Usage reports, use the User Usage
                            Reports screen.

                            Note: Check the Operational Measurement Options screen to
                            make sure that the collection of user usage data is enabled. If it
                            is disabled, ask your system administrator to enable it.

Report sample and   For a sample of this report and descriptions of the fields on it,
field descriptions   refer to the "User Usage reports" chapter of your *System
                            Administration Guide* (NTP 55x-7001-30x).

Chapter 10

Troubleshooting network errors

In this chapter

Overview of this chapter

Introduction   If you are experiencing problems with your Meridian Mail
                            network, this chapter will help you to identify the cause of those
                            problems.

                            Network errors may be caused by one or more of the following:

                            •   site configuration errors in Meridian Mail

                            •   the status of a site prevents it from receiving messages
                                  from the local site

                            •   the networking configuration may be either incorrect, or it
                                  needs to be modified to eliminate the problem

                            •   switch configuration errors

                            •   hardware problems

Site configuration   Site configuration errors may include one or more of the
errors   following (for each site):

                            •   incorrect connection DNs

                            •   incorrect site IDs for remote sites

                            •   message transfer protocols that do not match between the
                                  local and remote sites

                            •   incorrect ESN prefixes or CDP steering codes, or both

Site status errors   A site can be either intentionally disabled, or put into error
                            status.

                            A remote site may be put into error status because of
                            unsuccessful attempts by the local site to deliver messages to
                            the remote site. Failed message delivery can happen for the
                            following reasons:

                            •   The remote site is experiencing hardware or software
                                  problems of their own.

                            •   There are configuration errors (as described previously).

Networking configuration errors

Networking configuration errors may include

- scheduling parameters that need to be modified
- the number of networking sessions allowed at one time may need to be modified

Switch-related errors

If the network error cannot be identified by using Meridian Mail, the error may be switch related. You can perform the following tests:

- call trace

  Call trace can help you determine if network calls are being blocked for one or more of the following reasons:

  — digit manipulation is performed incorrectly (not enough or too many digits are inserted or deleted)

  — class of service restrictions are too stringent or too loose

  — dialing is incorrect (more digits are required by trunks and trunk routes)

  On the Meridian 1, a call trace can be performed on a telephone set or on a trunk and trunk route.

- link diagnostic

  The link diagnostic test identifies whether the link between the Meridian Mail system and the switch is working.

Hardware problems

Your system may be experiencing hardware problems that are not related to networking.

Identifying and investigating site errors

Introduction   If you are experiencing problems with your network, the
                        problem may be with one of the following:

- network status (sites may be in error)
- networking configuration (scheduling parameters may
  need to be modified)
- local or remote site configuration, or both
- problems with
  — voice ports
  — switch hardware
  — Meridian Mail hardware
  — Meridian Mail system is powered down or disabled at
    remote site

Procedure   To identify the cause of network errors by using Meridian Mail,
                        do the following.

Step	Action
1	Review the System Event and Error Reports (SEERs) for the following classes:

- 36, Network Message Transfer Agent (NMTA)
- 42, Open Access Transfer Agent (OTA)

Also, look for SEERs related to hardware or other system
problems.

For instructions on reviewing and interpreting SEERs and their
suggested actions, see your *Maintenance Messages (SEERs)
Reference Manual* (NTP 555-7001-510).

Step	Action
2	View the network status.
	For instructions, see Chapter 9, "Maintaining the network". For troubleshooting information, see "What to look for" following this procedure.
	Note: If the errors are occurring at only one site, the errors may be caused by
	• an error in the configuration of the particular remote site (in the local site's network database)
	• an error at the remote site itself
	If errors are occurring at many sites, the errors may be caused by
	• an error in the configuration of the local site
	• an error at the local site itself
3	Review the Operational Measurement reports.
	For instructions on printing the reports, see Chapter 9, "Maintaining the network". For troubleshooting information, see "What to look for" following this procedure.

What to look for   The following table lists some things to look for when reviewing network status and Operational Measurement reports.

Considerations	Suggested action
When reviewing the network status:	
Are any sites in error?	1. Review the SEERs and try to identify why the sites are in error. 2. Clear the errors by using one of the following methods: • To clear sites in error one at a time, select the site and press the [Clear Error Site] softkey on the Network Status screen. • To clear multiple sites in error all at once, press the [Clear All Error Sites] softkey on the Network Administration menu.
Are any sites disabled?	Determine why the site was disabled. If it no longer needs to be disabled, display the View/Modify Remote Site screen for those sites and change the Message Transfer field to "Enabled."
When reviewing Operational Measurement reports:	
Is there a large number of accesses? Is the average length of each access low?	A large number of accesses or a small average length (less than two minutes each), or both, may indicate that the holding time for messages is too low, or the batch threshold is too small.
Are the numbers of "Failed to Send" messages high?	Check to make sure that the remote site is not down. Also, check site configuration. The problem could be caused by the following: • The receiving site has been defined with the incorrect networking protocol required by the message transfer session. • Connection DNs have been defined incorrectly for one or more sites. • ESN/CDP codes (including the number of overlapping digits, if specified) are incorrect. • Hardware is faulty.

Considerations	Suggested action
Are the numbers of NDNs delivered high?	The following could be possible reasons: • The remote site is configured incorrectly. • Users are entering incorrect addresses (or perhaps the mailboxes do not exist). • Recipients on the local site do not have the capability to receive composed messages (defined on the Class of Service Administration screen).
Is networking generating an unusually high amount of traffic?	Try to determine if the high traffic level was due to some unusual (or perhaps cyclical) event that affected your organization. If the event is unusual, high traffic would not be expected to continue. If the high traffic is expected to continue, you may want to consider increasing the number of ports used for AMIS Networking. You may also want to consider expanding your system. (For example, if you have a limited number of ports, increase the number of voice ports.)
Were there any failures?	The error could be one of the following: • The error could be that a protocol error was encountered during the message transfer session. • The voice ports could not be accessed. You may want to consider adding more ports.

Messages are received but played as open network messages instead of private network messages	The error could be
	
	• None of the connection DNs are in public access format.
	  Define a DN in public access format (see page 5-120).
	• The remote site is not sending the correct (or any) system access DN.
	  If the remote site is a Meridian Mail site, ensure that the default dialing prefixes (see page 5-36) and local number (see page 5-37) are defined.

System distribution lists which contain remote voice users

If a system distribution list (SDL) at a remote site contains remote voice users whose mailboxes reside at other sites in the network, the message that is addressed to the SDL is sent only to the local users at the remote site. The message is not automatically sent to the remote voice users at other remote sites. A non-delivery notification and SEER *are not* generated.

Example: A user in Toronto wants to send a message to a system distribution list in Ottawa. The system distribution list contains local voice users in Ottawa and remote voice users in Montreal. The message sent from the Toronto site is sent only to users in Ottawa. It is not sent to the remote voice users in Montreal.

Solution: If this limitation is experienced at your site, manually create a copy of the system distribution list on your system (at the local site).

If a problem still exists If you are still unable to identify the source of the problem, try doing the following:

- Determine if AMIS Networking has been disabled.

  For instructions, see "Tracing calls on the switch" on page 10-10.

- Perform a call trace on the switch.

  For instructions, see "Tracing calls on the switch" on page 10-10.

- Perform a link diagnostic on the switch.

  For instructions, see "Performing a link diagnostic test" on page 10-15.

Tracing calls on the switch

Introduction   If the network error cannot be identified by using Meridian Mail, then it is possible that calls are being blocked by the switch. To determine if this is the case, you can perform a call trace on your switch. The call trace helps you to determine why a call is not going through to its destination.

A network call can be blocked for one or more of the following reasons:

- digit manipulation is performed incorrectly (not enough or too many digits are inserted or deleted)
- class of service restrictions are too stringent or too loose
- dialing is incorrect (more digits are required by trunks and trunk routes)

Note: On the Meridian 1, a call trace can be performed on a telephone set or on a trunk and trunk route.

Skills required   Interpreting the results of a call trace requires an understanding of

- how the switch processes calls
- how to interpret the results of a call trace session

If you are a Meridian Mail administrator who does not have this understanding, Nortel recommends that you consult with a switch technician.

Performing call trace on non-Meridian 1 switches

If you need to perform a call trace on your DMS family, SL-100, or non-Nortel switch, do the following.

IF you have	THEN
a non-Nortel switch (AT&T or ROLM)	refer to your vendor's documentation.
a DMS family or SL-100 switch	contact your service provider. Your service provider will do the call trace.

Before you begin

To trace calls on the Meridian 1, you need to know one or more of the following before you initiate the test:

- customer number
- directory number that will be tested
- type of telephone and key number and type (for multi-line telephone sets)
- terminal number (loop, shelf, card, unit) of the telephone set or trunk you want to test
- route type and trunk member of the trunk and trunk route you want to test

Procedure:
Tracing calls on the
Meridian 1

To perform the call trace on a telephone set or trunk, do the
following at a Meridian 1 terminal.

Starting Point: You are already logged in and the > prompt is
displayed.

Step	Action
1	Type **LD 80** and press <Enter>.
	Result: The . (period) prompt is displayed.
2	Enable enhanced trace.
	Type one of the following commands, then press <Enter>:
	• **ENTC l s c u t** (to enable call trace for a TN)
	• **ENTD l ch t** (to enable call trace for a digital trunk)
	Where
	• l = loop number
	• s = shelf number
	• c = card number
	• u = unit number
	• t = length of time for which the trace is to operate in HHMM
	Example: ENTC 001 0 02 01 0005 enables the trace on a TN for five minutes.
3	Start the trace.
	Type **GOTR** and press <Enter>.
	Result: The . (period) prompt is displayed.
4	Perform the trace.
	a. Type **TRAC xx...xx DEV** and press <Enter>.
	(where xx...xx represents any parameter on the TRAC command) Refer to the *X11 input/output guide* (NTP 553-3001-400) for more information.
	DEV means that auxiliary data related to NARS/BARS or CDP will be printed.
	b. Place the call.
	c. Review the results on the terminal.
	For descriptions of call trace outputs, refer to "LD 80" in the *X11 input/output guide* (NTP 553-3001-400).

Step	Action
5	Repeat step 4 as many times as necessary.
6	Stop the trace.
	Type **STPT** and press <Enter>.
	Result: The . (period) prompt is displayed.
7	Disable enhanced trace.
	Type **DALL** and press <Enter>.
	Result: The . (period) prompt is displayed.

What to look for   When viewing the call trace results on the Meridian 1 terminal, review the following information. Refer to the *X11 input/output guide* (NTP 553-3001-400) for more information.

Output response	Description
AUX_NARS	NARS data to follow
AUX_PM and associated values such as:	auxiliary progress mark
• ABSORBING	• digit manipulation is being performed on call
• COMPLETE	• dialing is complete
• NARS	• call is network call
BUSY	unit or directory number is busy
COS_ORIG and COS_TERM	class of service restrictions for the originating and terminating parties
DG_MAN xxx FCA_INDEX xxx TOD x	digit manipulation index, free calling area screening, and time of day values
DSBL	the unit has been disabled
EXP_ROUTE	an expensive route is being used for an ESN call
MAIN_PM and associated values such as:	main progress mark
• BUSY	• originator is receiving busy tone
• DIAL	• one or more digits have been dialed; system requires more digits
• ESTD	• call is established between originating and terminating parties
• REOR	• originator is receiving intercept treatment
• RING	• originator is receiving ring-back tone

Output response	Description
NARS_PM	NARS call progress mark
NEW_RLIST_INDEX NWQ_RLIST_ENTRY	network queue route list index and route list entry
NCOS_ORIG and NCOS_TERM	Network Class of Service for the originating and terminating parties
TGAR_ORIG and TGAR_TERM	trunk group access restriction for the originating and terminating parties

Performing a link diagnostic test

Introduction

If the network error cannot be identified by using any of the previous troubleshooting procedures, your problem may be a little more serious. It may be one that is not related to networking at all.

One of the things you can do is perform a link diagnostic test. The link diagnostic test identifies whether the link between the Meridian Mail system and the switch is working.

Skills required

Performing and interpreting the results of a link diagnostic test requires the experience of a switch technician.

If you are a Meridian Mail administrator, Nortel recommends that you consult with a switch technician.

Performing the link diagnostic test

If you need to perform a link diagnostic test on your switch, do the following.

IF you have	THEN
Meridian 1	refer to LD 90 in the *X11 input/output guide* (NTP 553-3001-400).
a non-Nortel switch (AT&T or ROLM)	refer to your vendor's documentation.
a DMS family or SL-100 switch	contact your service provider. Your service provider will do the link diagnostic test.

Appendix A

Networking implementation forms

In this appendix

Overview of this appendix

Introduction   This appendix contains full-size samples of all the forms
                           discussed throughout this manual.

What to do   When you need to use a specific form, make a photocopy of it
                           and return the original to this manual.

                           The forms are sequentially numbered in the order in which they
                           are presented in this manual. If you remove them from this
                           manual, Nortel recommends that when you return the original
                           forms to this manual, you place them in the correct order.

Types of forms   The following table describes the types of forms that are
                           available.

Type	Form numbers	Purpose
Meridian 1 Network Information forms	NWP-004 through NWP-017	These forms are used to capture Meridian 1 dialing plan information.
Meridian Mail Network Information forms	• NWP-024 through NWP-028 • NWP-034	These forms are used to prepare for entering the following into Meridian Mail • local sites • remote sites • Network Message Service locations • AMIS Networking information
Testing	NWP-030	This form can be used when testing Meridian Mail ports (ACD/UCD agents). *Note:* This form is not limited to networking. It can be used during system installation as well.
Implementation Checklist	NWP-032 (2 pages)	This form is used to track your progress while implementing Virtual Node AMIS Networking.

Forms

Introduction   The networking implementation forms are shown on the following pages.

Reference list   The following table lists the forms and the page numbers where they can be found.

Form number	Form name	Shown on page	For instructions, see
Meridian 1 Network Information forms			
NWP-004	Site Information	A-5	Chapter 2, "Gathering information for the network"
NWP-005	ESN Data Block	A-6	
NWP-006	Digit Manipulation Tables	A-7	
NWP-007	CDP Steering Codes	A-8	
NWP-008	Route List Index	A-9	
NWP-009	NCOS Groups	A-10	
NWP-010	FCAS Tables	A-11	
NWP-011	ITGE Groups	A-12	
NWP-012	Network Translation Location Codes	A-13	
NWP-013	Network Translation Numbering Plan Area Codes	A-14	
NWP-014	Network Translation Exchange Codes	A-15	
NWP-015	Network Translation Special Number Translation Codes	A-16	
NWP-016	Network Translation Home Location and Home Numbering Plan Area Codes	A-17	
NWP-017	Site Numbering Plan	A-18	

Form number	Form name	Shown on page	For instructions, see
Meridian Mail Network Information forms			
NWP-024	Local Site Maintenance (2 pages)	A-19 and A-20	Chapter 5, "Configuring Meridian Mail"
NWP-025	Remote Site Maintenance (2 pages)	A-21 and A-22	
NWP-026	Remote NMS Location Maintenance (2 pages)	A-23 and A-24	
NWP-027	CDP Steering Codes	A-25	
NWP-028	Meridian Mail Networking Configuration (2 pages)	A-26 and A-27	Chapter 9, "Maintaining the network"
Implementation and Testing forms			
NWP-030	Testing Meridian Mail Ports (ACD/UCD Agents)	A-28	Chapter 6, "Testing the network"
NWP-031	Enterprise Networking Implementation Checklist (2 pages)	A-29 and A-30	
NWP-032	Virtual Node AMIS Networking Implementation Checklist (2 pages)	A-31 and A-32	Chapter 1, "Understanding Virtual Node AMIS Networking"
NWP-034	AMIS Networking Information	A-33	Chapter 2, "Gathering information for the network"

NWP-004

Meridian 1 Network Information—Site Information   **NWP-004**

Address and contact information

Site name:	Site number:	Customer number:	Administrator's name:
Address:			
City:	Prov/State:	Country:	Postal/Zip Code:
Telephone:		Fax:	

Site type

Answer the following questions

1) Is this site a message center (contains a Meridian Mail system that services one or more Meridian 1 switches located somewhere else)?
☐ Yes
☐ No

2) Is this switch connected to a message center (in other words, does not have its own Meridian Mail system)?
☐ Yes
☐ No

3) If response to question 2 is "yes," record the site name or number.
Site: _____

Completed by

Administrator:	Date:

NWP-005

Meridian 1 Network Information—ESN Data Block   **NWP-005**

Site or NMS location information   Page _____ of _____

Site or NMS location name:	Site or NMS location number:	Customer number:	Administrator's name:

ESN data block (LD 86, ESN) (If necessary, complete and attach additional pages, or attach printout.)

Prompt	Description	Current	Revise to
MXLC	Maximum number of location codes		
MXSD	Maximum number of Supplemental Digit Restriction blocks		
MXIX	Maximum number of incoming trunk group exclusion tables		
MXDM	Maximum number of digit manipulation tables		
MXRL	Maximum number of route lists		
MXFC	Maximum number of free calling area screening tables		
CDP	Coordinated dialing plan is implemented for this customer		
MXSC	Maximum number of steering codes		
NCDP	Maximum number of digits in CDP DNs		
MSCC	Maximum number of Special Common Carrier entries		
AC1	NARS/BARS access code 1		
AC2	NARS/BARS access code 2		
DLTN	NARS/BARS dial tone after AC1 or AC2		
ERWT	Expensive route warning tone		
ERDT	Expensive route delay time		
TODS	Time-of-day schedules	0 ____to ____ 1 ____to ____ 2 ____to ____ 3 ____to ____ 4 ____to ____ 5 ____to ____ 6 ____to ____ 7 ____to ____	0 ____to ____ 1 ____to ____ 2 ____to ____ 3 ____to ____ 4 ____to ____ 5 ____to ____ 6 ____to ____ 7 ____to ____
RTCL	Routing controls		
NMAP	Network class of service (NCOS) map		
ETOD	Extended Time-of-day schedule		
TGAR	Check for trunk group access restrictions		

☐   printout attached

NWP-006

Meridian 1 Network Information—Digit Manipulation Tables   **NWP-006**

Site or NMS location information   Page _____ of _____

Site or NMS location name:	Site or NMS location number:	Customer number:	Administrator's name:

Digit manipulation tables (LD 86, DGT)
(If necessary, complete and attach additional pages, or attach printout.)

Prompt	Description	Current	Revise to
DMI	Digit manipulation index number		
DEL	Number of leading digits to be deleted		
INST	Insert		
SCCI	Special Common Carrier index into the SCC data table		
CTYP	Call type to be used by the manipulated digits (INTL, NPA, NXX, LOC, CDP, SPN, UKWN)		
Next DMI			
DMI	Digit manipulation index number		
DEL	Number of leading digits to be deleted		
INST	Insert		
SCCI	Special Common Carrier index into the SCC data table		
CTYP	Call type to be used by the manipulated digits (INTL, NPA, NXX, LOC, CDP, SPN, UKWN)		
Next DMI			
DMI	Digit manipulation index number		
DEL	Number of leading digits to be deleted		
INST	Insert		
SCCI	Special Common Carrier index into the SCC data table		
CTYP	Call type to be used by the manipulated digits (INTL, NPA, NXX, LOC, CDP, SPN, UKWN)		
Next DMI			
DMI	Digit manipulation index number		
DEL	Number of leading digits to be deleted		
INST	Insert		
SCCI	Special Common Carrier index into the SCC data table		
CTYP	Call type to be used by the manipulated digits (INTL, NPA, NXX, LOC, CDP, SPN, UKWN)		

☐   printout attached

NWP-007

Meridian 1 Network Information—CDP Steering Codes   **NWP-007**

Site or NMS location information   Page _____ of _____

Site or NMS location name:	Site or NMS location number:	Customer number:	Administrator's name:

CDP steering codes (LD 87, CDP)
(If necessary, complete and attach additional pages, or attach printout.)

Prompt	Description	Current	Revise to
LSC	Local steering code		
DMI	Digit manipulation index for local steering code (LSC)		
DEL	Number of digits to be deleted for local steering code (LSC)		
DSC	Distant steering code		
DSP	Display (local steering code and DN)		
RLI	Route list index to be accessed for distant steering code (DSC)		
TSC	Trunk steering code		
FLEN	Flexible length number of digits		
ITOH	Inhibit time-out option		
RLI	Route list index to be accessed for trunk steering code (TSC)		

☐   printout attached

NWP-008

Meridian 1 Network Information—Route List Index   **NWP-008**

Site or NMS location information   Page _____ of _____

Site or NMS location name:	Site or NMS location number:	Customer number:	Administrator's name:

Route list index (LD 86, RLB)
(If necessary, complete and attach additional pages, or attach printout.)

Prompt	Description	Current	Revise to
RLI	Route list index to be accessed		
ENTR	Entry number for NARS/BARS route list		
LTER	Local termination entry		
ROUT	Route number		
TOD	Time-of-day schedule	0 _____ 1 _____ 2 _____ 3 _____ 4 _____ 5 _____ 6 _____ 7 _____	0 _____ 1 _____ 2 _____ 3 _____ 4 _____ 5 _____ 6 _____ 7 _____
CNV	Conversion to listed directory number (LDN)		
EXP	Expensive route		
FRL	Facility restriction level		
DMI	Digit manipulation index		
ISDM	ISL D-channel down digit manipulation index		
FCI	Free calling area screening index number		
OHQ	Off-hook queuing allowed		
CBQ	Call-back queuing		

☐   printout attached

NWP-009

Meridian 1 Network Information—NCOS Groups   **NWP-009**

Site or NMS location information   Page _____ of _____

Site or NMS location name:	Site or NMS location number:	Customer number:	Administrator's name:

Network Class of Service Groups (LD 87, NCTL)
(If necessary, complete and attach additional pages, or attach printout.)

Prompt	Description	Current	Revise to
NRNG	Network class of service (NCOS) range		
SOHQ	Off-hook queuing option		
OHTL	Off-hook queue time limit		
SCBQ	Call-back queuing option		
CBTL	Call-back queue time limit		
RANE	RAN route number for CBQ to ESN stations		
RANC	RAN route number for CBQ offer to conventional main		
NCOS	Network class of service group number		
FRL	Facility restriction level		
RWTA	Expensive route warning tone		
NSC	Network speed call access allowed		
LIST	List numbers to which system speed call has access		
OHQ	Off-hook queuing eligibility		
CBQ	Call-back queuing eligibility		
ROUT	Call-back queuing on initial routes		
RADT	Route advance timer		
SPRI	Starting priority in CBQ		
MPRI	Maximum priority attainable in CBQ		
PROM	Priority promotion timer		

☐ printout attached

NWP-010

Meridian 1 Network Information—FCAS Tables   **NWP-010**

Site or NMS location information   Page _____ of _____

Site or NMS location name:	Site or NMS location number:	Customer number:	Administrator's name:

Free calling area screening (LD 87, FCAS)

(If necessary, complete and attach additional pages, or attach printout.)

Prompt	Description	Current	Revise to
FCI	Free calling area screening (FCAS) index number		
NPA	Numbering plan area code to be screened		
NXX	Exchange code to be denied or allowed		
DENY	Range of exchange codes to be denied		
ALOW	Range of exchange codes to be allowed		
Next NPA or NXX			
NPA	Numbering plan area code to be screened		
NXX	Exchange code to be denied or allowed		
DENY	Range of exchange codes to be denied		
ALOW	Range of exchange codes to be allowed		
Next NPA or NXX			
NPA	Numbering plan area code to be screened		
NXX	Exchange code to be denied or allowed		
DENY	Range of exchange codes to be denied		
ALOW	Range of exchange codes to be allowed		
Next NPA or NXX			
NPA	Numbering plan area code to be screened		
NXX	Exchange code to be denied or allowed		
DENY	Range of exchange codes to be denied		
ALOW	Range of exchange codes to be allowed		
Next NPA or NXX			
NPA	Numbering plan area code to be screened		
NXX	Exchange code to be denied or allowed		
DENY	Range of exchange codes to be denied		
ALOW	Range of exchange codes to be allowed		

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NWP-011

Meridian 1 Network Information—ITGE Groups   **NWP-011**

Site or NMS location information   Page _____ of _____

Site or NMS location name:	Site or NMS location number:	Customer number:	Administrator's name:

Incoming trunk exclusion (LD 86, ITGE)
(If necessary, complete and attach additional pages, or attach printout.)

Prompt	Description	Current	Revise to
ITEI	Incoming trunk group exclusion index number		
RTNO	Route number associated with index		
Next index or route			
ITEI	Incoming trunk group exclusion index number		
RTNO	Route number associated with index		
Next index or route			
ITEI	Incoming trunk group exclusion index number		
RTNO	Route number associated with index		
Next index or route			
ITEI	Incoming trunk group exclusion index number		
RTNO	Route number associated with index		
Next index or route			
ITEI	Incoming trunk group exclusion index number		
RTNO	Route number associated with index		
Next index or route			
ITEI	Incoming trunk group exclusion index number		
RTNO	Route number associated with index		
Next index or route			
ITEI	Incoming trunk group exclusion index number		
RTNO	Route number associated with index		
Next index or route			
ITEI	Incoming trunk group exclusion index number		
RTNO	Route number associated with index		

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NWP-012

Meridian 1 Network Information—Network Translation   **NWP-012**
Location Codes

Site or NMS location information   Page _____ of _____

Site or NMS location name:	Site or NMS location number:	Customer number:	Administrator's name:

Network translation—location codes (LD 90, NET)
(If necessary, complete and attach additional pages, or attach printout.)

Prompt	Description	Current	Revise to
TRAN	Translator (AC1 or AC2)		
TYPE	Type of data block	LOC	LOC
LOC	Location code		
RLI	Route list index		
ITEI	Incoming trunk group exclusion index		
LDN	Listed directory number		
DID	Direct inward dial		
MNXX	Multiple NXX (exchange codes)		
SAVE	Number of trailing digits to save		
OFFC	Office		
RNGE	Range of DID numbers		
RNGE	Range of DID numbers		
OFFC	Office		
RNGE	Range of DID numbers		
RNGE	Range of DID numbers		

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NWP-013

Meridian 1 Network Information—Network Translation   **NWP-013**
Numbering Plan Area Codes

Site or NMS location information   Page _____ of _____

Site or NMS location name:	Site or NMS location number:	Customer number:	Administrator's name:

Network translation—NPA codes (LD 90, NET)
(If necessary, complete and attach additional pages, or attach printout.)

Prompt	Description	Current	Revise to
TRAN	Translator (AC1, AC2, or SUM)		
TYPE	Type of data block	NPA	NPA
NPA	Numbering plan area code		
RLI	Route list index		
SDRR	Supplemental digit restriction or recognition		
DENY	Number to be denied within the NPA		
DMI	Digit manipulation index		
LDID	Local DID number to be recognized		
LDDD	Local DDD number to be recognized		
DID	Remote DID number to be recognized		
DDD	Remote DDD number to be recognized		
ITED	Incoming trunk group exclusion digits		
ITEI	Incoming trunk group exclusion index		

☐   printout attached

NWP-014

Meridian 1 Network Information—Network Translation Exchange Codes   **NWP-014**

Site or NMS location information   Page _____ of _____

Site or NMS location name:	Site or NMS location number:	Customer number:	Administrator's name:

Network translation—NXX codes (LD 90, NET)
(If necessary, complete and attach additional pages, or attach printout.)

Prompt	Description	Current	Revise to
TRAN	Translator (AC1, AC2, or SUM)		
TYPE	Type of data block	NXX	NXX
NXX	Numbering plan exchange code (central office)		
RLI	Route list index		
SDRR	Supplemental digit restriction or recognition		
DENY	Number to be denied within the NXX		
DMI	Digit manipulation index		
LDID	Local DID number to be recognized		
LDDD	Local DDD number to be recognized		
DID	Remote DID number to be recognized		
DDD	Remote DDD number to be recognized		
ITED	Incoming trunk group exclusion digits		
ITEI	Incoming trunk group exclusion index		

☐ printout attached

NWP-015

Meridian 1 Network Information—Network Translation   **NWP-015**
Special Number Translation Codes

Site or NMS location information   Page _____ of _____

Site or NMS location name:	Site or NMS location number:	Customer number:	Administrator's name:

Network translation—SPN codes (LD 90, NET)
(If necessary, complete and attach additional pages, or attach printout.)

Prompt	Description	Current	Revise to
TRAN	Translator (AC1, AC2, or SUM)		
TYPE	Type of data block	SPN	SPN
SPN	Special number translation		
FLEN	Flexible length		
ITOH	Inhibit time-out handler		
RLI	Route list index		
SDRR	Supplemental digit restriction or recognition		
DENY	Number to be denied		
DMI	Digit manipulation index		
LDID	Local DID number to be recognized		
LDDD	Local DDD number to be recognized		
DID	Remote DID number to be recognized		
DDD	Remote DDD number to be recognized		
ITED	Incoming trunk group exclusion digits		

☐ printout attached

NWP-016

Meridian 1 Network Information—Network Translation   **NWP-016**
Home Location and Home Numbering Plan Area Codes

Site or NMS location information   Page _____ of _____

Site or NMS location name:	Site or NMS location number:	Customer number:	Administrator's name:

Network translation—HLOC codes (LD 90, NET)
(If necessary, complete and attach additional pages, or attach printout.)

Prompt	Description	Current	Revise to
TRAN	Translator (AC1, AC2, or SUM)		
TYPE	Type of data block	HLOC	HLOC
HLOC	Home location code		
DMI	Digit manipulation index		
Next HLOC			
HLOC	Home location code		
DMI	Digit manipulation index		
Next HLOC			
HLOC	Home location code		
DMI	Digit manipulation index		

☐   printout attached

Network translation—HNPA codes (LD 90, NET)
(If necessary, complete and attach additional pages, or attach printout).

Prompt	Description	Current	Revise to
TRAN	Translator (AC1, AC2, or SUM)		
TYPE	Type of data block	HNPA	HNPA
HNPA	Home numbering plan area code		
HNPA	HNPA with 1+ dialing	1	1
Next HNPA			
HNPA	Home numbering plan area code		
HNPA	HNPA with 1+ dialing	1	1
Next HNPA			
HNPA	Home numbering plan area code		
HNPA	HNPA with 1+ dialing	1	1

☐   printout attached

NWP-017

Meridian 1 Network Information—Site Numbering Plan   **NWP-017**

Site or NMS location information   Page _____ of _____

Site or NMS location name:	Site or NMS location number:	Customer number:	Administrator's name:

Used directory numbers (LD 20) (If necessary, complete and attach additional pages, or attach printout.)

	Ranges (record all that apply) *Example:* 1550 to 1599				
☐ Starting with 0					
☐ Starting with 1					
☐ Starting with 2					
☐ Starting with 3					
☐ Starting with 4					
☐ Starting with 5					
☐ Starting with 6					
☐ Starting with 7					
☐ Starting with 8					
☐ Starting with 9					

☐ printout attached

NWP-024 (page 1 of 2)

Meridian Mail Network Information—Local Site Maintenance   **NWP-024**
Page 1 of 2

Site Information

Site number:	Site name:
Site is network message center? ☐ Yes (Complete NWP-026 for each NMS satellite location) ☐ No	Message transfer ☐ Enabled ☐ Disabled

Dialing Plan
(Check one of these boxes to choose the dialing plan.)

☐ ESN	☐ CDP	☐ Hybrid	☐ None
Maximum number of digits in local mailbox:			

Hybrid dialing plan information
(Complete this section if you have selected both the ESN and CDP dialing plans.)

ESN access codes:
Number of overlapping digits between ESN prefixes and local extension:
ESN prefixes:
Number of overlapping digits between CDP steering code and local extension:
CDP Steering Codes: (Complete and attach NWP-027, "CDP Steering codes" form.)
Mailbox numbering follows the dialing plan: ☐ Yes ☐ No (Complete the Mailbox prefixes field.)
Mailbox prefixes: (This field appears if your mailbox does not follow the dialing plan.)

ESN dialing plan information
(Complete this section if you have selected the ESN dialing plan.)

ESN access codes:
Number of overlapping digits between ESN prefixes and local extension:
ESN prefixes:
Mailbox numbering follows the dialing plan: ☐ Yes ☐ No (Complete the Mailbox prefixes field.)
Mailbox prefixes (This field appears if your mailbox does not follow the dialing plan.):

NWP-024 (page 2 of 2)

Meridian Mail Network Information—Local Site Maintenance **NWP-024**
Page 2 of 2

CDP dialing plan information
(Complete this section if you have selected the CDP dialing plan.)

Number of overlapping digits between CDP steering code and local extension:

CDP Steering Codes: (complete and attach NWP-027, "CDP Steering codes" form)

Mailbox numbering follows the dialing plan:
☐ Yes
☐ No (Complete the Mailbox prefixes field.)

Mailbox prefixes: (This field appears if your mailbox does not follow the dialing plan):

None dialing plan information
(Complete this section if you have selected the None dialing plan.)

Mailbox numbering equals local extension:
☐ Yes
☐ No

Mailbox prefixes: (This field appears whether or not mailbox numbering equals the local extension.)

Completed by

Administrator:	Date:

NWP-025 (page 1 of 2)

Meridian Mail Network Information—Remote Site Maintenance   **NWP-025**
Page 1 of 2

Site Information

Site number:	Site name:

Message transfer protocol: ☐ Enterprise ☐ Meridian ☐ AMIS	Message transfer: ☐ Enabled ☐ Disabled	Site is network message center? ☐ Yes ☐ No

Password: Initiating password: _____ Responding password: _____	Networking Connection: DN 1: _____ DN 2: _____ DN 3: _____

Maximum number of digits in local mailbox:	Do you want to record a spoken name for the site? (Applies to ESN, Hybrid, or None dialing plans.) ☐ Yes (Use the [Voice] softkey to record it.) ☐ No

Enterprise Networking Options
(Complete this section if you have selected Enterprise as the message transfer protocol.)

Send the message text information? ☐ Yes ☐ No	Send the sender's text name and personal verification? ☐ Yes ☐ No

Dialing Plan
(Check one of these boxes to choose the dialing plan.)

☐ ESN	☐ CDP	☐ Hybrid	☐ None
Maximum number of digits in local mailbox:			

Hybrid dialing plan information
(Complete this section if you have selected both the ESN and CDP dialing plans.)

ESN access codes:
Number of overlapping digits between ESN prefixes and local extension:
ESN prefixes:
Number of overlapping digits between CDP steering code and local extension:
CDP Steering Codes: (Complete and attach NWP-027, "CDP Steering codes" form.)
Mailbox numbering follows the dialing plan: ☐ Yes   ☐ No (Complete the Mailbox prefixes field.)
Mailbox prefixes: (This field appears if your mailbox does not follow the dialing plan.)

NWP-025 (page 2 of 2)

Meridian Mail Network Information—Remote Site Maintenance   **NWP-025**
Page 2 of 2

ESN dialing plan information
(Complete this section if you have selected the ESN dialing plan.)

ESN access codes:
Number of overlapping digits between ESN prefixes and local extension:
ESN prefixes:
Mailbox numbering follows the dialing plan: ☐ Yes ☐ No (Complete the Mailbox prefixes field.)
Mailbox prefixes: (This field appears if your mailbox does not follow the dialing plan.)

CDP dialing plan information
(Complete this section if you have selected the CDP dialing plan.)

Number of overlapping digits between CDP steering code and local extension:
CDP Steering Codes (Complete and attach NWP-027, "CDP Steering codes" form.)
Mailbox numbering follows the dialing plan: ☐ Yes ☐ No (Complete the Mailbox prefixes field.)
Mailbox prefixes: (This field appears if your mailbox does not follow the dialing plan.)

None dialing plan information
(Complete this section if you have selected the None dialing plan.)

Mailbox numbering equals local extension: ☐ Yes (Complete the Dial Prefix field.) ☐ No
Dial prefix: (This field appears if the mailbox numbering is the same as local extensions.)
Mailbox prefixes: (This field appears whether or not mailbox numbering equals the local extension.)

Completed by

Administrator:	Date:

NWP-026 (page 1 of 2)

Meridian Mail Network Information—Remote NMS Location Maintenance NWP-026

Page 1 of 2

Location Information

Location number:	Location name:

Do you want to record a spoken name for the location? (Applies to ESN, Hybrid, or None dialing plans.)
☐ Yes (Use the [Voice] softkey to record it.)
☐ No

Dialing Plan

(Check one of these boxes to choose the dialing plan. The dialing plan must be the same as the prime location.)

☐ ESN	☐ CDP	☐ Hybrid	☐ None

Maximum number of digits in local mailbox:

Hybrid dialing plan information

(Complete this section if you have selected both the ESN and CDP dialing plans.)

ESN access codes:
Number of overlapping digits between ESN prefixes and local extension:
ESN prefixes:
Number of overlapping digits between CDP steering code and local extension:
CDP Steering Codes: (Complete and attach NWP-027, "CDP Steering codes" form.)
Mailbox numbering follows the dialing plan: ☐ Yes ☐ No (Complete the Mailbox prefixes field.)
Mailbox prefixes: (This field appears if your mailbox does not follow the dialing plan.)

ESN dialing plan information

(Complete this section if you have selected the ESN dialing plan.)

ESN access codes:
Number of overlapping digits between ESN prefixes and local extension:
ESN prefixes:
Mailbox numbering follows the dialing plan: ☐ Yes ☐ No (Complete the Mailbox prefixes field.)
Mailbox prefixes (This field appears if your mailbox does not follow the dialing plan.)

NWP-026 (page 2 of 2)

Meridian Mail Network Information—Remote NMS Location Maintenance NWP-026
Page 2 of 2

CDP dialing plan information
(Complete this section if you have selected the CDP dialing plan.)

Number of overlapping digits between CDP steering code and local extension:

CDP Steering Codes: (Complete and attach NWP-027, "CDP Steering codes" form.)

Mailbox numbering follows the dialing plan: ☐ Yes ☐ No (Complete the Mailbox prefixes field.)

Mailbox prefixes: (This field appears if your mailbox does not follow the dialing plan.)

None dialing plan information
(Complete this section if you have selected the None dialing plan.)

Mailbox numbering equals local extension: ☐ Yes (Complete the Dial Prefix field.) ☐ No

Dial prefix: (This field appears if the mailbox numbering is the same as local extensions.)

Mailbox prefixes: (This field appears whether or not mailbox numbering equals the local extension.)

Completed by

Administrator:	Date:

NWP-027

Meridian Mail Network Information—CDP Steering codes **NWP-027**

Complete and attach this form to NWP-024, NWP-025 or NWP-026.

Site/Location Information

Site/Location number:	Site/Location name:

CDP Steering codes
(You can enter up to 50 steering codes for the CDP dialing plan or the Hybrid dialing plan.)

Completed by

Administrator:	Date:

NWP-028 (page 1 of 2)

Meridian Mail Networking Configuration   **NWP-028**
Page 1 of 2

Networking Scheduling parameters

Economy class initiation time	(hh:mm)
Economy class stale time	(hh:mm)
Standard class holding time	(hh:mm)
Standard class stale time	(hh:mm)
Urgent class holding time	(hh:mm)
Urgent class stale time	(hh:mm)
Batch threshold	
Wakeup interval (mins)	

Network Broadcast Administration
(These fields are not applicable to Virtual Node AMIS Networking.)

Accept broadcast messages from remote sites: ☐ Yes   ☐ No
Allow broadcast messages to remote sites: ☐ Yes   ☐ No
Network-Wide broadcast prefix: (This field is displayed only if "Allow broadcast messages to remote sites" is Yes.)

NWP-028 (page 2 of 2)

Meridian Mail Networking Configuration   **NWP-028**
                                                              Page 2 of 2

Meridian Networking Configuration
(Complete this section if you are using Meridian Networking.)

Maximum number of ports for Meridian Networking

Enterprise Networking Configuration
(Complete this section if you are using Enterprise Networking.)

Maximum number of ports for Enterprise Networking:

Receive the message text information:
☐ Yes
☐ No

Add/Update Remote Voice Users:
☐ Yes
☐ No

Remote Voice User Default Settings

Name dialable by external callers: ☐ Yes ☐ No	Maximum number of temporary remote voice users:

Completed by

Administrator:	Date:

NWP-030

Testing Meridian Mail Ports (ACD/UCD Agents)   **NWP-030**

Complete and attach additional pages if necessary.

Port number	Terminal number (TN)	Agent position ID	Record check mark

Tested by

Administrator:	Date:

NWP-031 (page 1 of 2)

Enterprise Networking Implementation Checklist **NWP-031**
Page 1 of 2

Step	Description	For instructions, see the chapter	Done
1	Gather ESN information from the switch.	Gathering information for the network	☐
2	Gather CDP information from the switch.		☐
3	Draw a diagram of the existing network.		☐
4	Analyze the information and determine if changes are required to the dialing plan configuration on the switch.		☐
5	Define the ACD/UCD queues.	Configuring the Meridian 1 for systems using AML OR Configuring the PBX/DMS for systems using SMDI	☐
6	Dedicate ACD/UCD agents to networking (if required). This step is optional.		☐
7	Verify TGAR and NCOS on ACD/UCD agents.		☐
8	Define trunks (if additional trunks are required).		☐
9	Verify TGAR (access to trunks).		☐
10	Modify the dialing plan configuration on the switch if required.		☐
11	Enable Meridian Mail Networking.	Configuring Meridian Mail	☐
12	Dedicate ports to networking if required. This step is optional.		☐
13	Define the networking DN in the VSDN table.		☐
14	Define the local site.		☐
15	Define remote sites.		☐
16	Define remote Network Message Service (NMS) sites if required.		☐
17	Convert existing sites to Enterprise Networking if necessary.		☐
18	Activate sending of remote voice user information to remote sites (RVU propagation).	Maintaining the network	☐
19	Activate receiving of remote voice user information from remote sites (RVU propagation).		☐
20	Activate sending of text for ACCESS applications to remote sites.		☐
21	Activate receiving of text for ACCESS applications from remote sites.		☐

NWP-031 (page 2 of 2)

Enterprise Networking Implementation Checklist   **NWP-031**
Page 2 of 2

Step	Description	For instructions, see the chapter	Done
22	Test call routing access.	Testing the network	☐
23	Test ACD/UCD agents.		☐
24	Perform the Enterprise Diagnostic test.		☐
25	Compose and send a message to an empty system distribution list at a remote site.		☐
26	Send a message from the local site to each remote site.		☐
27	Add remote voice users. This step is optional.	Configuring Meridian Mail	☐
28	Back up Meridian Mail.	Creating a backup of the system	☐
29	Print Meridian Mail network information.		☐
30	Back up the switch.		☐
31	Print switch network information.		☐

NWP-032 (page 1 of 2)

	Virtual Node AMIS Networking Implementation Checklist		**NWP-032**
			Page 1 of 2

Step	Description	For instructions, see the chapter	Done
1	Gather ESN information from the switch.	Gathering information for the network	☐
2	Gather CDP information from the switch.		☐
3	Draw a diagram of the existing network.		☐
4	Analyze the information and determine if changes are required to the dialing plan configuration on the switch.		☐
5	Define the ACD/UCD queues.	Configuring the Meridian 1 for systems using AML Configuring the PBX/DMS for systems using SMDI	☐
6	Dedicate ACD/UCD agents to networking (if required).		☐
7	Verify TGAR and NCOS on ACD/UCD agents.		☐
8	Define trunks (if additional trunks are required).		☐
9	Verify TGAR (access to trunks).		☐
10	Modify the dialing plan configuration on the switch if required.		☐
11	Dedicate ports to networking if required.	Configuring Meridian Mail	☐
12	Define the networking DN in the VSDN table.		☐
13	Define the AMIS Networking dialing prefixes and translation tables.		☐
14	Define the AMIS Networking system access number and compose prefix.		☐
15	Define the local site.		☐
16	Define remote sites.		☐
17	Define remote Network Message Service (NMS) sites if required.		☐
18	Convert existing sites to AMIS Networking if necessary.		☐
19	Test call routing access.	Testing the network	☐
20	Test ACD/UCD agents.		☐
21	Compose and send a message from the local site to the local site.		☐
22	Compose and send a message to an empty system distribution list at a Meridian Mail remote site.		☐

NWP-032 (page 2 of 2))

Virtual Node AMIS Networking Implementation Checklist   **NWP-032**
Page 2 of 2

Step	Description	For instructions, see the chapter	Done
23	Send a message from the local site to each remote site.	Testing the network	☐
24	Back up Meridian Mail.	Creating a backup of the system	☐
25	Print Meridian Mail network information.		☐
26	Back up the switch.		☐
27	Print switch network information.		☐

NWP-034

AMIS Networking Information   **NWP-034**

For systems using Virtual Node AMIS Networking (that is, both AMIS Networking and
Meridian Mail Networking)

Customer-specific parameters

AMIS compose prefix:
Local system access number:
Number of messages to transmit per session:

System-wide parameters

Networking call maximum:

Completed by

Administrator:	Date:

NWP-034

AMIS Networking Information   **NWP-034**

For systems using Virtual Node AMIS Networking (that is, both AMIS Networking and
Meridian Mail Networking)

Customer-specific parameters

AMIS compose prefix:
Local system access number:
Number of messages to transmit per session:

System-wide parameters

Networking call maximum:

Completed by

Administrator:	Date:

Appendix B

Miscellaneous tasks

In this appendix

Modifying the local site ID

Introduction
This topic explains how to modify the local site ID. The local site ID is modified in the TOOLS menu.

When to change the local site ID
You may need to change the local site ID if, for example, you entered it incorrectly when you defined the site.

ATTENTION

Do not change the local site ID unless it conflicts with another site in the network.

Procedure: Before you begin
Before you change the local site ID, do the following.

Step	Action
1	Obtain a printout of the local site information before you modify the local site ID.
2	Ensure that no other site in the network has the same site number as the local site ID.
3	Create a new remote site with the site ID you want to use for the local site.
4	Enter anything you want in the rest of the fields. They are not important at this time.
5	Ensure that no networking messages are queued, and that all other sites disable networking messages to this site.
6	Perform the change by using the TOOLS menu.

Procedure: Modifying the local site ID

To modify the local site ID, follow these steps.

Starting Point: The TOOLS menu

Step	Action
1	Select Other and press <Enter>.
2	Select Change local site ID and press <Enter>. ***Result:*** The system displays the Change Local Site ID screen, and prompts you for the ID of the remote site that will become the new local site. Choose a number that is not used by any remote site in the network. If possible, obtain a site number from the Network Administrator. ***Note:*** Two sites cannot share the same number.
3	Enter the site ID and press <Enter>. ***Result:*** The system changes the Site ID. The dummy remote site is converted to the new local site, and the old local site is converted to a remote site. ***Note:*** You can press [Cancel] to cancel the selection.
4	Do the following: a. Display the List of Remote Sites screen and delete the site with the old local site ID. For more detailed instructions, see "Deleting remote NMS sites" on page 9-56. b. Modify the local site. Replace all the fields with the correct values for the local site (as shown on the local site information printout).

After the change is made

After you change the local site ID, inform the administrators at the other sites of the change.

Appendix C

Reference information

In this appendix

Maximum networking capacities

Introduction

The network database contains the following:

- networking sites (including those defined as Network Message Service prime locations)
- Network Message Service satellite locations
- steering codes
- dialing translations tables
- exchange codes

The maximum size for the network database is 71 kbytes. This topic shows the maximum combinations that can be supported.

Maximum number of sites and locations

Meridian Mail Networking supports up to 151 sites (one local site and 150 remote sites).

Network Message Service supports up to 60 locations (one prime location and 59 satellite locations).

When both features are present on your system, each site (local or remote) in your network database can support up to 60 locations. One of these locations is the prime location, which is also the site.

Maximum combinations

The following table shows some examples of how many networking sites, NMS satellite locations, dialing translation tables, and exchange codes can be defined. The following ratios are used as a very rough guideline:

1 site = 1 location = 3 translation tables = 10 exchange codes

The table assumes that 50 codes of three digits in length are used per site or location.

Maximum combinations (continued)

Notes:

1. The number of sites and locations that you can define on your system may differ.

2. Statistics for more than 66 sites are currently not available.

# of networking sites defined	# of satellite locations defined	# of translation tables defined	# of exchange codes defined
Dialing Translations			
0	0	15	930
0	0	8	960
Networking and Dialing Translations (without Network Message Service)			
2	0	15	860
10	0	15	750
20	0	15	620
30	0	8	520
40	0	6	380
50	0	4	270
66	0	2	70
Network Message Service and Dialing Translations (without Networking)			
1	2	15	850
1	20	15	650
1	40	8	460
1	59	4	270
Networking, Network Message Service, and Dialing Translations			
2	2	15	830
2	40	5	460
2	84	0	0
10	2	15	730
10	35	5	410

# of networking sites defined	# of satellite locations defined	# of translation tables defined	# of exchange codes defined
Networking, Network Message Service, and Dialing Translations (continued)			
20	2	15	590
20	30	5	330
20	62	0	0
30	2	15	460
30	25	3	270
30	50	0	0
40	2	5	380
40	20	2	190
40	38	0	0
50	2	5	240
50	10	2	170
50	26	0	0
66	2	2	40
66	4	1	30
66	7	0	0

List of fields

Symbols

A

B

C

D

E

L

M

N

O

P

R

S

T

U

W

Wake-up interval (mins), 9-96

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NORTEL
NORTHERN TELECOM

Reader Response Form

Meridian Mail 12
Virtual Node AMIS Networking Installation and
Administration Guide (NTP 555-7001-245)

Tell us about yourself:

Name: _____

Company: _____

Address: _____

_____

Occupation: _____ **Phone:** _____

1. What is your level of experience with this product?

   ☐ New User   ☐ Intermediate   ☐ Experienced   ☐ Programmer

2. How do you use this book?

   ☐ Learning   ☐ Procedural   ☐ Reference   ☐ Problem solving

3. Did this book meet your needs?

   ☐ Yes   ☐ No

   If you answered No to this question, please answer the following questions.

4. What chapters, sections, or procedures did you find hard to understand?

   _____
   _____
   _____

5. What information (if any) was missing from this book?

   _____
   _____
   _____

6. How could we improve this book?

   _____
   _____
   _____

Please return your comments by fax to (416) 597-7104, or mail your comments to:
Toronto Information Products, Nortel, 522 University Avenue, 14th Floor, Toronto, ON,
M5G 1W7, Canada.

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Reader Response Form

Meridian Mail
Virtual Node AMIS Networking Installation and Administration Guide

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