

Chapter 19

Voice administration—an overview

In this chapter

Voice Administration

19-2

Voice Administration

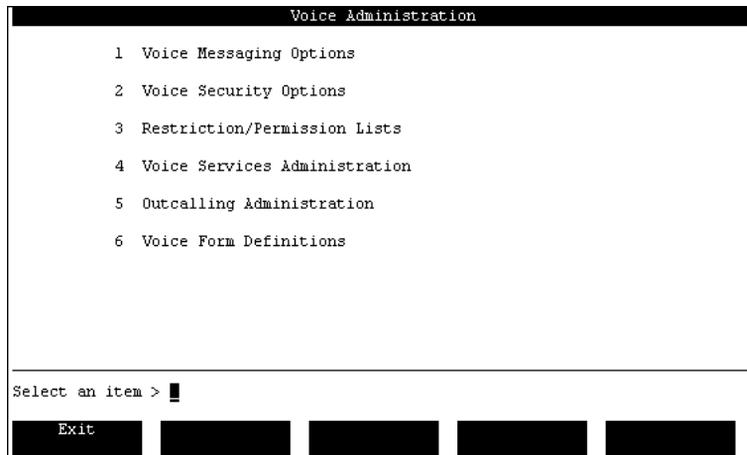
Introduction

This chapter describes the use of the Voice Administration menu and the related chapters.

Voice administration comprises all facilities related to processing voice information. These facilities offer a range of functions from the playback of a recorded announcement to the automated attendant service.

The Voice Administration menu

When you select Voice Administration from the main menu, the following screen appears.



Voice Messaging Options

Voice Messaging Options determine the general characteristics of the voice messaging service.

Voice Security Options

Voice Security Options allow you to control the level of security and access provided to Meridian Mail users.

Restriction/Permission Lists

The Restriction/Permission Lists option allow you to set up the restriction/permission codes to be used by your system. These codes are applied to various features and are intended to protect your system by preventing users and callers from placing unauthorized calls while connected to your Meridian Mail system.

Voice Services Administration

The Voice Services Administration option allows you to

- add service DNs to the system and maintain existing DN information
- create a Voice Services profile
- create and maintain services such as
 - Announcements
 - Thru-Dial services
 - Voice Menus
 - Time-of-Day controllers
 - Fax item definitions (if Fax on Demand is installed)

These services offer a range of functions from the simple playback of a recorded announcement to the more sophisticated voice menus which allow callers to make choices by pressing keys on their telephone keypads.

Outcalling Administration

The Outcalling Administration option allows you to specify outcalling parameters which affect the Remote Notification and Delivery to Non-user feature.

This option is displayed only if the outcalling feature is installed.

Voice Form Definitions

The Voice Form Definitions option allows you to develop custom applications that ask specific questions of callers and collect their responses. These applications can be thought of as the electronic equivalent of a survey or questionnaire.

This option is displayed only if the voice forms feature is installed.

Related chapters

The following table describes which chapter or document you should refer to when using one of the Voice Administration menu options.

For the following option	See
Voice Messaging Options	Chapter 20, "Voice messaging options".
Voice Security Options	Chapter 6, "Setting up Meridian Mail security".
Restriction/Permission Lists	Section H: Restriction/Permission lists in Chapter 6, "Setting up Meridian Mail security".
Voice Services Administration	Chapter 21, "Display options".
Outcalling Administration	<i>Outcalling Application Guide</i> (NTP 555-7001-320).
Voice Form Definitions	<i>Voice Services Application Guide</i> (NTP 555-7001-325).

Related information**Display options**

The [Display Options] softkey is available from Voice Services Administration. The Display Options screen allows you to customize the Voice Services Administration screens.

See Chapter 21, "Display options."

Finding VSDNs and services

Within Voice Administration, you can use the find function to find a specific VSDN or voice or fax service, or a subset of VSDNs or voice and fax services.

See Chapter 22, "Finding and printing VSDNs and service definitions."

Configuring Meridian Mail services

Configuring Meridian Mail services involves setup on the Meridian 1 and in Meridian Mail.

For information about how to configure the Meridian 1 to support Meridian Mail services, see Chapter 23, “Configuring Meridian Mail services”.

Chapter 20

Voice messaging options

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***Section A:* Introduction**

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Overview

Introduction

Setting up voice messaging options for your system involves the following tasks.

Setting up languages

If you have more than one language installed, you must set up certain language parameters. This is described in Section B: Languages on multilingual systems.

Customizing recordings

You can customize the following recordings:

- the call answering greeting (for MMUI)
- the VMUIF introductory tutorial (for VMUIF)
- the VMUIF login greeting

This is described in Section C: Customizing recordings.

Enabling features

You can enable/disable certain voice messaging features such as timed delivery, name dialing/name addressing, and external call sender. This is described in Section D: Defining operational characteristics for voice messaging.

Setting up the broadcast mailbox

The broadcast mailbox is set up in the Voice Messaging Options screen. This involves assigning a mailbox number and recording a personal verification (the verification is optional). This is described in Section D: Defining operational characteristics for voice messaging.

Defining operational characteristics

You can define operational characteristics for voice messaging such as

- the maximum number of days that read messages are kept before being deleted
- whether a warning message is played to users when their mailbox is almost full, and when this message is played
- the billing DN

This is described in Section D: Defining operational characteristics for voice messaging.

Accessing the Voice Messaging Options screen

Introduction

All of the procedures in this chapter are carried out in the Voice Messaging Options screen. Use this procedure to access this screen.

Procedure

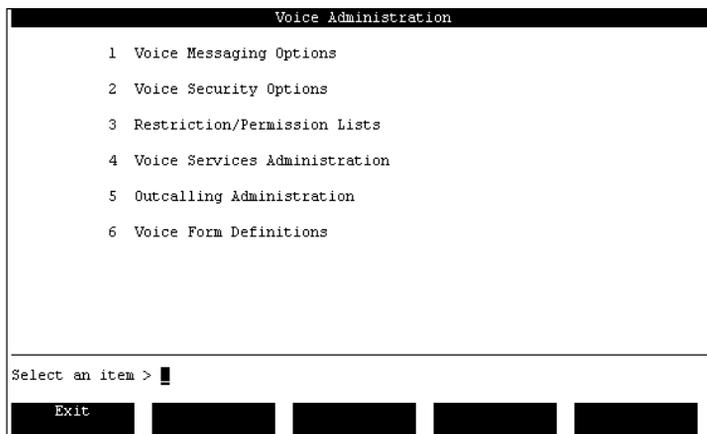
To access the Voice Messaging Options screen, follow these steps.

Starting Point: The Main Menu

Step Action

- 1 Select Voice Administration.

Result: The Voice Administration menu is displayed.



- 2 Select Voice Messaging Options.

Result: The Voice Messaging Options screen is displayed.

The Voice Messaging Options screen

Introduction

The fields in the Voice Messaging Options screen vary somewhat depending on the interface (MMUI or VMUIF).

MMUI version

This is the MMUI version of the Voice Messaging Options screen.

Part 1

Voice Administration	
Voice Messaging Options	
Default Language:	<u>American_English</u> Canadian_French
Secondary Default Language	<u>American_English</u> Canadian_French
Default Language Overrides User's Preferred Language for Call Answering:	<input type="checkbox"/> No <input type="checkbox"/> Yes
Customized recording for American_English	
Call Answering Greeting (Voice):	No
Customized recording for Canadian_French	
Call Answering Greeting (Voice):	No
	MORE BELOW
<input type="button" value="Save"/>	<input type="button" value="Cancel"/>
<input type="button" value="Voice"/>	

Part 2

Voice Administration		MORE ABOVE
Voice Messaging Options		
Maximum Delay for Timed Delivery (days):	<u>31</u>	
Name Dialing and Name Addressing:	Disabled <input checked="" type="checkbox"/> Enabled	
Prefix for Name Dialing and Name Addressing:	<u>11</u>	
Broadcast Mailbox Number:	<u>5555</u>	
Broadcast Mailbox Personal Verification (Voice):	No	
Billing DN:		
Local Addressing Lengths:	<u>0</u> <u>0</u>	
Default Message Delivery Priority:	<u>Standard</u> Economy	
		MORE BELOW
<input type="button" value="Save"/>	<input type="button" value="Cancel"/>	
<input type="button" value="Voice"/>		

Part 3

```

MMUI VM                               Voice Administration                               MORE ABOVE
Voice Messaging Options

Local Addressing Lengths:                0 0
Mailbox Full Warning Threshold (percentage): 85
Maximum Read Message Retention (days): 7
("0" implies that there is no organization
maximum limit. Read Message Retention will
be determined from each user's profile.)

External Call-Sender Allowed:            No Yes
Voice Message Playback Speed             Percentage Increase
Normal :                                 None
Increment 1:                             None 25 33 50 67 75 100
Increment 2:                             None 25 33 50 67 75 100
Increment 3:                             None 25 33 50 67 75 100

Save  Cancel
    
```

VMUIF version

This is the VMUIF version of the Voice Messaging Options screen.

Part 1

```

                               Voice Administration
Voice Messaging Options

Default Language:                       American_English
                                           Canadian_French

Default Language Overrides User's
Preferred Language for Call Answering:   No Yes

Customized recordings and Recording Selections for American_English

VMUIF Introductory Tutorial (Voice): No      Type: None Default Custom
VMUIF Introductory Tutorial for
Dial Pulse (Voice):                      No      Type: None Default Custom
Login Greeting (Voice):                    No      Type: None Default Custom

Customized recordings and Recording Selections for Canadian_French
MORE BELOW

Save  Cancel
    
```

Part 2

Voice Administration		MORE ABOVE
Voice Messaging Options		
Customized recordings and Recording Selections for Canadian_French		
VMUIF Introductory Tutorial (Voice):	No	Type: None Default Custom
VMUIF Introductory Tutorial for Dial Pulse (Voice):	No	Type: None Default Custom
Login Greeting (Voice):	No	Type: None Default Custom
Lockout Revert DN: (Blank implies no revert)	_____	
Personal Distribution List Prefix:	_____	
Broadcast Mailbox Number:	5555	_____
		MORE BELOW
Save	Cancel	Voice

Part 3

Voice Administration		MORE ABOVE
Voice Messaging Options		
Personal Distribution List Prefix:	_____	
Broadcast Mailbox Number:	5555	_____
Broadcast Mailbox Personal Verification (Voice):	No	
Billing DN:	_____	
Local Addressing Lengths:	0 0	
Maximum Read Message Retention (days): ("0" implies that there is no organization maximum limit. Read Message Retention will be determined from each user's profile.)	7	
External Call-Sender Allowed:	No Yes	
Save	Cancel	Voice

Defining voice messaging options

Procedure

This is a high-level procedure for setting up your voice messaging options. Detailed step-by-step procedures are provided in the following sections in this chapter.

Step Action

- 1 Do you have more than one language installed on your system?
 - If yes, see the section "Languages on multilingual systems" on page 20-11.
 - If no, go to step 2.
 - 2 Do you want to customize or disable any greetings or tutorials?
 - If yes, see the section "Customizing recordings" on page 20-27.
 - If no, go to step 3.
 - 3 Set up operational characteristics for voice messaging.
See the section "Defining operational characteristics for voice messaging" on page 20-37.
-

***Section B:* Languages on multilingual systems**

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Overview

Introduction

The language parameters you need to define depend on whether the Dual Language Prompting feature is installed.

Choosing the correct procedure

Use this table to identify which procedure to follow to set up languages on your system.

IF Dual Language Prompting	THEN follow the procedure
is not installed	on page 20-15.
is installed	on page 20-19.

The default language and the user's preferred language

The default language The first language that was installed becomes the default language. You can change the default language in the Voice Messaging Options screen.

The default language is also known as the primary language.

When the default language is used

The default language is the language in which prompts are played to callers

- during call answering and express messaging sessions
- during initial logon (before the mailbox number is identified) if they are calling from a phone that does not have a mailbox. This could either be an external phone or an internal phone that does not have an associated mailbox.

The user's preferred language

When multiple languages are installed on the system, local voice users can have a preferred language that is different from the default language. A user's preferred language is specified when you add a mailbox in the Add Local Voice User screen.

Affected prompts

If the user has a preferred language that is different from the primary default language, the following prompts are played in the user's preferred language:

- prompts that are played to the user while the user is logged on to Meridian Mail
- prompts that are played to callers during call answering and express messaging sessions

Overriding the user's preferred language

You may not want internal or external callers, or both, who are transferred to Meridian Mail to hear prompts in the user's preferred language. Instead, you might want them to hear prompts in the (primary) default language.

To ensure that callers who are forwarded to Meridian Mail hear prompts in your system's primary language, the Default Language Overrides User's Preferred Language field in the Voice Messaging Options screen must be set to Yes. Users, however, still hear prompts in their preferred language when they log in to retrieve messages.

Example

Your office is located in Vancouver, British Columbia. Many of your employees speak Mandarin as their first language and, therefore, prefer to hear prompts in Mandarin while using Meridian Mail.

However, most of your customers and external callers are English-speaking and you want them to hear Meridian Mail prompts in English.

You, therefore, set the Default Language Overrides User's Preferred Language field to Yes.

Setting up languages on systems without dual language prompting

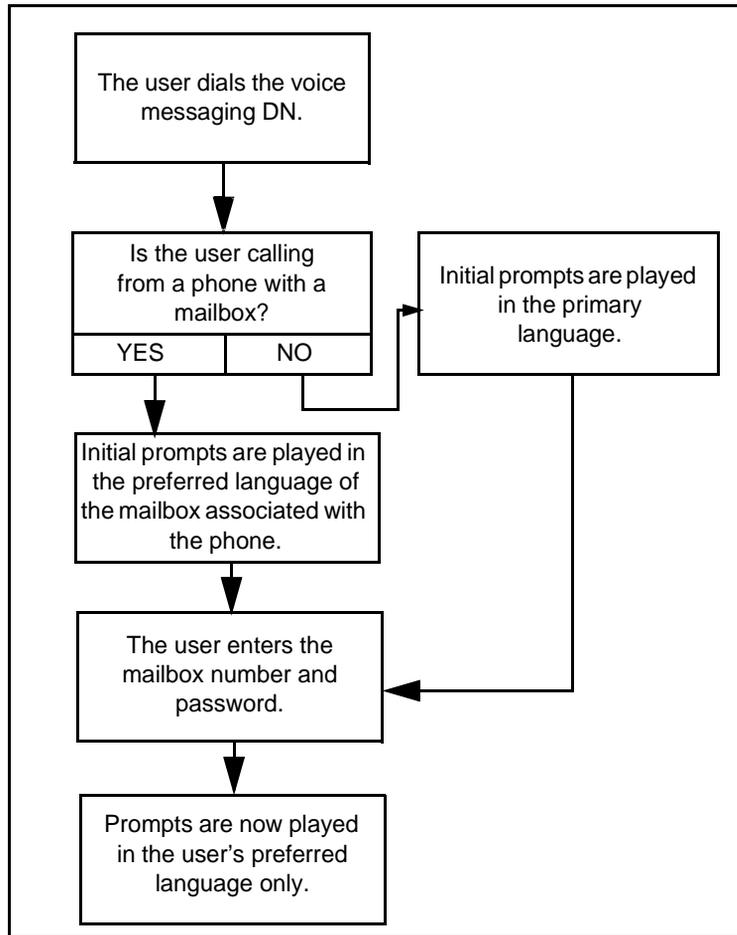
Introduction

To set up languages when Dual Language Prompting is not installed, you must specify

- the default language (also known as the primary language)
- whether the default language overrides the user's preferred language

Mailbox logon

This flowchart shows the language in which prompts are played during mailbox logon.



Express messaging

The language in which prompts are played depends on whether the caller is calling from a phone that has a mailbox.

WHEN the caller calls	THEN prompts are played
from a phone with a mailbox	in the preferred language of the mailbox associated with the phone.
from a phone that does not have a mailbox	in the primary default language.

Call answering

Prompts are played in the user’s preferred language unless the system default language overrides the user’s preferred language.

Procedure

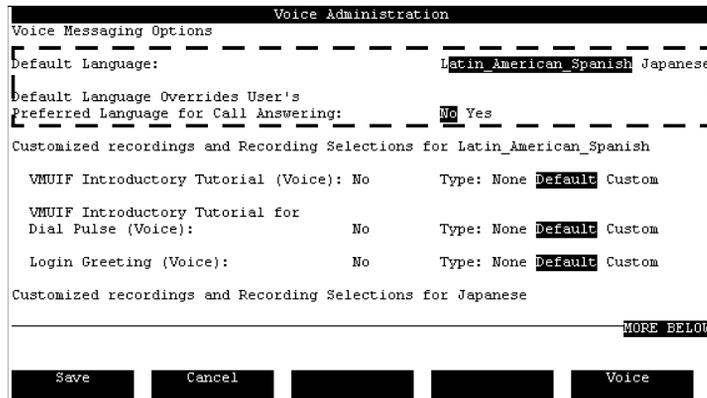
To set up languages on a multilingual system, follow these steps.

Starting Point: The Main Menu

Step Action

- 1 Select Voice Administration.
- 2 Select Voice Messaging Options.

Result: The Voice Messaging Options screen is displayed.



- 3 Select the language in which you want Meridian Mail prompts to be played in the Default Language field.

Step Action

-
- 4 Do you want the (primary) default language to override users' preferred languages?
- If yes, select Yes in the Default Language Overrides User's Preferred Language field.
 - If no, select No.
- 5 Do you want to continue defining voice messaging options?

IF you want to**THEN**

 customize or disable recordings

see the section "Customizing recordings" on page 20-27.

modify other voice messaging options

see the section "Defining operational characteristics for voice messaging" on page 20-37.

save what you have done and quit

press [Save].

quit without saving

press [Cancel].

Setting up languages on systems with dual language prompting

Description: **dual language** **prompting**

Dual Language Prompting is an optional Meridian Mail feature that is intended for bilingual environments. When installed, prompts are played in two languages:

- the primary language followed by the secondary language or
- the primary language followed by the user's preferred language

Configuration **requirements**

If Dual Language Prompting is installed on your system, you must specify

- the default language (also known as the primary language)
- the secondary language
- whether the default language overrides the user's preferred language

The secondary **default language**

When Dual Language Prompting is installed, you can choose a secondary default language in which to play prompts for call answering, express messaging, and mailbox login.

How this secondary language is used depends on other factors as described in more detail on the following pages.

Default

By default, the secondary language is set to the first language that was installed. After installation, the secondary default language is, therefore, the same as the (primary) default language.

How it works

Dual language prompting affects how prompts are played during express messaging, logon, and call answering. However, for each of these features, different factors affect how it works as described on the following pages.

Known versus unknown callers

For express messaging, whether the caller to the service is known affects how dual language prompting works. What is really meant by a “known caller” is a caller whose preferred language is known. In the case of an “unknown caller,” the caller’s preferred language is not known.

Known callers

A caller is known when calling from an internal phone that has a mailbox associated with it. When calling from his or her own phone, the caller’s preferred language is known. When the caller is calling from another internal phone that has a mailbox, the caller’s preferred language is not known. However, the preferred language for the associated mailbox is known and, therefore, the caller is considered to be known.

Unknown callers

A caller is unknown when calling from a phone that does not have an associated mailbox (and, therefore, no preferred language associated with it).

An unknown caller could be calling from an external phone or an internal phone that does not have an associated mailbox.

How it works for Express Messaging**Stage 1: express messaging DN is dialed**

This is how dual language prompting works when a caller has dialed the express messaging DN but has not yet identified the mailbox number.

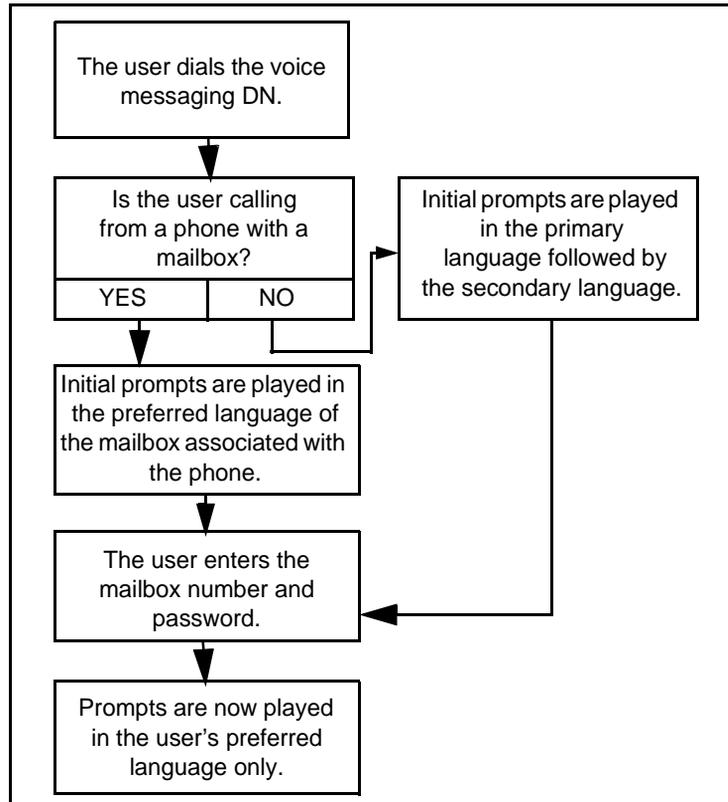
WHEN the caller	THEN prompts are played
is known	in the caller’s preferred language.
is not known	in the primary language followed by the secondary language.

Stage 2: mailbox number is specified

This is how dual language prompting works once the caller has identified the mailbox number.

WHEN the default language	AND the caller	THEN prompts are played in the
does not override the user's preferred language	is known	user's preferred language.
	is not known	primary and then secondary language.
overrides the user's preferred language	is known	primary language only.
	is not known	primary and then secondary language.

How it works for logon This is how dual language prompting works when a user is logging on to his or her mailbox. The setting in the Default Language Overrides User's Preferred Language field does not affect how dual prompting works in this case.



Configuring dual language prompting for call answering

The following factors affect how dual language prompting works during call answering sessions:

- whether the system default language overrides the user's preferred language
- whether dual language prompting is enabled in the user's class of service

Use this table to help you decide how to configure dual language prompting.

IF you want prompts	THEN set	AND
to be played in the primary language followed by the user's preferred language	the Default Language Overrides User's Preferred Language to No	enable dual language prompting in the user's class of service.
to be played in the user's preferred language only	the Default Language Overrides User's Preferred Language to No	disable dual language prompting in the user's class of service.
to be played in the primary language followed by the secondary language	the Default Language Overrides User's Preferred Language to Yes	enable dual language prompting in the user's class of service.
to be played in the primary language only	the Default Language Overrides User's Preferred Language to Yes	disable dual language prompting in the user's class of service.

Setting up languages for dual language prompting

To set up languages on a system that has dual language prompting, follow these steps.

Starting Point: The Main Menu

Step Action

- 1 Select Voice Administration.
- 2 Select Voice Messaging Options.

Result: The Voice Messaging Options screen is displayed.

```

Voice Administration
Voice Messaging Options
-----
Default Language:      American_English
                     Canadian_French
Secondary Default Language
                     American_English
                     Canadian_French
Default Language Overrides User's
Preferred Language for Call Answering:  No Yes
-----
Customized recording for American_English
Call Answering Greeting (Voice):      No
Customized recording for Canadian_French
Call Answering Greeting (Voice):      No
MORE BELOW
Save  Cancel  [ ]  [ ]  Voice

```

- 3 Select the language in which you want Meridian Mail prompts to be played in the Default Language field.
- 4 Select the secondary default language.
- 5 Do you want the (primary) default language to override users' preferred languages?
 - If yes, select Yes in the Default Language Overrides User's Preferred Language field.
 - If no, select No.

Step Action

6 What do you want to do next?

IF you want to**THEN**

customize or disable recordings

see the section "Customizing recordings" on page 20-27.

modify other voice messaging options

see the section "Defining operational characteristics for voice messaging" on page 20-37.

save what you have done and quit

press [Save].

quit without saving

press [Cancel].

***Section C:* Customizing recordings**

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Overview

Introduction

The recordings that you can customize differ depending on the interface type (MMUI or VMUIF).

MMUI call answering greeting

If the interface is MMUI, you can record a custom call answering greeting that identifies your organization.

See “Recording a customized call answering greeting” on page 20-29.

VMUIF tutorials and greeting

If the interface is VMUIF, there are three associated recordings:

- an introductory tutorial for touch-tone phone users
- an introductory tutorial for dial pulse phone users
- a greeting that is played to users when they log in to Meridian Mail

There are prerecorded (“canned”) recordings of these tutorials and the login greeting that are enabled by default.

You can either use these default recordings, customize them, or disable them altogether.

See “VMUIF introductory tutorials and the VMUIF login greeting” on page 20-32.

Recording a customized call answering greeting

- Description** The call answering greeting is an optional greeting for the MMUI interface. It typically consists of the spoken name of an organization and is used to identify an organization to callers and users.
- Default**
By default, there is no call answering greeting. There is no generic call answering greeting. A custom greeting must be recorded if you want to use this greeting.
- When the greeting is played** The call answering greeting is played when
- an external caller is transferred to Meridian Mail to leave a message (call answering)
 - a user answers a remote notification call
- Multilingual systems** If more than one language is installed on your Meridian Mail system and you want to record a call answering greeting, you need to record one greeting for each language.
- Before you begin** You must access the Voice Messaging Options screen before beginning the following procedure. The procedure for accessing this screen is on page 20-5.

Procedure

To record a call answering greeting, follow these steps.

Starting Point: The Voice Messaging Options screen

Step Action

- 1 Move the cursor to the (first) Call Answering Greeting (Voice) field.

The screenshot shows the 'Voice Administration' screen with the following configuration:

- Default Language: American_English (highlighted), Canadian_French
- Secondary Default Language: American_English (highlighted), Canadian_French
- Default Language Overrides User's Preferred Language for Call Answering: No Yes
- Customized recording for American_English:
 - Call Answering Greeting (Voice): No
- Customized recording for Canadian_French:
 - Call Answering Greeting (Voice): No

At the bottom of the screen, there are buttons for 'Save', 'Cancel', and 'Voice'. A 'MORE BELOW' link is also visible.

- 2 Press the [Voice] softkey.

Result: The recording softkeys are displayed, and you are prompted for an extension number.
- 3 Enter the extension of the phone you will use to make the recording.

Result: The phone rings.
- 4 Pick up the handset.
- 5 Press the [Record] softkey.

Result: The [Stop] softkey is displayed.
- 6 Speak the call answering greeting and press [Stop] when you are done.

Note: Recording stops automatically if the greeting exceeds the Maximum Prompt Size or the Record Timeout set in the Voice Services Profile.
- 7 Do you want to verify the recording?
 - If yes, press the [Play] softkey.
 - If no, go to step 9.

Step Action

- 8 Do you want to rerecord the greeting?
- If yes, repeat steps 5 to 7 until you are satisfied with the greeting.
Note: The old recording will be recorded over.
 - If no, go to step 9.
- 9 Do you have more than one language installed?
- If yes, press the [Return] softkey to return to the Voice Messaging Options screen and go to step 10.
Note: Do not hang up the phone.
 - If no, go to step 11.
- 10 Move your cursor to the next Call Answering Greeting field (for the next language), and repeat steps 2 to 7 until a greeting has been recorded for each language.
- 11 Press the [Disconnect] softkey and hang up the phone.
- 12 Do you want to change any other voice messaging options?
- If yes, see the section "Defining operational characteristics for voice messaging" on page 20-37.
 - If no, press the [Save] softkey.
-

VMUIF introductory tutorials and the VMUIF login greeting

Introduction

There are three recordings for the VMUIF interface:

- the introductory tutorial (for touch-tone users)
- the introductory tutorial (for dial-pulse users)
- the login greeting

Prerecorded (“canned”) versions of these recordings are provided. These default recordings are enabled by default.

You can either use these default canned recordings, customize them, or disable them altogether.

The VMUIF introductory tutorials

When the tutorial is played

This introductory tutorial is played to users when they log on for the first time to familiarize them with the service.

The default (touch-tone) tutorial

This is the prerecorded tutorial (for touch-tone users) that is enabled by default:

“You are about to hear an introduction to call answering. This service will allow your callers to leave you recorded messages. You can play back your messages from your home phone or, if you create a password, from any touch-tone phone outside your home. You can also record a personalized greeting that will be played to your callers, and you can erase your messages right away or store them temporarily in your mailbox. Step-by-step instructions will guide you through your sessions. And remember, for help at any time, just press zero.”

The VMUIF introductory tutorials (cont'd)**The default dial-pulse tutorial**

This is the prerecorded tutorial for dial pulse users that is enabled by default:

“You are about to hear an introduction to call answering. This service will allow your callers to leave you recorded messages. You can listen to your messages from your home phone at any time. You can also play your messages from any touch-tone phone. And by calling the Greeting Change Service, you can record a personalized greeting that will be played to your callers. Step-by-step instructions will guide you through your sessions. Consult the brochure for more information.”

The login greeting**When the greeting is played**

The login greeting is played to users when they log in to Meridian Mail.

The default login greeting

This is the prerecorded login greeting that is enabled by default:

“Welcome to call answering.”

Multilingual systems

If more than one language is installed on your Meridian Mail system, you need to record a separate version of the tutorials and login greeting for each installed language.

Recording or disabling VMUIF tutorials and login greeting

When to use

Follow this procedure if you want to customize or disable one or more of the following:

- the VMUIF introductory tutorial
- the VMUIF introductory tutorial (dial-pulse version)
- the login greeting

Before you begin

You must access the Voice Messaging Options screen before beginning the following procedure. The procedure for accessing this screen is on page 20-5.

Procedure

To record or disable a tutorial or greeting, follow these steps.

Starting Point: The Voice Messaging Options screen

Step Action

- 1 Select what you want to record or disable by moving your cursor to the "Type" field associated with one of the following fields:
 - VMUIF Introductory Tutorial
 - VMUIF Introductory Tutorial for Dial Pulse
 - Login Greeting

Voice Administration		MORE ABOVE
Voice Messaging Options		
Customized recordings and Recording Selections for American_English		
VMUIF Introductory Tutorial (Voice):	No	Type: None Default Custom
VMUIF Introductory Tutorial for Dial Pulse (Voice):	No	Type: None Default Custom
Login Greeting (Voice):	No	Type: None Default Custom
Customized recordings and Recording Selections for Canadian_French		
VMUIF Introductory Tutorial (Voice):	No	Type: None Default Custom
VMUIF Introductory Tutorial for Dial Pulse (Voice):	No	Type: None Default Custom
		MORE BELOW
Save	Cancel	Voice

Step Action

- 2 Do you want to disable the tutorial or greeting?
 - If yes, select None.
Do this for each tutorial or greeting you want to disable.
 - If no, go to step 3.
 - 3 Do you want to record a custom tutorial or greeting?
 - If yes, go to step 4.
 - If no, go to step 14.
 - 4 Press the [Voice] softkey.
Result: You are prompted for the extension of the phone you want to use to make the recording.
 - 5 Enter the extension and press <Return>.
Result: The phone rings.
 - 6 Pick up the receiver.
Result: The recording softkeys are displayed.
 - 7 Press the [Record] softkey.
 - 8 At the sound of the beep, speak the greeting or tutorial.
 - 9 Press the [Stop] softkey to stop recording.
 - 10 Do you want to verify the recording?
 - If yes, press the [Play] softkey, listen to the recording, and then go to step 11.
 - If no, go to step 12.
 - 11 Do you want to rerecord?
 - If yes, press the [Record] softkey to rerecord the current recording until you are satisfied with the recording.
 - If no, go to step 12.
 - 12 Select Custom to enable the tutorial or greeting you recorded.
 - 13 Do you want to record another tutorial or greeting?
 - If yes, move the cursor to the appropriate tutorial or greeting field, and repeat steps 7 to 12 for each additional recording.
 - If no, go to step 14.
 - 14 Do you want to modify any other voice messaging options?
 - If yes, see the section "Defining operational characteristics for voice messaging" on page 20-37.
 - If no, press [Save].
-

***Section D:* Defining operational characteristics for voice messaging**

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Overview

Introduction

This section describes

- how to enable or disable voice messaging features such as timed delivery, name dialing/addressing, external call sender, and speed control
- how to set up a broadcast mailbox
- how to define voice messaging characteristics such as
 - how long to store read messages
 - whether to play a warning message to users when their mailbox is full
 - when network messages should be delivered

Defining MMUI voice messaging options

This is a high-level procedure that describes the tasks you can perform if the interface is MMUI. Detailed step-by-step procedures are provided in the rest of this section.

Step	Action	See page
1	Enable or disable timed delivery and name dialing/ name addressing.	20-40
2	Set up the broadcast mailbox.	20-47
3	Define the billing DN.	20-51
4	If Meridian Networking is installed, define the message delivery priority.	20-53
5	Specify the mailbox full warning threshold.	20-55
6	Specify the maximum read message retention.	20-57
7	Enable or disable external call sender.	20-60
8	Enable and configure speed control.	20-62

Defining VMUIF voice messaging options

This is a high-level procedure that describes the tasks you can perform if the interface is VMUIF. Detailed step-by-step procedures are provided in the rest of this section.

Step	Action	Page
1	Define the lockout revert DN and personal distribution list prefix.	20-45
2	Set up the broadcast mailbox.	20-47
3	Define the billing DN.	20-51
4	Specify the maximum read message retention.	20-57
5	Enable or disable external call sender.	20-60

Enabling/disabling timed delivery and name dialing/name addressing

Introduction

Timed delivery, name dialing, and name addressing are applicable to the MMUI interface only.

Timed delivery

The timed delivery feature allows users to record a voice message now, but tag it for delivery at a later date.

The maximum timed delivery delay

In Voice Messaging Options, you can define the maximum number of days that a message can be delayed before being delivered. The default is 31 days.

Example

You have defined the maximum delay as 62 days. A user tries to tag his or her message for a delivery date of 75 days from today. The user hears the following message:

“The date you have entered is too far into the future. Please reenter the date.”

Name dialing and name addressing

Name dialing and name addressing allow users and callers to dial or address users when the extension or mailbox number is not known. As long as the caller knows the user’s name, the user can be reached.

Name dialing

Name dialing allows users and callers who have accessed a thru-dial service to enter a user’s name instead of his or her extension. The digits that the caller enters are interpreted as letters instead of numbers.

Name addressing

Name addressing allows users to enter another user’s name instead of a mailbox number when composing a voice message, composing personal distribution lists, or when using express messaging.

**The name dialing/
addressing prefix**

If name dialing and name addressing are enabled, you must define a prefix. This prefix must be entered by users or callers before they begin entering the user's name. This prefix signals Meridian Mail that the digits that are about to be entered should be interpreted as letters instead of numbers.

Thru-dial services

When defining a thru-dial service, you have the option of specifying the dialing method as Dial by Number, Dial by Name, or Both.

To select Dial by Name or Both, Name Dialing and Name Addressing must be enabled in the Voice Messaging Options screen.

If Both is selected, meaning that the caller has the choice of how he or she dials the user, the caller must enter the prefix.

If you want to give callers this choice, but do not want them to have to enter a prefix, you can use a voice menu as a front end to two thru-dialers (one that is set up for Dial by Name and one that is set up for Dial by Number). This is described in detail in the *Voice Services Application Guide*.

**When to disable name
dialing/addressing**

This feature should be disabled in countries where the telephone keypads do not map to an alphabetical sequence recognizable to Meridian Mail.

The Voice Messaging Options screen

These are the fields you use to enable/disable timed delivery and name dialing/name addressing.

Voice Administration		MORE ABOVE
Voice Messaging Options		
Maximum Delay for Timed Delivery (days):	31	
Name Dialing and Name Addressing:	Disabled Enabled	
Prefix for Name Dialing and Name Addressing:	11	
Broadcast Mailbox Number:	5555	
Broadcast Mailbox Personal Verification (Voice):	No	
Billing DN:		
Local Addressing Lengths:	0 0	
Default Message Delivery Priority:	Standard Economy	
		MORE BELOW
Save	Cancel	Voice

Field descriptions

This table describes the fields that are used to enable/disable timed delivery and name dialing/name addressing.

Maximum Delay for Timed Delivery (days)

Description	The maximum number of days that a message can be delayed before being delivered.
Default	31
Valid range	0 to 365
	A setting of 0 disables the Timed Delivery feature.

Name Dialing and Name Addressing

Description	Enables/disables the name dialing and name addressing feature.
Default	Enabled
Valid options	Enabled, Disabled
Attention	If you disable this feature and then reenable it, the prefix is reset to null and must be redefined.

Prefix for Name Dialing and Name Addressing

Description	Users must dial this prefix in order to name dial (using thru-dial) or name address (during message or personal distribution list composition, or express messaging).
Default	11
Valid range	1 to 99
Potential conflicts	Make sure this prefix does not conflict with (duplicate) or underlap (begin with the same digits) any of the following: <ul style="list-style-type: none">• mailbox numbers• telephone extensions• distribution list numbers• the DNU prefix• network prefixes• the AMIS compose prefix

Procedure

To enable/disable timed delivery or name dialing/name addressing, or both, follow these steps.

Starting Point: The Voice Messaging Options screen

Step Action

-
- 1 Do you want to disable timed delivery?
 - If yes, enter 0 in the Maximum Delay for Timed Delivery field.
 - If no, enter the maximum number of days you want users to be able to delay delivery of voice messages.
 - 2 Do you want to disable name dialing and name addressing?
 - If yes, select Disabled in the Name Dialing and Name Addressing field.
 - If no, select Enabled.
 - 3 Are name dialing and name addressing enabled?
 - If yes, change the prefix if necessary.
 - If no, go to step 4.
 - 4 Do you want to continue defining voice messaging options?

IF you want to**THEN**

 continue

see page 20-47.

save your changes and quit

press [Save].

quit without saving your changes

press [Cancel].

Defining the lockout revert DN and personal distribution list prefix

Introduction

The lockout revert DN and personal distribution list prefix are applicable to the VMUIF interface only.

The Voice Messaging Options screen

These are the relevant fields in the Voice Messaging Options screen.

Voice Administration MORE ABOVE

Voice Messaging Options

Lockout Revert DN: _____
(Blank implies no revert)

Personal Distribution List Prefix: _____

Broadcast Mailbox Number: 5555 _____

Broadcast Mailbox Personal Verification (Voice): No

Billing DN: _____

Local Addressing Lengths: 0 0 _____

Maximum Read Message Retention (days): 7 _____
("0" implies that there is no organization maximum limit. Read Message Retention will

MORE BELOW

Save Cancel Voice

Field descriptions

This table describes the fields in which you define the lockout revert DN and personal distribution list prefix.

Lockout Revert DN

Description	This is the DN to which users are transferred if the mailbox that they are trying to log in to is disabled.
Default	Blank (no DN) If this field is left blank, a prompt is played to callers asking them to try again at a later time.

Personal Distribution List Prefix

Description	Users must enter this prefix when composing a message to a distribution list. This prefix informs Meridian Mail that the number about to be entered is a distribution list rather than a mailbox.
Default	Blank If left blank, users cannot create personal distribution lists.
Valid range	1 to 99

Procedure

To define the lockout revert DN and personal distribution list prefix, follow these steps.

Starting Point: The Voice Messaging Options screen

Step Action

1	Do you want users to be reverted to a particular DN if their mailbox is disabled when they try to log in?								
	<ul style="list-style-type: none"> • If yes, enter this number in the Lockout Revert DN field. • If no, leave this field blank. 								
2	Do you want users to be able to create personal distribution lists?								
	<ul style="list-style-type: none"> • If yes, enter a prefix in the Personal Distribution Prefix field (or use the default prefix). • If no, make this field blank. 								
3	Do you want to continue defining voice messaging options?								
	<table> <thead> <tr> <th>IF you want to</th> <th>THEN</th> </tr> </thead> <tbody> <tr> <td>continue</td> <td>see page 20-47.</td> </tr> <tr> <td>save your changes and quit</td> <td>press [Save].</td> </tr> <tr> <td>quit without saving your changes</td> <td>press [Cancel].</td> </tr> </tbody> </table>	IF you want to	THEN	continue	see page 20-47.	save your changes and quit	press [Save].	quit without saving your changes	press [Cancel].
IF you want to	THEN								
continue	see page 20-47.								
save your changes and quit	press [Save].								
quit without saving your changes	press [Cancel].								

Setting up the broadcast mailbox

Introduction

Broadcast mailboxes can be set up for both the MMUI and VMUIF interface.

Description

When you compose a message to the broadcast mailbox, the message is sent to all of the users on the system.

To set up a broadcast mailbox, all you have to do is assign a mailbox number to the broadcast mailbox in the Voice Messaging Options screen. You do not need to set up an actual mailbox through User Administration.

The Network Broadcast option

If Meridian Networking has been installed on your system, broadcast messages can also be sent to all users at a particular remote site, to all users at each of a group of remote sites, or to all users at all remote sites.

To enable network broadcast messaging, you must do the following:

- Fill in the required Network Broadcast Administration fields in the Network Configuration screen. See your Network Administration book for details.
- Record a personal verification for the broadcast mailbox.

For details on Network broadcast messages, see “Recording and sending broadcast messages” on page 5-39.

The NMS broadcast message option

If NMS is installed on your system, broadcast messages can also be sent to all users at a particular remote NMS location, to all users at each of a group of locations, or to all users at all remote locations.

If your system also includes Meridian Mail Networking, this can include locations connected to remote sites.

For details, see “Recording and sending broadcast messages” on page 5-39.

The broadcast mailbox personal verification

You can record a personal verification for the broadcast mailbox so that when you enter the mailbox number during message composition, you get a verification that you have entered the correct number.

The personal verification for a broadcast mailbox can say something like this:

“Broadcast mailbox 5555.”

The Voice Messaging Options screen

These are the fields in the Voice Messaging Options screen in which you set up the broadcast mailbox.

Voice Administration		MORE ABOVE
Voice Messaging Options		
Maximum Delay for Timed Delivery (days):	31	
Name Dialing and Name Addressing:	Disabled	<input checked="" type="checkbox"/> Enabled
Prefix for Name Dialing and Name Addressing:	11	
Broadcast Mailbox Number:	5555	
Broadcast Mailbox Personal Verification (Voice):	No	
Billing DN:		
Local Addressing Lengths:	0 0	
Default Message Delivery Priority:	Standard	Economy
		MORE BELOW
Save	Cancel	Voice

Field descriptions

This table describes the fields that you use to set up the broadcast mailbox.

Broadcast Mailbox Number

Description	This is the number of the mailbox that is used to send broadcast messages. This number is specified when you are prompted for a mailbox number while composing the message.
Default	5555
Potential Conflicts	<p>Make sure this number does not conflict with any other numbers in Meridian Mail.</p> <p>If you have network broadcast messaging enabled for your system, this number also must not conflict with any mailboxes at any remote sites. One easy way to avoid conflict is to make the broadcast mailbox number longer than any user mailbox numbers on your network.</p>

Broadcast Mailbox Personal Verification (Voice)

Description	<p>This is a read-only field that indicates whether a personal verification has been recorded for the broadcast mailbox.</p> <p>The broadcast mailbox personal verification must be recorded for the network broadcast option to work.</p>
-------------	--

Procedure

To set up a broadcast mailbox, follow these steps.

Starting Point: The Voice Messaging Options screen

Step Action

- 1 Change the broadcast mailbox number if necessary.
- 2 Do you want to record a personal verification for the broadcast mailbox?
 - If yes, go to step 3.
 - If no, go to step 12.
- 3 Put the cursor on the Broadcast Mailbox Personal Verification (Voice) field.

Step Action

- 4 Press the [Voice] softkey.
- 5 Enter the extension of the phone you will use to record the verification, and press <Return>.
Result: The phone rings.
- 6 Pick up the receiver.
Result: The recording softkeys are displayed.
- 7 Press the [Record] softkey.
- 8 At the sound of the beep, speak the verification.
Example: *"Broadcast mailbox 5555."*
- 9 Press the [Stop] softkey to stop recording.
- 10 Do you want to verify the recording?
- If yes, press the [Play] softkey, listen to the recording, and go to step 11.
 - If no, press [Disconnect] and hang up the phone. Go to step 12.
- 11 Do you want to rerecord the verification?
- If yes, repeat steps 7 to 10.
 - If no, press [Disconnect] and hang up the phone. Go to step 12.
- 12 Do you want to continue defining voice messaging options?
- | IF you want to | THEN |
|----------------------------------|-----------------|
| continue | see page 20-51. |
| save your changes and quit | press [Save]. |
| quit without saving your changes | press [Cancel]. |
-

Defining the billing DN

Introduction

A billing DN can be defined for both the MMUI and VMUIF interface.

How the billing DN is used

This DN may be used for billing purposes when an outbound call is made. There are other numbers that are also used for billing.

This table shows which numbers Meridian Mail will try to use for a particular outbound service.

Service	A Used if defined	B Used if A not defined	C Used if A and B not defined
Remote Notification and Delivery to Non-User	Billing DN in Voice Messaging Options	Mailbox Number	Nil. Call is still made.
Thru-Dial service	Billing DN in Voice Messaging Options	VSDN of dialed service	Nil. Call is still made.
Extension dialing (mailbox thru-dial)	Billing DN in Voice Messaging Options	Mailbox Number	Nil. Call is still made.
Fax Item and Fax Item Maintenance (callback delivery)	Billing DN in Session Profile	Billing DN in Voice Messaging Options	VSDN of dialed service
AMIS Networking	Billing DN in Voice Messaging Options	Sender's DN	Nil. Call is still made.

Procedure

To define the billing DN, follow these steps.

Starting Point: The Voice Messaging Options screen

Step Action

- 1 Go to the Billing DN field.

Voice Administration MORE ABOVE

Voice Messaging Options

Maximum Delay for Timed Delivery (days): 31

Name Dialing and Name Addressing: Disabled **Enabled**

Prefix for Name Dialing and Name Addressing: 11

Broadcast Mailbox Number: 5555

Broadcast Mailbox Personal Verification (Voice): No

Billing DN: _____

Local Addressing Lengths: 0 0

Default Message Delivery Priority: **Standard** Economy

MORE BELOW

Save Cancel Voice

- 2 Enter a DN that is up to 30 digits long.
- 3 Do you want to continue defining voice messaging options?

IF you want to

continue
 save your changes and quit
 quit without saving your changes

THEN

see page 20-53.
 press [Save].
 press [Cancel].

Specifying the message delivery priority for networked systems

When to use

This procedure applies only to systems on which Meridian Networking is installed. Meridian Networking can be installed only if the interface is MMUI.

Message delivery priority

The Default Message Delivery Priority field determines when network messages are delivered. You can choose between Standard and Economy delivery. The default is Standard.

Standard delivery

Messages are retained for a certain period of time before they are sent to remote sites.

This time period is defined in the Standard Holding Time field in the Network Scheduling Parameters screen.

Economy delivery

Messages are sent at a specific time each day, usually during off-hours, when rates are cheaper.

This delivery time is defined in the Economy Initiation Time field in the Network Scheduling Parameters screen.

Procedure

To set the message delivery priority, follow these steps.

Starting Point: The Voice Messaging Options screen

Step Action

- 1 Go to the Default Message Delivery Priority field.

The screenshot shows the 'Voice Administration' screen with the following fields and values:

- Maximum Delay for Timed Delivery (days): 31
- Name Dialing and Name Addressing: Disabled **Enabled**
- Prefix for Name Dialing and Name Addressing: 11
- Broadcast Mailbox Number: 5555
- Broadcast Mailbox Personal Verification (Voice): No
- Billing DN: _____
- Local Addressing Lengths: 0 0
- Default Message Delivery Priority: **Standard** Economy

Buttons at the bottom: Save, Cancel, Voice

- 2 Choose when you want network messages to be delivered.

IF you want messages**THEN**

to be delivered after a specified holding time

select Standard.

to be delivered at the same time each day (during off-hours)

select Economy.

- 3 Do you want to continue defining voice message options?

IF you want to**THEN**

continue (if the interface is MMUI)

see page 20-55.

continue (if the interface is VMUIF)

see page 20-57.

save your changes and quit

press [Save].

quit without saving your changes

press [Cancel].

Specifying the mailbox full warning threshold

Introduction This warning threshold is applicable to the MMUI interface only.

Description When an MMUI user's mailbox starts to get full, a warning message can be played to remind the user that his or her mailbox is almost full and to start deleting messages. This message can be disabled.

The warning threshold This threshold determines when this message is played. The threshold is based on how full the user's mailbox is.

Default

The default setting is 85%.

Valid range

You can enter a value between 0 and 100%.

Example The warning threshold is set to 85%. The user's voice storage limit (as defined in the user's class of service) is five minutes.

A caller leaves a message that increases the user's voice storage to 4 minutes 30 seconds. Since this is slightly more than 85% of the total voice storage for the user, the next time the user logs on, the mailbox full warning threshold message is played.

Procedure

To set the mailbox full warning threshold, follow these steps.

Starting Point: The Voice Messaging Options screen

Step Action

- 1 Go to the Mailbox Full Warning Threshold field.

Voice Administration MORE ABOVE

Voice Messaging Options

Broadcast Mailbox Personal Verification (Voice): No

Billing DN: _____

Local Addressing Lengths: 0 0

Default Message Delivery Priority: Standard Economy

Mailbox Full Warning Threshold (percentage): 85

Maximum Read Message Retention (days): 7
("0" implies that there is no organization maximum limit. Read Message Retention will be determined from each user's profile.)

External Call-Sender Allowed: No Yes

Save Cancel Voice

- 2 Do you want to disable the warning threshold message?
 - If yes, set the field to 0.
 - If no, set the field to a non-zero value that represents how full the mailbox must be before the warning message is played.
- 3 Do you want to continue defining voice message options?

IF you want to**THEN**

continue

see page 20-57.

save your changes and quit

press [Save].

quit without saving your changes

press [Cancel].

Specifying the maximum read message retention

Introduction

The maximum read message retention applies to both the MMUI and VMUIF interfaces.

Description

Once a user listens to a message, that message is still stored on the system. A message that has been listened to is known as a read message.

The system will begin to fill up with read messages over time. You can either have Meridian Mail delete any read messages every certain number of days, or you can leave it up to users to delete read messages on their own.

Maximum read message retention

The Maximum Read Message Retention (days) field determines how long read messages are stored before being deleted.

WHEN this field	THEN read messages are
is set to 0	not automatically deleted. They are retained until deleted by the user.
is set to 1 or more	deleted every X days as specified in this field.

Default

The default maximum read message retention is seven days.

Valid range

You can enter a value between 0 and 31 (days).

ATTENTION

It is recommended that you set the read message retention to a non-zero value to avoid filling up the disk with read messages.

Specifying the maximum read message retention

Class of service setting

This field also exists in the Add and View/Modify Class of Service screens. This table describes which setting is used under different conditions.

WHEN the Voice Messaging Options setting is	AND the Class of Service setting is	THEN read messages are kept
0 (zero)	0 (zero)	until the user deletes them.
0 (zero)	1 or more	for the time specified in the Class of Service screen.
1 or more	0 (zero)	for the time specified in the Voice Messaging Options screen.
1 or more	1 or more	for the lesser of the two values.

Procedure

To define the maximum read message retention, follow these steps.

Starting Point: The Voice Messaging Options screen

Step Action

- 1 Go to the Maximum Read Message Retention field.

Voice Administration MORE ABOVE

Voice Messaging Options

Broadcast Mailbox Personal Verification (Voice): No

Billing DN: _____

Local Addressing Lengths: 0 0

Default Message Delivery Priority: Standard Economy

Mailbox Full Warning Threshold (percentage): 85

Maximum Read Message Retention (days): 7

("0" implies that there is no organization maximum limit. Read Message Retention will be determined from each user's profile.)

External Call-Sender Allowed: No Yes

Save Cancel Voice

Step Action

- 2 Do you want read messages to be stored until deleted by users?
- If yes, set the field to 0.
 - If no, set the field to a non-zero value that represents how often you want read messages to be automatically deleted.
- 3 Do you want to continue defining voice message options?

IF you want to**THEN**

continue

see page 20-60.

save your changes and quit

press [Save].

quit without saving your changes

press [Cancel].

Enabling/disabling external call sender

Introduction	External Call Sender is available in both the MMUI and VMUIF interfaces.
Description	<p>When a user is listening to a voice message left by another Meridian Mail user, the user can press 9 on the keypad to immediately call back the originator of the message. This is the call sender feature.</p> <p>The External Call Sender feature allows users to press 9 to call back external callers who leave voice messages.</p> <p>Default This feature is enabled by default.</p>
VMUIF interface	For the VMUIF interface, this field interacts with the Call Sender field in the user's class of service. Both fields must be set to Yes for External Call Sender to work.
Restricting External Call Sender	<p>If you enable External Call Sender, apply the appropriate restrictions to the numbers that users are allowed to call back.</p> <p>Restrictions are applied to external call sender in classes of service. See "The Add Class of Service screen (MMUI)" on page 26-13.</p>

Procedure

To enable or disable external call sender, follow these steps.

Starting Point: The Voice Messaging Options screen

Step Action

- 1 Go to the External Call-Sender Allowed field.

The screenshot shows the 'Voice Administration' screen with the following settings:

- Voice Messaging Options
- Broadcast Mailbox Personal Verification (Voice): No
- Billing DN: _____
- Local Addressing Lengths: 0 0
- Default Message Delivery Priority: Standard Economy
- Mailbox Full Warning Threshold (percentage): 85
- Maximum Read Message Retention (days): 7
- (“0” implies that there is no organization maximum limit. Read Message Retention will be determined from each user's profile.)
- External Call-Sender Allowed: No **Yes**

At the bottom of the screen, there are buttons for 'Save', 'Cancel', and 'Voice'.

- 2 Do you want to allow users to use the call sender feature to call back external callers?
 - If yes, set the field to Yes.
 - If no, set the field to No.
- 3 Do you want to save the Voice Messaging Options screen with the current information?
 - If yes, press [Save].
 - If no, press [Cancel], or make any necessary changes and then press [Save].

Enabling and configuring speed control

Introduction	This feature is available to MMUI users only.
Description	The speed control feature lets mailbox users control the playback speed of a voice mail message. As Administrator, you can specify up to three speed increases for a user to apply during message playback (for example, 25% faster than normal, 50% faster, and 100% faster.)
User perspective	<p>During message playback, the user can press 2-3 to increase the playback speed by one level, and 2-1 to decrease it by one level.</p> <p>A 1.5-second time-out applies; the user must press 2, then either 1 or 3 immediately afterwards to use this feature. After 1.5 seconds, the 1 and 3 keys resume their usual message playback roles (skipping the message back/forwards by 5 seconds.)</p> <p>When a user reaches the highest speed level, the system ignores any further speed increase commands.</p> <p>This feature can be applied to the following:</p> <ul style="list-style-type: none">• new messages• previously read messages• composed messages• sent messages• unsent messages• deleted messages <p>Meridian Mail prompts, system-generated messages, and personal greetings and personal verifications will not be affected by this feature.</p>

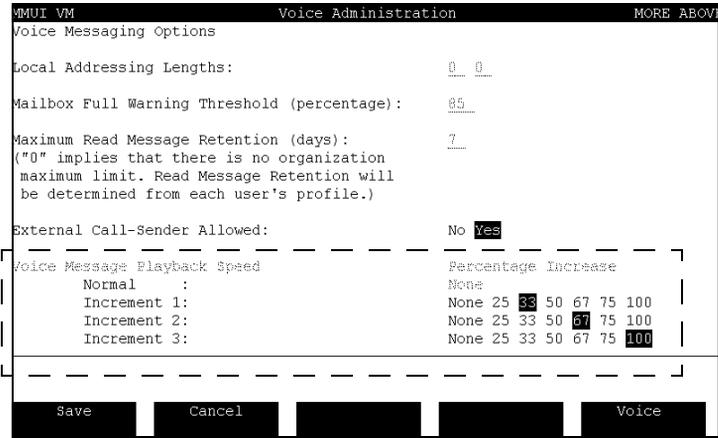
Procedure

To enable/configure the speed control feature, follow these steps.

Starting Point: The Voice Messaging Options screen

Step Action

- 1 Go to the Voice Message Playback Speed fields in the Voice Messaging Options screen.



Step Action

- 2 For each of the three increments, select the desired speed increase for that level (for example, Increment 1 at 50%, Increment 2 at 75%, and Increment 3 at 100%).

IF you want

three levels of increased speed

two levels of increased speed

one level of increased speed

THEN set

each increment to a higher number than the one before it.

Increment 3 at the same number as Increment 2.

Increments 2 and 3 at the same level as Increment 1.

Note: If two Increments are set to the same speed, there will be no speed change when the user moves up or down from one to the other.

- 3 Do you want to save the Voice Messaging Options screen with the current information?
- If yes, press [Save].
 - If no, press [Cancel], or make any necessary changes and then press [Save].
-

Chapter 21

Display options

In this chapter

Overview	21-2
Different ways of sorting the VSDN table	21-3
Different ways of sorting the service definitions tables	21-5
Different ways of sorting the Choice of Services and Menu Actions list	21-7
Changing the display options	21-9

Overview

Introduction

This chapter describes the different ways information can be displayed on the Voice Services Administration screens. You can control two basic options:

- how information is sorted (for example, sort VSDN table by DN or by Comment)
- whether or not the Choice of Services and Menu Actions lists are displayed

This chapter presents screen examples that show the different ways the Voice Services Administration screens appear according to the options you select. The section “Changing the display options” on page 21-9 explains how to change the display options.

Different ways of sorting the VSDN table

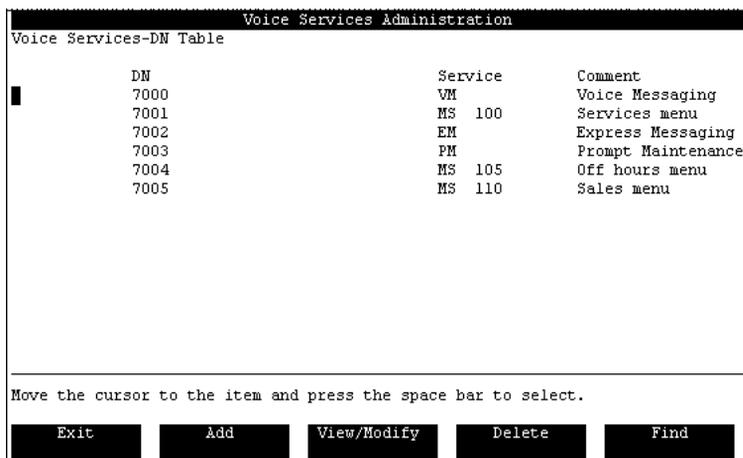
Introduction

This section provides screen examples that show how the VSDN table looks when it is

- sorted by DN (see “Example 1”)
- sorted by Comment (see “Example 2”)

Example 1

The following example shows how the VSDN table looks when you choose to have the information sorted by the DNs.



The screenshot displays a terminal window titled "Voice Services Administration". Inside, a table titled "Voice Services-DN Table" is shown, sorted by DN. The table has three columns: DN, Service, and Comment. Below the table, there is a prompt: "Move the cursor to the item and press the space bar to select." At the bottom of the window, there are five buttons: Exit, Add, View/Modify, Delete, and Find.

DN	Service	Comment
7000	VM	Voice Messaging
7001	MS 100	Services menu
7002	EM	Express Messaging
7003	PM	Prompt Maintenance
7004	MS 105	Off hours menu
7005	MS 110	Sales menu

Example 2

The following example shows how the VSDN table looks when you choose to have the information sorted by the Comment.

Voice Services Administration			
Voice Services-DN Table			
DN	Service	Comment	
7002	EM	Express Messaging	
7004	MS 105	Off hours menu	
7003	PM	Prompt Maintenance	
7005	MS 110	Sales menu	
7001	MS 100	Services menu	
7000	VM	Voice Messaging	

Move the cursor to the item and press the space bar to select.

Exit	Add	View/Modify	Delete	Find
------	-----	-------------	--------	------

Different ways of sorting the service definitions tables

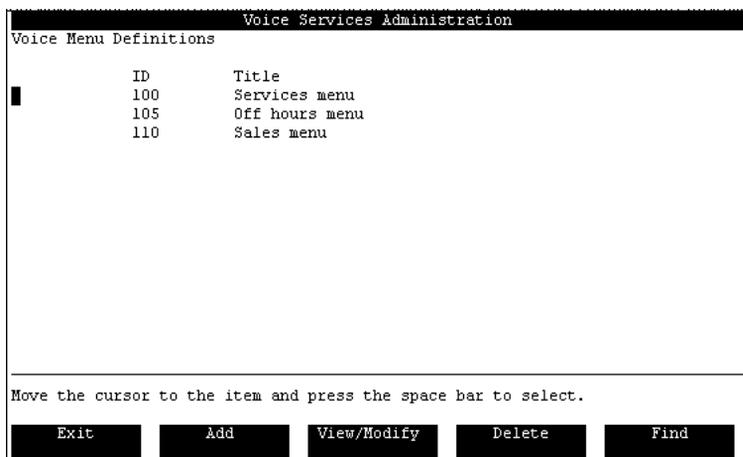
Introduction

This section provides screen examples that show how the service definition tables (for example, the Voice Menu Definitions table) look when they are

- sorted by ID (see “Example 1”)
- sorted by Title (see “Example 2”)

Example 1

The following example shows how the Voice Menu Definitions table looks when you choose to have the information sorted by ID.



The screenshot displays a terminal window titled "Voice Services Administration". Inside, a table titled "Voice Menu Definitions" is shown, sorted by ID. The table has two columns: "ID" and "Title". The data rows are:

ID	Title
100	Services menu
105	Off hours menu
110	Sales menu

Below the table, a prompt reads: "Move the cursor to the item and press the space bar to select." At the bottom of the window, there are five buttons: "Exit", "Add", "View/Modify", "Delete", and "Find".

Example 2

The following example shows how the Voice Menu Definitions table looks when you choose to have the information sorted by Title.

Voice Services Administration	
Voice Menu Definitions	
ID	Title
105	Off hours menu
110	Sales menu
100	Services menu

Move the cursor to the item and press the space bar to select.

Exit	Add	View/Modify	Delete	Find
------	-----	-------------	--------	------

Different ways of sorting the Choice of Services and Menu Actions list

Introduction

This section provides screen examples that show how the Choice of Services list looks when it is

- sorted by acronym (see “Example 1”)
- sorted by description (see “Example 2”)

The effect on how the Menu Actions list appears would be the same.

Definition: Menu Actions

“Menu Actions” refers to the default menu actions that you can choose from when you define a voice menu. Refer to the *Voice Services Application Guide* for more details.

Example 1

The following example shows how the choice of services are listed in the Find Subset of VSDNs/Services screen when you choose to have the choice of services sorted by the acronym.

```

Voice Services Administration
Find Subset of VSDNs/Services
Choice of Services:
AS Announcement Service CA Call Answering EM Express Messaging
FI Fax Info Service FIM Fax Item Maintenance MS Voice Menu Service
PM Prompt Maintenance RA Remote Activation TD Time-of-Day Control
TR Transcription Service TS Thru-Dial Service VF Voice Forms Service
VM Voice Messaging

Type: VSDN_Entry Announcement Thru_Dial TOD_Control Voice_Menu Fax_Item
DN: _____
Service: ____
Comment: _____

Select a softkey >
Cancel Find Selection Print Selection
    
```

Example 2

The following example shows how the choice of services are listed in the Find Subset of VSDNs/Services screen when you choose to have the choice of services sorted by the description.

```

Voice Services Administration
Find Subset of VSDNs/Services

Choice of Services:
AS Announcement Service CA Call Answering EM Express Messaging
FI Fax Info Service FIM Fax Item Maintenance FM 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

Type:  VSDN_Entry Announcement Thru_Dial TOD_Control Voice_Menu Fax_Item
DN:   _____
Service: ____
Comment: _____

Select a softkey >
Cancel Find Selection Print Selection

```

Changing the display options

Introduction

The display options are controlled by the Set Display Options screen.

The Set Display Options screen allows you to specify how information is sorted on the Voice Services Administration screens. For example, you can decide if the Choice of Services list is sorted in alphabetical order according to service acronym (“ms,” for example) or service description (“voice menu service,” for example), or whether the Choice of Services list is displayed at all.

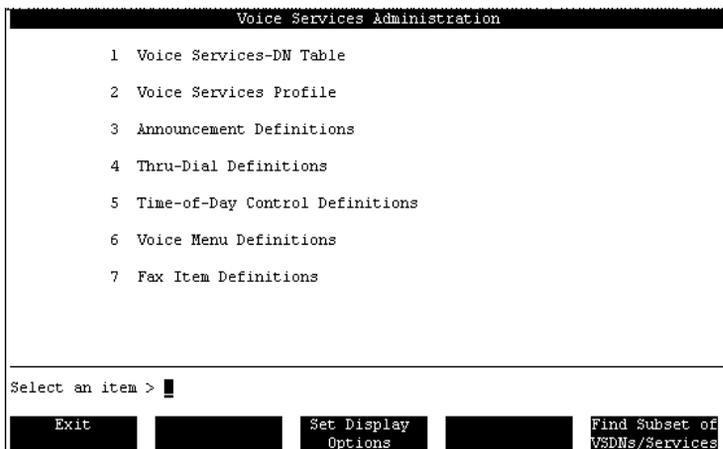
Procedure

To change the display options, follow these steps.

Starting Point: Main Menu

Step Action

- 1 Select Voice Administration.
Result: The Voice Administration menu is displayed.
- 2 Select Voice Services Administration.
Result: The Voice Services Administration menu is displayed and the [Set Display Options] softkey also appears.



Step Action

- 3 Press the [Set Display Options] softkey.

Result: The Set Display Options screen appears.

```

Voice Services Administration
Set Display Options

Default sort order for:          by:
VSDM Table data menu:          DN Comment
Service Definitions data menu: ID Title

Sort Choice of Services/Menu Actions by: Acronym Description

Display Choice of Services/Menu Actions in:
VSDM Table DN Information form: No Yes
Voice Menu Definition form:    No Yes
Find form:                      No Yes

Select a softkey >
Save      Cancel      [ ]      [ ]      [ ]

```

- 4 Make your selections according to how you want information to be sorted or displayed in the Voice Services Administration screens.
- 5 If you are satisfied with the changes, press [Save]. Otherwise, press [Cancel] to discard the changes.

Result: Whether you save or cancel, you are returned to the Voice Services Administration menu.

Field descriptions

The following fields and options appear on the Set Display Options screen.

Default sort order for VSDN Table data menus

Description	The selection you make affects how information is sorted in the VSDN table.
Default	DN
Valid options	DN, Comment <ul style="list-style-type: none"> • <i>DN</i> sorts entries numerically by DN. • <i>Comment</i> sorts entries alphabetically by comment.

Default sort order for Service Definition data menus

Description	The selection you make affects how information is sorted in the service definitions tables (for example, in the Voice Menu Definitions screen).
Default	ID
Valid options	ID, Title <ul style="list-style-type: none"> • ID sorts entries numerically by service IDs. • Title sorts entries alphabetically by title.

Sort Choice of Services/Menu Actions by

Description	The selection you make affects how the Choice of Services list and the Menu Actions list are sorted. The Choice of Services list appears on many screens including the Find subset of VSDNs/Services screen. The Menu Actions list is displayed in the Add, View/Modify, and Delete a Voice Menu Definition screens.
Default	Description
Valid options	Description, Acronym <ul style="list-style-type: none"> • Description sorts entries alphabetically by description. • Title sorts entries alphabetically by title.

Display Choice of Services/Menu Actions in

Description	You can turn the display of the Choice of Services or Menu Actions list on or off for the following: <ul style="list-style-type: none"> • VSDN Table DN Information screens (Add, View/Modify, Delete DN Information) • Voice Menu Definition screens (Add, View/Modify, Delete a Voice Menu Definition) • Find Subset of VSDNs/Services screen
Default	Yes
Valid options	Yes, No <ul style="list-style-type: none"> • Yes shows the choice of services/menu actions. • No hides the choice of services/menu actions.

Chapter 22

Finding and printing VSDNs and service definitions

In this chapter

Overview	22-2
Wildcards	22-5
The Find Subset of VSDNs/Services screen	22-7
Finding and printing VSDNs	22-9
Finding and printing service definitions	22-11

Overview

Introduction

Use the find feature if you want to modify, delete, print, or simply view any of the following:

- a specific VSDN
- a range of VSDNs
- all VSDNs for a certain kind of service (such as announcements, voice menus, or fax items)
- a specific service definition
- a range of service definitions that have similar titles

Location of Find softkeys

Find softkeys are located on the following screens.

- the VSDN table
- service definition selection menus (such as the Announcement Definitions screen)
- the Voice Services Administration menu

Using Find as a shortcut

When you are adding a voice or fax service to Meridian Mail, you must go back and forth between the VSDN table and the Add a service definition screen (to add a VSDN for the service and to create a definition for the service). You can use the Find softkey to quickly move back and forth between the VSDN table screen and the service definition screen, as follows.

Starting Point: Any voice services administration screen that has a [Find] or [Find Subset of VSDNs/Services] softkey

Step Action

- 1 Press the [Find] softkey.
 - 2 Select the service type that you want to add in the "Type" field and press <Tab>.
 - 3 Press the [Find Selection] softkey.
Result: The service definition screen is displayed.
 - 4 To return to the VSDN table, press the [Find] softkey, select VSDN_Entry in the Type field and press <Tab>. Then press the [Find Selection] softkey.
-

Service definitions

Service definitions exist for announcements, thru-dial services, time-of-day controllers, and voice menus, and fax items (if Fax on Demand is installed on your system).

**Example:
service definition**

Here is an example of a voice menu definition.

```

Voice Services Administration
View/Modify a Voice Menu Definition

Choice of Menu Actions:
AS Announcement Service  CL Call                CA Call Answering
RV Call Revert DN        DS Disconnect          EM Express Messaging
PP Play Prompt           PM Prompt Maintenance  RP Repeat Menu Choices
MM Return to Main Menu   TS Thru-Dial Service   TD Time-of-Day Control
MS Voice Menu Service    VM Voice Messaging

Voice Menu ID:  105_____  Title:  Off hours menu_____
Revert DN:      7550_____
Access Password: _____  Update Password: _____
Greeting Recorded (Voice):  No    Menu Choices Recorded (Voice):  No

                                                                    MORE BELOW
Select a softkey >
Save          Cancel          Voice

```

Wildcards

You do not have to remember exact DNs or service titles. You can use wildcards to fill in the parts you cannot remember.

Wildcards

**Definition:
wildcard**

A wildcard is a character that is used in a search string to represent an unknown or variable character or string of characters.

Purpose

Wildcards have two main purposes. They allow you to find

- a particular VSDN or service definition without having to remember and enter the exact voice service DN or Comment, or service definition ID or title
- a range of VSDNs or service definitions

Types of wildcards

There are three wildcards that you can use.

Wildcard	Description
_	The underscore (_) replaces a single character.
+	The plus sign (+) replaces a string of characters.
?	The question mark (?) means “sounds like.” Meridian Mail will find words that are spelled differently but sound like the word that is entered.

**Where wildcards are
used**

You can enter wildcards in the DN, Comment, and Title fields in the Find Subset of VSDNs/Services screen.

Examples

The following examples show how wildcards can be used when searching for a particular VSDN or service definition, or a range of VSDNs or service definitions.

You enter	Result
“210_” in the DN field	All VSDNs in the range 2100 to 2109 are retrieved.
“7_99” in the DN field	The following VSDNs are retrieved: 7099, 7199, 7299, 7399, 7499, 7599, 7699, 7799, 7899, and 7999.
“3+” in the DN field	All DNs beginning with 3 are retrieved.
“+ holiday” in the Title field (Type is Announcement)	All of the announcements whose titles end with the word “holiday” are retrieved.
“Braymore?” in the Comment field	Meridian Mail retrieves service definitions with Braymore, Braemer, and Breymore in the Comment field.

The Find Subset of VSDNs/Services screen

Accessing the screen This screen can be accessed from

- the Voice Services Administration menu using the [Find Subset of VSDNs/Services] softkey
- the VSDN table using the [Find] softkey
- any service definition (such as an announcement, thru-dial, time-of-day control, voice menu, or fax item definition) using the [Find] softkey

**The screen:
Type is VSDN**

This is the Find Subset of VSDNs/Services screen when the selected Type is VSDN_Entry.

```

Voice Services Administration
Find Subset of VSDNs/Services

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

Type:  VSDN_Entry Announcement Thru_Dial TOD_Control Voice_Menu Fax_Item
DN:   _____
Service: ____
Comment: _____

Select a softkey >
Cancel      Find Selection      Print Selection

```

**The screen:
Type is service**

This is the Find Subset of VSDNs/Services screen when the selected Type is a service definition (Announcement, Thru-Dial, TOD Control, Voice Menu, or Fax Item).

```

Voice Services Administration
Find Subset of VSDNs/Services

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

Type:  VSDN_Entry Announcement Thru_Dial TOD_Control Voice_Menu Fax_Item
ID:    _____
Title: _____

Select a softkey >

[ ] [Cancel] [Find Selection] [Print Selection] [ ]

```

Note: If you select TOD Control, the Title field will not be displayed in the Find Subset of VSDNs/Services screen.

Finding and printing VSDNs

Procedure

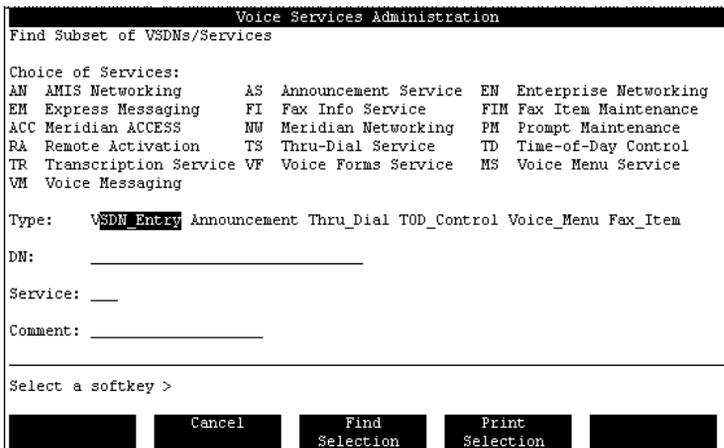
Follow these steps to find or print a particular VSDN or a subset of VSDNs.

Starting Point: The Main Menu

Step Action

- 1 Select Voice Administration.
- 2 Select Voice Services Administration.
- 3 Press the [Find Subset of VSDNs/Services] softkey.

Result: The Find Subset of VSDNs/Services screen is displayed.



- 4 Select "VSDN_Entry" in the Type field (this is the default).
- 5 Specify the DN or range of DNs you want to find in the DN field.

IF you want to find

THEN

a particular VSDN and you know the exact DN

enter the exact DN and go to step 8.

a range of VSDNs

use wildcards to specify a search pattern.

all VSDNs for a particular service type (such as voice menus)

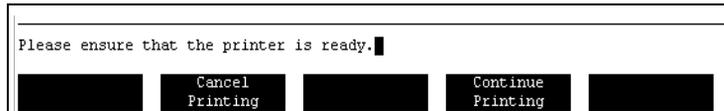
leave the DN field blank and specify the type in the Service field.

Step Action

- 6 If you want to retrieve VSDNs of a certain service type only, specify one of the following types.

IF you want to find	THEN enter
announcements only	AS
thru-dial services only	TS
time-of-day controllers only	TD
voice menus only	MS
fax items only	FI

- 7 Enter a comment if this will help narrow the search.
Note 1: The comment must be exactly as entered in the service definition. If you do not know the exact comment, enter as much as you can and use wildcards for the rest.
Note 2: If the service is TD Time-of-Day Controller, then go to step 8.
- 8 Do you want to print the results of the search?
 If yes, go to step 9.
 If no, go to step 11
- 9 Press the [Print Selection] softkey.
Result: The following softkeys are displayed.



- 10 Do you want to go ahead with printing?
 If yes, press the [Continue Printing] softkey.
 If no, press the [Cancel Printing] softkey and go to step 11.
- 11 Press the [Find Selection] softkey to view the found VSDNs, or press [Cancel] to cancel the search and exit the screen.
Result: If you pressed the [Find Selection] softkey, the VSDN table is displayed, listing only those VSDNs that met your search criteria. You can use any of the softkeys the same as if you accessed the VSDN table directly from the Voice Services Administration menu.

Finding and printing service definitions

Procedure

To find or print a particular service definition or a subset of service definitions, follow these steps.

Starting Point: The Main Menu

Step Action

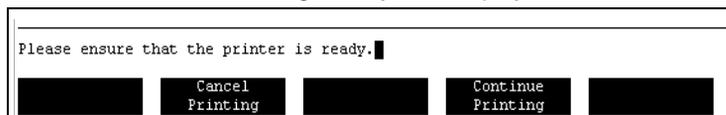
- 1 Select Voice Administration.
- 2 Select Voice Services Administration.
- 3 Press the [Find Subset of VSDNs/Services] softkey.
Result: The Find Subset of VSDNs/Services screen is displayed.
- 4 Select a service type in the Type field.
- 5 Specify the ID of the service definition you want to find.

IF you want to

THEN

find a service and you know the exact ID	enter the exact ID and go to step 7.
find a service but you do not know the ID	leave the ID field blank and go to step 6 to fill in the Title field.
retrieve all service definitions of the specified type	leave the ID field and the Title field blank, and go to step 7.

- 6 Enter the exact service title, or part of the title and use wildcards for the rest.
- 7 Do you want to print the results of the search?
If yes, go to step 8.
If no, go to step 10.
- 8 Press the [Print Selection] softkey.
Result: The following softkeys are displayed.



Step Action

- 9 Do you want to go ahead with printing?
 If yes, press the [Continue Printing] softkey.
 If no, press the [Cancel Printing] softkey and go to step 10.
- 10 Press the [Find Selection] softkey to view the list of found service definitions, or press [Cancel] to cancel the search and exit the screen.

Result: If you pressed the [Find Selection] softkey, the list of service definitions that match your selection criteria is displayed.

Example: If you selected "Voice_Menu" in the Type field, the Voice Menu Definitions screen is displayed with only the voice menu definitions that match your selection criteria listed. The screen would appear similar to the following example.

Voice Menu Definitions		Voice Services Administration	
ID	Title		
100	Services menu		
105	Off hours menu		
110	Sales menu		

Move the cursor to the item and press the space bar to select.

Exit	Add	View/Modify	Delete	Find
------	-----	-------------	--------	------

Note: You can use any of the softkeys the same as if you accessed this screen directly from the Voice Services Administration menu.

Chapter 23

Configuring Meridian Mail services

In this chapter

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Section A: Introduction	23-3
Section B: Planning your configuration	23-13
Section C: Configuring the Meridian 1 for Meridian Mail services	23-31

Overview

Configuring Meridian Mail services

Each dialable Meridian Mail service needs an ACD queue and a VSDN.

Setting up a Meridian Mail service, therefore, requires configuration on the Meridian 1 and in Meridian Mail.

Meridian 1 setup

Configuration of Meridian Mail services begins on the Meridian 1 where you must

- Set up one or more ACD queues for call handling.
- Set up a dummy queue for each Meridian Mail service that requires an access number.

Meridian Mail setup

In Meridian Mail, you must add the ACD queue DNs of the queues you created on the Meridian 1 to the VSDN Table. This is where you indicate which service a particular DN should start up.

Meridian 1 setup

This chapter describes how to set up the Meridian 1 to support Meridian Mail services.

Section	Description
Section A	This is an introductory section that explains concepts that are necessary to understand how the Meridian 1 must be set up to support Meridian Mail.
Section B	This section discusses the different kinds of Meridian Mail ports, port requirements for services, and planning the Meridian 1 configuration.
Section C	This section contains step-by-step procedures for configuring Meridian 1. This includes procedures for setting up ACD queues and dummy queues.

Meridian Mail setup

Chapter 24, “The VSDN table”, describes how to configure the VSDN Table once you have added the necessary ACD queues on the Meridian 1.

***Section A:* Introduction**

In this section

Automatic Call Distribution (ACD)	23-4
Meridian 1 – Meridian Mail connections	23-6
How Meridian Mail uses ACD	23-7
Types of queues	23-9
Assigning DNs to services in the VSDN table	23-11

Automatic Call Distribution (ACD)

Definition:
ACD

Automatic Call Distribution (ACD) is a feature on the Meridian 1 that allows a number of telephones connected to the Meridian 1, known as agents, to share equally in answering incoming calls.

Definition:
ACD agent

Agents are programmed on the switch to serve a particular ACD queue. Agents are programmed as SL-1 phones on the Meridian 1.

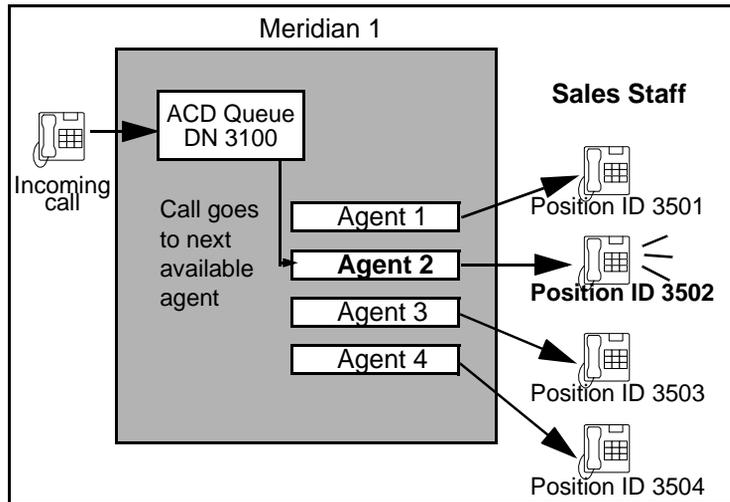
How it works

ACD provides call handling capabilities to the Meridian 1. This table describes how ACD handles an incoming call.

Stage	Description
1	A call comes into the Meridian 1.
2	The call is placed in an ACD queue where it waits to be connected to an agent.
3	The call is passed to the agent that has been idle the longest, or if all agents are busy, the first available agent.
4	The agent answers the call.

Example

When a call comes into the Meridian 1, the DN (directory number) that was dialed determines which ACD queue the call goes to.



Meridian 1 – Meridian Mail connections

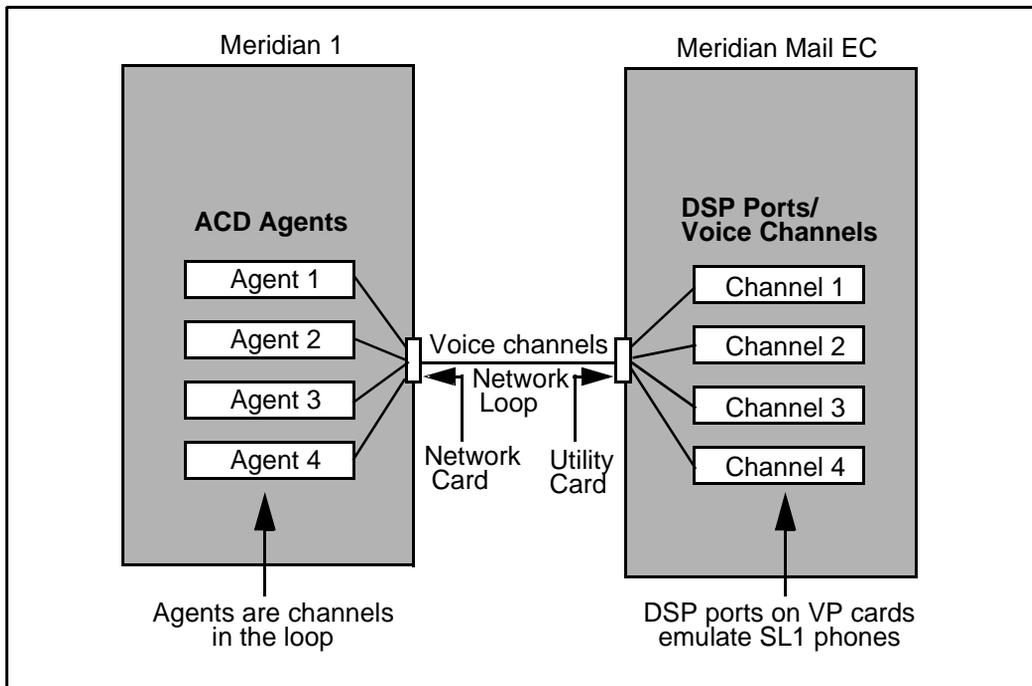
M1 agents and Meridian Mail ports

Each agent in an ACD queue is associated with a specific DSP port in Meridian Mail. These DSP ports physically exist on Meridian Mail voice processor cards.

The terms channel and port are often used interchangeably. They mean the same thing.

Example

This simplified diagram shows how Meridian 1 agents connect to channels in a Meridian Mail Modular Option EC.



How Meridian Mail uses ACD

Virtual agents

In Meridian Mail, there are no “physical” agents or telephones. Instead, “virtual agents” are used. Virtual agents are the DSP ports that are configured in the Meridian Mail software. These ports emulate SL-1 telephone sets.

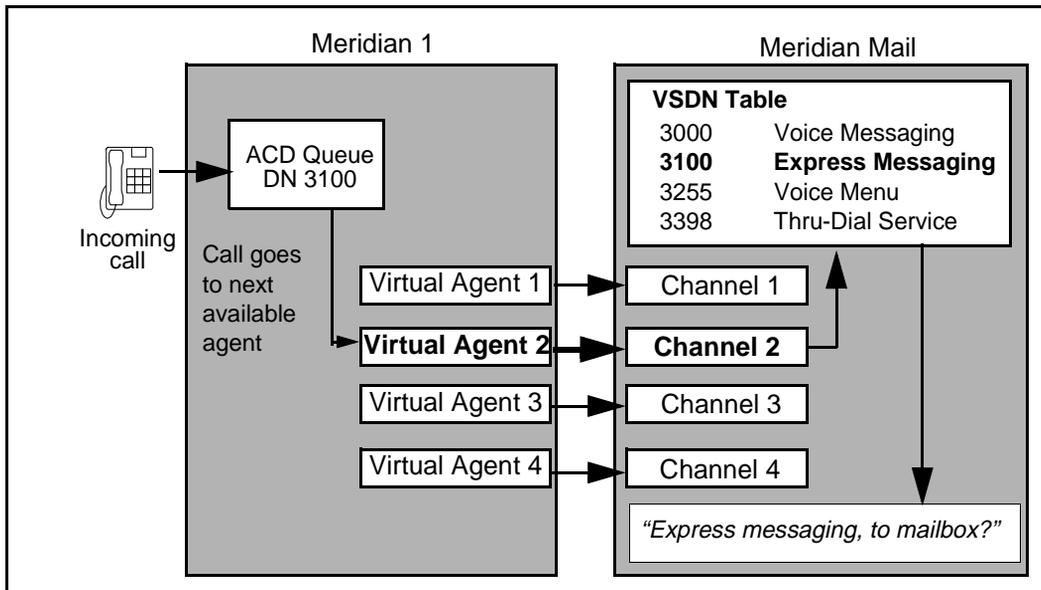
Directing calls to services

Meridian Mail uses ACD to perform its call handling functions. However, instead of being directed to agents or telephones, incoming calls are directed to Meridian Mail services such as Voice Messaging, Express Messaging, or a Voice Menu via the virtual agents.

Example

An incoming call to DN 3100 goes to ACD queue 3100. It gets directed to the first available agent. It is then connected to a Meridian Mail channel (port) and routed to the VSDN Table.

In the VSDN Table, Meridian Mail looks up the DN that was dialed to see which service is associated with it. Meridian Mail then starts the service and plays the appropriate prompts.



Types of queues

Two types of queues

There are two types of queues that you can configure on the Meridian 1 for Meridian Mail:

- ACD agent queues
- dummy queues

Agent queues

Agent queues contain agents and are served by Meridian Mail ports. These queues conduct the actual call handling.

The ACD DN's of agent queues are listed in the Meridian Mail Channel Allocation Table (CAT). The CAT indicates to which queue a particular agent is assigned.

Other terms

Agent queues are sometimes referred to as primary queues or main queues.

Dummy queues

Dummy queues do not have agents. They accept calls and then reroute callers to an agent queue for call handling. A Night Call Forward (NCFW) DN must be defined for all dummy queues. This DN determines the agent queue to which calls are rerouted.

Other terms

Dummy queues are sometimes referred to as secondary queues or service queues.

Why use dummy queues?

Many of the Meridian Mail services that you configure need to be directly accessible. That is, you want callers to be able to dial a number in order to access the service.

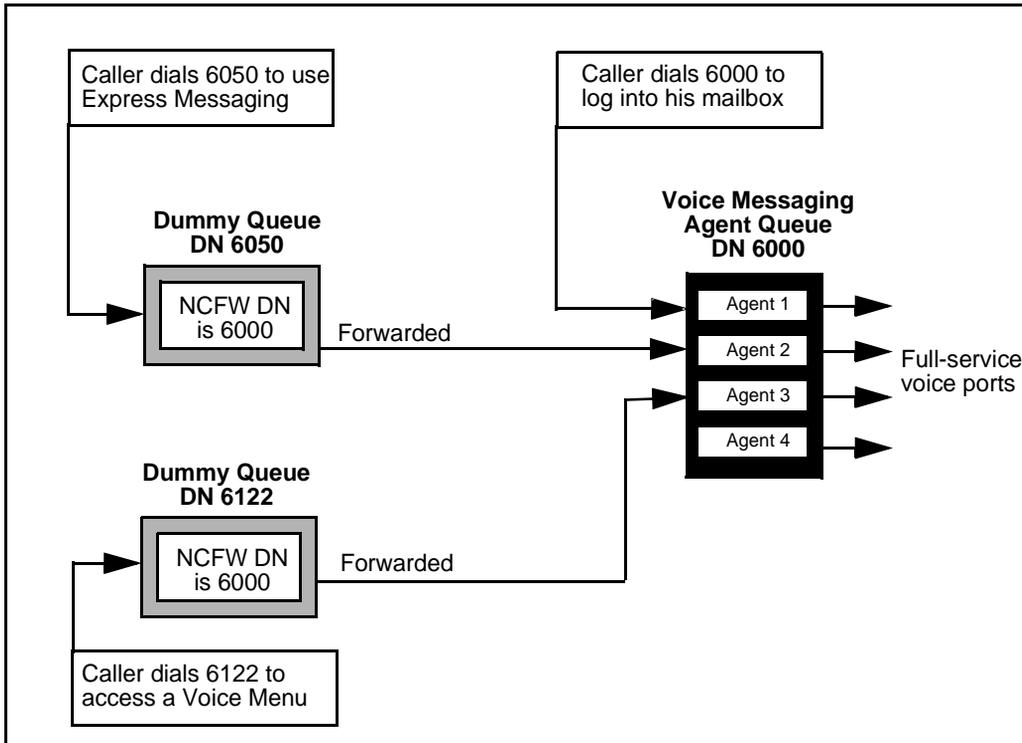
Each directly dialable service needs a unique number, or DN, so that when the DN is dialed, the correct service is started and the appropriate prompts are played.

Why use dummy queues (cont'd)

Creating an agent queue for each service would be very inefficient, even if you had all the necessary ports. Instead, you create a small number of agent queues for call handling, and a dummy queue for each directly dialable service. Since each dummy queue has an ACD DN associated with it, this DN becomes the access number for the service.

Example

Two dummy queues have been set up. One (DN 6050) is for Express Messaging. The other (DN 6122) is for a Voice Menu. They both forward to DN 6000.



Assigning DN's to services in the VSDN table

Introduction

When you create a dummy queue for a Meridian Mail service, the DN assigned to it is the access number for the service.

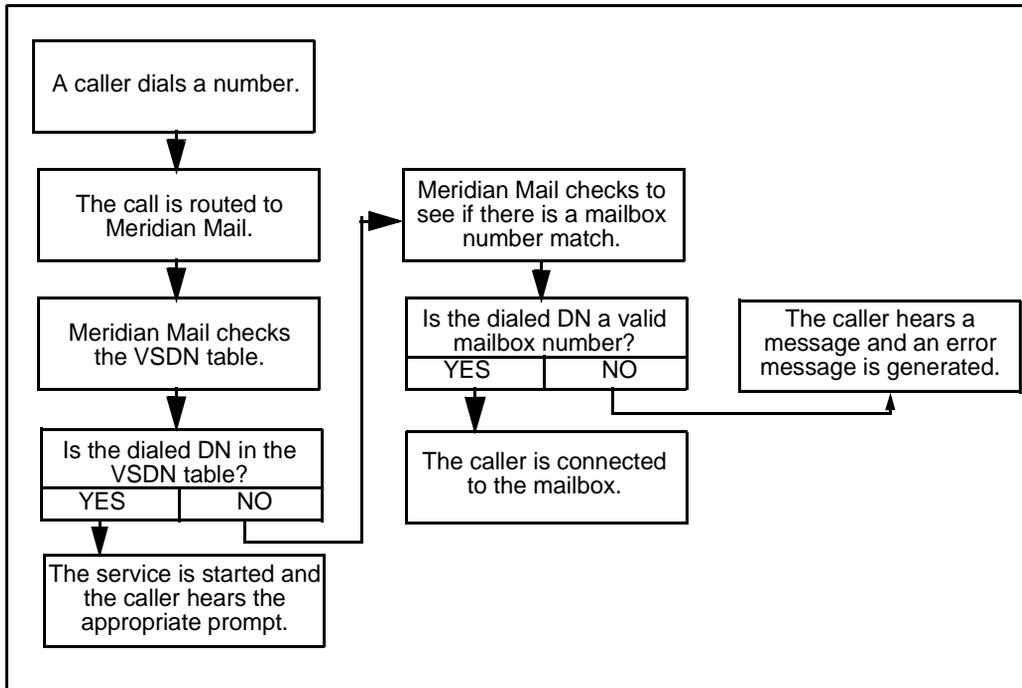
Mapping DN's to services: the VSDN table

These ACD DN's are configured on the Meridian 1. When you create an ACD queue or dummy queue, you cannot specify the associated Meridian Mail service on the Meridian 1. So how does Meridian Mail know which service to start when a particular DN is dialed?

The answer is the VSDN Table. All of the ACD DN's that are configured on the Meridian 1 for Meridian Mail services are entered into the VSDN Table. When you add a VSDN, you define the access DN (this is the ACD DN) and the service. This provides a mapping between ACD DN's and Meridian Mail services.

How DNs are looked up

When a call comes into the system, Meridian Mail looks up the dialed DN in the VSDN Table.



***Section B:* Planning your configuration**

In this section

Overview	23-14
Types of Meridian Mail ports	23-15
Port requirements for Meridian Mail services	23-18
Identifying the ports that are installed on your system	23-20
Should you dedicate ports?	23-23
Dedicating ports because of mixed port types	23-24
Dedicating ports to services	23-26
Determining how many ACD queues you need	23-28
Determining how many dummy queues you need	23-29

Overview

Introduction

Before you begin configuring the Meridian 1 for Meridian Mail services, you need to do some analysis and planning. You will need to determine

- the types of Meridian Mail ports that are installed on your system
- the number of Meridian Mail services that require DNS
- whether you want to dedicate channels to any services
- how many ACD queues you need
- how many dummy queues you need

Types of Meridian Mail ports

Three port types

There are three types of Meridian Mail DSP ports:

- basic service ports
- full-service voice ports
- full-service multimedia ports

Grade of service

These different port types represent different grades of service. Some services can use any of these ports. Others require a certain level of service and can use only one or two kinds of port.

How ports are used for outcalls

Meridian Mail begins by seeking the lowest-grade port required. If those are busy, Meridian Mail searches the next higher grade of port.

Example

Remote Notification requires full voice ports. When there is an attempt to place an outcall, Meridian Mail searches for an idle full voice port. If all voice ports are disabled, Meridian Mail will seek an idle multimedia port and will use it as long as it is not dedicated.

Basic ports

Basic service ports can be used by services that require a very basic grade of service; in other words, services that do not require full service voice or fax capability.

Supported services

Basic service ports can be used to run the following services:

- Meridian ACCESS applications
- Announcement services
- Thru-dial service
- Voice Prompt Maintenance
- Remote Activation
- Voice Menus and Time-of-Day Controllers that do not invoke services requiring full-service voice full-service multimedia ports

Full-service voice ports

Full-service voice ports provide a higher grade of service because they are capable of supporting all voice-related activities such as compression, recording, playback, and tone detection.

Supported services

Full-service voice ports can be used to run the following services in addition to services that need only basic service ports:

- Voice Messaging
- Express Messaging
- Call Answering
- Fax Items with callback fax delivery mode
- Outcalling (Remote Notification and Delivery to Non-User)
- Hospitality Messaging
- Post-Checkout Mailbox (a hospitality feature)
- Voice Forms
- Transcription Service (a voice forms feature)
- Meridian Networking
- AMIS Networking
- Enterprise Networking
- Voice Menus and Time-of-Day Controllers that invoke any of the above services or services that can use basic service voice ports

**Full-service
multimedia ports**

A full-service multimedia port is not a different kind of port. It is the equivalent to approximately two full-service voice ports. A larger number of multimedia ports means a smaller number of total ports on your system.

Supported services

Multimedia ports are required by the following Fax on Demand services. They can also be used by any other service:

- Fax Items with same call or caller choice fax delivery mode
- Fax Item Maintenance
- Voice Menus and Time-of-Day Controllers that invoke any of the above services

Port requirements for Meridian Mail services

Requirements

This table summarizes minimum port requirements.

Meridian Mail service	Type
ACC Meridian ACCESS	Basic
AN AMIS Networking	Voice
AS Announcement Service	Basic
CO Post-Checkout Mailbox	Voice
EM Express Messaging	Voice
CA Call Answering	Voice
EN Enterprise Networking	Voice
FI Fax Information Service <ul style="list-style-type: none"> • callback fax delivery • same call or caller choice fax delivery 	<ul style="list-style-type: none"> • Voice • Multimedia
FIM Fax Item Maintenance	Multimedia
HM Hospitality Messaging	Voice
MS Voice Menu that invokes <ul style="list-style-type: none"> • only services requiring basic ports • any services requiring voice ports • any services requiring multimedia ports 	<ul style="list-style-type: none"> • Basic • Voice • Multimedia
NW Meridian Networking	Voice
OC Outcalling	Voice
PM Voice Prompt Maintenance	Basic
RA Remote Activation	Basic
TD Time-of-Day Controller that invokes <ul style="list-style-type: none"> • only services requiring basic ports • any services requiring voice ports • any services requiring multimedia ports 	<ul style="list-style-type: none"> • Basic • Voice • Multimedia
TR Transcription Service	Voice

Meridian Mail service	Type
TS Thru-Dial Service	Basic
VF Voice Forms Service	Voice
VM Voice Messaging	Voice

Identifying the ports that are installed on your system

Introduction

You designate ports as one of the three types during Meridian Mail software installation or expansion.

You can check the types of ports that are installed on your system by viewing the Channel Allocation Table. This table is accessible from the System Status and Maintenance menu.

Multimedia ports

A multimedia port is actually made up of two voice ports. Each multimedia port, therefore, has two terminal numbers (TNs) associated with it.

Procedure

To check the installed ports, follow these steps.

Starting Point: The Main Menu

Step	Action
------	--------

- | | |
|---|---|
| 1 | Select System Status and Maintenance. |
| 2 | Select Channel Allocation Table from the System Status and Maintenance menu. <ul style="list-style-type: none">• If you have a single node system, the Channel Allocation Table is displayed. Go to step 4.• If you have a multinode system, go to step 3. |

Identifying the ports that are installed on your system

Step Action

- 3 Enter the number of the node on which the port resides, followed by <Return>.

Result: The Channel Allocation Table is displayed.

```

System Status and Maintenance
Channel Allocation Table for Node 2 (C=Card D=DSP P=Port)
Choice of Services:
ALL All Services          AN AMIS Networking      AS Announcement Service
EM Express Messaging      FOC Fax Outcalling     GS Greetings Service
MS Voice Menu Service     OC RN/DNU Outcalling   PM Prompt Maintenance
RA Remote Activation      TR Transcription Service TS Thru-Dial Service
VF Voice Forms Service    VM Voice Messaging      VS Voice Softkey

Limit; MaxVoice MinMulti; MaxFull;          -----Allocated-----
72      68      2      68      M/F: 2 V/F: 66 V/B: 2

# C-D-P  TN      ACD DN   SCN   Type Capability Outbound
1 2-1-1 009-0-02-00 3658 2800 Multi Full ALL
   009-0-02-01 blocked for Multimedia port 2-1-1.
2 2-2-1 009-0-02-02 3658 2802 Multi Full ALL
   009-0-02-03 blocked for Multimedia port 2-2-1.
3 2-3-1 009-0-02-04 3659 2804 Voice Full Basic ALL
4 2-3-2 009-0-02-05 3659 2805 Voice Full Basic ALL
    MORE BELOW
Select a softkey >
Save Cancel Hide Choice of Services
    
```

- 4 Review the Channel Allocation Table.
 - The TN column lists the terminal numbers (hardware addresses) of the agents.
 - The Type and Capability columns indicate the port type of each agent (port).

Keeping track of TNs

It will help you later when adding agents to queues if you create a list of all TNs and their port types. A list in the following format is useful.

TN	Port Type	Port Capability	ACD DN
002-0-02-00	Voice	Basic	5470
002-0-02-01	Voice	Basic	5470
002-0-02-02	Voice	Full	5480
002-0-02-03	Voice	Full	5480
002-0-02-04	Multimedia	Full	5490
002-0-02-05	Multimedia	Full	5490
.			
.			
.			

If agent queues have not been created yet, you can decide on the ACD DN's now, and then use them when you actually create the agent queues.

Should you dedicate ports?

Introduction

Agents (ports) can be shared by all services or dedicated to particular services.

There are some conditions under which you must dedicate ports, and others that are good reasons for dedicating ports.

Reasons for dedicating ports

There are two reasons for dedicating ports:

- If there is more than one port type on your system (two or more of basic, voice, and multimedia ports), you must create multiple ACD queues. A separate ACD queue is required for each port type.
See “Dedicating ports because of mixed port types” on page 23-24.
- You want to dedicate ports to a particular service.
See “Dedicating ports to services” on page 23-26.

Dedicating ports because of mixed port types

Restriction

An ACD queue can be serviced by only one type of DSP port. For example, the same ACD queue cannot be serviced by both basic service DSP ports and full-service voice DSP ports.

Implication

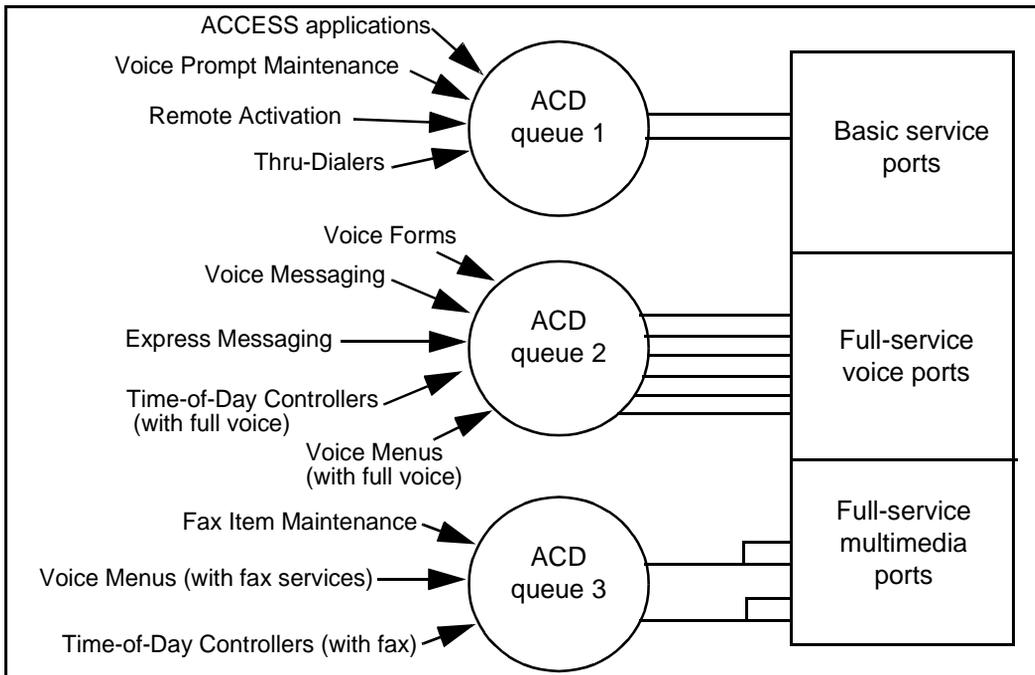
This means that you must create an ACD queue for each type of port. All agents that are added to it must correspond to Meridian Mail ports of the same type. This ensures that services access ports with an appropriate grade of service.

Dedicating ports because of mixed port types

Example

You have all three port types on your system: basic service, full-service voice, and full-service multimedia.

You, therefore, set up three ACD queues; one for each type. When configuring dummy queues for each Meridian Mail service, you make sure it forwards to the correct ACD queue. The ACD queue to which you forward the dummy queue depends on the port requirements for the Meridian Mail service.



Dedicating ports to services

Reasons for dedicating ports

You may decide to dedicate ports to a particular Meridian Mail service for the following reasons:

- Traffic studies have indicated that a particular inbound service is used heavily and that calls are being lost because the service is competing for ports with other services.
- It is crucial that a particular outbound service (such as Remote Notification or an ACCESS application) always have access to ports.

Reasons not to dedicate ports

Share DSP ports as much as possible because they are used more efficiently when shared.

When ports are dedicated to services, the overall efficiency of the system is reduced for the following reasons:

- A port that is fully dedicated to a particular service cannot be used by any other service, even if idle.
- When ports are dedicated to a particular service, that service can use those ports only. It cannot use other ports if the dedicated ports are in use.

Partially versus fully dedicated ports

When you dedicate ports to services, you are blocking other services from using them. You can either partially or fully dedicate ports, although it is recommended that you fully dedicate them.

Blocking inbound calls

To block other services from using a channel when inbound calls are made, you must create a ACD queue for the service and assign agents to it.

Blocking outbound calls

To block other services from using a channel for placing outbound calls only, you do not need to create a special ACD queue. All you have to do is dedicate the port to the service in the Channel Allocation Table.

Choosing a procedure

Use this table to determine what you need to do, and where to find instructions, based on whether you want to partially or fully dedicate ports to a service.

IF you want to block	THEN	AND follow the
only inbound calls from using the port (partially dedicated)	create an ACD queue for the service	procedure on page 23-40.
only outbound calls from using the port (partially dedicated)	dedicate the port to the service in the CAT	procedure on page 23-43.
both inbound and outbound calls from using the port (fully dedicated)	<ul style="list-style-type: none"> • create an ACD queue for the service, and • dedicate the port in the CAT 	procedure on page 23-49.

Determining how many ACD queues you need

Introduction

For more information about factors that influence how many ACD queues you need, see the following:

- “Should you dedicate ports?” on page 23-23
- “Dedicating ports because of mixed port types” on page 23-24
- “Dedicating ports to services” on page 23-26

Procedure

To determine how many ACD queues you need, follow these steps.

Step Action

- 1 Do you know what kinds of ports you have installed on your system?
 - If yes, go to step 2.
 - If no, see “Identifying the ports that are installed on your system” on page 23-20 and then return to this procedure.
 - 2 Do you have more than one port type on your system?
 - If yes, you require one ACD queue per port type.
 - If no, you require only one ACD queue (for voice ports).
 - 3 Do you want to fully dedicate ports to any services?
 - If yes, you require one ACD queue for each service to which you want to dedicate ports for inbound and outbound calls.
 - If no (you do not want to dedicate channels at all, or you only want to dedicate channels for outcalls), you do not need additional ACD queues.
 - 4 Total the numbers that resulted from steps 2 to 3 to determine the total number of ACD queues that you need.
-

Determining how many dummy queues you need

Procedure: To determine how many dummy queues you need for a newly installed system, follow these steps.

Step Action

- 1 Identify how many directly dialable Meridian Mail services you will initially be configuring.
 - 2 If you are likely to add services in the future, identify how many dummy queues you would need to support them.
Note: You do not have to add extra dummy queues at this point. However, it is convenient to have additional dummy queues already configured if the need for a new service arises.
 - 3 Add the numbers from steps 1 and 2 to get the total number of dummy queues you need to configure.
-

Procedure: To determine how many dummy queues you need to add to an operational system, follow these steps.

Step Action

- 1 Identify how many services you need to add to your system.
 - 2 Check to see if you have enough dummy queues to support these services.
 - 3 Do you have enough dummy queues?
 - If yes, gather the available DNs and configure them in the VSDN Table in Meridian Mail.
 - If no, create enough dummy queues to support the new services and configure the VSDN table.
-

***Section C:* Configuring the Meridian 1 for Meridian Mail services**

In this section

Overview	23-32
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Creating ACD queues for a combination (shared and dedicated) configuration	23-35
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Adding agents to a queue	23-55
Creating a dummy queue	23-59
Moving agents from one queue to another	23-61
Removing agents from a queue	23-63
Modifying the Channel Allocation Table after moving agents	23-64

Overview

Introduction

This section contains step-by-step procedures for setting up queues on the Meridian 1.

Begin by reviewing the high-level procedure for the configuration you require.

IF	THEN go to
you need only one agent queue	page 23-33.
you need multiple agent queues (because you have mixed port types or need to dedicate ports to services)	page 23-35.

Overlays

The following Meridian 1 overlays are used to configure the Meridian 1 for Meridian Mail services.

Overlay	Function
LD 23	This overlay is used to create agent queues and dummy queues.
LD 11	This overlay is used to add agents to an agent queue (or remove them).

Overlay prompts

Procedures in this section instruct you on how to fill in various Meridian 1 overlays.

The procedures tell you which prompts need to be responded to in a certain way for Meridian Mail. For all other prompts, you can simply press Enter to accept the default values as they do not affect Meridian Mail.

Creating ACD queues for a totally shared configuration

Introduction

All agents can be shared by all Meridian Mail services if

- you have only one type of Meridian Mail port (full-service voice ports only) and if
- you do not need to dedicate agents (ports) to any Meridian Mail services

If both of these conditions are not met, see “Creating ACD queues for a combination (shared and dedicated) configuration” on page 23-35.

The primary Voice Messaging queue

You can make the agent queue the primary Voice Messaging queue. This means that you can publish the ACD DN of the agent queue as the Voice Messaging DN.

Alternatively, you can create a dummy queue for Voice Messaging that forwards to the agent queue. In this instance, the DN of the agent queue is not published to users and is never directly dialed.

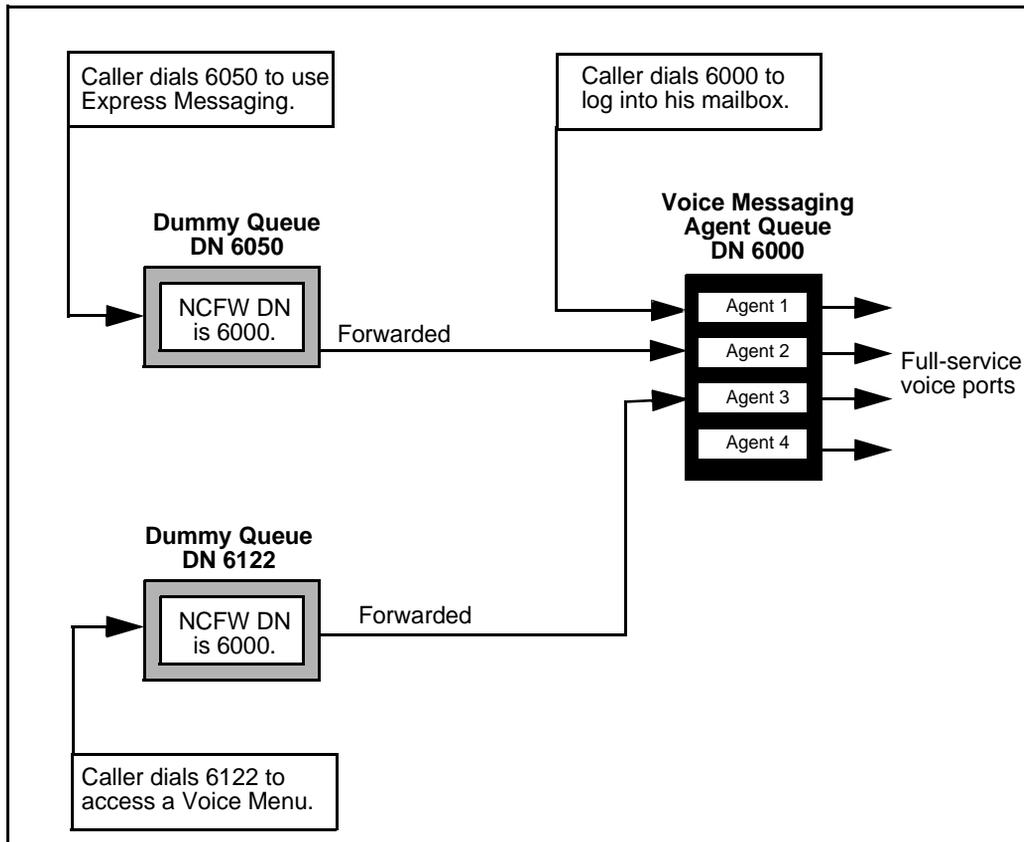
Procedure

This is a high-level procedure for configuring the Meridian 1 and Meridian Mail for services. Detailed step-by-step procedures are on the corresponding pages.

Step	Action	See
<i>Meridian 1 configuration</i>		
1	Create an ACD agent queue.	page 23-52
2	Add all agents to this queue.	page 23-55
3	Create a dummy queue for each Meridian Mail service that needs to be directly dialable. Note: Forward (NCFW) all dummy queues to the agent queue you created in step 1.	page 23-59
<i>Meridian Mail configuration</i>		
4	Add the ACD DNs of the agent queue and dummy queues to the VSDN table.	Chapter 24

Example

This is an example of a shared configuration in which there is only one agent queue, which is also the Voice Messaging queue. All other queues are dummy queues that forward to this single agent queue for call handling.



Creating ACD queues for a combination (shared and dedicated) configuration

Introduction

You need a combination shared and dedicated configuration if one or both of these conditions are met:

- There are mixed port types on your system (more than one of basic service, full-service voice, and full-service multimedia ports).

For more information, see “Dedicating ports because of mixed port types” on page 23-24.

- You need to dedicate ports to one or more Meridian Mail services.

For more information, see “Dedicating ports to services” on page 23-26.

The primary Voice Messaging queue

You can make the agent queue that contains the full-service voice ports the primary Voice Messaging queue. This means that you can publish the ACD DN of this agent queue as the Voice Messaging DN.

Alternatively, you can create a dummy queue for Voice Messaging that forwards to this agent queue. In this instance, the DN of the agent queue is not published to users and is never directly dialed.

Do not mix port types in one queue

When adding agents to an agent queue, make sure they are all of the same type. An ACD agent queue cannot be serviced by Meridian Mail ports of different types (such as basic service and full-service voice ports).

Forwarding dummy queues

When you specify the NCFW (Night Call Forward) DN for a dummy queue, make sure you enter the DN of the appropriate agent queue. Ensure that the dummy queue terminates on an agent queue that is serviced by ports of the appropriate type.

To identify the minimum port requirements for a Meridian Mail service, see “Port requirements for Meridian Mail services” on page 23-18.

Creating agent queues

Creating ACD queues for a combination (shared and dedicated) configuration

This is a high-level procedure for configuring agent queues in a combination shared and dedicated configuration. Detailed step-by-step procedures are on the corresponding pages.

Step	Action	See page
1	Create an ACD agent queue for full-service voice ports.	23-52
2	Add the necessary agents (that correspond to full-service voice ports in Meridian Mail) to this queue.	23-55
3	Do you have basic service ports on your system? <ul style="list-style-type: none"> • If yes, go to step 4. • If no, go to step 6. 	
4	Create an ACD agent queue for basic service ports.	23-52
5	Add the necessary agents (that correspond to basic service ports in Meridian Mail) to this queue.	23-55
6	Do you have full-service multimedia ports on your system? <ul style="list-style-type: none"> • If yes, go to step 7. • If no, go to step 9. 	
7	Create an ACD agent queue for full-service multimedia ports.	23-52
8	Add the necessary agents (that correspond to full-service multimedia ports in Meridian Mail) to this queue.	23-59

Step	Action	See page
9	Do you need to dedicate ports to any Meridian Mail services? <ul style="list-style-type: none"> • If yes, go to step 10. • If no, go to step 11. 	
10	Choose the way in which you want to dedicate ports.	
	IF you want to	THEN go to
	partially dedicate the ports by blocking only other inbound calls from using the ports	page 23-40.
	partially dedicate the ports by blocking only other outbound calls from using the ports	page 23-43.
	fully dedicate the ports by blocking all other inbound and outbound calls from using the ports (recommended method)	page 23-49.
	Note: When you are done, return to this procedure to define dummy queues and configure the VSDN table in Meridian Mail.	
11	Go to the next procedure for creating dummy queues.	

Creating dummy queues

This is a high-level procedure for configuring dummy queues. Detailed step-by-step procedures are on the corresponding pages.

Step	Action	See page
1	Identify the port requirements of each Meridian Mail service for which you need a dummy queue.	23-18
2	Create a dummy queue for each Meridian Mail service that needs to be directly dialable but that does not need dedicated ports. <p>Note: Make sure you forward each dummy queue to the correct agent queue.</p>	23-59
3	Go to the next procedure for configuring Meridian Mail.	23-38

Configuring Meridian Mail

Creating ACD queues for a combination (shared and dedicated) configuration

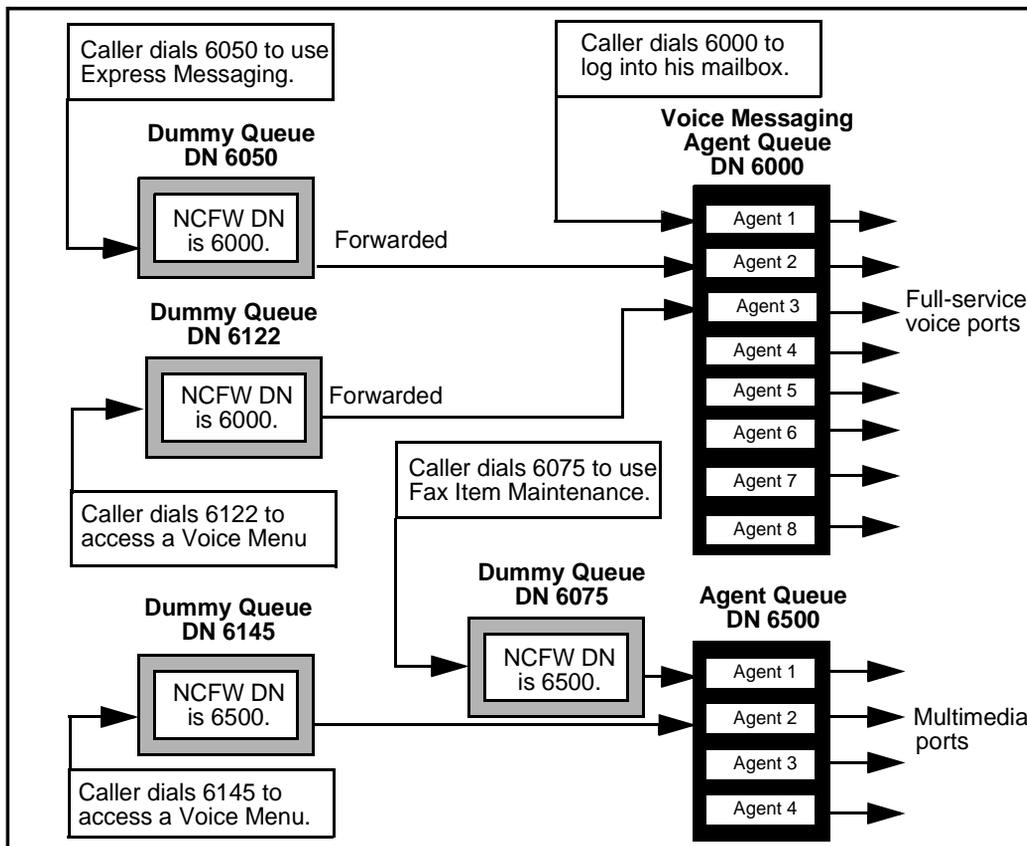
This is a high-level procedure for configuring VSDNs.

Step	Action	See
1	If you moved agents from one queue to another, modify the ACD DN of each moved agent in the Channel Allocation Table.	page 23-64
2	Add ACD DNs of the agent and dummy queues you have created to the VSDN Table.	Chapter 24

Example

In this example, two agent queues have been created. Agents in queue 6000 are connected to Meridian Mail full-service voice ports. Agents in queue 6500 are connected to multimedia ports.

Voice menu 6122 does not contain fax services, whereas menu 6145 contains fax items with same call delivery.



Partially dedicating ports – blocking inbound calls only

Inbound calls

These are calls made to Meridian Mail such as when

- users log in to their mailboxes
- users dial into Express Messaging
- callers dial into a Voice Menu
- callers are transferred to Meridian Mail to leave a message (Call Answering)

When to use

Use this procedure if you want to partially dedicate ports to a service by blocking all other inbound calls, but not outbound calls.

To do this, you must create a separate ACD agent queue for the service.

Procedure

To block inbound calls on a port, follow these steps.

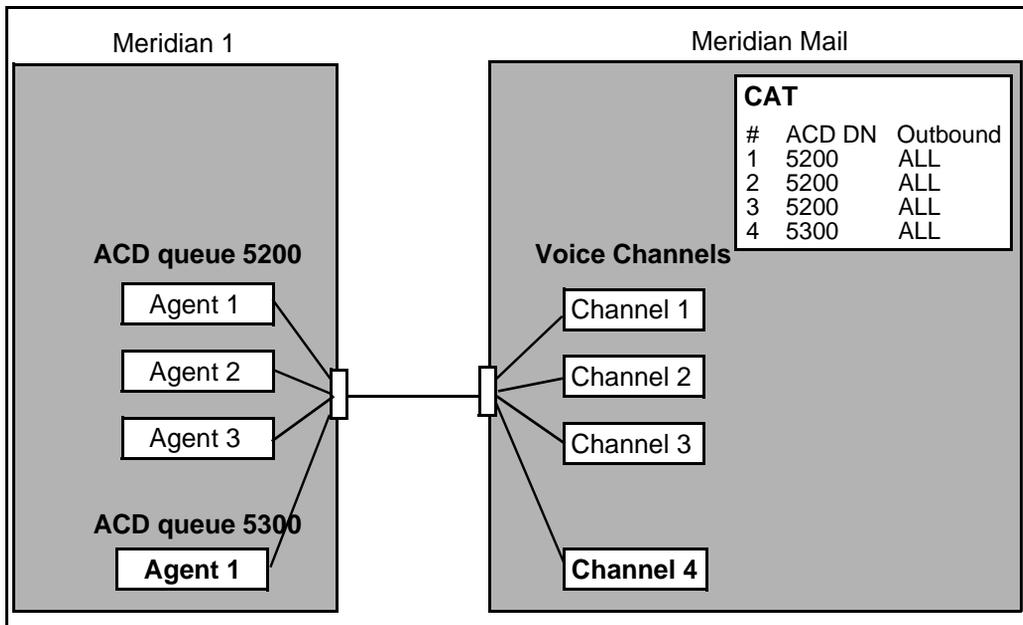
Step	Action	See Page
1	Identify the ports you want to dedicate to the service. Note: If you have mixed port types on your system, make sure the ports you dedicate are of the correct type, and all of the same type.	23-26
2	Create an agent queue for the service.	23-52
3	Add or move the agents to the queue.	23-55 (add) 23-61 (move)

Partially dedicating ports – blocking inbound calls only

Example

In this example, an agent (port) is dedicated to a particular Voice Menu. ACD queue 5300 has been set up for this Voice Menu and it contains one agent.

The port, however, is not dedicated in the Channel Allocation Table. Outbound calls from any Meridian Mail service are allowed on this port.



Scenario A

In this scenario, an inbound call is placed to Voice Messaging (DN 5200).

Stage	Description
1	A caller dials 5200 to log in to her mailbox.
2	The call is routed to ACD queue 5200. <ul style="list-style-type: none"> • All of the agents in queue 5200 are busy. • The agent in queue 5300 is idle but cannot be used by this call.
3	The call waits for an agent in queue 5200 to become idle.

Example (cont'd)**Scenario B**

In this scenario, Meridian Mail makes a remote notification attempt (an outbound call).

Stage	Description
1	A message is left for a user that has remote notification capability.
2	Meridian Mail attempts to place an outbound call to deliver the notification.
3	Meridian Mail looks for an idle port. <ul style="list-style-type: none">• Ports 1, 2, and 3 (that belong to ACD queue 5200) are busy.• Port 4 (in ACD queue 5300) is idle.
4	Since the Outbound column in the CAT table is set to ALL for this port, the call is placed.

Partially dedicating ports – blocking outbound calls only

Outbound calls

These are calls made by Meridian Mail. The following Meridian Mail features make outbound calls:

- all networking features
- Outcalling (Remote Notification and Delivery to Non-User)
- Fax on Demand (call back fax delivery)

When to use

Use this procedure if you want to partially dedicate ports to a service by blocking all other outbound calls but not inbound calls.

To do this, you must do the following:

- Disable the ports you want to dedicate.
- Modify the Outbound column in the Channel Allocation Table.
- Reenable the ports.

Disabling ports

Before you can modify the Outbound column in the Channel Allocation Table, you must disable the port(s) you want to dedicate.

Starting Point: The Main Menu

Step Action

- 1 Select System Status and Maintenance.
 - 2 Select DSP Ports.
 - 3 If you have a multi-node system, enter the number of the node on which the port(s) resides.
 - 4 Press the [Courtesy Disable Port] or [Disable Port] softkey.
Result: You are prompted for a node number.
 - 5 Enter the node number.
Note: Wait until the port status is OutofService.
 - 6 Do you want to disable another port?
 - If yes, repeat steps 4 to 5 until you have disabled all the ports you want to dedicate.
 - If no, go to step 7.
 - 7 Press [Exit].
Result: The System Status and Maintenance menu is displayed.
-

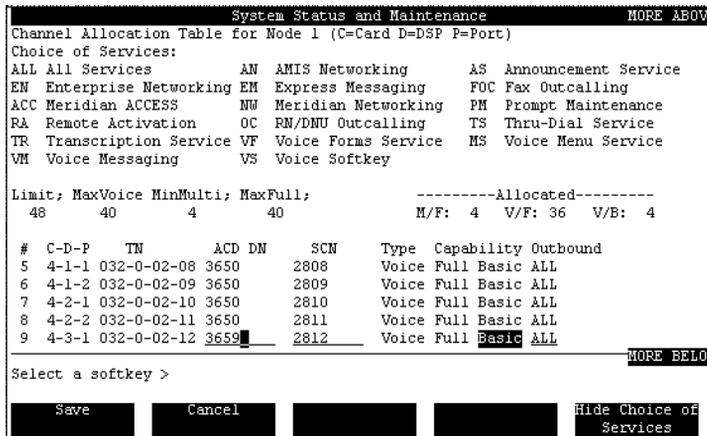
Modifying the Outbound column in the CAT

To dedicate a port by blocking all other outbound calls, follow these steps.

Starting Point: The System Status and Maintenance menu

Step Action

- 1 Select Channel Allocation Table.
Result: If you have a multi-node system, you are prompted for a node number.
- 2 If you have a multi-node system, enter the number of the node on which the port resides.
- 3 Move the cursor to the port you want to dedicate.
- 4 Go to the Outbound column and enter the service (acronym) to which you want to dedicate the port.



- 5 Do you want to dedicate another port?
 - If yes, repeat steps 3 to 4.
 - If no, go to step 6.
- 6 Press the [Save] softkey.
Result: The System Status and Maintenance menu is displayed.

Reenabling the ports To reenable the ports you dedicated, follow these steps.

Starting Point: The System Status and Maintenance menu

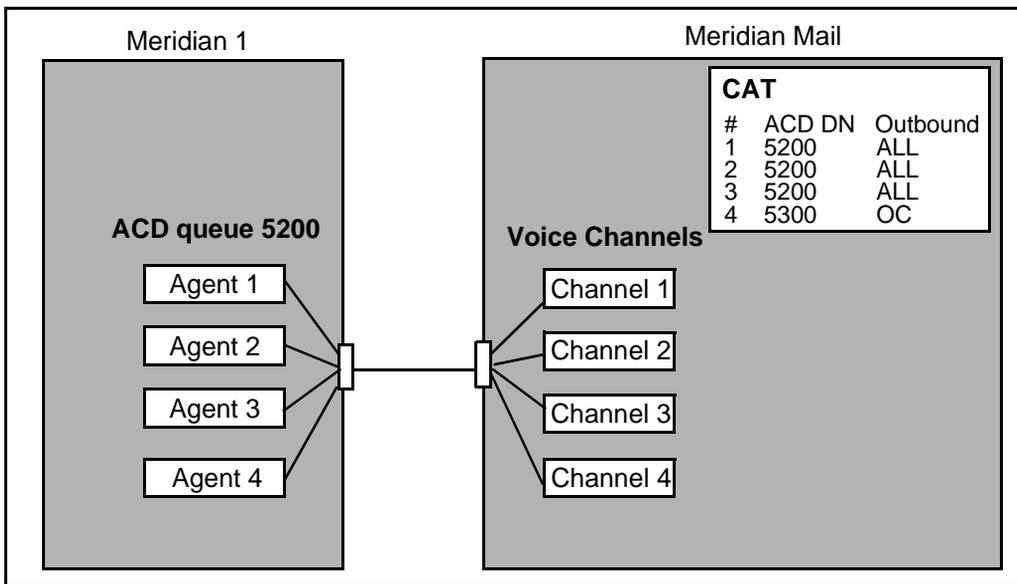
Step Action

- 1 Select DSP Ports.
Result: If you have a multi-node system, you are prompted for a node number.
 - 2 If you have a multi-node system, enter the number of the node on which the port(s) resides.
 - 3 Press the [Enable Port] softkey.
Result: You are prompted for the number of the port you want to enable.
 - 4 Enter the port number.
Note: Wait until the screen indicates that the port is no longer POutof Service.
 - 5 Do you want to enable another port?
 - If yes, repeat steps 4 to 5 until you have enabled all the ports you dedicated.
 - If no, go to step 6.
 - 6 Press [Exit].
Result: The System Status and Maintenance menu is displayed.
-

Example

In this example, a separate queue has not been set up on the PBX. All inbound calls can, therefore, use all agents (ports).

In Meridian Mail, however, Channel 4 is dedicated to Outcalling (OC) in the Channel Allocation Table.



Scenario A

In this scenario an inbound call is placed to Voice Messaging (DN 5200).

Stage	Description
1	A caller dials 5200 to log in to her mailbox.
2	The call is routed to ACD queue 5200. <ul style="list-style-type: none"> • The first three agents in queue 5200 are busy. • Agent 4 is idle.
3	The call is completed using agent 4.

Example (cont'd)**Scenario B**

In this scenario, Meridian Mail attempts to make an outbound networking call.

Stage	Description
1	A network message is ready to be delivered.
2	Meridian Mail attempts to place an outbound call to deliver the network message.
3	Meridian Mail looks for an idle port. <ul style="list-style-type: none">• Ports 1, 2, and 3 are busy.• Port 4 is idle.
4	Since the Outbound column in the CAT table is set to OC for Port 4 (it is dedicated to Outcalling), the call waits until another agent (port) becomes available.

Fully dedicating ports – blocking inbound and outbound calls

Introduction

If you are considering dedicating ports to a service, it is recommended that you fully dedicate them so that no other services can use the ports.

To do this, you must create an agent queue on the PBX *and* dedicate the port in the Channel Allocation Table in Meridian Mail.

Procedure

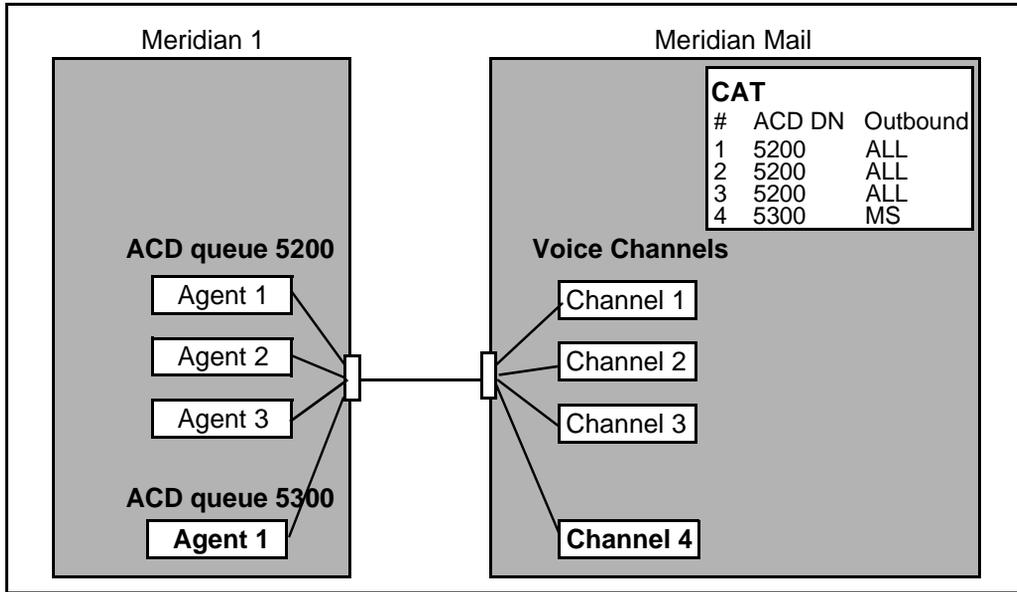
To completely dedicate ports to a service, follow these steps.

Step	Action	See page
<i>Meridian 1 configuration</i>		
1	Identify the ports you want to dedicate to the service. Note: If you have mixed port types on your system, make sure the ports you dedicate are of the correct type, and all of the same type.	23-26
2	Create an agent queue.	23-52
3	Add or move the ports to the queue.	23-55 (add) 23-61 (move)
<i>Meridian Mail configuration</i>		
4	Disable the ports you want to dedicate.	23-44
5	Modify the Outbound column in the CAT table.	23-45
6	Reenable the ports.	23-46

Example

ACD queue 5300, containing one agent, has been set up for a Voice Menu.

The port is also dedicated to the Voice Menu Service in the Channel Allocation Table. Only calls to the Voice Menu can use Agent (Channel) 4.

**Scenario A**

In this scenario, an inbound call is placed to Voice Messaging (DN 5200).

Stage	Description
1	A caller dials 5200 to log in to her mailbox.
2	The call is routed to ACD queue 5200. <ul style="list-style-type: none"> All of the agents in queue 5200 are busy. The agent in queue 5300 is idle but cannot be used by this call.
3	The call waits until an agent in queue 5200 becomes idle.

Example (cont'd)**Scenario B**

In this scenario, Meridian Mail attempts to make an outbound networking call.

Stage	Description
1	A network message is ready to be delivered.
2	Meridian Mail attempts to place an outbound call to deliver the network message.
3	Meridian Mail looks for an idle port. <ul style="list-style-type: none">• Ports 1, 2, and 3 are busy.• Port 4 is idle.
4	Since the Outbound column in the CAT table is set to MS for this port (it is dedicated to the Voice Menu Service), the call waits until another port (agent) becomes available.

Creating an agent queue

Introduction

ACD queues are created using overlay 23. You must set up at least one agent queue on the Meridian 1 to serve as the primary Voice Messaging queue. This queue is usually set up by the install technician.

You may or may not need other agent queues depending on how many port types you have on your system and whether or not you want to dedicate ports to any services.

When to use

Create an agent queue

- as the primary Voice Messaging queue (containing full-service voice ports)
- for each additional port type that is installed on your system (basic and/or full multimedia)
- for each service to which you want to dedicate ports

If you are not sure of how many agent queues you require, see “Determining how many ACD queues you need” on page 23-28.

Procedure

To create an agent queue, follow these steps.

Step Action

- 1 Log in.
- 2 Enter **LD 23** to load overlay 23.
- 3 Respond to prompts as shown in the following table.

Prompt	Response	Description
REQ	NEW	Indicates you are creating a new queue.
TYPE	ACD	Indicates an ACD data block.
CUST	xx	Enter the SL-1 customer number (00-31).
ACDN	xxxxxxx	Enter the DN of the ACD queue. This is the number you enter in the VSDN table.
MWC	YES	Indicates this is a message center and that the queue has agents.
IMS	YES	Indicates an Integrated Messaging service.
CMS	YES	Command and Status Link Applications Protocol is used.
IMA	YES	Enables IMS attendant.
IVMS	YES	Integrated Voice Messaging. Creates a message center from which messages can be retrieved.
VSID	xx	Enter the VAS ID (0 to 15) from LD 17.
MAXP	xx	Indicates the maximum number of ACD agents for this queue.
ALOG	YES	ACD agents are automatically logged on when Meridian Mail is powered up.
NCFW	0	The DN to which calls are forwarded. Set to 0 for agent queues.

Step Action

- 4 Do you want to add another ACD agent queue?
- If yes, enter **NEW** in response to the REQ prompt and respond to the prompts as shown in step 3.
 - If no, enter **END** in response to the REQ prompt to exit overlay 23.
-

Adding agents to a queue

Introduction

Once you have created an ACD agent queue, you can add agents to it.

Before you begin

Gather together a list of the TNs of the agents you want to add to the queue.

If you have multiple agent queues because of a mixture of port types on your system (two or more of basic, full voice, and full multimedia ports), make sure you know the port type of each TN. You can add agents of one type only to a single queue.

See “Dedicating ports because of mixed port types” on page 23-24.

The terminal number

The terminal number (TN) is the hardware address of an ACD agent. Each voice port in Meridian Mail is associated with the TN of the Meridian 1 agent that will be servicing the port.

Format

TNs are in the format **lll s cc u**.

Parts description

These are the parts of TN.

Part	Name	Description	Range
lll	Loop	The network loop to which the agent is connected.	0 to 159 (any loop dedicated to Meridian Mail)
s	Shelf	The shelf (IPE module) on which the agent is located.	(0 to 3) 0 for EC
cc	Card	The card slot on which the agent is located.	1 to 10 2 and 3 for EC
u	Unit	The unit (port) on which the agent is located.	0 to 7

Example

20-0-2-0

- The position ID** The position ID identifies a particular agent within a queue. It is used for ACD reporting/tracking purposes in addition to identification of agents. Each agent must, therefore, have a unique position ID.
- The SCN DN** If a port is going to be used to originate calls, such as for outcalling, Fax on Demand, or networking, you must define a single-call non-ringing DN (SCN DN) as Key1. The SCN DN is a unique number (zzzz) that gives the appearance of a telephone number on a key.
- Determine a numbering scheme** For ease of maintenance, assign sequentially numbered position IDs and SCN DNs.
- Example**
The ACD DN of the queue to which you are adding agents is 8100.
Position IDs are numbered 8101, 8102, and so on.
SCN DNs are numbered 8201, 8202, and so on.
- Adding new ports to an installed system** If you are adding additional agents to an existing queue, you may have to modify the MAXP value for the queue to which you are adding agents. The MAXP value determines the maximum number of agents the queue can contain. If by adding new agents, you exceed this value, you will not be able to add the additional agents unless you change the MAXP value.
- Instructions for adding new ports to an already installed Meridian Mail system are in the *System Installation and Modification Guide* (NTP 555-7001-215).

Modifying the MAXP value

To modify the MAXP value in the queue to which you are adding agents, follow these steps.

Step Action

- 1 Log in.
- 2 Enter **LD 23** to load overlay 23.
- 3 Respond to prompts as shown in the following table.

Prompt	Response	Description
REQ	CHG	Indicates you are modifying a queue.
TYPE	ACD	Indicates you are modifying an ACD data block.
CUST	xx	Enter the SL-1 customer number (00 to 31).
ACDN	xxxxxxx	Enter the DN of the ACD queue to which you are adding or moving agents.
MAXP	xx	Modify this number so that it is equal to or greater than the new total number of agents for this queue.

- 4 Enter **END** in response to the REQ prompt to exit overlay 23.
- 5 Go to the procedure on page 23-58 to add agents to the queue.

Adding agents

To add an agent to a queue, follow these steps.

Step Action

- 1 Log in.
- 2 Enter **LD 11** to load overlay 11.
- 3 Respond to prompts as shown in this table.

Prompt	Response	Description
REQ	NEW	
TYPE	SL1	
TN	lll s cc u	Enter the TN of the agent. lll is the loop number. s is the shelf number. cc is the card slot number. u is the unit (port) number.
CLS	VMA	Indicates Voice Messaging is allowed.
Key0	ACD xxxx yyyy	Enter the DN (xxxx) of the queue and the agent's position (yyyy).
Key1	SCN zzzzzzz	Enter a single-call, non-ringing DN if this port will be used to place outcalls by Meridian Mail features such as Outcalling, Fax on Demand, and networking.
Key2	MSB	Make Set Busy key
Key3	NRD	Not Ready key
Key6	TRN	Transfer key
Key7	AO3	Conference key
Key9	RLS	Release key

- 4 Do you want to add another agent?
 - If yes, enter **NEW** in response to the REQ prompt and respond to prompts as shown in step 3.
 - If no, enter **END** in response to the REQ prompt.

Creating a dummy queue

Introduction

A dummy queue does not have agents. Instead, it forwards to an agent queue.

When to use

Add a dummy queue for each Meridian Mail service that you want to make directly dialable by users and callers.

Examples

You want to provide users with Express Messaging capability. You, therefore, create a dummy queue for Express Messaging so that it has a unique DN that can be dialed.

You want to create six Voice Menus that you need to make available to callers. You, therefore, create six dummy queues so that each Voice Menu has a unique number that can be dialed.

Systems with mixed port types

If you have more than one port type on your system, be sure to forward the dummy queue to the right agent queue. The agent queue to which you forward the dummy queue must be serviced by ports of the appropriate type.

To determine the port requirements, see “Port requirements for Meridian Mail services” on page 23-18.

Example

All three port types are installed on your system. You have, therefore, created three ACD agent queues as follows.

ACD agent queue DN	Contains
7400	Full-service voice ports
7440	Basic service ports
7480	Full-service multimedia ports

You need to create a dummy queue for the Fax Item Maintenance service, which requires full-service multimedia ports. You, therefore, enter 7480 as the NCFW DN. This forwards the dummy queue to the agent queue that contains full-service multimedia ports.

Procedure

To create a dummy queue that forwards to an agent queue, follow these steps.

Step Action

- 1 Log in.
- 2 Enter **LD 23** to load overlay 23.
- 3 Respond to prompts as shown in the following table.

Prompt	Response	Description
REQ	NEW	Indicates you are creating a new queue.
TYPE	ACD	Indicates you are creating an ACD data block.
CUST	xx	Enter the SL-1 customer number (00 to 31).
ACDN	xxxxxxx	Enter the DN of the ACD queue. This is the number you enter in the VSDN table.
MWC	NO	Indicates this is not a message center with agents.
MAXP	1	Even though this queue has no agents, MAXP must be set to 1.
NCFW	xxxxxxx	Enter the DN of the agent queue to which you are forwarding this queue.

- 4 Do you want to add another dummy queue?
 - If yes, enter **NEW** in response to the REQ prompt and respond to the prompts as shown in step 3.
 - If no, enter **END** in response to the REQ prompt to exit overlay 23.

Meridian Mail configuration

Once you have added all the necessary agent and dummy queues, you are ready to add the ACD DN's to the VSDN table. For instructions, see Chapter 24, "The VSDN table".

Moving agents from one queue to another

Introduction

You must follow this procedure to move agents. You cannot simply change the ACD DN of an existing agent.

	CAUTION
	Risk of data corruption
	Do not move ACD agents by changing the ACD DN (on Key0) of an existing agent. Doing this can cause severe data corruption.

When to use

Use this procedure if you want to move existing agents from one queue to another queue.

Examples

You might need to do this if you have dedicated ports to a particular service and you find through analyzing traffic studies that you need more ports.

Or, you might find that the efficiency of the system has gone down, and you want to reduce the number of ports that are dedicated to a service and move them to a queue where they can be shared among more services.

Modifying MAXP

The MAXP value determines the maximum number of agents that can be in a queue. By moving agents to a queue, you may exceed the current MAXP value for that queue. If this happens, you must modify MAXP so that it is equal to or greater than the new total number of agents.

Procedure

To move an agent, you must first remove the agent from the queue it currently belongs to and then rebuild it under the other queue.

This is a high-level procedure for moving agents. Step-by-step procedures are on the corresponding pages.

Step	Action	See page
<i>Meridian 1 configuration</i>		
1	Will rebuilding agents under the other queue cause the MAXP value of that queue to be exceeded? <ul style="list-style-type: none"> • If yes, modify the MAXP value for the queue to which you are moving agents. • If no, go to step 2. 	23-57
2	Remove the agents from their current ACD queue.	23-63
3	Rebuild (add) the agents under the queue to which you are moving them.	23-55
<i>Meridian Mail configuration</i>		
4	Modify the Channel Allocation Table.	23-63

Removing agents from a queue

When to use

Use this procedure if you need to move agents from one queue to another. Moving agents involves removing them from the queue they currently belong to and rebuilding them under the new queue.

Procedure

To remove an agent from a queue, follow these steps.

Step Action

- 1 Log in.
- 2 Enter **LD 11** to enter overlay 11.
- 3 Respond to prompts as shown in the following table.

Prompt	Response	Description
REQ	OUT	Indicates you want to out (remove) an agent.
TYPE	SL1	
TN	lll s cc u	Enter the TN of the agent you want to remove. lll is the loop number. s is the shelf number. cc is the card slot number. u is the unit (port) number.

- 4 Do you want to remove another agent?
 - If yes, enter **OUT** in response to the REQ prompt and respond to the prompts as shown in step 3.
 - If no, enter **END** in response to the REQ prompt to exit overlay 11.

Modifying the Channel Allocation Table after moving agents

When to use

You need to modify the Channel Allocation Table only if you have moved agents from one queue to another.

When you move an agent from one queue to another, the ACD DN of the agent changes. This change must be reflected in the Channel Allocation Table (CAT).

Procedure

To modify the ACD DN of moved agents in the Channel Allocation table, follow these steps.

Starting Point: The Main Menu

Step Action

- 1 Select System Status and Maintenance.
- 2 Disable the ports that correspond to the moved agents.
Note: See "Disabling ports" on page 23-44.
- 3 Select Channel Allocation Table from the System Status and Maintenance menu.
Result: The Channel Allocation Table is displayed.
- 4 Move the cursor to the agent (port) that was moved.
- 5 Go to the ACD DN column and enter the DN of the ACD queue to which it was moved.

System Status and Maintenance										MORE ABOVE
Channel Allocation Table for Node 1 (C=Card D=DSP P=Port)										
Choice of Services:										
ALL	All Services	AN	AMIS Networking	AS	Announcement Service					
EN	Enterprise Networking	EM	Express Messaging	FOC	Fax Outcalling					
ACC	Meridian ACCESS	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-----										
48	40	4	40	M/F: 4	V/F: 36	V/B: 4				
#	C-D-P	TN	ACD DN	SCN	Type	Capability	Outbound			
5	4-1-1	032-0-02-08	3650	2808	Voice	Full Basic	ALL			
6	4-1-2	032-0-02-09	3650	2809	Voice	Full Basic	ALL			
7	4-2-1	032-0-02-10	3650	2810	Voice	Full Basic	ALL			
8	4-2-2	032-0-02-11	3650	2811	Voice	Full Basic	ALL			
9	4-3-1	032-0-02-12	3659	2812	Voice	Full Basic	ALL			MORE BELOW
Select a softkey >										
<div style="display: flex; justify-content: space-between; width: 100%;"> Save Cancel Hide Choice of Services </div>										

Step Action

- 6 Did you move any other agents (ports)?
- If yes, repeat steps 4 to 5 until you have modified the ACD DNs of all agents that were moved.
 - If no, go to step 8.
- 7 Press [Save] to save the changes.
- 8 Reenable the port(s).

Note: See “Reenabling the ports” on page 23-46.

Chapter 24

The VSDN table

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***Section A:* Introduction**

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Network Message Service requirements	24-6
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Overview

Introduction

Voice service directory numbers (VSDNs) are defined for every service that you want to make directly accessible to internal users or external callers, or both. These directory numbers (DNs) are entered in the Voice Services-DN (VSDN) table which maps DN to services.

Access DNs

Part of defining a VSDN is specifying the access DN. This is the number that users and callers dial to access the service.

ATTENTION

Ensure that access DNs in your VSDN definitions do not duplicate mailbox numbers or Meridian 1 trunk route access codes.

Nightly audits

Every day at 3:30 a.m., Meridian Mail performs an audit. This audit can take anywhere from 10 minutes (if the system has not been modified since the last audit) to 2 hours (if many changes have been made, such as users or services being added or modified).

ATTENTION

Do not add, modify, or delete VSDNs during the nightly audit.

When to create a VSDN

Requirement

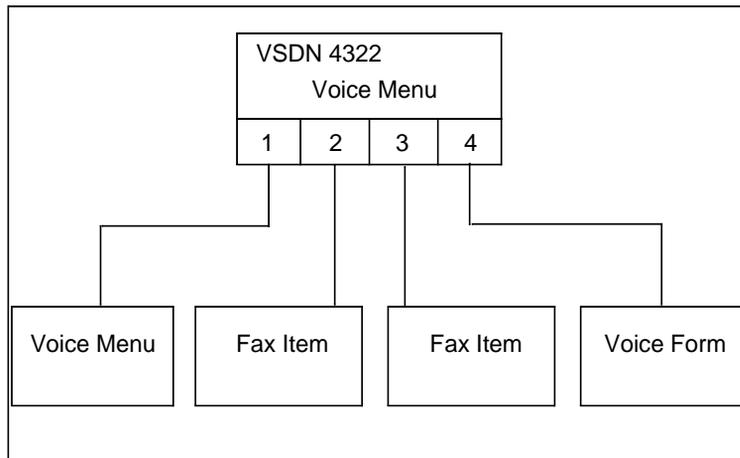
You need a VSDN for any service that you want to be directly accessible. This means that a caller dials a number to access a particular service such as a Voice Menu or Express Messaging.

You do not have to create VSDNs for services that are accessed indirectly through other services.

Example

You want to create a voice menu that starts up the following services:

- another Voice Menu
- two Fax Items
- a Voice Form



Only the first Voice Menu (that starts the other services) requires a VSDN since it is the service that you want callers to dial in to directly.

The other services that it invokes do not need VSDNs since they are not dialed in to directly. They are accessible only through the Voice Menu.

However, if you want to make the same service (like the voice form) also directly dialable, you need to create a VSDN for it.

Network Message Service requirements

NMS networks

If the Network Message Service (NMS) feature is installed, you must create a VSDN for each location at which you need a particular service.

Example

There are three NMS locations in your network: the prime location (the switch connected to Meridian Mail) and two satellite locations. You want to provide express messaging to all three locations. You, therefore, need to add three express messaging VSDNs, one for each NMS location.

DN format for the prime location

When adding VSDNs for services at the prime location, enter them in the local format.

Example

You create a VSDN for express messaging at the prime location with an access DN of 8365.

DN format for satellite locations

When adding a VSDN for a service at a satellite location, the access DN must be in a format which is dialable from the prime location, since this is what the switch passes to Meridian Mail. Consequently, it must include the ESN prefix or CDP steering code for the satellite location.

Example

You have an ESN dialing plan:

- The ESN prefix for satellite location 1 is 6444.
- The ESN prefix for satellite location 2 is 6555.
- The local extension for express messaging at satellite location 1 is 3544.
- The local extension for express messaging at satellite location 2 is 3652.

The access DN for express messaging at satellite location 1 is 64443544.

The access DN for express messaging at satellite location 2 is 65553652.

Accessing the VSDN table

Introduction

All of the procedures in this chapter are performed in the VSDN table. This procedure describes how to access the VSDN table.

Procedure

To access the VSDN table, follow these steps.

Starting Point: The Main Menu

Step Action

- 1 Select Voice Administration.

Result: The Voice Administration menu is displayed.

```

Voice Administration
-----
1 Voice Messaging Options
2 Voice Security Options
3 Restriction/Permission Lists
4 Voice Services Administration
5 Outcalling Administration
6 Voice Form Definitions

Select an item > █
Exit █ █ █ █ █
  
```

- 2 Select Voice Services Administration.

Result: The Voice Services Administration menu is displayed.

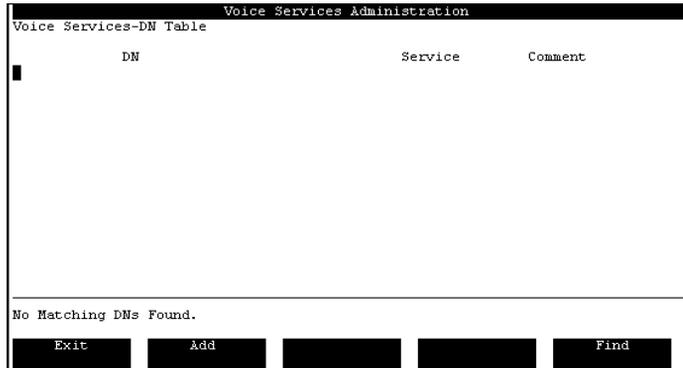
```

Voice Services Administration
-----
1 Voice Services-DN Table
2 Voice Services Profile
3 Announcement Definitions
4 Thru-Dial Definitions
5 Time-of-Day Control Definitions
6 Voice Menu Definitions
7 Fax Item Definitions

Select an item > █
Exit █ █ Set Display █ Find Subset of
Options █ VSDNs/Services █
  
```

Step Action

- 3 Select Voice Services-DN Table.

Result: The Voice Services-DN Table is displayed.

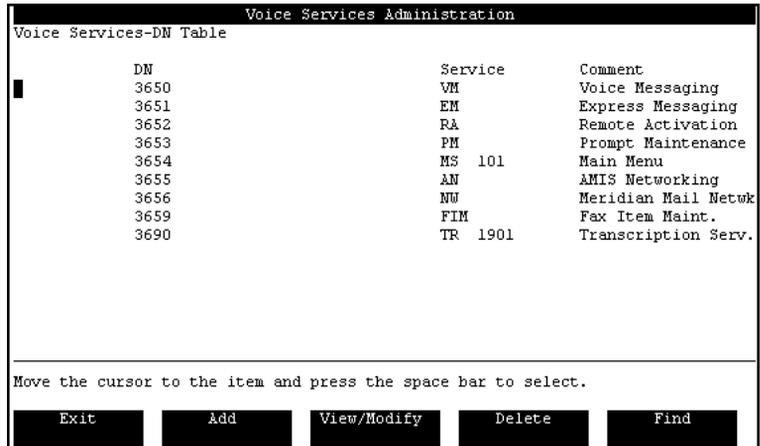
- 4 What action do you want to perform?

IF you want to	THEN	AND see
add a VSDN	press [Add]	Section B: to Section D:.
view or modify a VSDN	select the VSDN and press [View/Modify]	page 24-116.
delete a VSDN	select the VSDN and press [Delete]	page 24-119.
find a VSDN or subset of VSDNs	press [Find]	Chapter 22.

The VSDN table

The screen

This is the VSDN table for an operational system in which a number of VSDNs have already been defined.



Voice Services Administration

Voice Services-DN Table

DN	Service	Comment
3650	VM	Voice Messaging
3651	EM	Express Messaging
3652	RA	Remote Activation
3653	PM	Prompt Maintenance
3654	MS 101	Main Menu
3655	AN	AMIS Networking
3656	NW	Meridian Mail Netwk
3659	FIM	Fax Item Maint.
3690	TR 1901	Transcription Serv.

Move the cursor to the item and press the space bar to select.

Exit Add View/Modify Delete Find

Field descriptions

This table describes the fields in the VSDN table.

DN

Description	This is the directory number of the service. It is the number that is dialed to access the service.
-------------	---

Service

Description	This is the service that is accessed when the DN is dialed. Only the service acronym is displayed.
-------------	--

ID	For certain services, such as Announcements and Voice Menus, an ID is displayed next to the acronym. This is the specific service that is accessed.
----	---

Comment

Description	This is a description or title that has been assigned to the VSDN.
-------------	--

***Section B:* Adding messaging VSDNs**

In this section

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Adding a VSDN for hospitality voice messaging	24-19
Adding a VSDN for the Post-Checkout Mailbox service	24-22
Adding a VSDN for the Greetings Service	24-24

Overview

Introduction

This section describes how to add VSDNs for Voice Messaging services.

Deciding which VSDNs you need

Use this table to decide which VSDNs you need to add to your system.

IF	THEN	AND see
MMUI or VMUIF Voice Messaging is installed	create a VSDN for VM	page 24-13.
you want express messaging	create a VSDN for EM	page 24-15.
you want express messaging to a particular mailbox with voice messaging-style prompts	create a VSDN for CA	page 24-17.
Hospitality voice messaging is installed	create a VSDN for HM (instead of VM) and CO	pages 24-19 and 24-22.
VMUIF voice messaging is installed	create a VSDN for GS	page 24-24.

Adding a VSDN for Voice Messaging

Description Voice Messaging is the basic voice mail service that records voice messages when a phone is not answered (Call Answering) and allows users to compose and send voice messages.

When to use Add a VSDN for the Voice Messaging service during initial Meridian Mail setup.

Hospitality systems If Hospitality Voice Messaging is installed on your system, see “Adding a VSDN for hospitality voice messaging” on page 24-19 instead.

If installed, you can also add a DN for the Post-Checkout Mailbox service, as described on page 24-22.

Before you begin Access the VSDN table if you are not already at the screen. See “Accessing the VSDN table” on page 24-7.

Procedure To add the Voice Messaging VSDN, follow these steps.

Starting Point: The VSDN table

Step Action

- 1 Press the [Add] softkey.
Result: The Add DN Information screen is displayed.
- 2 Enter the Access DN.
Note: This is the DN of the primary ACD agent queue.

Step Action

- 3 Enter VM in the Service field.

Voice Services Administration

Add DN Information

Choice of Services:

AS	Announcement Service	CA	Call Answering	EM	Express Messaging
FI	Fax Info Service	FIM	Fax Item Maintenance	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: 3650 _____

Service: VM

Comment: Voice Messaging _____

Select a softkey >

Save Cancel _____ _____ _____

- 4 Enter an optional comment in the Comment field.
- 5 Do you want to add the VSDN with the information you have entered?

- If yes, press the [Save] softkey.
- If no, press [Cancel], or make any necessary corrections and then press [Save].

Result: You are returned to the VSDN table. If you pressed the [Save] softkey, there is now a new entry in the table for this DN.

Adding a VSDN for Express Messaging

Description	Express Messaging allows users to directly leave a message in another user's mailbox without ringing a phone.
When to use	Express Messaging is a basic feature that should be available to users once Meridian Mail is operational. The VSDN for Express Messaging should, therefore, be added during initial Meridian Mail setup.
Mailbox ID	If you define a Mailbox ID, callers to the Express Messaging service are automatically transferred to the specified mailbox.
Types of express messaging services	<p>You can create a number of Express Messaging services, each with its own VSDN.</p> <p>Application 1: general Express Messaging service This is the typical Express Messaging application that allows users to activate the Express Messaging service, dial any mailbox without ringing the associated phone, and leave a message directly in the mailbox.</p> <p>For this type of service, do not enter a mailbox ID.</p> <p>Application 2: suggestion box In this application, when the Express Messaging DN is dialed, the caller is forwarded to a specific mailbox (a suggestion box) to leave a message.</p> <p>This application requires that you</p> <ul style="list-style-type: none">• set up a special mailbox just for this purpose. (See “Adding a local voice user” on page 8-6.)• enter the mailbox ID in the Add DN Information screen
Before you begin	Access the VSDN table if you are not already at the screen. See “Accessing the VSDN table” on page 24-7.

Procedure

To add the Express Messaging VSDN, follow these steps.

Starting Point: The VSDN table

Step Action

- 1 Press the [Add] softkey.
Result: The Add DN Information screen is displayed.
- 2 Enter the Access DN.
- 3 Enter EM in the Service field.
Result: The Mailbox ID field is displayed.

```

Voice Services Administration
Add DN Information

Choice of Services:
AS Announcement Service  CA Call Answering      EM Express Messaging
FI Fax Info Service      FIM Fax Item Maintenance  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:      3651
Service:       EM      Mailbox ID:
Comment:      Express Messaging

Select a softkey >
Save  Cancel
  
```

- 4 Do you want callers to be forwarded to a particular mailbox when using this service?
 - If yes, enter the number of the mailbox to which you want to forward users in the Mailbox ID field.
 - If no, leave the Mailbox ID field blank.
- 5 Enter an optional comment in the Comment field.
- 6 Do you want to add the VSDN with the information you have entered?
 - If yes, press the [Save] softkey.
 - If no, press [Cancel], or make any necessary corrections and then press [Save].

Result: You are returned to the VSDN table. If you pressed the [Save] softkey, there is now a new entry in the table for this DN.

Adding a VSDN for Call Answering

- Description** Call Answering is a service that transfers all calls to its DN directly to Voice Messaging for a particular preset mailbox, without ringing that mailbox's DN. For details on what messages/prompts the caller will hear, see "How Call Answering uses personal greetings and personal verifications" on page 5-7.
- When to use** Add a VSDN for the Call Answering service during initial Meridian Mail setup.
- Before you begin** Access the VSDN table if you are not already at the screen. See "Accessing the VSDN table" on page 24-7.
- Procedure** To add a DN for the Call Answering Service, follow these steps.

Starting Point: The VSDN table

Step Action

- 1 Press the [Add] softkey.
Result: The Add DN Information screen is displayed.
- 2 Enter the Access DN.
- 3 Enter CA in the Service field.
Result: The Mailbox ID field is displayed.

```

Voice Services Administration
Add DN Information

Choice of Services:
AS Announcement Service  CA Call Answering          CO Post Checkout Mailbox
EM Express Messaging     FI Fax Info Service     FIM Fax Item Maintenance
HM Hospitality Messaging  MS Voice Menu Service   PM Prompt Maintenance
RA Remote Activation     TD Time-of-Day Control  TR Transcription Service
TS Thru-Dial Service     VF Voice Forms Service

Access DN:      5567
Service:       CA      Mailbox ID: 4142
Comment:      Call Answering

Select a softkey >
Save          Cancel
  
```

Step Action

- 4 Enter the number of the user's mailbox in the Mailbox ID field. All calls to this Call Answering service will be transferred directly to that mailbox.
- 5 Enter an optional comment in the Comment field.
- 6 Do you want to add the VSDN with the information you have just entered?
 - If yes, press the [Save] softkey.
 - If no, press [Cancel], or make any necessary corrections and then press [Save].

Result: You are returned to the VSDN table. If you pressed the [Save] softkey, there is now a new entry in the table for this DN.

Adding a VSDN for hospitality voice messaging

Description

Hospitality voice messaging is the basic voice mail service that is used when Hospitality is installed. This service records voice messages when a phone is not answered (call answering) and allows users to compose and send voice messages.

In addition to these regular voice messaging features, hospitality voice messaging has two additional telset interfaces: one for guests and one for staff.

When to use

If you have a Hospitality Meridian Mail system, follow this procedure for adding the hospitality voice messaging VSDN instead of the one on page 24-13. Add the VSDN for hospitality voice messaging during initial Meridian Mail setup.

Auto logon

When you add the DN for hospitality voice messaging, you must specify if auto logon is enabled or disabled.

This is how auto logon works.

WHEN auto logon is	THEN guests and staff
enabled	<ul style="list-style-type: none"> • can log on to their mailboxes without entering the mailbox number and password when calling in from their own phone. • must enter their mailbox number and password if calling from a phone that has a mailbox with auto logon disabled or does not have a mailbox associated with it.
disabled	must enter their mailbox number and password to log on regardless of which phone they use to log on (their own or someone else's phone).

Auto logon in the user profile There is also an Auto logon field in the Add and View/Modify Local Voice User screen.

Both of these fields (in the Add DN Information screen and the Add Local Voice User screen) must be enabled for users to be able to auto logon.

This table shows how these two fields interact.

WHEN the VSDN setting is	AND the local voice user setting is	THEN the user
enabled	enabled	can auto logon.
enabled	disabled	cannot auto logon.
disabled	enabled	cannot auto logon.
disabled	disabled	cannot auto logon.

Multiple voice messaging services

You can create two hospitality voice messaging services: one in which auto logon is disabled and one in which it is enabled.

Before you begin

Access the VSDN table if you are not already at the screen. See “Accessing the VSDN table” on page 24-7.

Procedure

To add the hospitality voice messaging VSDN, follow these steps.

Starting Point: The VSDN table

Step Action

1 Press the [Add] softkey.

Result: The Add DN Information screen is displayed.

2 Enter the Access DN.

Note: This is the DN of the primary ACD agent queue.

3 Enter HM in the Service field.

The screenshot shows the 'Add DN Information' screen within the 'Voice Services Administration' interface. The screen contains the following text and fields:

- Title:** Add DN Information
- Choice of Services:**
 - AN AMIS Networking
 - EM Express Messaging
 - HM Hospitality Messaging
 - CO Post Checkout Mailbox
- Access DN:** 3699
- Service:** HM
- Auto Logon:** Disabled Enabled
- Comment:** Hospitality VM
- Bottom Bar:** Select a softkey > Save Cancel [Three unlabeled buttons]

4 Do you want to enable auto logon for this service?

- If yes, select Enabled in the Auto Logon field.
- If no, select Disabled in the Auto Logon field.

5 Enter an optional comment in the Comment field.

6 Do you want to add the VSDN with the information you have entered?

- If yes, press the [Save] softkey.
- If no, press [Cancel], or make any necessary corrections and then press [Save].

Result: You are returned to the VSDN table. If you pressed the [Save] softkey, there is now a new entry in the table for this DN.

Adding a VSDN for the Post-Checkout Mailbox service

- Description** Post-Checkout Mailbox is a hospitality feature that allows guests who have checked out to call in for messages that were unread at the time of checkout.
- When to use** You need to create this DN only if Hospitality Voice Messaging is installed and if you want to implement the Post-Checkout Mailbox feature.
- Before you begin** Access the VSDN table if you are not already at the screen. See “Accessing the VSDN table” on page 24-7.
- Procedure** To add a DN for the Post-Checkout Mailbox service, follow these steps.

Starting Point: The VSDN table

Step Action

- 1 Press the [Add] softkey.
Result: The Add DN Information screen is displayed.
- 2 Enter the Access DN.
- 3 Enter CO in the Service field.

```

Voice Services Administration
Add DN Information
Choice of Services:
AN AMIS Networking      EM Express Messaging    HM Hospitality Messaging
CO Post Checkout Mailbox

Access DN:      3680
Service:       CO
Comment:       PostCheckOut_MBox

Select a softkey >
Save  Cancel
  
```

Step Action

- 4 Enter an optional comment in the Comment field.
- 5 Do you want to add the VSDN with the information you have entered?
 - If yes, press the [Save] softkey.
 - If no, press [Cancel], or make any necessary corrections and then press [Save].

Result: You are returned to the VSDN table. If you pressed the [Save] softkey, there is now a new entry in the table for this DN.

Adding a VSDN for the Greetings Service

- Description** The Greetings Service allows VMUIF users who do not have DTMF (touch-tone) phones to update their greetings without having to provide any keypad input. This service can also be provided to subscribers with digitone phones if they want a simplified interface for changing greetings.
- When to use** If VMUIF is installed on your system, you should create a VSDN for the Greetings Service.
- Before you begin** Access the VSDN table if you are not already at the screen. See “Accessing the VSDN table” on page 24-7.
- Procedure** To add a DN for the Greetings Service, follow these steps.

Starting Point: The VSDN table

Step Action

- 1 Press the [Add] softkey.
Result: The Add DN Information screen is displayed.
- 2 Enter the Access DN.
- 3 Enter GS in the Service field.

```

Voice Services Administration
Add DN Information
Choice of Services:
AS Announcement Service  FI Fax Info Service      FIM Fax Item Maintenance
GS Greetings Service     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:      8605
Service:       GS
Comment:      Greetings Service
Select a softkey >
Save          Cancel

```

- 4 Enter an optional comment in the Comment field.

Step Action

5 Do you want to add the VSDN with the information you have entered?

- If yes, press the [Save] softkey.
- If no, press [Cancel], or make any necessary corrections and then press [Save].

Result: You are returned to the VSDN table. If you pressed the [Save] softkey, there is now a new entry in the table for this DN.

***Section C:* Adding networking and ACCESS VSDNs**

In this section

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Adding a VSDN for Meridian Networking	24-31
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Overview

Enterprise Networking Meridian Mail offers three types of networking capabilities that include AMIS Networking, Meridian Networking, and Enterprise Networking.

A VSDN is required for Enterprise Networking if you are expanding to Enterprise Networking or if you are adding Enterprise Networking.

AMIS and Enterprise Networking

When both AMIS Networking and Enterprise Networking are installed, they can share the same VSDN. The drawback to this method is that you will not be able to see separate statistics in Operational Measurements for these two services as they will be combined.

If both AMIS and Enterprise Networking are installed, you can do any one of the following:

- Create two separate VSDNs, one for AMIS (AN) and one for Enterprise Networking (EN).
- Create only one VSDN for AN that is shared by both networking types.
- Create only one VSDN for EN that is shared by both networking types.

Adding a VSDN for AMIS Networking

- Description** AMIS Networking allows Meridian Mail users to send voice messages to and receive voice messages from other voice messaging systems that use the AMIS protocol.
- When to use** If you are adding AMIS Networking to your system, you must create a VSDN for it. This VSDN establishes a network connection for the AMIS format message transfer.
- If Enterprise Networking is installed, it can share this DN.
- Before you begin** Access the VSDN table if you are not already at the screen. See “Accessing the VSDN table” on page 24-7.
- Procedure** To add a DN for AMIS Networking, follow these steps.

Starting Point: The VSDN table

Step Action

- 1 Press the [Add] softkey.
Result: The Add DN Information screen is displayed.
- 2 Enter the Access DN.
- 3 Enter AN in the Service field.

```

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:      3655

Service:       AN

Comment:      AMIS Networking

Select a softkey >
Save          Cancel

```

Step Action

- 4 Enter an optional comment in the Comment field.
- 5 Do you want to add the VSDN with the information you have entered?
 - If yes, press the [Save] softkey.
 - If no, press [Cancel], or make any necessary corrections and then press [Save].

Result: You are returned to the VSDN table. If you pressed the [Save] softkey, there is now a new entry in the table for this DN.

Adding a VSDN for Meridian Networking

Description Meridian Networking allows Meridian Mail users to send voice messages to and receive voice messages from users at other Meridian Mail sites that are defined in the network database. This type of networking uses the Meridian protocol to transfer messages.

When to use If you are adding Meridian Networking to your system and you want to use it, you must create a VSDN for it. This VSDN establishes a network connection for the transfer of voice messages.

Before you begin Access the VSDN table if you are not already at the screen. See “Accessing the VSDN table” on page 24-7.

Procedure To add a DN for Meridian Networking, follow these steps.

Starting Point: The VSDN table

Step Action

- 1 Press the [Add] softkey.
Result: The Add DN Information screen is displayed.
- 2 Enter the Access DN.
- 3 Enter NW in the Service field.

```

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:      3656
Service:        NW
Comment:        Meridian Networking

Select a softkey >
Save           Cancel
  
```

Step Action

- 4 Enter an optional comment in the Comment field.
- 5 Do you want to add the VSDN with the information you have entered?
 - If yes, press the [Save] softkey.
 - If no, press [Cancel], or make any necessary corrections and then press [Save].

Result: You are returned to the VSDN table. If you pressed the [Save] softkey, there is now a new entry in the table for this DN.

Adding a VSDN for Enterprise Networking

Description	<p>Enterprise Networking provides most of the functionality of Meridian Networking, but uses DTMF signaling, based on the AMIS protocol, instead of modems to transmit messages.</p> <p>The Remote Voice User Propagation feature is unique to Enterprise Networking. It allows you to automatically add temporary remote voice users to your system.</p>
When to use	<p>If you are adding Enterprise Networking to your system and you want to implement it, you must create a VSDN. This DN is used to establish a network connection for the transfer of voice messages using Enterprise Networking.</p>
Dedicated versus shared DN	<p>You can create a DN specifically for Enterprise Networking (EN). Alternatively, Enterprise Networking can share a DN with any of the following services:</p> <ul style="list-style-type: none">• AMIS networking (AN)• Voice Menu Service (MS)• Thru-Dial Service (TS)• Announcement Service (AS)• Time-of-day Controller Service (TD) <p>If Enterprise Networking shares a DN with any of these other services, it means that there is one less VSDN to configure.</p>
Before you begin	<p>Access the VSDN table if you are not already at the screen. See “Accessing the VSDN table” on page 24-7.</p>

Adding an EN DN for Enterprise Networking To add an EN DN for Enterprise Networking, follow these steps.

Starting Point: The VSDN table

Step Action

- 1 Press the [Add] softkey.
Result: The Add DN Information screen is displayed.
- 2 Enter the Access DN.
- 3 Enter EN in the Service field.

```

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:      3691
Service:       EN
Comment:       Enterprise Network

Select a softkey >
Save  Cancel
  
```

- 4 Enter an optional comment in the Comment field.
- 5 Do you want to add the VSDN with the information you have entered?
 - If yes, press the [Save] softkey.
 - If no, press [Cancel], or make any necessary corrections and then press [Save].

Result: You are returned to the VSDN table. If you pressed the [Save] softkey, there is now a new entry in the table for this DN.

Sharing the AMIS DN

To have Enterprise Networking share a DN with AMIS, add a VSDN for AMIS if this has not already been done. If an AMIS DN already exists, no additional configuration is required. See “Adding a VSDN for AMIS Networking” on page 24-29.

Sharing a DN with a voice service

If you want Enterprise Networking to share a DN with one of MS, TS, AS, or TD, follow these steps. This procedure assumes that at least one VSDN exists for one of these four services.

Starting Point: The Voice Services Administration menu

Step Action

- 1 Select Voice Services Profile.

Result: The Voice Services Profile screen is displayed.

The screenshot shows the 'Voice Services Administration' window with the following configuration details:

```

Voice Services Administration
Voice Services Profile
Voice Services Volume: 1
Timeouts
  Command Entry: 3.5 seconds      Short Disconnect: 10.0 seconds
  Record (mm:ss): 02:00
Maximum Prompt Sizes for Announcements (mm:ss): 00:30
  other voice recordings (mm:ss): 02:00
Act on AMIS/Enterprise Initiator Tone: No Yes
Enable Update Logging: No Yes
Business Hours Default: 08:30 to 17:00
Holidays  Start Date  End Date  Start Time  Comments
Select a softkey >
Save  Cancel
  
```

- 2 Is the Act on AMIS/Enterprise Initiator Tone field set to Yes?
 - If yes, leave it as is.
 - If no, set it to Yes.

- 3 Press [Save].

Result: Whenever a call comes into any voice menu (MS), thru-dialer (TS), announcement (AS), or time-of-day controller (TD), Meridian Mail will be able to tell whether it is an Enterprise Networking call and process it accordingly.

Adding a VSDN for a Meridian ACCESS application

Description	ACCESS applications include IVR applications and VISIT Messenger.
When to use	Create a VSDN for each ACCESS application that you want to make directly accessible to callers.
The ACCESS class	Every ACCESS application has a unique identifier known as a class. This is similar to the concept of an ID. It indicates which ACCESS application you want to run when the VSDN is dialed.
The Revert DN	When adding a VSDN for an ACCESS application, you can specify a Revert DN in your VSDN definition. If an ACCESS application goes off-line, calls are transferred to this DN.
Before you begin	Access the VSDN table if you are not already at the screen. See “Accessing the VSDN table” on page 24-7.
Procedure	To add a DN for an ACCESS application, follow these steps.

Starting Point: The VSDN table

Step Action

- 1 Press the [Add] softkey.
Result: The Add DN Information screen is displayed.
- 2 Enter the Access DN.

Step Action

3 Enter ACC in the Service field.

Result: The Class and Revert DN fields are displayed.

```

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:      3682
Service:       ACC      Class:      1334
Revert DN:     3900

Comment:       IVR App 1

Select a softkey >
Save          Cancel
  
```

4 Enter the ACCESS class.

5 Enter a Revert DN if necessary.

6 Enter an optional comment in the Comment field.

7 Do you want to add the VSDN with the information you have entered?

- If yes, press the [Save] softkey.
- If no, press [Cancel], or make any necessary corrections and then press [Save].

Result: You are returned to the VSDN table. If you pressed the [Save] softkey, there is now a new entry in the table for this DN.

***Section D:* Adding voice service and fax service DNs**

In this section

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Overview

Introduction

When you add a VSDN for any of the following services, you must assign a session profile to it:

- voice menu
- time-of-day controller
- fax item
- fax item maintenance service

Session profiles

There are three predefined session profiles from which to choose. They are based on the channel capability that is required to run the service:

- Basic service
- Full-service voice
- Full-service multimedia

If none of these predefined session profiles meets your needs, you can create a custom session profile. Procedures in this section indicate when you need to select or customize a session profile.

For more information about session profiles, see the section "Session profiles" on page 24-67.

Adding a VSDN for an announcement

- Description** An announcement is a voice service that is part of the Voice Menus feature. An announcement is simply a recording that is played to a caller.
- When to use** Create a VSDN for an announcement if you want users or callers to be able to access the announcement directly by dialing a number.
- Before you begin** Access the VSDN table if you are not already at the screen. See “Accessing the VSDN table” on page 24-7.
- Procedure** To create a VSDN for an announcement, follow these steps.

Starting Point: The VSDN table

Step Action

- 1 Press the [Add] softkey.
Result: The Add DN Information screen is displayed.
- 2 Enter the Access DN.
- 3 Enter AS in the Service field.
Result: The Announcement ID field is displayed.

Voice Services Administration

Add DN Information

Choice of Services:

AS Announcement Service	CA Call Answering	EM Express Messaging
FI Fax Info Service	FIM Fax Item Maintenance	FM 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: 3630

Service: AS Announcement ID: 4104

Comment: Directions

Select a softkey >

Save	Cancel		
------	--------	--	--

Step Action

- 4 Enter the Announcement ID.
Note: If you have not created the announcement yet, you must enter an ID to save the VSDN. Enter an ID and use this ID when creating the announcement.
 - 5 Enter an optional comment in the Comment field.
 - 6 Do you want to add the VSDN with the information you have entered?
 - If yes, press the [Save] softkey.
 - If no, press [Cancel], or make any necessary corrections and then press [Save].**Result:** You are returned to the VSDN table. If you pressed the [Save] softkey, there is now a new entry in the table for this DN.
-

Adding a VSDN for a thru-dial service

- Description** A thru-dialer is a voice service that is part of the voice menus feature. Its function is to provide call handling. When a caller accesses a thru-dialer, he or she is prompted for an extension number. The thru-dialer then places the phone call.
- When to use** Create a VSDN for a thru-dialer if you want users or callers to be able to access the thru-dialer directly by dialing a number.
- Before you begin** Access the VSDN table if you are not already at the screen. See “Accessing the VSDN table” on page 24-7.
- Procedure** To create a VSDN for a thru-dialer, follow these steps.

Starting Point: The VSDN table

Step Action

- 1 Press the [Add] softkey.
Result: The Add DN Information screen is displayed.
- 2 Enter the Access DN.
- 3 Enter TS in the Service field.
Result: The Thru-Dial ID field is displayed.

```

Voice Services Administration
Add DN Information
Choice of Services:
AS Announcement Service  CA Call Answering      EM Express Messaging
FI Fax Info Service      FIM Fax Item Maintenance  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:      3644
Service:       TS      Thru-Dial ID: 4234
Comment:       Lunchtime ThruDial

Select a softkey >
Save          Cancel
  
```

Step Action

4 Enter the Thru-Dial ID.

Note: If you have not created the thru-dialer yet, you must enter an ID to save the VSDN. Enter an ID and use this ID when creating the thru-dialer.

5 Enter an optional comment in the Comment field.

6 Do you want to add the VSDN with the information you have entered?

- If yes, press the [Save] softkey.
- If no, press [Cancel], or make any necessary corrections and then press [Save].

Result: You are returned to the VSDN table. If you pressed the [Save] softkey, there is now a new entry in the table for this DN.

Adding a VSDN for a voice menu

- Description** Voice menus present callers with a list of options from which they can make a selection by pressing the appropriate key on their telephone keypad.
- When to use** Create a VSDN for a voice menu if you want users or callers to be able to access the voice menu directly by dialing a number.
- Choosing the session profile** You must assign a session profile to all voice menus for which you add a VSDN. Use this table to decide what kind of session profile you need for the voice menu.

IF the voice menu	THEN
invokes one or more of the following <i>only</i> : <ul style="list-style-type: none"> • ACCESS applications (such as IVR) • announcements • thru-dial services • voice prompt maintenance • remote activation • voice menu commands (such as play prompt, call revert DN, or repeat menu choices) • other voice menus or time-of-day controllers that invoke the above services only 	<ul style="list-style-type: none"> • select the basic service session profile. or <ul style="list-style-type: none"> • create a custom session profile and set channel capability to Basic.
invokes any of the following: <ul style="list-style-type: none"> • voice messaging • express messaging • call answering • fax items using call back delivery mode • other voice menus or time-of-day controllers that invoke any of the above services 	<ul style="list-style-type: none"> • select the full-service voice session profile. or <ul style="list-style-type: none"> • create a custom session profile and set channel capability to Full Voice.
invokes any of the following: <ul style="list-style-type: none"> • fax item maintenance • fax items using same call or caller choice delivery mode 	<ul style="list-style-type: none"> • choose the full-service multimedia session profile. or <ul style="list-style-type: none"> • create a custom session profile and set channel capability to Full MultiMedia.

When to create a custom session profile

Review the default session profiles starting on page 24-81. If the default session profiles do not meet your needs, you must create a custom profile. See “Customizing the session profile for Voice Menus, Fax Items, and Time-of-Day Controllers” on page 24-90.

Determining how many VSDNs you need

If the voice menu invokes fax services that you want to be able to deliver to different caller markets (such as national and international), you may have to create multiple VSDNs. See “Determining how many VSDNs you need for a callback fax service” on page 24-78.

Before you begin

Access the VSDN table if you are not already at the screen. See “Accessing the VSDN table” on page 24-7.

Procedure

To create a VSDN for a voice menu, follow these steps.

Starting Point: The VSDN table

Step Action

- 1 Press the [Add] softkey.
Result: The Add DN Information screen is displayed.
- 2 Enter the Access DN.
- 3 Enter MS in the Service field.
Result: The Voice Menu ID and Session Profile fields are displayed. The [Session Profile Detail] softkey is also displayed.

Voice Services Administration			
Add DN Information			
Choice of Services:			
AS	Announcement Service	CA	Call Answering
EM	Express Messaging	PM	Prompt Maintenance
FI	Fax Info Service	FIM	Fax Item Maintenance
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:	3640		
Service:	MS	Voice Menu ID:	4170
Session Profile:	Custom Full_MultiMedia Full_Voice Basic		
Comment:	New Products		
Select a softkey >			
Save	Cancel	Session Profile Detail	

Step Action

- 4 Enter the Voice Menu ID.
Note: If you have not created the voice menu yet, you must enter an ID to save the VSDN. Enter an ID and use this ID when creating the voice menu.
- 5 Do you need to create a custom session profile?
- If yes, see the section "Session profiles" on page 24-67 and then go to step 9.
 - If no, go to step 6.
- 6 Select one of the predefined session profiles (Basic, Full Voice, or Full MultiMedia).
- 7 Do you want to view the session profile?
- If yes, press the [Session Profile Detail] softkey.
 - If no, go to step 9.
- 8 Review the session profile and press [Return to Previous Form] when you are ready to return to the Add DN Information screen.
- 9 Enter an optional comment in the Comment field.
- 10 Do you want to add the VSDN with the information you have entered?
- If yes, press the [Save] softkey.
 - If no, press [Cancel], or make any necessary corrections and then press [Save].
- Result:** You are returned to the VSDN table. If you pressed the [Save] softkey, there is now a new entry in the table for this DN.
-

Adding a VSDN for a time-of-day controller

Description	Time-of-day controllers direct calls to different services based on the time of day that the call is received.
When to use	Create a VSDN for a time-of-day controller if you want users or callers to be able to access the time-of-day controller directly by dialing a number.
Selecting the session profile	Use this table to decide what kind of session profile you need for the time-of-day controller.

IF the time-of-day controller	THEN
invokes one or more of the following <i>only</i> : <ul style="list-style-type: none"> • ACCESS applications (such as IVR) • announcements • thru-dial services • voice prompt maintenance • remote activation • other voice menus or time-of-day controllers that invoke the above services only 	<ul style="list-style-type: none"> • choose the basic service session profile. or • create a custom session profile and set channel capability to Basic.
invokes any of the following: <ul style="list-style-type: none"> • voice messaging • express messaging • fax items using callback delivery mode • other voice menus or time-of-day controllers that invoke any of the above services 	<ul style="list-style-type: none"> • choose the full-service voice session profile. or • create a custom session profile and set channel capability to Full Voice.
invokes any of the following: <ul style="list-style-type: none"> • fax item maintenance • fax items using same call or caller choice delivery mode 	<ul style="list-style-type: none"> • choose the full-service multimedia session profile. or • create a custom session profile and set channel capability to Full MultiMedia.

When to create a custom session profile

Review the default session profiles starting on page 24-81. If the default session profiles do not meet your needs, you must create a custom profile. See “Customizing the session profile for Voice Menus, Fax Items, and Time-of-Day Controllers” on page 24-90.

Determining how many VSDNs you need

If the time-of-day controller invokes fax services that you want to be able to deliver to different caller markets (such as national and international), you may have to create multiple VSDNs. See “Determining how many VSDNs you need for a callback fax service” on page 24-78.

Before you begin

Access the VSDN table if you are not already at the screen. See “Accessing the VSDN table” on page 24-7.

Procedure

To create a VSDN for a time-of-day controller, follow these steps.

Starting Point: The VSDN table

Step Action

- 1 Press the [Add] softkey.
Result: The Add DN Information screen is displayed.
- 2 Enter the Access DN.
- 3 Enter TD in the Service field.
Result: The Time-of-Day Control ID and Session Profile fields are displayed. The [Session Profile Detail] softkey is also displayed.

```

Voice Services Administration
Add DN Information

Choice of Services:
AS Announcement Service CA Call Answering EM Express Messaging
FI Fax Info Service FIM Fax Item Maintenance 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: 3693
Service: TD Time-of-Day Control ID: 4101
Session Profile: Custom Full_MultiMedia Full_Voice Basic
Comment: TimeOfDayController

Select a softkey >
Save Cancel Session Profile Detail

```

- 4 Enter the Time-of-Day Control ID.
Note: If you have not created the time-of-day controller yet, you must enter an ID to save the VSDN. Enter an ID and use it when creating the time-of-day controller.
- 5 Do you need to create a custom session profile?
 - If yes, see the section "Session profiles" on page 24-67 and then go to step 9.
 - If no, go to step 6.
- 6 Select one of the predefined session profiles (Basic, Full Voice, or Full MultiMedia).
- 7 Do you want to view the session profile?
 - If yes, press the [Session Profile Detail] softkey.
 - If no, go to step 9.

Step Action

- 8 Review the session profile and press [Return to Previous Form] when you are ready to return to the Add DN Information screen.
- 9 Enter an optional comment in the Comment field.
- 10 Do you want to add the VSDN with the information you have entered?
 - If yes, press the [Save] softkey.
 - If no, press [Cancel], or make any necessary corrections and then press [Save].

Result: You are returned to the VSDN table. If you pressed the [Save] softkey, there is now a new entry in the table for this DN.

Adding a VSDN for Voice Prompt Maintenance

- Description** Voice prompt maintenance is a service that allows you to update prompts in voice menus and related services from a remote phone.
- When to use** Create a VSDN if you want to use this service and have it directly accessible.
- Before you begin** Access the VSDN table if you are not already at the screen. See “Accessing the VSDN table” on page 24-7.
- Procedure** To create a VSDN for the voice prompt maintenance service, follow these steps.

Starting Point: The VSDN table

Step Action

- 1 Press the [Add] softkey.
Result: The Add DN Information screen is displayed.
- 2 Enter the Access DN.
- 3 Enter PM in the Service field.
Result: When more than one language is installed, the Language of Service field is displayed.

```

Voice Services Administration
Add DN Information
Choice of Services:
AS Announcement Service  CA Call Answering          EM Express Messaging
FI Fax Info Service      FIM Fax Item Maintenance  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:      3641
Service:       PM      Language of Service:  American_English
                                         Canadian_French
Comment:       Prompt Maintenance

Select a softkey >
Save  Cancel
  
```

Step Action

- 4 If more than one language is installed, select the language in which you want prompt maintenance prompts to be played.
- 5 Do you want to add the VSDN with the information you have entered?
 - If yes, press the [Save] softkey.
 - If no, press [Cancel], or make any necessary corrections and then press [Save].

Result: You are returned to the VSDN table. If you pressed the [Save] softkey, there is now a new entry in the table for this DN.

Adding a VSDN for Remote Activation

- Description** Remote Activation allows you to call in to Meridian Mail from a remote phone and assign a different service to a VSDN.
- When to use** Create a VSDN for the Remote Activation service if you want it to be directly accessible by dialing a number.
- The remote activation password** You must define a password for Remote Activation. When a caller dials in to the service, this password must be entered to gain access. This is a security measure to ensure that unauthorized personnel do not use this feature.
- Before you begin** Access the VSDN table if you are not already at the screen. See “Accessing the VSDN table” on page 24-7.
- Procedure** To create a VSDN for Remote Activation, follow these steps.

Starting Point: The VSDN table

Step Action

- 1 Press the [Add] softkey.
Result: The Add DN Information screen is displayed.
- 2 Enter the Access DN.
- 3 Enter RA in the Service field.
Result: The Password field is displayed.

```

Voice Services Administration
Add DN Information

Choice of Services:
AS Announcement Service  CA Call Answering          EM Express Messaging
FI Fax Info Service      FIM Fax Item Maintenance 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:      3642
Service:       RA      Password: 14987422
Comment:      Remote Activation

Select a softkey >
Save          Cancel
  
```

Step Action

4 Enter a password.

Note: This password must be defined. If no password is entered, remote activation is not enabled.

5 Do you want to add the VSDN with the information you have entered?

- If yes, press the [Save] softkey.
- If no, press [Cancel], or make any necessary corrections and then press [Save].

Result: You are returned to the VSDN table. If you pressed the [Save] softkey, there is now a new entry in the table for this DN.

Adding a VSDN for a voice form

Description	Voice forms present callers with a series of questions to which callers respond with spoken answers.
When to use	Create a VSDN for a voice form if you want it to be directly accessible by dialing a number.
Before you begin	Access the VSDN table if you are not already at the screen. See “Accessing the VSDN table” on page 24-7.
Procedure	To create a VSDN for a voice form, follow these steps.

Starting Point: The VSDN table

Step Action

- 1 Press the [Add] softkey.
Result: The Add DN Information screen is displayed.
- 2 Enter the Access DN.
- 3 Enter VF in the Service field.
Result: The Voice Form ID field is displayed.

```

Voice Services Administration
Add DN Information
Choice of Services:
AS Announcement Service  CA Call Answering      EM Express Messaging
FI Fax Info Service      FIM Fax Item Maintenance  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:      3701
Service:       VF      Voice Form ID: 4304
Comment:      JAG Feedback

Select a softkey >
Save  Cancel  [ ]  [ ]  [ ]
  
```

Step Action

- 4 Enter the voice form ID.
Note: If you have not created the voice form yet, you must enter an ID to save the VSDN. Enter an ID and use this ID when creating the voice form.
- 5 Do you want to add the VSDN with the information you have entered?
- If yes, press the [Save] softkey.
 - If no, press [Cancel], or make any necessary corrections and then press [Save].
- Result:** You are returned to the VSDN table. If you pressed the [Save] softkey, there is now a new entry in the table for this DN.
-

Adding a VSDN for the Transcription Service

Description	The Transcription Service is part of the Voice Forms feature. It allows a transcriber to log in to a voice form, listen to the recorded responses, and transcribe them.
When to use	Create a VSDN for the Transcription Service if you want it to be directly accessible by dialing a number.
Types of transcription services	<p>You can create two different types of Transcription Services:</p> <ul style="list-style-type: none">• a service that retrieves any voice form as specified by the transcriber• a service that retrieves a specific voice form as defined in the Add DN Information screen
Application 1: General transcription service	<p>In this application, when the transcriber logs on to the service, he or she is prompted for the ID of the voice form to be transcribed. This allows the transcriber to access any existing voice form.</p> <p>If you want to create only one Transcription Service, create this kind and leave it up to the transcriber to decide which voice form to retrieve.</p> <p>For this application, do not enter a Voice Form ID when adding the VSDN.</p>
Application 2: Voice-form specific	<p>In this application, a particular voice form is associated with the VSDN. Whenever the VSDN is dialed, that voice form is automatically retrieved for transcription. You can have multiple transcription VSDNs so that a number of voice forms can be called up directly depending on the VSDN that was dialed.</p> <p>You may want to do this if you have just implemented a voice form to which you expect a lot of responses, and you, therefore, want to have it transcribed frequently.</p> <p>For this application, enter a Voice Form ID when adding the VSDN.</p>

Before you begin

Access the VSDN table if you are not already at the screen. See “Accessing the VSDN table” on page 24-7.

Procedure

To create a VSDN for the Transcription Service, follow these steps.

Starting Point: The VSDN table.

Step Action

- 1 Press the [Add] softkey.
Result: The Add DN Information screen is displayed.
- 2 Enter the Access DN.
- 3 Enter TR in the Service field.
Result: The Voice Form ID field is displayed.

```

Voice Services Administration
Add DN Information

Choice of Services:
AS Announcement Service  CA Call Answering           EM Express Messaging
FI Fax Info Service      FIM Fax Item Maintenance  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:      3710
Service:       TR      Voice Form ID: _____
Comment:      General Transcriber

Select a softkey >
Save  Cancel  [ ]  [ ]  [ ]

```

- 4 Do you want this transcription service to automatically retrieve a particular voice form?
 - If yes, enter the Voice Form ID.
Note: If you have not created the voice form yet, you must enter an ID to save the VSDN. Enter an ID and use it when creating the voice form.
 - If no, leave the Voice Form ID field blank.

Step Action

5 Do you want to add the VSDN with the information you have entered?

- If yes, press the [Save] softkey.
- If no, press [Cancel], or make any necessary corrections and then press [Save].

Result: You are returned to the VSDN table. If you pressed the [Save] softkey, there is now a new entry in the table for this DN.

Adding a VSDN for the Fax Information Service

Description The Fax Information Service is part of the Fax on Demand feature. It is used to create fax items that are sent to callers on request.

When to use Create a VSDN for a fax item if you want users or callers to be able to access it directly by dialing a number.

Selecting the session profile Use this table to decide which session profile you need for a fax item.

If the fax delivery mode	THEN
is callback	<ul style="list-style-type: none"> • choose the full-service voice session profile. or • create a custom session profile and set the channel capability to Full Voice.
is caller choice or same call	<ul style="list-style-type: none"> • choose the full-service multimedia session profile. or • create a custom session profile and set the channel capability to Full MultiMedia.

When to create a custom session profile

Review the configurations of the default full-service voice session profile on page 24-83 and the full-service multimedia session profile on page 24-86. If the default session profiles do not meet your needs, you must create a custom profile. See “Customizing the session profile for Voice Menus, Fax Items, and Time-of-Day Controllers” on page 24-90.

Determining how many VSDNs you need

If you want this fax item to be delivered to different caller markets (such as national and international), you may have to create multiple VSDNs. See “Determining how many VSDNs you need for a callback fax service” on page 24-78.

Before you begin

Access the VSDN table if you are not already at the screen. See “Accessing the VSDN table” on page 24-7.

Procedure

To create a VSDN for a fax item, follow these steps.

Starting Point: The VSDN table

Step Action

- 1 Press the [Add] softkey.
Result: The Add DN Information screen is displayed.
- 2 Enter the Access DN.
- 3 Enter FI in the Service field.
Result: The Fax Item ID and Session Profile fields are displayed. The [Session Profile Detail] softkey is also displayed.

```

Voice Services Administration
Add DN Information

Choice of Services:
AS Announcement Service  CA Call Answering      EM Express Messaging
FI Fax Info Service      FIM Fax Item Maintenance  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:      3752
Service:       FI      Fax Item ID: 4450
Session Profile: Custom Full_MultiMedia Full_Voice
Comment:      Directions Fax

Select a softkey >
Save Cancel Session Profile Detail
  
```

- 4 Enter the Fax Item ID.
Note: If you have not created the fax item yet, you must enter an ID to save the VSDN. Enter an ID and use it when creating the fax item.
- 5 Do you need to create a custom session profile?
 - If yes, see the section "Session profiles" on page 24-67 and then go to step 9.
 - If no, go to step 6.
- 6 Select one of the predefined session profiles (Full Voice or Full MultiMedia).

Step Action

- 7 Do you want to view the session profile?
- If yes, press the [Session Profile Detail] softkey.
 - If no, go to step 9.
- 8 Review the session profile and press [Return to Previous Form] when you are ready to return to the Add DN Information screen.
- 9 Enter an optional comment in the Comment field.
- 10 Do you want to add the VSDN with the information you have entered?
- If yes, press the [Save] softkey.
 - If no, press [Cancel], or make any necessary corrections and then press [Save].

Result: You are returned to the VSDN table. If you pressed the [Save] softkey, there is now a new entry in the table for this DN.

Adding a VSDN for the Fax Item Maintenance Service

Description The Fax Item Maintenance service is part of the Fax on Demand feature. It is used to remotely maintain the content and characteristics of fax items using a telephone set. This service also allows you to verify changed content by sending a verification fax to a specified fax number.

When to use Create a VSDN for the Fax Item Maintenance service if you want to be able to access it directly by dialing a number.

Selecting the session profile You must use the full-service multimedia session profile or create a custom profile with channel capability set to Full Multimedia.

Do you need a custom session profile? Review the configuration for the default full-service multimedia session profile on page 24-86. If the default session profile does not meet your needs, you must create a custom profile. See “Customizing the session profile for the Fax Item Maintenance Service” on page 24-109.

Before you begin Access the VSDN table if you are not already at the screen. See “Accessing the VSDN table” on page 24-7.

Procedure To create a VSDN for the Fax Item Maintenance service, follow these steps.

Starting Point: The VSDN table

Step Action

-
- 1 Press the [Add] softkey.
Result: The Add DN Information screen is displayed.
 - 2 Enter the Access DN.

Step Action

- 3 Enter FIM in the Service field.

Result: The Session Profile field and [Session Profile Detail] softkey are displayed. If more than one language is installed, the Language of Service field is displayed.

```

Voice Services Administration
Add DN Information

Choice of Services:
AS Announcement Service  CA Call Answering      EM Express Messaging
FI Fax Info Service      FIM Fax Item Maintenance  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:      3759
Service:       FIM      Language of Service:  American English
                                         Canadian_French
Session Profile: Custom Full_MultiMedia
Comment:       Fax Maintenance

Select a softkey >
Save          Cancel          Session
                                         Profile Detail
  
```

- 4 If more than one language is installed, select the language of service.
- Note:** This is the language in which system prompts are played while using the fax item maintenance service.
- 5 Do you need to create a custom session profile?
- If yes, see the section "Session profiles" on page 24-67 and then go to step 9.
 - If no, go to step 6.
- 6 Select the Full MultiMedia profile.
- 7 Do you want to view the session profile?
- If yes, press the [Session Profile Detail] softkey.
 - If no, go to step 9.
- 8 Review the session profile and press [Return to Previous Form] when you are ready to return to the Add DN Information screen.

Step Action

- 9 Enter an optional comment in the Comment field.
- 10 Do you want to add the VSDN with the information you have entered?
- If yes, press the [Save] softkey.
 - If no, press [Cancel], or make any necessary corrections and then press [Save].
- Result:** You are returned to the VSDN table. If you pressed the [Save] softkey, there is now a new entry in the table for this DN.
-

***Section E:* Session profiles**

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What is a session profile?

Description

A session profile is a set of operational characteristics that determines how the following features work:

- Voice Menus
- Time-of-Day Controllers
- the Fax Information Service (Fax Items)
- the Fax Item Maintenance Service

A session profile is required when you add a VSDN for any of these services.

Example

A session profile for a Voice Menu that invokes Fax on Demand services controls the following aspects (among others) of Voice Menu operation:

- the maximum session length
- the maximum number of invalid menu selections
- the maximum number of faxes that a caller can select
- how fax transmission errors are handled

When session profiles are required

The session profile is selected or defined when you add the VSDN. You can either

- select a predefined session profile
- create a custom session profile

You cannot create a session profile for one of these services if it does not have a VSDN. Session profiles are necessary only if a VSDN is necessary.

What is a session profile?

Three predefined profiles

There are three predefined session profiles to choose from. The names of the profiles indicate the type of ports that will be used.

Profile	Described on page
Basic service session profile	24-81
Full-service voice session profile	24-83
Full-service multimedia session profile	24-86

Custom session profiles

The three predefined session profiles cannot be modified in any way. If none of the three preconfigured session profiles meets your requirements for a particular service, you must create a custom session profile.

A session profile is customized for only one service (the service for which you are adding a VSDN). You cannot share the same custom session profile among a number of services.

How session profiles work when multiple services are invoked by one VSDN

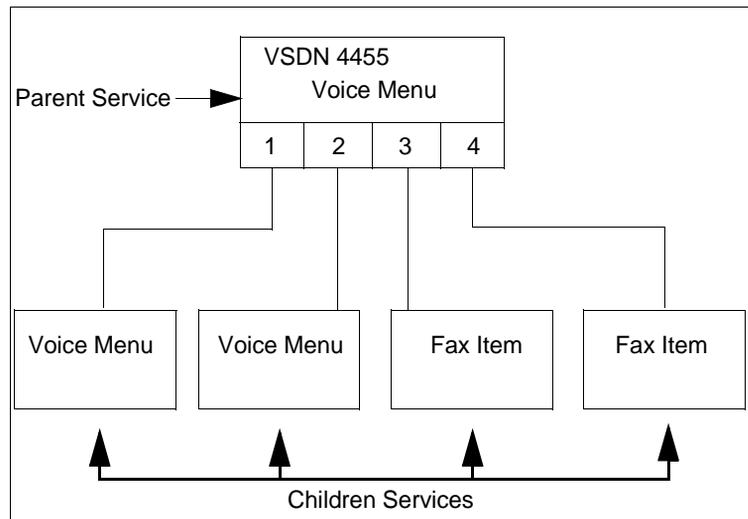
How session profiles work when multiple services are invoked by one VSDN

Introduction

Some services have the ability to invoke, or start up, other services. Two such services are Voice Menus and Time-of-Day Controllers.

Parent versus children services

When you create a Voice Menu or Time-of-Day Controller that invokes other services, it is considered the “parent” service. The services it invokes are the “children” services.



The parent service

The parent service must have a VSDN since this is the service through which users or callers gain access to the other services. The parent service will, therefore, also have a session profile associated with it.

Children services

The session profile of the parent service is applied to all children services. If, however, you need a different session profile for one or more of the children services, you can add a VSDN for the child service and, therefore, give it a different session profile.

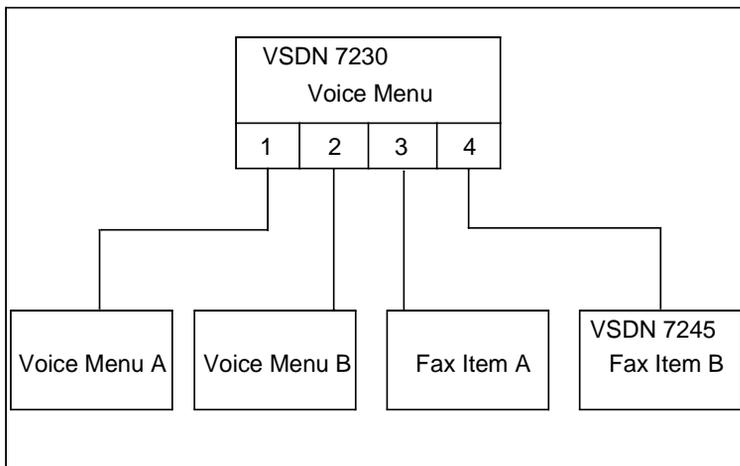
The VSDN of the child service does not need to be known to callers or users. It is not directly dialed.

How session profiles work when multiple services are invoked by one VSDN

Example

In this example, you have a Voice Menu that invokes four other services. The first three services, Voice Menu A, Voice Menu B, and Fax Item A do not have VSDNs. They use the session profile of the parent Voice Menu.

However, since a different session profile was needed for Fax Item B, a separate VSDN was created for this item and a unique session profile could, therefore, be created. The fourth option in this menu is set to call this VSDN.



How Meridian Mail 9/10 session profiles are converted to Meridian Mail 12 session profiles

Introduction

The following three fields that were in Meridian Mail 9 and Meridian Mail 10 session profiles have been replaced by one field, Treat Call Back Number As, in Meridian Mail 12:

- Call Back Number Area Code Translation
- Call Back International DDD
- IDDD Prefix

Description of changes

Call Back Number Area Code Translation

This field could be set to North American and None. This field no longer applies. Due to enhancements, dialing translations of numbers outside North America are now fully supported.

Call Back International DDD

This field was used to define whether international call back delivery was required, optional, or not allowed. This functionality is directly replaced by the new field.

IDDD Prefix

This field was used only if Call Back International DDD was set to optional. It allowed callers to indicate whether they wanted call back delivery to an international location or a national location relative to the Meridian Mail system. As of Meridian Mail 11, a service is set up either as National or International. There is, therefore, no longer a need for this field.

How Meridian Mail 9/10 session profiles are converted to Meridian Mail 12 session profiles

How profiles were converted

When you converted to Meridian Mail 12, any existing session profiles were automatically converted. The only field that was used in the conversion was the Call Back International DDD field.

This table shows how the old session profile field was mapped to the new field.

WHEN the Call Back International DDD field was	THEN the Treat Call Back Number As field was set to
Required	International.
Optional	International.
Not Allowed	National.

Optional Call Back International DDD

If you had any session profiles in which the Call Back International DDD field was set to Optional, callers who dial that VSDN are now prompted to enter call back numbers in the international format (country code + area/city code + fax number). They do not have the option of entering a number in the national format (area/city code + fax number).

Options

You can leave these services as is. However, if you want to give callers the opportunity to enter either a national number or an international number, you can do one of the following.

- Set up a “National” VSDN for the same service and publish this number.
- Create a Voice Menu as a front end to the service that allows callers to select national or international.

This solution means that you do not have to publish another number. See “Determining how many VSDNs you need for a callback fax service” on page 24-78.

Fax callback number formats

Introduction

Session profiles for fax services or services that invoke fax services must specify the fax delivery method. When the fax delivery method is call back, the fax is delivered on a separate call. Callers are prompted to enter a call back number during the session. When the session is terminated, Meridian Mail phones the callback number in order to deliver the fax.

When the delivery method is call back or caller choice (in which case the caller might choose call back), the callback number format must be specified.

Description: callback number formats

When a caller enters a callback number, it must be translated into a number that Meridian Mail can dial so that the fax can be delivered.

This means that callers must enter callback numbers in certain formats depending on where they are located relative to the Meridian Mail system.

Example

Your Meridian Mail system is located in California.

Caller is located in Washington

Since the caller's country code is the same as yours, the caller needs to enter the callback number in the following format:

area/city code + fax phone number

Caller is located in France

Since the caller's country code is different from yours, the caller must enter the callback number in the following format:

country code + area/city code + fax phone number

Caller is an employee on your ESN network

An employee that is on your ESN network should specify the ESN number of the receiving fax machine in the format:

ESN prefix + fax phone extension

Callback number treatment

The format in which callers must enter their callback number is specified in the Treat Call Back Number As field in the Session Profile. There are four callback number treatment options:

- National
- International
- Dial as Entered
- ESN2

National**Purpose**

This option is for services aimed at callers within your country code.

Both local and long distance callers need to enter the area/city code.

The prompt

Callers hear the following prompt when this option is chosen.

“Please enter the fax number, including area or city code, followed by number sign.”

International**Purpose**

This option is for services aimed at international callers that have country codes different from yours.

Local and long distance callers within your country code can use this type of service. However, they need to know their country code. The number cannot be processed without the country code.

The prompt

Callers hear the following prompt when this option is chosen.

“Please enter the fax number, including country code and area or city code, followed by number sign.”

Dial as Entered**Purpose**

This option is for services aimed at callers that

- are on the same switch
- are within the same Coordinated Dialing Plan (CDP) as the Meridian Mail system
- want to be able to enter a call back in any format (perhaps because they travel a lot), and know how to enter a call back number so that it is dialable from the Meridian Mail system

The prompt

Callers hear the following prompt.

“Please enter the fax number, followed by number sign.”

Publish required formats

For callers who will be using this type of service, such as a sales force that travels extensively, provide written instructions for the required formats based on situation.

For example:

Within the head office: Enter the four-digit extension of the fax machine. Example: 7100

For an ESN site: Enter 6 followed by your ESN fax number. Example: 6 333-7100

For a local external call: Enter 9 followed by your fax number. Example: 9 555-7100

For a long-distance call: Enter 91 followed by your area code and fax number. Example: 91 519 555-7100

ESN**Purpose**

This option is for callers (employees) who are on your ESN network.

The prompt

Callers hear the following prompt when this option is chosen.

“Please enter the ESN number of the fax machine followed by number sign.”

**Translation of
callback numbers**

Once a callback number is entered, Meridian Mail translates it into a dialable number. All callback formats, except Dial As Entered, require translation.

The way in which Meridian Mail should translate each callback format is defined in translation tables. This is described in Chapter 17, “Dialing translations”.

Determining how many VSDNs you need for a callback fax service

Limitation

When the Fax Delivery Option field is set to Call Back or Caller Choice, you can choose only one of the four types of call back treatments (national, international, dial as entered, or ESN).

Consequence

This means that if you want to be able to deliver the same Fax Item to more than one of the following — national numbers, international numbers, ESN numbers, or any number — you must choose one of the following strategies:

- Create separate VSDNs for each required call back format.
- Create a Voice Menu as a front end.
- Create only one VSDN.

Option 1: separate VSDNs

Set up separate VSDNs for each caller market, with corresponding marketing materials that instruct callers to use the number that is appropriate for them (depending on their location).

Option 2: Voice Menu

Create a Voice Menu as a front end that allows callers to specify where their fax machine is located and how they need to enter the call back number.

You still need to create multiple VSDNs as described in the example on page 24-79. However, only the VSDN of the Voice Menu needs to be published to callers.

Option 3: a single VSDN

Create a single VSDN for all callers; that is, set up for international call back. Callers are always prompted to include their country code as part of the fax number, even if they are within the same country code.

This is the least effective solution since many people who are unfamiliar with international dialing may not know their own country code.

**Example:
creating a Voice Menu
as a front end**

Your company is located in Boston. You have a new product bulletin that you want to make available to your North American customers. However, you also have a strong European customer base, so you also want to make this fax bulletin available to your European customers. You want to create only one set of marketing materials and publish one number for both caller markets.

Setup

To set up this service, you must do the following.

1. Create a Fax Item.

For example, Fax 1.

2. Add a VSDN (4110) for Fax 1.

In the session profile, set the Treat Call Back Number As field to International.

Callers do not have to know this VSDN.

3. Create the Voice Menu.

- Make menu choice 1 invoke Fax Item 1.
- Make menu choice 2 call (CL) the VSDN 4110.
- Record a menu choices prompt that instructs callers on what to do.
“If your fax machine is in North America, press 1. If your fax machine is in any other country, press 2.”

4. Add a VSDN for the Voice Menu (4009).

In the session profile, set the Treat Call Back Number As field to National.

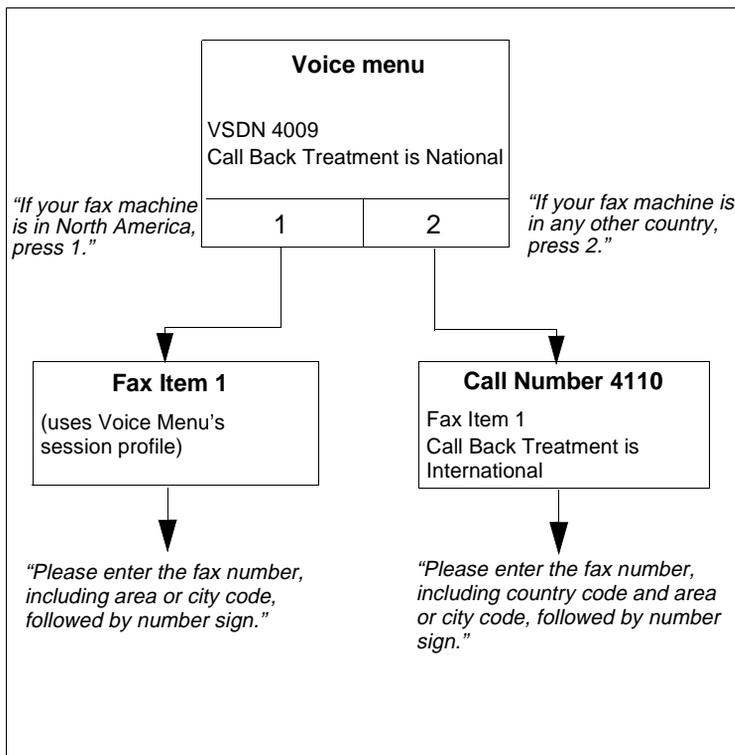
The VSDN of this Voice Menu is the number you publish to callers.

Result

When a caller presses 1, the session profile for the Voice Menu is used. The caller is prompted to enter an area/city code and the fax number.

Determining how many VSDNs you need for a callback fax service

When a caller presses 2, VSDN 4110 is called. The session profile for this VSDN, therefore, is used. The caller is prompted to enter a country code, area/city code, and the fax number



The basic service session profile

When to use

You can use the Basic Service Session Profile for Voice Menus and Time-of-Day Controllers that run services that require basic service voice ports only. These services are

- Meridian ACCESS or IVR applications
- Announcements
- Thru-Dial Services
- Voice Prompt Maintenance
- Remote Activation
- Voice Menu commands (such as Call, Play Prompt, and Repeat Menu Choices)
- Time-of-Day Controllers and Voice Menus that invoke only the above services

The profile

This is the Basic Service Session Profile. It is a read-only screen. This screen is used when adding VSDNs and is accessible from the Add DN Information screen for Voice Menus and Time-of-Day Controllers.

The screenshot displays the 'Voice Services Administration' interface. At the top, it says 'Session Profile'. Below this, there are three configuration items: 'Channel Capability Required:' with options 'Full_MultiMedia', 'Full_Voice', and 'Basic' (selected); 'Session Time Limit(minutes):' set to '10'; and 'Maximum Number of Invalid Selections:' set to '10'. At the bottom, there is a prompt 'Select a softkey >' and a row of five buttons. The first button is labeled 'Return to Previous Form'.

Profile configuration

When you choose the Basic Service Session Profile, the following characteristics and controls are placed on the service:

- Basic service channels are used.
- The Voice Menu or Time-of-Day Controller session is limited to a maximum of 10 minutes.
- The maximum number of invalid selections that a caller can make in a Voice Menu is 10.

The full-service voice session profile

When to use

The following services require channels with a minimum channel capability of full-service voice:

- Fax Items that use the callback delivery option
- Voice Menus and Time-of-Day Controllers that invoke any service except
 - Fax Items that use same call or caller choice as the delivery mode
 - the Fax Item Maintenance Service

The profile

This is the full-service voice session profile. It is a read-only screen. This screen is used when adding VSDNs and is accessible from the Add DN Information screen for Voice Menus, Time-of-Day Controllers, and Fax Items.

Part 1

Voice Services Administration	
Session Profile	
Channel Capability Required:	Full_MultiMedia <input type="checkbox"/> Full_Voice Basic <input checked="" type="checkbox"/>
Session Time Limit(minutes):	10
Maximum Number of Invalid Selections:	10
Maximum Number of Fax Selections:	5
Page Limit for Fax Selections:	40
Fax Activity Revert DN:	
Sender Fax Number:	
Sponsor Fax Item ID:	
MORE BELOW	
Select a softkey >	
Return to Previous Form	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>

Note: If Fax on Demand is not installed, only the first three fields are displayed.

Part 2

Voice Services Administration		MORE ABOVE
Session Profile		
Billing DN:		
Page Transmission Error Handling:	Quit Continue	
Fax Delivery Option:	Call_Back Same_Call Caller_Choice	
Call Back Extension Prompt:	No Yes	
Treat Call Back Number As:	National International Dial_as_Entered ESN	
Automatic Cover Sheet:	No Yes	
Sender Name Display:		
Call Back Dialing Restrictions:	2	List Name: Local
Select a softkey >		
Return to Previous Form		

Profile configuration

When you choose the full-service voice session profile, the following characteristics and controls are placed on the service.

General characteristics and limitations

These limitations are applied to all Voice Menus, Fax Items, and Time-of-Day Controllers to which you assign the full-service voice session profile:

- Full-service voice channels are used.
- The length of the session is limited to 10 minutes.
- The maximum number of invalid selections a caller can make in a Voice Menu is 10.

Fax on Demand

These limitations and controls do not apply if Fax on Demand is not installed or if you are adding a VSDN for a service that does not invoke any fax services:

- For Voice Menus that invoke Fax Items, the maximum number of faxes a caller can select during one call session is 5. For Fax Items, the maximum is 1.
- The maximum number of pages that can be transmitted during a session is 40.
- If an error occurs during transmission of a fax page, the error is ignored and the next page is transmitted.

- The fax delivery option is call back. This means that callers do not have to make the call on a fax phone since they are prompted for a callback number. After the session is terminated, the fax is delivered to the specified number as long as it is not restricted.
- Callers are prompted for an extension number in addition to the callback number. This number is printed on the automatic cover sheet so that the fax can be delivered to the right person.
- The callback number is treated as a national number. This means that the callback number entered by callers must be within the same country code as your system.
- A system-generated cover sheet is attached to the fax.
- Restriction/Permission List 2 (named Local by default) is applied to call back delivery.

The full-service multimedia session profile

Introduction

This session profile is available only if you have multimedia ports installed on your Meridian Mail system.

When to use

You must use the full-service multimedia session profile or create a custom session profile with multimedia channel capability for the following types of services:

- Fax Items that you want delivered on the same call
- Fax Items for which you want the caller to choose the delivery mode (callback or same call)
- the Fax Item Maintenance Service
- Voice Menus and Time-of-Day Controllers that invoke any of the above fax services

The profile: for MS, TD, FI

When you select the default MultiMedia session profile in the Add DN Information screen for a Voice Menu (MS), Time-of-Day Controller (TD), or Fax Item (FI), this version of the screen is displayed. It is a read-only screen.

Part 1

Voice Services Administration	
Session Profile	
Channel Capability Required:	<input checked="" type="checkbox"/> Full_MultiMedia <input type="checkbox"/> Full_Voice <input type="checkbox"/> Basic
Session Time Limit(minutes):	10
Maximum Number of Invalid Selections:	10
Maximum Number of Fax Selections:	5
Page Limit for Fax Selections:	40
Fax Activity Revert DN:	
Sender Fax Number:	
Sponsor Fax Item ID:	
Select a softkey > MORE BELOW	
<input type="button" value="Return to Previous Form"/>	<input type="button" value=""/>
<input type="button" value=""/>	<input type="button" value=""/>

Note: If the service is FI, Basic is not displayed in the Channel Capability Required field.

Part 2

Voice Services Administration		MORE	ABOVE
Session Profile			
Billing DN:			
Page Transmission Error Handling:	Quit	Continue	
Fax Delivery Option:	Call_Back	Same_Call	Caller_Choice
Call Back Extension Prompt:	No	Yes	
Treat Call Back Number As:	National	International	Dial_as_Entered ESN
Automatic Cover Sheet:	No	Yes	
Sender Name Display:			
Call Back Dialing Restrictions:	2	List Name:	Local
Select a softkey >			
Return to Previous Form			

Profile configuration

When you choose the full-service multimedia session profile, the following characteristics and controls are placed on the service.

General characteristics and limitations

These limitations are applied to all Voice Menus, Fax Items, and Time-of-Day Controllers to which you assign the full-service multimedia session profile:

- Full-service multimedia channels are used.
- The length of the session is limited to 10 minutes.
- The maximum number of invalid selections a caller can make in a Voice Menu is 10.

Fax on Demand

These following limitations and controls do not apply if Fax on Demand is not installed or if you are adding a VSDN for a service that does not invoke any fax services:

- For Voice Menus that invoke Fax Items, the maximum number of faxes a caller can select during one call session is 5. For Fax Items, the maximum is 1.
- The maximum number of pages that can be transmitted during a session is 40.
- If an error occurs during transmission of a fax page, the error is ignored and the next page is transmitted.
- Fax delivery is set to caller choice. This means the caller can request to have the fax delivered on the same call (to the fax phone on which the caller placed the call) or can specify the callback number of the fax phone to which he or she wants the fax delivered.
- If the caller chooses callback delivery, the caller is prompted for an extension number in addition to the callback number. This number is printed on the automatic cover sheet so that the fax can be delivered to the right person.
- The callback number is treated as a national number. This means that if a caller chooses callback delivery, the callback number entered by callers must be within the same country code as your system.
- A system-generated cover sheet is attached to the fax.
- Restriction/Permission List 2 (named Local by default) is applied to callback delivery.

The full-service multimedia session profile

**The screen:
FIM**

This is the full-service multimedia session profile. This version of the screen is displayed when you are adding a VSDN for the Fax Item Maintenance Service. It is a read-only screen.

```

Voice Services Administration
Session Profile
Channel Capability Required:      Full_MultiMedia
Sender Fax Number:               █
Billing DN:
Page Transmission Error Handling:  Quit Continue
Treat Call Back Number As:      National International Dial_as_Entered ESN
Call Back Dialing Restrictions:  2      List Name: Local

Select a softkey >
Return to Previous Form █ █ █ █ █
  
```

Profile configuration

When you choose the full-service multimedia session profile, the following characteristics and controls are placed on the Fax Item Maintenance Service:

- Full-service multimedia channels are used.
- If an error occurs during transmission of a verification fax page, the error is ignored and the next page is transmitted.
- The callback number is treated as a national number. This means that if a caller chooses callback delivery, the callback number entered by callers must be within the same country code as your system.
- The fax verification number is checked against Restriction/Permission List 2 (named Local by default).

Customizing the session profile for Voice Menus, Fax Items, and Time-of-Day Controllers

Introduction

If the default session profiles do not meet your requirements for a particular service, create a custom session profile.

The custom Session Profile screen

This is the custom Session Profile screen for Voice Menus, Fax Items, and Time-of-Day Controllers.

Part 1

Voice Services Administration	
Session Profile	
Channel Capability Required:	Full_MultiMedia Full_Voice Basic
Session Time Limit(minutes):	<u>10</u>
Maximum Number of Invalid Selections:	<u>10</u>
Maximum Number of Fax Selections:	<u>5</u>
Page Limit for Fax Selections:	<u>40</u>
Fax Activity Revert DN:	_____
Sender Fax Number:	_____
Sponsor Fax Item ID:	_____
MORE BELOW	
The Session Profile will be saved only if the Previous Form is saved.	
Return to Previous Form	_____

Note: If Fax on Demand is not installed on your system, only the first three fields in this screen are displayed.

Part 2

Voice Services Administration		MORE ABOVE
Session Profile		
Billing DN:	_____	
Page Transmission Error Handling:	Quit Continue	
Fax Delivery Option:	Call_Back Same_Call Caller_Choice	
Call Back Extension Prompt:	No Yes	
Treat Call Back Number As:	National International Dial_as_Entered ESM	
Automatic Cover Sheet:	No Yes	
Sender Name Display:	_____	
Call Back Dialing Restrictions:	<u>2</u>	List Name: Local
The Session Profile will be saved only if the Previous Form is saved.		
Return to Previous Form	_____	_____

Procedure

Following is a high-level procedure for creating a custom session profile. Detailed procedures are provided on the corresponding pages.

Step	Action	See page
1	Specify the channel capability, session time limit, and maximum number of invalid selections. Requirement: This step is necessary for all Voice Menus, Fax Items, and Time-of-Day Controllers.	24-92
2	Specify fax service options. Requirement: This step is necessary if the service you are defining is a Fax Item or a Voice Menu or Time-of-Day Controller that invokes a fax service.	24-96
3	Specify call back delivery options. Requirement: This step is necessary if step 2 was necessary and if the fax delivery option for the service is Call Back or Caller Choice.	24-102

Specifying the channel capability, session time limit, and maximum number of invalid selections

Specifying the channel capability, session time limit, and maximum number of invalid selections

When to use

For all Voice Menus, Fax Items, and Time-of-Day Controllers, you must

- select the channel capability that is appropriate to the service for which you are adding a VSDN
- specify the session time limit
- specify the maximum number of invalid selections

If Fax on Demand is not installed, or if you are defining a VSDN for a Voice Menu or Time-of-Day Controller that does not invoke fax services, this is all you have to do to customize the session profile.

Fields in the Session Profile screen

Relevant fields are highlighted by the dotted box.

Voice Services Administration	
Session Profile	
Channel Capability Required:	Full_MultiMedia Full_Voice Basic
Session Time Limit(minutes):	<u>10</u>
Maximum Number of Invalid Selections:	<u>10</u>
Maximum Number of Fax Selections:	<u>5</u>
Page Limit for Fax Selections:	<u>40</u>
Fax Activity Revert DN:	_____
Sender Fax Number:	_____
Sponsor Fax Item ID:	_____
MORE BELOW	
The Session Profile will be saved only if the Previous Form is saved.	
Return to Previous Form	_____

 Specifying the channel capability, session time limit, and maximum number of invalid selections
Field descriptions

These fields are used by all services (Voice Menus, Fax Items, and Time-of-Day Controllers).

Channel Capability Required

Description	The type of port that the service will use.
Valid Options	Full MultiMedia, Full Voice, Basic
See Also	Certain kinds of services require certain kinds of ports. See “Choosing the channel capability” on page 24-94.

Session Time Limit (minutes)

Description	This is the maximum amount of time that a call session can last.
Default	10 minutes
Valid Range	0 to 99 (minutes)

Maximum Number of Invalid Selections

Description	This field applies to Voice Menus and Fax Items. Each time a caller makes an invalid selection, an error counter is incremented by one.
Action taken	If this limit is reached, one of the following happens. <ul style="list-style-type: none"> • When the menu does not contain Fax Items, the session is terminated. • When the menu contains Fax Items or when a Fax Item is accessed directly, the following message is played. <i>“You have reached the maximum number of selections that may be made in one call. If you would like to make additional selections, please call in again.”</i>
Security	To make it difficult for hackers to abuse your system via a voice menu, this field should be set to a relatively low number (for example, the default of 10).
Default	10
Valid Range	1 to 99

Specifying the channel capability, session time limit, and maximum number of invalid selections

Choosing the channel capability Use the following table to choose the channel capability that is required for a particular service.

IF the service is	AND	THEN select
a Voice Menu or a Time-of-Day Controller	it invokes one or more of the following services <i>only</i> : <ul style="list-style-type: none"> • ACCESS applications (such as IVR) • Announcements • Thru-Dial services • Voice Prompt Maintenance • Remote Activation • Voice Menu commands (such as Call, Play Prompt, or Repeat Menu Choices) • other Voice Menus or Time-of-Day Controllers that invoke the above services only 	Basic.
	it invokes any of the following: <ul style="list-style-type: none"> • Voice Messaging • Express Messaging • Call Answering • Fax Items using callback delivery mode • other Voice Menus or Time-of-Day Controllers that invoke any of the above services 	Full Voice.
	it invokes any of the following: <ul style="list-style-type: none"> • Fax Item maintenance • Fax Items using same call or caller choice delivery mode 	Full MultiMedia.
a Fax Item	the fax delivery mode is call back	Full Voice.
	the fax delivery mode is same call or caller choice	Full MultiMedia.

Specifying the channel capability, session time limit, and maximum number of invalid selections

Customizing the session profile

To begin customizing the session profile for a Fax Item, Voice Menu, or Time-of-Day Controller, follow these steps.

Starting Point: The Add DN Information screen

Step Action

- 1 Select Custom in the Session Profile field.
 - 2 Press the [Session Profile Detail] softkey.
Result: The Session Profile screen is displayed.
 - 3 Select the channel capability that is required for the service.
Note: See “Choosing the channel capability” on page 24-94.
 - 4 Change the current session time limit if necessary.
 - 5 Change the maximum number of invalid selections if necessary.
 - 6 Are you adding this VSDN for a Fax Item or for a Voice Menu or Time-of-Day Controller that invokes fax services?
 - If yes, go to “Specifying fax service options” on page 24-96.
 - If no, set the Maximum Number of Fax Selections to 0 and press [Return to Previous Form].You are done customizing the session profile. The session profile will be saved when you save the VSDN.
-

Specifying fax service options

When to use

You must specify fax service options if you are defining a VSDN for

- a Fax Item
- a Voice Menu or Time-of-Day Controller that invokes fax services

Fields in the Session Profile screen

These are the fields in which you specify fax service options.

Voice Services Administration		MORE ABOVE
Session Profile		
Maximum Number of Fax Selections:	5	
Page Limit for Fax Selections:	40	
Fax Activity Revert DN:	3600	
Sender Fax Number:	4165553500	
Sponsor Fax Item ID:	4455	
Billing DN:		
Page Transmission Error Handling:	Quit	Continue
Fax Delivery Option:	Call_Back	Same_Call Caller_Choice
The Session Profile will be saved only if the Previous Form is saved.		
Return to Previous Form		

Field descriptions

This table describes the fields you use to define fax service options.

Maximum Number of Fax Selections

Description	This is the maximum number of faxes that a caller can select during one call session.
Action taken	If this limit is reached, the following message is played. <i>“You have reached the maximum number of selections that may be made in one call. If you would like to make additional selections, please call in again.”</i>
Default	1 if you are creating a profile for a Fax Item (FI). The field cannot be modified for FI 5 if you are creating a profile for a Voice Menu (MS) or Time-of-Day Controller (TD)
Valid range	0 to 25 When this field is set to 0 (because no Fax Items are invoked by the service), the remaining fields in the screen are not displayed.

Page Limit for Fax Selections

Description	This is the maximum number of pages that a caller can request for transmission.
Action taken	As a caller makes selections, Meridian Mail counts the total number of pages. If this maximum is reached, the caller is prohibited from making any more selections. The currently selected faxes are delivered.
Default	40
Valid range	1 to 99

Fax Activity Revert DN

Description	This is the DN to which a caller is transferred if he or she encounters difficulties while engaged in fax-related activities.
Default	Blank
Other revert DNs	When this field is left blank, the Attendant DN defined in General Options is used. When the caller is in a Voice Menu with Fax Items, but outside the fax selections when difficulty is experienced, the caller is reverted to the revert DN that is defined for the Voice Menu.
Maximum length	30 digits

Sender Fax Number

Description	This is the number of your sending fax machine. It identifies your system to the caller so that the caller can contact you if there was a transmission problem. It is displayed in the trim tab on the fax along with other information such as the start time of transmission and the page number.
Default	Blank

Sponsor Fax Item ID

Description	Use this field if you want to create a custom cover sheet. This field specifies the ID of the Fax Item (the cover sheet).
How it works	The Fax Item associated with the ID entered in this field is transmitted after the automatic cover sheet (if turned on) or in place of it, and before the first caller-selected Fax Item(s).
Default	Blank
See also	For more information about customizing cover sheets, see “Creating a custom cover sheet” on page 24-107.

Billing DN

Description	When fax delivery is callback, Meridian Mail places the call to deliver the fax. This is the number used by the owners of the system (you) for billing each fax callback delivery, if so desired.
Default	Blank When this field is left blank, the VSDN that the caller dialed is reported as the billing DN.

Page Transmission Error Handling

Description	This field determines how Meridian Mail responds to page transmission errors.
Default	Continue
Valid Options	Continue, Quit <ul style="list-style-type: none">• Continue The error is ignored and the next page is transmitted.• Quit The current delivery attempt is aborted.

Fax Delivery Option

Description	This field determines how the selected faxes are delivered.
Default	Call Back
Channel capability	When the channel capability is Full Voice, this field is set to Call Back and cannot be modified. When the channel capability is Full MultiMedia, you can select any of the delivery options.
Valid options	Call Back, Same Call, Caller Choice <ul style="list-style-type: none"> • Call Back Selected faxes are delivered on a separate call. The caller is prompted to enter a call back phone number. This is the number to which the selected faxes are delivered. • Same Call The selected faxes are delivered on the same call. This means that the caller must phone from a fax phone. The faxes are delivered after the caller presses Receive on the receiving fax machine. • Caller Choice The caller chooses the fax delivery option. The caller hears the following prompt. <i>“To enter a fax number for later delivery, press 1. If you would like delivery during this call and are calling from a faxphone, press 2.”</i>

Procedure

To specify fax service options, follow these steps.

Starting Point: The Session Profile

Step Action

- 1 Change the maximum number of fax selections if necessary.
- 2 Change the page limit for fax selections if necessary.
- 3 If you want callers to be reverted to a specific DN if they encounter difficulties while engaged in fax-related activities, enter a Fax Activity Revert DN.
- 4 If you want the number of your sending fax phone to appear in the trim tab, enter this number in the Sender Fax Number field.

Step Action

-
- 5 If you have created a custom cover sheet, enter its ID in the Sponsor Fax Item ID field.
 - 6 If you want calls to this VSDN to be reported as a specific number (as the billing DN), enter it in the Billing DN field.
 - 7 If an error is encountered during transmission, do you want Meridian Mail to ignore it and continue with the next page?
 - If yes, select Continue.
 - If no, select Quit.
 - 8 If the Channel Capability is Full MultiMedia, select the fax delivery option.

IF you want**THEN select**

 faxes to be delivered on the same call on which the caller dialed into Meridian Mail

Same Call.

faxes to be delivered on a separate call, placed by Meridian Mail, to a call back number specified by the caller

Call Back.

callers to choose how they want their fax selections delivered (same call or call back)

Caller Choice.

- 9 Is the Fax Delivery Option field set to Call Back or Caller Choice?
 - If yes, go to “Specifying callback delivery options” on page 24-102.
 - If no, press [Return to Previous Form].
 You are done customizing the session profile. The session profile will be saved when you save the VSDN.
-

Specifying callback delivery options

When to use

You must specify callback options if the Fax Delivery Option is set to Call Back or Caller Choice. In the case of caller choice, callers may choose to have faxes delivered to a callback number. It is, therefore, necessary to define callback options when the fax delivery method is up to the caller.

Fields in the Session Profile screen

The dotted box highlights the fields in which you specify call back options.

```

Voice Services Administration
MORE ABOVE
Session Profile
Billing DN: _____
Page Transmission Error Handling: Quit Continue
Fax Delivery Option: Call_Back Same_Call Caller_Choice
Call Back Extension Prompt: No Yes
Treat Call Back Number As: National International Dial_as_Entered ESN
Automatic Cover Sheet: No Yes
Sender Name Display: Ex Machina
Call Back Dialing Restrictions: 2 List Name: Local
The Session Profile will be saved only if the Previous Form is saved.
Return to Previous Form
  
```

Field descriptions

This table describes the fields in which you define callback options.

Call Back Extension Prompt

Description	This field determines whether the caller is prompted for an extension number when arranging call back delivery. This extension is printed on the automatic cover sheet to ensure that the appropriate person receives the fax.
Default	Yes (the caller is prompted for an extension)
Valid Options	Yes, No

Treat Call Back Number As

Description	This field determines the format of numbers that callers can enter for callback purposes and how the user is prompted to enter a callback number.
Default	National
Valid Options	National, International, Dial as Entered, ESN <ul style="list-style-type: none"> • National Only callers with callback numbers within the same country code as your system can use the service. • International Callers from other countries can use the service. • Dial as Entered Callers can enter a callback number in any format. Callers must, however, know what format is necessary depending on where they are located relative to your system. • ESN Only callers that are on your ESN network can use the service.
See also	See “Fax callback number formats” on page 24-74.

Automatic Cover Sheet

Description	This is a system-generated cover sheet that you can choose to transmit along with selected Fax Items. In the case of caller choice delivery, this cover sheet is sent only if callback delivery is chosen.
Default	Yes
Valid Options	Yes, No
See also	If you want to create and use a custom cover sheet instead of using the automatic one, see “Creating a custom cover sheet” on page 24-107.

Sender Name Display

Description	The sender name is displayed on the automatic cover sheet in the From field. This is typically the name of your organization or department.
Conditions of display	This field is displayed if the Automatic Cover Sheet field is set to Yes.
Default	Blank
Maximum length	20 characters

Call Back Dialing Restrictions

Description	These are the dialing restrictions that are placed on the callback numbers that callers enter. It is important to restrict this number since you will be charged for all callback fax deliveries.
Default	Restriction/Permission List 2
Valid Options	Any of the available restriction/permission lists (1–80), or 0 to create a custom list for the service.

Procedure

To specify callback options, follow these steps.

Starting Point: The Session Profile

Step Action

- | Step | Action | | | | | | | | | | |
|---|--|-----------------------------------|-------------|---|-----------|--------------------------|----------------|---|------------------|--|------|
| 1 | <p>Do you want callers to be prompted for an extension number so that it can appear on the automatic cover sheet?</p> <ul style="list-style-type: none"> If yes, select Yes in the Call Back Extension Prompt field. If no, select No. | | | | | | | | | | |
| 2 | <p>Select the format of callback numbers to which you want to allow fax delivery in the Treat Call Back Number As field.</p> <table border="1"> <thead> <tr> <th>IF you want faxes to be delivered</th> <th>THEN select</th> </tr> </thead> <tbody> <tr> <td>to callback numbers within your country code only</td> <td>National.</td> </tr> <tr> <td>to international numbers</td> <td>International.</td> </tr> <tr> <td>to on-switch extensions, to numbers in a CDP network, or to numbers as they are entered</td> <td>Dial as Entered.</td> </tr> <tr> <td>to numbers that are on your ESN network only</td> <td>ESN.</td> </tr> </tbody> </table> | IF you want faxes to be delivered | THEN select | to callback numbers within your country code only | National. | to international numbers | International. | to on-switch extensions, to numbers in a CDP network, or to numbers as they are entered | Dial as Entered. | to numbers that are on your ESN network only | ESN. |
| IF you want faxes to be delivered | THEN select | | | | | | | | | | |
| to callback numbers within your country code only | National. | | | | | | | | | | |
| to international numbers | International. | | | | | | | | | | |
| to on-switch extensions, to numbers in a CDP network, or to numbers as they are entered | Dial as Entered. | | | | | | | | | | |
| to numbers that are on your ESN network only | ESN. | | | | | | | | | | |
| 3 | <p>Do you want the system-generated automatic cover sheet to be transmitted with the selected Fax Items?</p> <ul style="list-style-type: none"> If yes, select Yes in the Automatic Cover Sheet field. If no, select No. | | | | | | | | | | |
| 4 | <p>If the automatic cover sheet is enabled, do you want to identify your organization or department, or both, as the source of the fax on the cover sheet?</p> <ul style="list-style-type: none"> If yes, enter your organization's or department's name, or both, in the Sender Name Display field. If no, leave the field blank. | | | | | | | | | | |
| 5 | <p>Do you want to create a custom restriction/permission list for this service?</p> <ul style="list-style-type: none"> If yes, go to step 6. If no, enter the number of the predefined restriction/permission list that you want to assign to this service and go to step 8. | | | | | | | | | | |

Step Action

6 Enter 0.

Result: The restriction/permission codes fields are displayed.

Session Profile

Call Back Dialing Restrictions: 0 List Name: Custom

Restriction Codes:

Permission Codes:

The Session Profile will be saved only if the Previous Form is saved.

Return to Previous Form

7 Enter the restriction codes and permission codes for this service.

8 Press the [Return to Previous Form] softkey to return to the Add DN Information screen.

Note: You are done customizing the session profile. The session profile will be saved when you save the VSDN.

Creating a custom cover sheet

Introduction

If you set the Automatic Cover Sheet field to Yes in the session profile, an automatic system-generated cover sheet will be transmitted.

The automatic cover sheet

This is the automatic cover sheet that is generated by the system.

```
<trim tab>
-----
FACSIMILE TRANSMISSION

TO:      THE PERSON AT EXTENSION xxxx
FAX #:   nnnnnnnnnn
FROM:    sendername.....
        (AUTOMATED FACSIMILE SERVICE)
PAGES:  nn (INCLUDING THIS COVER PAGE

-----
IF THIS FACSIMILE IS NOT COMPLETELY READABLE OR IS
MISSING PAGES, PLEASE INFORM THE PERSON AT THE
EXTENSION xxxx; THEY WILL HAVE TO RE-REQUEST THE
INFORMATION FROM THIS SERVICE.
-----
```

When to use

You might, however, want to create a custom cover sheet to replace the system-generated cover sheet, or to transmit in addition to the system-generated cover sheet.

Example

You have created a Voice Menu with Fax Items for your German customers. The system-generated cover sheet is in English. You decide to replace it with a custom cover sheet that is in German.

Creating a custom cover sheet

To create a custom cover sheet, you must do the following.

1. Create a Fax Item which will serve as the cover sheet for your service.

For more information, refer to the *Fax on Demand Application Guide*.
2. Create a VSDN for the service (the stand-alone Fax Item or the service that invokes it).
3. Customize the session profile for the service.
 - Enter the ID of the Fax Item (that is the cover sheet) in the Sponsor Fax Item ID field.
 - If you want to suppress the system-generated cover sheet, set the Automatic Cover Sheet field to No.

Customizing the session profile for the Fax Item Maintenance Service

When to use	If the full-service multimedia session profile does not meet your requirements for the Fax Item Maintenance Service, you must create a custom session profile.
Fax delivery option	You do not have the option of choosing the fax delivery option for the Fax Item Maintenance Service. This service uses callback delivery only.
The custom Session Profile screen	This is the custom session profile for the Fax Item Maintenance Service.

```

Voice Services Administration
Session Profile
Channel Capability Required:      Full_MultiMedia
Sender Fax Number:              416555500
Billing DN:                     5101
Page Transmission Error Handling: Quit Continue
Treat Call Back Number As:      National International Dial_as_Entered ESM
Call Back Dialing Restrictions:  2 List Name: Local

The Session Profile will be saved only if the Previous Form is saved.

Return to Previous Form
```

 Customizing the session profile for the Fax Item Maintenance Service

Field descriptions

This table describes the fields in the custom session profile for the Fax Item Maintenance Service.

Channel Capability Required

Description	This is the type of port that the service will use. This field is read-only.
Default	Full_MultiMedia

Sender Fax Number

Description	This is the number of your sending fax phone. It identifies your system to the caller so that the caller can contact you if there is a transmission problem. It is displayed in the trim tab on the fax along with other information such as the start time of transmission and the page number.
Default	Blank

Billing DN

Description	Whenever a verification fax is sent, this is the number used by the owners of the system (you) for billing each fax callback delivery, if so desired.
Default	Blank When this field is left blank, the VSDN the caller dialed is reported as the billing DN.

Page Transmission Error Handling

Description	This field determines how Meridian Mail responds to page transmission errors.
Default	Continue
Valid Options	Continue, Quit <ul style="list-style-type: none"> • Continue The error is ignored and the next page is transmitted. • Quit The current delivery attempt is aborted.

Treat Call Back Number As

Description	This field determines the format of numbers that callers can enter for call back purposes and how the user is prompted to enter a call back number.
Default	National
Valid Options	National, International, Dial as Entered, ESN <ul style="list-style-type: none"> • National Only callers with callback numbers within the same country code as your system can use the service. • International Callers from other countries can use the service. • Dial as Entered Callers can enter a callback number in any format. Callers must, however, know what format is necessary depending on where they are located relative to your system. • ESN Only callers that are on your ESN network can use the service.
See also	See “Fax callback number formats” on page 24-74.

Call Back Dialing Restrictions

Description	These are the dialing restrictions that are placed on the callback number to which the verification fax is sent. It is important to restrict this number, since you will be charged for all callback fax deliveries.
Default	Restriction/Permission List 2
Valid Options	Any of the available restriction/permission lists (1–80), or 0 to create a custom list.

Procedure

To customize the session profile for Fax Item Maintenance, follow these steps.

Starting Point: The Add DN Information screen

Step Action

- 1 Select Custom in the Session Profile field.
- 2 Press the [Session Profile Detail] softkey.
Result: The Session Profile screen is displayed.
- 3 Do you want the number of the sending fax machine to show up in the fax trim tab?
 - If yes, enter the number of the sending fax machine in the Sender Fax Number field.
 - If no, go to step 4.
- 4 Do you want calls to this VSDN to be reported as a specific number (as the billing DN) other than this VSDN?
 - If yes, enter this number in the Billing DN field.
 - If no, leave this field blank.
- 5 Do you want fax delivery to continue if an error is encountered during transmission?
 - If yes, select Continue in the Error Transmission Handling field.
 - If no, select Quit.
- 6 Select the kind of call back numbers to which you want to allow verification fax delivery in the Treat Call Back Number As field.

IF you want faxes to be delivered	THEN select
to call back numbers within your country code only	National.
to international numbers	International.
to on-switch extensions, to numbers in a CDP network, or to numbers as they are entered	Dial as Entered.
to numbers that are on your ESN network only	ESN.

Step Action

- 7 Do you want to create a custom restriction/permission list for this service?
 - If yes, go to step 8.
 - If no, enter the number of the predefined restriction/permission list that you want to assign to this service and go to step 10.

- 8 Enter 0.

Result: The Restriction Codes and Permission Codes fields are displayed.

The screenshot shows a terminal-style interface for 'Voice Services Administration'. At the top right is a 'MORE ABOVE' link. The main content area is titled 'Session Profile'. It contains the following text: 'Call Back Dialing Restrictions: 0 List Name: Custom'. Below this is a section labeled 'Restriction Codes:' followed by ten horizontal lines for input. Underneath is a section labeled 'Permission Codes:' followed by one horizontal line for input. At the bottom of the form area, there is a message: 'The Session Profile will be saved only if the Previous Form is saved.' and a 'MORE BELOW' link. Below the message is a button labeled 'Return to Previous Form'.

- 9 Enter the restriction codes and permission codes that are appropriate for the service.
- 10 Press the [Return to Previous Form] softkey to return to the Add DN Information screen.

***Section F:* Viewing, modifying, and deleting VSDNs**

In this section

Viewing and modifying a VSDN or session profile, or both	24-116
Deleting a VSDN	24-119

Viewing and modifying a VSDN or session profile, or both

The View/Modify DN Information screen

Existing VSDNs are modified in the View/Modify DN Information screen.

Voice Services Administration

View/Modify DN Information

Choice of Services:

AS	Announcement Service	CA	Call Answering	EM	Express Messaging	f
FI	Fax Info Service	FIM	Fax Item Maintenance	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: 3640

Service: MS Voice Menu ID: 4170

Session Profile: Custom Full_MultiMedia Full_Voice Basic

Comment: New Products

Select a softkey >

Save Cancel Session Profile Detail

See also

Fields in the View/Modify DN Information screen vary depending on the service for which you are modifying a VSDN. The fields are, however, identical to the ones in the Add DN Information screens.

For more information about DN information for a particular service, see the following sections:

- Section B: Adding messaging VSDNs on page 24-11.
- Section C: Adding networking and ACCESS VSDNs on page 24-27.
- Section D: Adding voice service and fax service DN on page 24-39.

Using the find function

If many VSDNs have been defined on your system, you can use the Find function to retrieve a subset of VSDNs first, and then choose from this smaller list of VSDNs.

See Chapter 22, “Finding and printing VSDNs and service definitions”.

Viewing and modifying a VSDN or session profile, or both

Procedure

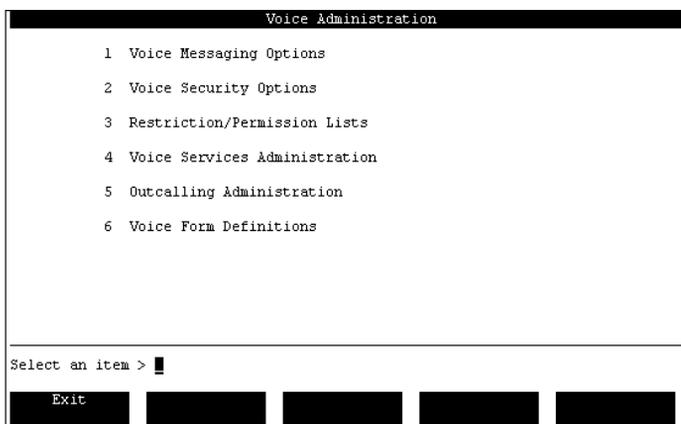
To view or modify a VSDN, follow these steps.

Starting Point: The Main Menu

Step Action

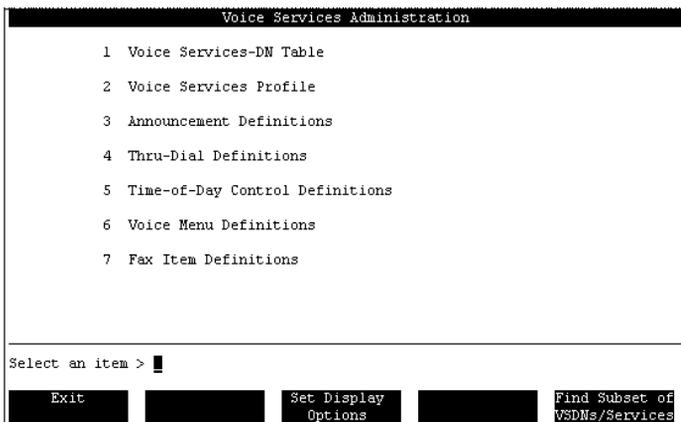
- 1 Select Voice Administration.

Result: The Voice Administration menu is displayed.



- 2 Select Voice Services Administration.

Result: The Voice Services Administration menu is displayed.



Step Action

- 3 Select Voice Services-DN Table.

Result: The Voice Services-DN Table is displayed.

Voice Services Administration			
Voice Services-DN Table			
DN	Service	Comment	
3650	VM	Voice Messaging	
3651	EM	Express Messaging	
3652	RA	Remote Activation	
3653	PM	Prompt Maintenance	
3654	MS 101	Main Menu	
3655	AN	AMIS Networking	
3656	NW	Meridian Mail Netw	
3659	FIM	Fax Item Maint.	
3690	TR 1901	Transcription Serv.	

Move the cursor to the item and press the space bar to select.

Exit Add View/Modify Delete Find

- 4 Move the cursor to the VSDN you want to modify, and press the spacebar to select it.
- 5 Press the [View/Modify] softkey.
Result: The View/Modify DN Information screen is displayed.
- 6 Make the necessary modifications in the DN information screen.
- 7 Do you need to modify a custom session profile?
- If yes, press the [Session Profile Detail] softkey.
 - If no, press the [Save] softkey.
- You are done modifying the VSDN.
- 8 Make the necessary changes to the session profile.
Note: For more information, see the section "Session profiles" on page 24-67.
- 9 Press the [Return to Previous Form] softkey when you are done modifying the session profile.
- 10 Press the [Save] softkey.
Result: The VSDN and session profile are saved.

Deleting a VSDN

The Delete DN Information screen

Existing VSDNs are deleted from the Delete DN Information screen.

```

Voice Services Administration
Delete DN Information

Choice of Services:
AS Announcement Service CA Call Answering EM Express Messaging
FI Fax Info Service FIM Fax Item Maintenance 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: 3630
Service: AS Announcement ID: 4104
Comment: Directions

Select a softkey >
OK to Delete Cancel
  
```

Using the find function If many VSDNs have been defined on your system, you can use the Find function to retrieve a subset of VSDNs first, and then choose from this smaller list of VSDNs.

See Chapter 22, “Finding and printing VSDNs and service definitions”.

Procedure

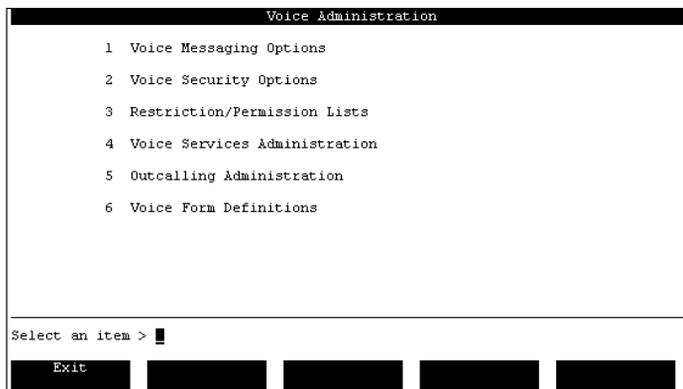
To delete a VSDN, follow these steps.

Starting Point: The Main Menu

Step Action

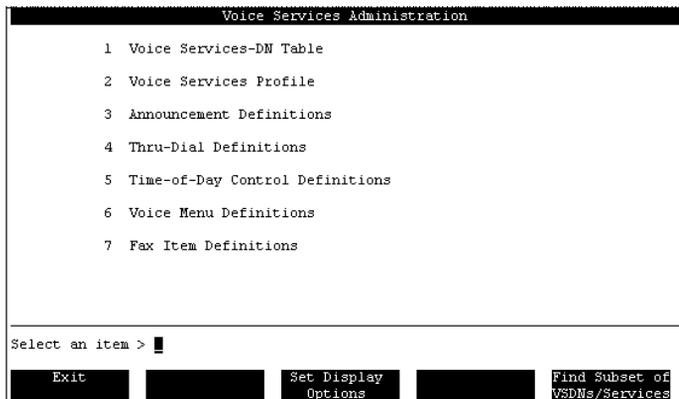
- 1 Select Voice Administration.

Result: The Voice Administration menu is displayed.



- 2 Select Voice Services Administration.

Result: The Voice Services Administration menu is displayed.



Step Action

- 3 Select Voice Services-DN Table.

Result: The Voice Services-DN Table is displayed.

DN	Service	Comment
3650	VM	Voice Messaging
3651	EM	Express Messaging
3652	RA	Remote Activation
3653	PM	Prompt Maintenance
3654	MS 101	Main Menu
3655	AN	AMIS Networking
3656	NW	Meridian Mail Netwk
3659	FIM	Fax Item Maint.
3690	TR 1901	Transcription Serv.

Move the cursor to the item and press the space bar to select.

Exit Add View/Modify Delete Find

- 4 Move the cursor to the VSDN you want to delete, and press the spacebar to select it.

- 5 Press the [Delete] softkey.

Result: The Delete DN Information screen is displayed.

Note: If the service has a session profile, you can view it before deleting by pressing the [Session Profile Detail] softkey. The profile is read-only.

- 6 Do you want to delete the VSDN?

- If yes, press the [OK to Delete] softkey.
- If no, press the [Cancel] softkey.

Chapter 25

Voice services profile

In this chapter

Overview	25-2
Timeouts	25-3
How timeouts work	25-4
Modifying the voice services profile	25-6

Overview

Introduction

This chapter provides an overview of the use of timeouts, and explanations of all the parameters of the Voice Services Profile screen.

The Voice Services Profile screen

The Voice Services Profile screen displays all the general parameters that apply to all voice services, including timeouts. Default values are assigned when the system is installed. You can modify these values by following the procedure on page 25-6.

Timeouts

Definition

Timeout values determine how long the system will wait under certain conditions before the system takes action (such as disconnecting or playing a prompt). Timeouts are important because they aid callers by playing appropriate prompts when the system has not received correct input.

Types of timeouts

There are three types of timeouts to define:

- command entry
- short disconnect
- record

Examples

The command entry timeout is used when the system does not receive an anticipated response from the caller, such as entering an extension number or making a selection from a voice menu. This allows for the system to respond with a prompt to aid the caller, transfer the call to the revert DN, or disconnect the call.

The short disconnect timeout is used for disconnecting from a Thru-Dial service or from a voice menu, because the caller has not input an extension number or selected a voice menu option, after entering the service.

The record disconnect timeout is used during recording prompts to prevent recording unnecessary silences.

How timeouts work

Description

Timeout values are used to determine how long the system waits before taking some sort of action when an expected response is not received. The three types of timeouts are explained below.

Command entry timeout

The command entry timeout is used when the system is waiting for a response from the caller. It allows you to set time parameters which, when exceeded, prompt the system for a response. The default value for command entry timeout is 3.5 seconds. The accepted values are between 1.0 and 5.0 seconds.

Command entry timeout may be used for any of the following situations.

Announcements

When announcements are accessed directly, the system will wait this amount of time before disconnecting the call. This timeout is intended to put a limit on how long a caller will remain connected if the caller stays on the line and does nothing after the announcement is played.

In the case where an announcement is played multiple times, this amount of silence will be heard between each play.

Voice menu

This timeout is used for initial no response and delayed response. You can define the action to be taken for an initial no response and delayed response in the voice menu definition.

Note: If you are using a voice menu to accept AMIS or Enterprise Networking calls, or both, set this timeout to the maximum allowed value of five seconds. If this field is set to less than five seconds, an AMIS or Enterprise Networking call, or both, may be prematurely disconnected. The initial no response action in the voice menu definition should be set to repeat menu choices.

Thru-Dial service

Command entry timeout is used if the system is waiting for an initial response (such as an extension number or name), or if the caller has provided keypad input at some point but is now delaying in providing further input.

Fax information service

With a fax information service, a caller may be prompted for an action (such as entering a callback number or extension). When the caller does not respond and the command entry timeout is exceeded, a help prompt is played. If the caller still does not enter the required information, the prompt is played a second time. If the system times out again, the caller is transferred to the revert DN defined in the session profile.

Short disconnect timeout

The short disconnect timeout is used to disconnect a call, such as when the command entry timeout has been exceeded. Callers are usually given several opportunities to provide responses before the short disconnect timeout is used.

The default value is 10.0 seconds. Valid values are from 1.0 to 30.0 seconds.

This timeout value is used in the following situations:

- disconnecting from a thru-dial service
- disconnection from a voice menu

Record timeout

This timeout value is used with the recording of prompts for voice menus, announcements, and Thru-Dial services. If during recording this amount of silence is recorded, the system will disconnect the session.

The default is 02:00 (mm:ss). Valid values are from 00:06 to 05:00. This affects all voice services other than Fax on Demand, and Voice Messaging and its associated features (login, call answering, express messaging).

Modifying the voice services profile

Introduction

The Voice Services Profile screen shows the general parameters configured for all voice services (with the exception of voice messaging services).

Procedure

To make changes to the parameters in the Voice Services Profile, follow these steps.

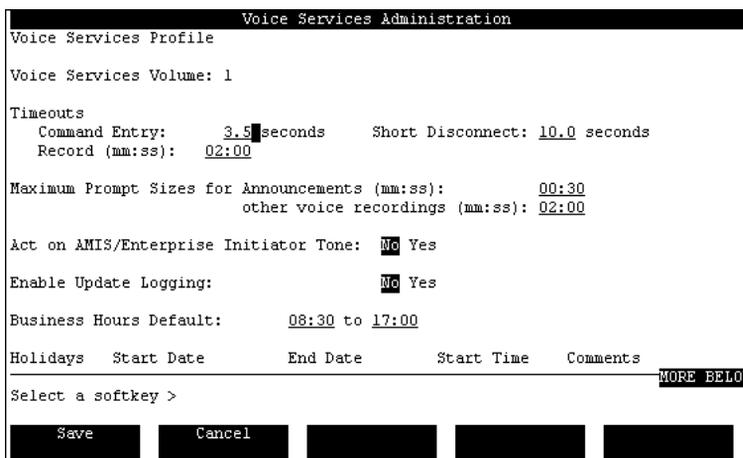
Starting Point: The Main Menu

Step Action

- 1 Select Voice Administration.
Result: The Voice Administration screen appears.
 - 2 Select Voice Services Administration.
Result: The Voice Services Administration screen appears.
 - 3 Select Voice Services Profile.
Result: The Voice Services Profile screen appears.
 - 4 Enter all changes you want to make to the parameters in this screen.
 - 5 When you have made all the necessary changes, press [Save] and then [Exit] to return to the previous screen.
Press [Cancel] to return to the previous screen without saving changes.
-

The Voice Services Profile screen

This is the Voice Services Profile screen.



Field descriptions

The following fields appear on the Voice Services Profile screen.

Voice Services Volume

Description This is a read-only field that indicates which volume contains voice services files and voice forms (if any).

Timeouts

Description The values you enter in the timeout fields determine how long the system will wait under certain conditions before the system takes action.

Options The timeouts to be defined are command entry, short disconnect, and record.

See also See "How timeouts work" on page 25-4.

Maximum Prompt Sizes for Announcements (mm:ss)

Description	<p>This field controls the recording length for prompts for announcement definitions.</p> <p>If 80% of the maximum prompt size has been recorded, a tone is played to warn that the maximum prompt size has nearly been reached.</p> <p>If you are recording using the [Voice] softkey, when the time limit is exceeded the recording is stopped, and the system displays “Recording stopped. The time limit was exceeded”. If you are recording using Prompt Maintenance, and exceed the time limit, the system plays “Recording has stopped. You have reached the recording limit.”</p>
Default	00:30
Valid range	00:30 to 10:00

Maximum Prompt Sizes for other voice recordings (mm:ss)

Description	<p>This field controls the maximum recording length for voice menu and thru-dial service prompts that are recorded using either the administration terminal or the Voice Prompt Maintenance service.</p> <p>If 80 percent of the maximum prompt size has been recorded, a tone is played to warn that the maximum prompt size has nearly been reached.</p> <p>If you are recording using the [Voice] softkey, when the time limit is exceeded the recording is stopped, and the system displays “Recording stopped. The time limit was exceeded”. If you are recording using Prompt Maintenance, and exceed the time limit, the system plays “Recording has stopped. You have reached the recording limit.”</p>
Default	02:00
Valid range	00:30 to 10:00

Act on AMIS/Enterprise Initiator Tone

Description	If an AMIS call comes in through a voice service DN, the voice service will either ignore (No) or react to the AMIS tone and transfer the call to the appropriate AMIS agent (Yes).
Default	No
Valid options	Yes, No <ul style="list-style-type: none"> • No When selected, you have to configure a DN specifically for the AMIS service in the VSDN table. • Yes When selected, allows AMIS to share a DN with a voice menu, thru-dial service, announcement service, time-of-day controller or fax information service.

Enable Update Logging

Description	This field determines whether a SEER is generated whenever a VSDN entry, announcement, thru-dial service, time-of-day controller, voice menu, or fax item is added, modified, or deleted.
Default	No
Valid options	Yes, No <ul style="list-style-type: none"> • Yes A SEER is generated. This allows you to see which operation has been performed and on which DN or service ID. • No No SEER is generated.

Business Hours Default

Description	<p>These are the hours that your organization is typically open from Monday to Friday. Hours that fall outside of the range defined here are considered off-hours.</p> <p>The hours you enter here are used as defaults in the Add a Time of Day Control Definition screen.</p> <p>You can however, override these defaults if necessary when defining a time-of-day controller.</p>
Default	08:30 to 17:00

Holidays

Description	Identify the holidays that are observed by your organization (that is, the holidays for which your organization closes). Up to 20 holidays can be defined. The holidays you specify here are used when defining time-of-day controllers.
Parameters	For each holiday, you must specify the start date, end date, and start time.

Start Date

Description	This field is mandatory. Specify the date on which the holiday begins. The date format follows that defined under the General Administration menu, in the General options screen.
-------------	---

End Date

Description	<p>This field is optional. The date entered here determines the day on which the holiday ends. If you enter a date, it must be later than or the same as the start date.</p> <p>If no end date is specified, the holiday will end on the start date. If the holiday ends on a regular business day, the holiday will end at the end of the business day (5:00 p.m., for example). However, if it is a nonbusiness day, the holiday will end at the end of the day (midnight).</p>
-------------	---

Start Time

Description	This field is mandatory. Enter the time at which the holiday starts on the start date. This is usually the normal start of the business day (specified using the 24-hour clock).
-------------	--

Comments

Description	This field is optional. You may enter a comment to describe the holiday you are defining.
-------------	---

Chapter 26

Class of Service administration

In this chapter

Overview	26-2
Section A: Introduction to Class of Service	26-3
Section B: Adding, changing, printing, and deleting System Classes of Service	26-9
Section C: Assigning Classes of Service to users	26-63

Overview

Introduction

Class of Service (COS) administration includes

- defining the system's Classes of Service (COSs) (Up to 15 COSs are permitted plus personal COSs.)
- assigning a COS for each individual user

Section A

This section is the Introduction to Class of Service. It includes concepts and types of COS.

Section B

This section gives details and procedures on creating (adding), changing, printing, and deleting System COSs.

Section C

This section discusses various factors involved with assigning users to COSs.

***Section A:* Introduction to Class of Service**

In this section

What is a Class of Service?	26-4
System Class of Service versus Personal Class of Service	26-6
How Class of Service is administered	26-7

What is a Class of Service?

Description

A Class of Service (COS) is a template that contains information about the capabilities that a user has and the values that are assigned to specific parameters. It is essentially a method of classifying users according to their needs. When you add a user to the system, you must specify the Class of Service to which he or she belongs.

The Meridian Mail COS applies dialing restrictions to Meridian Mail features, controls Meridian Mail resources, and determines which features are available to the owner of the mailbox.

Meridian 1 classes of service

The Meridian Mail Class of Service feature should not be confused with Class of Service on the Meridian 1/SL-1 switch. Meridian 1 Class of Service applies certain dialing restrictions to lines or sets, or trunks, not to Meridian Mail features. (See “Access restrictions” in the *X11 Software Features Guide* [NTP 553-3001-305].)

Example

Before adding users, you should carefully consider the user types that you need to represent with COSs. The following scenario provides an example of the kinds of COSs you can create (add).

For instance, you might only need to add three COSs: one for secretaries, one for executives, and a standard one for all other employees. If employees in certain departments are found to have different needs, you could add one for Accounting, one for Engineering, and so on. The COSs that you end up creating will depend entirely on the types of users that you will be adding to the system.

Once you have created your COSs and added users, you may realize that a particular group of users requires some additional capabilities. You don't have to change each individual user. You only need to change the settings in the COS, and all the users assigned to that COS will automatically pick up the changes.

If an individual user requests additional functionality (or even reduced functionality) or greater mailbox storage capacity, you can do one of two things: reassign the user to another COS that meets his or her needs, or create a personal COS for that user (only if no existing COSs are adequate). Personal COSs are described in more detail in the following section.

System Class of Service versus Personal Class of Service

System COS

Up to 15 COSs can be defined. When adding a user, you will assign him or her to one of these COSs or to a Personal COS, if necessary.

Personal COS

In addition to the 15 system COSs, the personal COS will always be available when adding a user. The personal COS is a special class. It allows you to deal with those users who require capabilities that do not fit any existing COS. A mailbox with a personal COS remains independent of changes made to other COSs.

Keep in mind, however, that as the number of personal COSs increases, the task of maintaining your classes of service and users will become more difficult since they all will have to be managed.

How Class of Service is administered

Planning, adding, and assigning Classes of Service (COSs)

These are the steps involved in planning, adding, and assigning COSs.

Stage	Description
1	Plan the COSs for the system based on the known needs of the local users.
2	Add the COSs that have been planned.
3	Assign the COSs to the system.
4	Assign users to the COSs according to their needs.

Changing COS for one or several users

These are the steps involved in changing users from one COS to another.

Stage	Description
1	Analyze the users' current needs.
2	Assign the users to COSs that meet their current requirements.

Multiple Administration Terminals

If you have the Multiple Administration Terminal feature installed in your system and you are logged in at a Multiple Administration Terminal (MAT), you can only view existing Classes of Service. You cannot add, modify, or delete Classes of Service from this terminal.

***Section B:* Adding, changing, printing, and deleting System Classes of Service**

In this section

Adding a Class of Service	26-10
The Add Class of Service screen (MMUI)	26-13
The Add Class of Service screen (VMUIF)	26-30
Assigning Classes of Service to the system	26-49
The Find Class of Service screen	26-50
Finding, listing, or printing a Class of Service	26-51
Modifying a Class of Service	26-54
Deleting a Class of Service	26-59

Adding a Class of Service

Introduction

This section describes how to add a Class of Service (COS) to the system.

Procedure

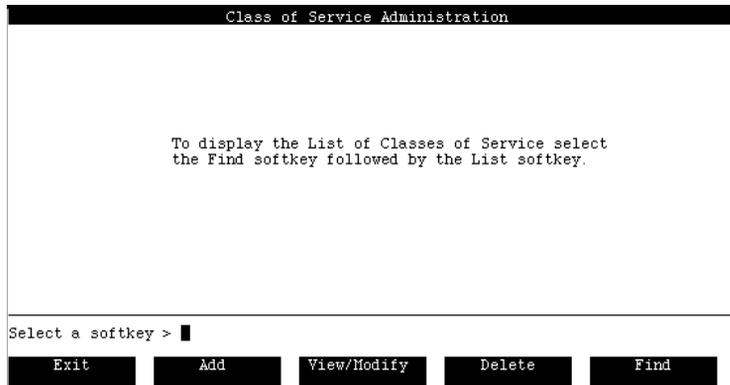
To add a new class of service, follow these steps.

Starting Point: The Main Menu

Step Action

- 1 Select Class of Service Administration.

Result: The following screen appears.



- 2 Press the [Add] softkey.

Result: You are prompted for the class of service number.

Adding a class of service for users with dial pulse sets

If the system was installed with the VMUIF interface and there is a possibility that some users will have dial pulse phone sets, then at least one of the VMUIF classes of service that you add should support users who have dial pulse phone sets. The following fields in the Add Class of Service screen must be configured as indicated in order to support dial pulse:

- *Dial Pulse support: Yes*
- *Auto Logon: Yes*
- *Skip to First New Message: Yes*
- *Read Message Retention: This must be a value other than zero so that read messages are automatically deleted on a regular basis (such as every seven days).*

A dial pulse user can also record a personal greeting by calling a greeting change service. If a personal greeting is not recorded, the default system greeting is played.

If a dial pulse user logs in from a phone other than his or her home phone, a mailbox and password are required. (The user must, therefore, call in from a phone with touch-tone support.) However, once logged on, the mailbox operates as if it was accessed from a household phone (no further commands are required). However, if the user does enter a DTMF command, the call reverts to the standard DTMF interface.

The Add Class of Service screen (MMUI)

Introduction

New classes of service are added to the system through the Add Class of Service screen.

MATs

Class of Service screens are read-only from Multiple Administration Terminals (MATs).

The Add Class of Service screen

The screens that follow appear when you press the [Change Defaults] softkey on the Add Class of Service screen. This is the first part of the Add Class of Service/Change Defaults screen.

```

Class of Service Administration
Add Class of Service
-----
Class of Service Number:      1
Class of Service Name:      _____
Personal Verification Changeable by User:  No Yes
Voice Storage Limit (minutes):  3
Maximum Message Length (mm:ss):  03:00
Delayed Prompts:              No Yes
Dual Language Prompting:      No Yes
Auto Logon:                   No Yes
-----
Select a softkey >
Save      Cancel      _____      _____      _____
  
```

Field descriptions

This table gives descriptions of the fields highlighted by the broken line in the preceding screen.

Class of Service Number

Description	This is a read-only field. This field is prefilled with the number you entered to access this screen. The COS number is used to identify the Class of Service.
Valid range	1 to 15

Class of Service Name

Description	This is the name of the class of service. This field is mandatory. The COS definition cannot be saved if this field is blank.
Maximum length	The COS name can be up to 30 characters in length.
Valid characters	All characters are valid with the exception of "+", "_", or "?", which are invalid.

Personal Verification Changeable by User

Description	(MMUI only) If this field is set to No, only the administrator is allowed to record personal verifications for users belonging to the COS. If the field is set to Yes, users can record their own personal verifications from their telephone sets. The latter option is generally desirable since callers prefer to hear the voice of the person they are calling.
Default	The default value is No.

Voice Storage Limit

Description	This field defines the maximum amount of storage available to the user.
How this limit is used	<p>If messages exceed this limit, a message is played to the mailbox owner indicating that the mailbox is full and that the mailbox owner will be restricted in what he or she can do while logged in to Meridian Mail. The following restrictions are imposed:</p> <ul style="list-style-type: none">• The mailbox owner can only listen to and delete messages.• The mailbox owner cannot record a personal greeting, or compose, send, or forward messages.• After messages are deleted to reduce the storage used to below the limit, the mailbox owner must still log off and then log back in before the various mailbox functions are restored. <p>The following conditions also exist when the mailbox is full:</p> <ul style="list-style-type: none">• Callers using Express Messaging are still allowed to leave a message.• Callers who access the Call Answering service for the user's mailbox are able to leave a message.
Affected fields	The Maximum Message Length and Maximum Call Answering Message Length cannot be greater than the Voice Storage Limit.
Default	The default value is 3 (minutes).
Valid range	You may enter a value from 1 to 360 (minutes).

Maximum Message Length

Description	This value determines the longest possible composed message or personal greeting that a user belonging to this COS is allowed to record.
Default	The default value is 03:00.
Valid range	You may enter a value between 00:30 and 99:00 in 10-second increments.
Restrictions	<p>This value cannot be greater than the Voice Storage Limit.</p> <p>If you set this field to a number that exceeds the idle login timer, message lengths will be restricted to the login timer value. The default idle login timer value is 03:00. To change this value, contact your support organization.</p>

Delayed Prompts

Description	When this field is set to Yes, the system will prompt users for an action if the user does not initiate any action for 3.5 seconds. It is recommended that this field be set to Yes (especially for new users). Once the users belonging to the COS are familiar with the interface, you may get requests to turn delayed prompting off. You can inform experienced users that they do not need to wait for the prompts to finish before entering a command. This field should remain set to Yes for the benefit of new users.
Default	The default is Yes.

Dual Language Prompting

Description	(MMUI only) This field is displayed on multilingual systems only. The selection made here affects the prompts played to callers during Call Answering and Express Messaging sessions. (It does not apply to the prompts played to users while logged into their own mailboxes. The language in which prompts are played to users while logged in to Meridian Mail is determined by the field Preferred Language, in the Add or View/Modify Local Voice User screen.)
Default Language Overrides User's Preferred Language	<p>The "Default Language Overrides User's Preferred Language" field, which is defined in the Voice Messaging Options screen, affects which language is heard first during a call answering session, as follows:</p> <ul style="list-style-type: none">• If the Default Language Overrides User's Preferred Language field is set to No, and the user's language is different from the primary default language, callers will hear prompts in the user's preferred language followed by the primary default language.• If the Default Language Overrides User's Preferred Language field is set to No, and the user's language is the same as the primary default language, callers will hear prompts in the primary default language followed by the secondary default language.• If the Default Language Overrides User's Preferred Language field is set to Yes, callers will hear prompts in the primary default language followed by the secondary default language. Users continue to hear prompts in their preferred language during login sessions.
Default	The default is Yes.
See also	For more information about dual language prompting works, see "Setting up languages on systems with dual language prompting" on page 20-19.

Auto Logon

Description	When this field is set to Yes, the user does not need to enter a mailbox number or password to gain access to Meridian Mail. When set to No, the user must enter a mailbox number and password. For reasons of mailbox security, this field should be set to No, unless the mailboxes of the users that will be added to this COS are in a secure location and desire this feature.
Default	The default is No.
Exceptions	Set this field to Yes if the users that will be added to this COS have requested auto logon and their phones are in a secure location. To create completely hands-free message retrieval for MMUI users, use auto logon in conjunction with auto play.
HVS users	The Hospitality Voice Messaging DN can have auto logon enabled or disabled (this is done in the VSDN table). If auto logon is enabled for the user but disabled for the DN, the setting in the VSDN table will override the setting in the user profile.

The Add Class of Service screen (cont'd)

This is the second part of the Add Class of Service/Change Defaults screen.

```

Class of Service Administration
View/Modify Class of Service
-----
Administrator Capability:  No Yes
Broadcast Capability:      No Yes
Network Broadcast Capability: No Yes
Auto Play:                 No Yes
Auto Deletion of Invalid PDL Addresses: No Yes
Callers Notified of Busy Line: No Yes
Prompt Played during Call Answering:  Name Number
Maximum Call Answering
Message Length (mm:ss):      01:00
-----
Select a softkey >
Save  Cancel
  
```

Field descriptions

This table gives descriptions of the fields highlighted by the broken line in the preceding screen.

Administrator Capability

Description	(MMUI only) If this field is set to Yes, users belonging to this COS will be allowed to record a custom call answering greeting for the system and personal verifications for all other users. For instructions on how to record a customized call answering greeting for the system, see "Recording a customized call answering greeting" on page 20-29.)
Special COS	You can set this field to Yes to add a special COS if there are any administrative assistants at the customer site who need to be able to perform these limited administrative tasks. For all other types of users, this field should be set to No.
Default	The default is No.

Broadcast Capability

Description	Set this field to Yes if you want users to be able to compose and send broadcast messages. Broadcast messages are sent to all users at this Meridian Mail site. <i>Note:</i> This field cannot be set to No if the Network Broadcast Capability field is set to Yes.
Default	The default is No.

Network Broadcast Capability

Description	(MMUI only) Set this field to Yes if you want users to be able to send network messages to all users at a specific remote site, or to any combination of sites. This field only appears if the system has Meridian Mail Networking installed. This field can only be set to Yes if the Broadcast Capability field is also set to Yes.
Default	The default is No.

Auto Play

Description	<p>(MMUI only) When this field is set to Yes, the messages in the user's mailbox are automatically played when the user logs on. Playback begins with the first new message. Once all new messages are played, any existing old (read) messages are then played back, starting with the oldest. However, the pound sign (#) can be pressed at any time to end playback.</p> <p>When this field is set to No, the user must explicitly request that each message be played by pressing <2> on the telephone keypad. Auto Play can be used in combination with Auto Logon to allow totally hands-free message retrieval.</p>
Default	The default is No.

Auto Deletion of Invalid PDL Addresses

Description	<p>When this field is set to Yes, invalid addresses in categories A to D will be removed from a user's PDL in the following circumstances:</p> <ul style="list-style-type: none"> • The user selects the PDL while addressing a message for Compose. • The user presses Play <2> while editing the PDL. <p><i>Note:</i> If Auto Delete is set to No, the user will be notified of the existence of bad addresses but no action will be taken to remove them.</p>
Categories	<p>Category A: local mailbox has been deleted Category B: network site has been deleted or COS capabilities/feature disabled. Category C: capabilities or features have been disabled (for example, delivery to non-user or AMIS) Category D: delivery to non-user or AMIS number has become restricted</p>
Default	The default is Yes.

Callers Notified of Busy Line

Description	<p>When this field is set to Yes, a special prompt is played when the called line is busy, informing the caller that the user is on the phone. After the prompt is played, the caller is connected to Meridian Mail to leave a message. If the field is set to No, the normal Call Answering system greeting or personal greeting is played.</p> <p><i>Note:</i> If the user's mailbox is associated with two (or more) DNs, they must all be busy for this prompt to be played.</p>
Default	The default is Yes.

Prompt played During Call Answering

Description	<p>This field controls what type of call answering prompt will be heard by a caller if the user is on the line when another caller phones, or if the call is not answered, or if it is directed to the mailbox by a Call Answering DN.</p> <p>The origin of the caller (internal or external) and the types of personal greetings recorded (internal, external, temporary) are also factors in deciding which prompts will be played. For details on the interaction of these factors, see "How Call Answering uses personal greetings and personal verifications" on page 5-7.</p>
Valid Options	<p>Name, Number</p> <ul style="list-style-type: none"> • <i>Name</i> plays the personal verification, unless it has not been recorded. • <i>Number</i> plays the phone number. <p>In both cases, the prompt is incorporated into a system-provided message explaining that the caller has been routed to the user's mailbox.</p>
Default	The default is Name.

Maximum Call Answering Message Length

Description	This value determines the longest possible call answering message or Express Messaging message that a caller can record and leave in a user's mailbox.
Format	The value must be entered in the format mm:ss.
Default	The default is 01:00.
Valid range	You may enter a value between 00:30 and 99:00 in ten-second increments.
Restriction	This value cannot be greater than the Voice Storage Limit.

The Add Class of Service screen (cont'd)

This is the third part of the Add Class of Service/Change Defaults screen.

Class of Service Administration MORE ABOVE

Add Class of Service

Receive Composed Messages: No **Yes**

Message Waiting Indication Options: None **Any** Urgent

External Call-Sender
Restriction/Permission List: 2 List Name: Local

Read Message Retention (days): 0
(“0” implies that read messages
are retained until the user
deletes them manually.)

Send Messages to External Users: No **Yes**

Retain Copy of Sent Messages: No **Yes** MORE BELOW

Select a softkey >

Save Cancel [] [] []

Field descriptions

This table gives descriptions of the fields highlighted by the broken line in the preceding screen.

Receive Composed Messages

Description	If this field is set to No, users' mailboxes will not accept composed messages. If AMIS networking is installed, setting this field to No automatically sets the field Receive AMIS Open Network Messages to No.
-------------	--

Default	The default is Yes.
---------	---------------------

Message Waiting Indication Options

Description	The chosen setting determines the type of messages that will cause a message waiting indication (a flashing light or an interrupted dial tone) on the user's telephone set. Set this field to Any to notify users of all new messages, Urgent to notify users of only those messages tagged as urgent, or None if users are not to be notified at all.
-------------	--

This field should be set to None for users who don't have a physical telephone set, but do have a mailbox. For example, a salesperson may only rarely be at the office and does not have a phone as a result, but still requires a number for callers to leave messages.

Default	The default is Any.
---------	---------------------

External Call Sender Restriction/Permission List

Description	This field specifies the number and name of the Restriction/Permission list that will be applied when the Call Sender feature is used to call back external callers. The lists are defined in the Restriction/Permission List screen, accessible from Voice Administration.
Requirement	To allow users to use call sender to place calls to external users, the External Call Sender Allowed field must be enabled in the Voice Messaging Options screen.
Default	The default is 2 (Local).
Valid range	This number can range from 0 to 80. The value 0 = unrestricted.

Read Message Retention (days)

Description	<p>This field specifies the number of days that messages are kept in users' mailboxes after they have been read. The value in this field is limited by the system-wide value set in the Maximum Read Message Retention field in the Voice Messaging Options screen. For details, see "The Voice Messaging Options screen" on page 20-6.</p> <p>Once the lesser of these two values is reached, read messages are automatically deleted. If 0 is entered in both fields, read messages are not automatically deleted by the system, but can be deleted only by the user.</p>
Valid range	You can enter a value from 0 to 99.
Default	The default is 0.
Read message retention	<p>The following table shows which value is used to determine how long the user's read messages are kept.</p>

System retention limit	User retention limit	Amount of time read messages are kept
0 (zero)	0 (zero)	Messages are kept until the user deletes them. The system will not automatically delete read messages.
0 (zero)	A value other than zero	The user retention limit determines how long messages are kept.
A value other than zero	0 (zero)	The system retention limit determines how long messages are kept.
A value other than zero	A value other than zero	The lesser value is used to determine how long messages are kept.

Send Messages to External Users

Description	This field is not applicable to single-customer systems (that is, systems that do not have the Meridian Mail Multi-Customer feature installed).
Default	The default is No.

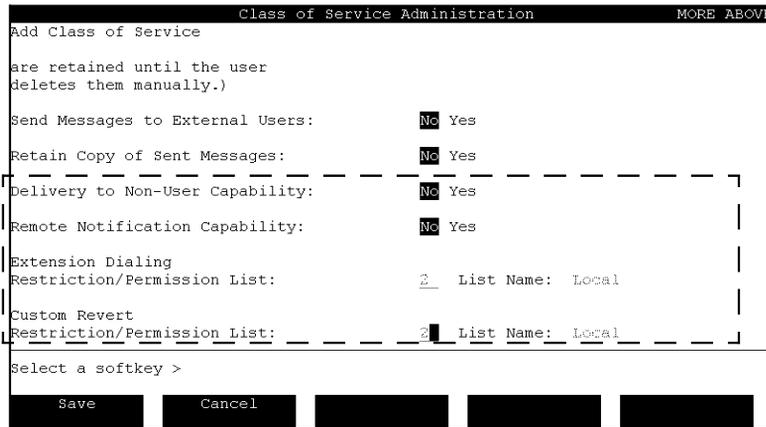
Retain Copy of Sent Messages

Description	(MMUI only) When this field is set to Yes, copies of sent messages are not deleted from the user's mailbox. When it is set to No, messages are deleted as soon as they are sent. Carefully consider how many users you can allow to have this capability, since the more users who have this ability, the faster your available storage space will be used up.
Default	The default is No.

The Add Class of Service screen (MMUI)

The Add Class of Service screen (cont'd)

This is the last part of the Add Class of Service/Change Defaults screen.



Field descriptions

This table gives descriptions of the fields highlighted by the broken line in the preceding screen.

Delivery to Non-User Capability

Description	<p>This enables the user to direct a message to an external DN.</p> <p><i>Note:</i> This field is displayed only if Outcalling is installed.</p> <p>There are more fields displayed if Yes is selected. Refer to the <i>Outcalling Application Guide</i> (NTP 555-7001-320) for details about configuring the class of service fields for remote notification and delivery to non-users.</p>
Default	<p>The default is No.</p>

Remote Notification Capability

Description This field permits the user to receive notification of messages, automatically, to an external DN or a paging device.

Note: This field is displayed only if Outcalling is installed.

There are more fields displayed if Yes is selected. Refer to the *Outcalling Application Guide* (NTP 555-7001-320) for details about configuring the class of service fields for remote notification and delivery to non-users.

Default The default is No.

Receive AMIS Open Network Messages

Description This field permits the users to receive messages from users at the AMIS Open Network sites.

Note: This field is displayed only if the AMIS Networking feature Network is installed.

Default The default value is No.

Compose/Send AMIS Open Network Messages

Description This field determines whether users are allowed to compose and send messages to AMIS Open Network users. If this field is set to Yes, the AMIS Open Network Restriction/Permission List is displayed.

Note: This field is displayed only if the AMIS Networking feature is installed.

Valid options Yes, No

No indicates that users cannot compose and send AMIS open network messages. However, users can still compose and send AMIS messages to remote users that are located at virtual nodes within a Meridian Network.

Default The default value is No.

AMIS Open Network Restriction/Permission List

Description	This field gives the number and name of the Restriction/Permission list that applies when a user sends an AMIS Open Network message. The lists are defined in the Restriction/Permission List screen, accessible from Voice Administration.
Valid range	This number can range from 0 to 80. The value 0 = unrestricted.
Default	The default is 2 (Local).

Extension Dialing Restriction/Permission List

Description	(MMUI only) This field gives the number and name of the Restriction/Permission list that applies when a user dials a phone number while logged in to his or her mailbox (known as Thru-dialing). The lists are defined in the Restriction/Permission List screen, accessible from Voice Administration.
Valid range	This number can range from 0 to 80. The value 0 = unrestricted.
Default	The default is 2 (Local).

Custom Revert Restriction/Permission List

Description	The custom revert DN is the extension to which a caller is passed when the caller presses 0 during a Meridian Mail session. Since users can customize this DN from their telephone sets you must determine which dialing codes you want to restrict (or explicitly permit). For example, you may want to ensure that users cannot revert callers to long distance numbers. This field gives the number and name of the Restriction/Permission list that is applied to the custom revert DN. The lists are defined in the Restriction/Permission List screen, accessible from Voice Administration.
Valid range	This number can range from 0 to 80. The value 0 = unrestricted.
Default	The default is 2 (Local).

The Add Class of Service screen (VMUIF)

Introduction

New classes of service are added to the system through the Add Class of Service screen. The following screens are available to VMUIF systems.

MATs

Class of Service screens are read-only from Multiple Administration Terminals (MATs).

The Add Class of Service screen— VMUIF

The screens that follow appear when you press the [Change Defaults] softkey on the Add Class of Service screen. This is the first part of the Add Class of Service/Change Defaults screen.

```

Class of Service Administration
Add Class of Service
-----
Class of Service Number:          1
Class of Service Name:           █
Voice Messaging Interface Type:   MMUI VMUIF
Maximum Number of SubMailboxes:  0
Voice Storage Limit (minutes):   3
Maximum Message Length (mm:ss):  03:00
Maximum Personal Greeting Length (mm:ss): 01:00
Delayed Prompts:                 No Yes
-----
Select a softkey >
Save      Cancel      █      █      █
  
```

 The Add Class of Service screen (VMUIF)
Field descriptions

This table gives descriptions of the fields highlighted by the broken line in the preceding screen.

Class of Service Number

Description	This is a read-only field. This field is prefilled with the number you entered to access this screen. The COS number is used to identify the Class of Service.
Default	This field is prefilled with the number you entered to access the screen
Valid range	1 to 15

Class of Service Name

Description	This field defaults to the name entered in the first Add Class of Service screen and is mandatory. The COS definition cannot be saved if this field is blank.
Default	Blank
Maximum length	The COS name can be up to 30 characters in length.
Valid characters	All characters are valid with the exception of "+", "_", or "?", which are invalid.

Voice Messaging Interface Type

Description	This is a read-only field and is displayed only if VMUIF is installed. This field indicates what the voice messaging interface type is on your system.
-------------	--

Maximum Number of SubMailboxes

Description	<p>(VMUIF only) A value other than zero in this field means that submailbox capability is enabled for this COS. Submailboxes allow each member of a household to have his or her own personal mailbox, all of which are accessible from a single DN. A value of 0 implies that submailbox capability is disabled. If enabled, between 1 and 8 submailboxes are permitted. The value entered here is the maximum number of mailboxes permitted on a single DN.</p> <p>If a user requests additional submailboxes (and the total exceeds the maximum number configured here), you will have to reassign the user to another COS that has a sufficient number of submailboxes.</p> <p><i>Note:</i> Once you have entered a value in this field and assigned users to this COS, this field becomes read-only and you cannot change this value. This is because submailboxes are chargeable by Northern Telecom. When you have used up all of your allotted submailboxes, contact your sales representative.</p>
Valid range	Values from 1 to 8 are permitted.
Default	The default is 0.

Voice Storage Limit

Description	<p>This field defines the maximum amount of storage available to the user.</p> <p>If submailboxes are enabled for this COS, all submailboxes contend for the same storage space.</p>
How this limit is used	<p>If messages exceed this limit, a message is played to the mailbox owner indicating that the mailbox is full and that the mailbox owner will be restricted in what he or she can do while logged in to Meridian Mail. The following restrictions are imposed:</p> <ul style="list-style-type: none">• The mailbox owner can only listen to and delete messages.• The mailbox owner cannot record a personal greeting, or compose, send, or forward messages.• After messages are deleted to reduce the storage used to below the limit, the mailbox owner must still log off and then log back in before the various mailbox functions are restored. <p>The following conditions also exist when the mailbox is full:</p> <ul style="list-style-type: none">• Callers who access the Call Answering for the user's mailbox cannot leave a message.
Affected fields	<p>The Maximum Message Length, Maximum Personal Greeting Length, and Maximum Call Answering Message Length cannot be greater than the Voice Storage Limit.</p>
Default	<p>The default value is 3 (minutes).</p>
Valid range	<p>You may enter a value from 1 to 360 (minutes).</p>

Maximum Message Length

Description	This value determines the longest possible composed message or personal greeting that a user belonging to this COS is allowed to record.
Default	The default value is 03:00.
Valid range	You may enter a value between 00:30 and 99:00 in ten-second increments. The default is 03:00.
Restriction	This value cannot be greater than the Voice Storage Limit. If you set this field to a number that exceeds the idle login timer, message lengths will be restricted to the login timer value. The default idle login timer value is 03:00. To change this value, contact your support organization.

Maximum Personal Greeting Length

Description	(VMUIF only) This value determines the longest possible personal greeting that a user belonging to this COS is allowed to record.
Default	The default is 01:00.
Valid range	You may enter a value between 00:30 and 05:00.
Restriction	This value cannot be greater than the Voice Storage Limit.

Delayed Prompts

Description	When this field is set to Yes, the system will prompt users for an action if the user does not initiate any action for 3.5 seconds. It is recommended that this field be set to Yes (especially for new users). Once the users belonging to the COS are familiar with the interface, you may get requests to turn delayed prompting off. You can inform experienced users that they do not need to wait for the prompts to finish before entering a command. This field should remain set to Yes for the benefit of new users.
Default	The default is Yes.

The Add Class of Service screen (VMUIF)

The Add Class of Service screen— VMUIF (cont'd)

This is the second part of the Add Class of Service/Change Defaults screen.

```

Class of Service Administration
Add Class of Service
Dial Pulse Support: No Yes
Auto Logon: No Yes
Login from Call Answering: No Owner Group
Lockout Duration (hh:mm): 00:00
(00:00 implies no mailbox reset)
Broadcast Capability: No Yes
Callers Notified of Busy Line: No Yes
Receive Messages for Call Answering: No Yes
Maximum Call Answering
Select a softkey >
Save Cancel
  
```

Field descriptions

This table gives descriptions of the fields highlighted by the broken line in the preceding screen.

Dial Pulse Support

Description (VMUIF only) Set this field to Yes to add a class of service that supports users with rotary or dial pulse phone sets. This option allows the user to log in to his or her mailbox without having to enter a mailbox number, password or any other key presses.

Note: If this field is set to Yes, Auto Logon (the next field) must also be set to Yes.

Default The default is No.

Auto Logon

Description	When this field is set to Yes, the user does not need to enter a mailbox number or password to gain access to Meridian Mail, when calling from his or her home phone. When set to No, the user must enter a mailbox number and password. For reasons of mailbox security, this field should be set to No.
Exceptions	Set this field to Yes if <ul style="list-style-type: none"> • Dial Pulse Support is enabled (in which case, auto logon must be enabled). • The users that will be added to this COS have requested auto logon and their phones are in a secure location.
Default	The default is No.

Login from Call Answering

Description	(VMUIF only) This field determines whether users can log in to their mailboxes during or after a call answering session. When this feature is enabled, users have an alternative method of logging in which does not require that they dial a special access DN. Users can access their mailbox from a phone other than their home phone by dialing their telephone number and then pressing *.
Default	The default is Owner.
Valid options	No, Owner <ul style="list-style-type: none"> • No prohibits the user from logging in from call answering. • Owner allows users to log in to their mailboxes only if the destination mailbox is their own. After pressing *, the user is prompted to enter his or her password.

Lockout Duration

Description	(VMUIF only) When a user's mailbox is disabled (as shown by the Logon Status field in the Add or View/Modify Local Voice User screen) due to password violation, this field determines how long the user is locked out before he or she can log in again. You may enter a value from 00:00 to 23:59. If you enter a value of 00:00, this means that the user will be locked out until you decide to reenable the mailbox.
Valid range	The range of values that may be entered in this field is from 00:00 to 23:59.
Default	The default is 00:00.

Broadcast Capability

Description	Set this field to Yes if you want users to be able to compose and send broadcast messages. A broadcast message is one that is sent to all users in the same customer group.
Default	The default is No.

Callers Notified of Busy Line

Description	When this field is set to Yes, a special prompt is played when the called line is busy, informing the caller that the user is on the phone. After the prompt is played, the caller is connected to Meridian Mail to leave a message. If the field is set to No, the normal Call Answering system greeting or personal greeting is played. <i>Note:</i> If the user's mailbox is associated with two (or more) DNs, they must all be busy for this prompt to be played.
Default	The default is Yes.

Receive Messages for Call Answering

Description	(VMUIF only) If this field is set to No, users' mailboxes will not take call answering messages but can still be used to send messages. This feature is useful for users who do not have their own phone (and therefore are not expected to receive calls), but who need a mailbox so that they can compose and send messages.
Default	The default is Yes.

The Add Class of Service screen— VMUIF (cont'd)

This is the third part of the Add Class of Service/Change Defaults screen.

```

Class of Service Administration      MORE ABOVE
Add Class of Service
-----
Maximum Call Answering
Message Length (mm:ss):             01:00
Receive Composed Messages:          No Yes
Message Waiting Indication Options: None Any Urgent
Skip to First New Message:          No Yes
Announce Caller:                    No Yes
Replay Header with Message:         No Yes
Call Sender:                         No Yes
-----
Select a softkey >
Save      Cancel      [ ]      [ ]      [ ]

```

Field descriptions

This table gives descriptions of the fields highlighted by the broken line in the preceding screen.

Maximum Call Answering Message Length

Description	This value determines the longest possible call answering message that a caller can record and leave in a user's mailbox. You may enter a value between 00:30 and 99:00 in 10 second increments.
Default	The default is 01:00.
Valid range	The permitted values are from 00:30 to 99:00.
Restriction	This value cannot be greater than the Voice Storage Limit.

Receive Composed Messages

Description	If this field is set to No, users' mailboxes will not accept composed messages. If AMIS networking is installed, setting this field to No automatically sets the Receive AMIS Open Network Messages field to No.
Default	The default is Yes.

Message Waiting Indication Options

Description	The chosen setting determines the type of messages that will cause a message waiting indication (a flashing light or an interrupted dial tone) on the user's telephone set.
Default	The default is Any.
Valid options	None, Any Urgent <ul style="list-style-type: none"> • None should be selected for users who do not have physical telephone sets, but do have mailboxes. • Any notifies users of all new messages. • Urgent notifies users of only those messages tagged as urgent.

Skip to First New Message

Description	(VMUIF only) This field determines what happens when users log in to listen to new messages.
Default	The default is No.
Valid Options	Yes, No <ul style="list-style-type: none">• Yes causes the first new message to be automatically played when a user successfully logs on.• No means that users must use the Play command to listen to new messages.

Announce Caller

Description	(VMUIF only) If this field is set to Yes, the prompt “From <caller>” will be announced in the header/envelope for messages.
Default	The default is No.

Replay Header with Message

Description	(VMUIF only) If Yes is selected, the header will be played whenever a user selects the Play command to listen to messages that have been left in the mailbox. The header includes information such as the time at which the message was sent, the caller’s name, and so on.
Default	The default is Yes.

Call Sender

Description	<p>Call Sender allows users to place a call to the (internal) originator of a call answering message or a voice message automatically. After listening to a message, the user presses 9 to dial the caller's number.</p> <p><i>Note:</i> This feature is blocked if the user has logged in through remote notification.</p>
Dial pulse	<p>Do not enable this field if Dial Pulse Support is enabled.</p>
Default	<p>The default is No.</p>
Valid Options	<p>Yes, No</p> <ul style="list-style-type: none">• No disables Call Sender so that users cannot use the feature to call back internal or external callers who have left messages.• Yes enables Call Sender to internal callers only.
External call sender	<p>To allow users to use Call Sender to place calls to external callers, the following fields must be set to Yes:</p> <ul style="list-style-type: none">• Call Sender• External Call Sender Allowed in the Voice Messaging Options screen <p>Restrictions must also be applied in the External Call Sender Restriction/Permission List field in the class of service.</p>

The Add Class of Service screen— VMUIF (cont'd)

This is the fourth part of the Add Class of Service/Change Defaults screen.

Class of Service Administration		MORE ABOVE
Add Class of Service		
External Call-Sender Restriction/Permission List:	2	List Name: Local
Read Message Retention (days): ("0" implies that read messages are retained until the user deletes them manually.)	0	
Compose Capability:	NO	Yes
Send Messages to External Users:	NO	Yes
Delivery to Non-User Capability:	NO	Yes
Remote Notification Capability:	NO	Yes
Select a softkey >		
Save	Cancel	
		MORE BELOW

Field descriptions

This table gives descriptions of the fields highlighted by the broken line in the preceding screen.

External Call-Sender Restriction/Permission List

Description	This field specifies the number and the list name of the Restriction/Permission list that will be applied when the Call Sender feature is used to call back external callers. The lists are defined in the Restriction/Permission List screen, accessible from Voice Administration.
Valid range	This number can range from 0 to 80. The value 0 = unrestricted.
Default	The default is 2 (Local).

Read Message Retention (days)

Description This field specifies the number of days that messages are kept in users' mailboxes after they have been read. The value in this field is limited by the value set in the Maximum Read Message Retention field in the Voice Messaging Options screen. For details, see "The Voice Messaging Options screen" on page 20-6.

Valid range You can enter a value from 0 to 99.

Default The default is 0.

Which value is used The following table shows which value is used to determine how long the user's read messages are kept.

System retention limit	User retention limit	Amount of time read messages are kept
0 (zero)	0 (zero)	Messages are kept until the user deletes them. The system will not automatically delete read messages.
0 (zero)	A value other than zero	The user retention limit determines how long messages are kept.
A value other than zero	0 (zero)	The system retention limit determines how long messages are kept.
A value other than zero	A value other than zero	The lesser value is used to determine how long messages are kept.

Compose Capability

Description	<p>(VMUIF only) Set this field to Yes to give users the ability to compose and send voice messages to other users. If this value is set to No, then the user only has call answering capability.</p> <p>If this field is set to Yes, the “Treatment for Unsent Messages if the User Disconnects During Compose” field is displayed.</p> <p><i>Note:</i> Once you have assigned users to the COS and put it to use, you cannot modify this field. This feature is chargeable by Nortel. If you need to revoke compose capability from a particular user, you will have to reassign the user to another COS. Conversely, if a user does not have this capability and later requests it, you will have to reassign the user to a COS that has compose capability enabled.</p>
Default	The default is No.

Send Messages to External Users

Description	This field is not applicable to single-customer systems (that is, systems that do not have the Meridian Mail Multi-Customer feature installed).
Default	The default is No.

Treatment for Unsent Messages if the User Disconnects During Compose

Description	(VMUIF only) This field is displayed only if the Compose Capability field is set to Yes. The selection you make in this field determines what happens to an unsent message if the user disconnects while composing the message.
Valid options	<p>Delete—delete the unsent message</p> <p>Send—send the possibly incomplete message</p>
Default	The default is Delete.

Delivery to Non-User Capability

Description	<p>This enables the user to direct a message to an external DN.</p> <p><i>Note:</i> This field is displayed only if Outcalling is installed.</p> <p>There are more fields displayed if Yes is selected. Refer to the <i>Outcalling Application Guide</i> (NTP 555-7001-320) for details about configuring the class of service fields for remote notification and delivery to non-users.</p>
Default	<p>The default is No.</p>

Remote Notification Capability

Description	<p>This field permits the user to receive notification of messages, automatically, to an external DN or a paging device.</p> <p><i>Note:</i> This field is displayed only if Outcalling is installed.</p> <p>There are more fields displayed if Yes is selected. Refer to the <i>Outcalling Application Guide</i> (NTP 555-7001-320) for details about configuring the class of service fields for remote notification and delivery to non-users.</p>
Default	<p>The default is No.</p>

The Add Class of Service screen— VMUIF (cont'd)

This is the fifth part of the Add Class of Service/Change Defaults screen.

Class of Service Administration		MORE ABOVE
Add Class of Service		
Compose Capability:	<input type="checkbox"/> No	<input type="checkbox"/> Yes
Send Messages to External Users:	<input type="checkbox"/> No	<input type="checkbox"/> Yes
Delivery to Non-User Capability:	<input type="checkbox"/> No	<input type="checkbox"/> Yes
Remote Notification Capability:	<input type="checkbox"/> No	<input type="checkbox"/> Yes
Receive AMIS Open Network Messages:	<input type="checkbox"/> No	<input type="checkbox"/> Yes
Compose/Send AMIS Open Network Messages:	<input type="checkbox"/> No	<input type="checkbox"/> Yes
Custom Revert Restriction/Permission List:	<input type="checkbox"/> 2	List Name: Local
Select a softkey >		
<input type="button" value="Save"/>	<input type="button" value="Cancel"/>	<input type="button" value=""/>

Field descriptions

This table gives descriptions of the fields highlighted by the broken line in the preceding screen.

Receive AMIS Open Network Messages

Description	This field permits the users to receive messages from users at the AMIS Open Network sites. <i>Note:</i> This field is displayed only if the AMIS Networking feature is installed.
Default	The default value is No.

Compose/Send AMIS Open Network Messages

Description	<p>This field determines whether users are allowed to compose and send messages to AMIS Open Network users. If this field is set to Yes, the AMIS Open Network Restriction/Permission List is displayed.</p> <p><i>Note:</i> This field is displayed only if the AMIS Networking feature is installed.</p>
Valid options	<p>Yes, No</p> <p>No indicates users cannot compose and send AMIS Open Network messages. However, users can still compose and send AMIS messages to remote users that are located at virtual nodes within a Meridian Network.</p>
Restriction	<p>If the interface is VMUIF, this field cannot be set to Yes if the Compose Capability field is set to No.</p>
Default	<p>The default value is No.</p>

AMIS Open Network Restriction/Permission List

Description	<p>This field gives the number and name of the Restriction/Permission list that applies when a user sends an AMIS Open Network message.</p> <p>The lists are defined in the Restriction/Permission List screen, accessible from Voice Administration.</p>
Valid range	<p>This number can range from 0 to 80. The value 0 = unrestricted.</p>
Default	<p>The default is 2 (Local).</p>

Custom Revert Restriction/Permission List

Description	<p>The custom revert DN is the extension to which a caller is passed when the caller presses 0 during a Meridian Mail session.</p> <p>This field gives the number and name of the Restriction/Permission list that is applied to the custom revert DN. These lists are defined in the Restriction/Permission List screen, accessible from Voice Administration.</p>
Valid range	<p>This number can range from 0 to 80. The value 0 = unrestricted.</p>
Default	<p>The default is 2 (Local).</p>

Assigning Classes of Service to the system

Introduction

After creating (adding) a new Class of Service (COS), it must be made available for use. This is done in the General Options screen. See Chapter 13, “General options. ”

The Find Class of Service screen

Introduction

The Find Class of Service screen is used to locate a specific Class of Service (COS).

The screen

The following is the Find Class of Service screen.

```

Class of Service Administration
Find Class of Service
Class of Service Number:  ___
Class of Service Name:   _____
Voice Messaging Interface: Any MMUI VMUIF

Select a softkey >
Exit      List      Print List      Print Details
  
```

Field descriptions

This table gives descriptions of the fields in the Find Class of Service screen.

Class of Service Number

Description This is the number of an existing COS.

Class of Service Name

Description This field is used for the name of a specific COS or a subset of COSs.

Voice Messaging Interface

Description This field appears only if VMUIF is installed on your system. Leave this field set to Any or VMUIF.

Valid options Any, VMUIF

Finding, listing, or printing a Class of Service

Introduction This section details the steps for finding, listing, or printing a Class of Service (COS) or COSs.

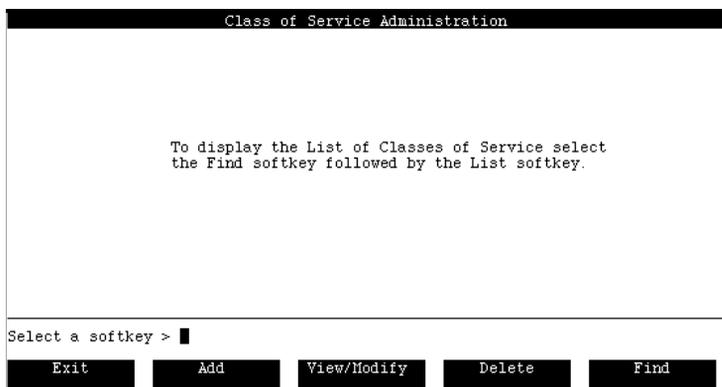
Procedure To list or print COSs, follow these steps.

Starting Point: The Main Menu

Step Action

- 1 Select Class of Service Administration.

Result: The following screen appears.



Step Action

- 2 Press the [Find] softkey.

Result: The Find Class of Service screen is displayed. The Find Class of Service screen is where you may specify the search criteria for retrieving a particular class of service or a subset of classes.

```

Class of Service Administration
Find Class of Service
Class of Service Number:  ____
Class of Service Name:  _____
Voice Messaging Interface: Any MMUI VMUIF

Select a softkey >
Exit      List      Print List      Print Details

```

- 3 To view a list of all Classes of Service on your system, press [List].

Result: The List of Classes of Service screen is displayed.

```

Class of Service Administration
List of Classes of Service

```

COS Num	COS Name	VceMsg I/F	Storage (Mins.)	Retain ReadMsg	Compose Msgs	DMU /RN	AMIS Receive/Send	DualLang Prompt
1	regular lo	MMUI	3	0		N/N	No No	No
2	reg w. dnu	MMUI	3	0		Y/N	No No	No
3	manager	MMUI	10	14		Y/Y	Yes Yes	No
4	executive	MMUI	30	0		Y/Y	Yes Yes	Yes
5	foreign	MMUI	3	0		N/N	No No	No
6	directory	MMUI	3	0		N/N	No No	No

```

Select a softkey >
Exit      View/Modify      Delete

```

Note: For MMUI COSs, the Compose Msgs column remains blank. For VMUIF COSs, the Dual Lang Prompt column remains blank.

Step Action

-
- 4 To print a list of all Classes of Service on your system, press [Print List].
Result: The List of Classes of Service is printed.
- 5 To view or print a particular Class of Service or a specific group of Classes of Service, specify search criteria on the Find screen as follows.
- | IF | THEN |
|--|--|
| you want a specific COS and know its number | enter the number in the Class of Service Number field. |
| you want a specific COS and know its name | enter the name in the Class of Service Name field. |
| you want a group of COSs with similar names | enter the appropriate search pattern in the Class of Service Name field. (This pattern will consist of letters and wildcard characters.) |
| you want to find those COSs for a particular interface | specify either MMUI or VMUIF. |
- 6 To view or print the selected Classes of Service, press the appropriate softkey as follows.
- | IF | THEN |
|--|--|
| you want a list of the COSs according to the search criteria | press the [List] softkey. |
| you want to print the list of COSs | press the [Print List] softkey. |
| you want to print the details of a single COS | enter the COS number or name in the appropriate field and press the [Print Details] softkey. |
-

Modifying a Class of Service

Introduction

This section deals with changing the values in any of the fields for a specific Class of Service (COS).

To modify an existing COS, you must be logged on at the main administration terminal (not a multiple-administration terminal).

Procedure

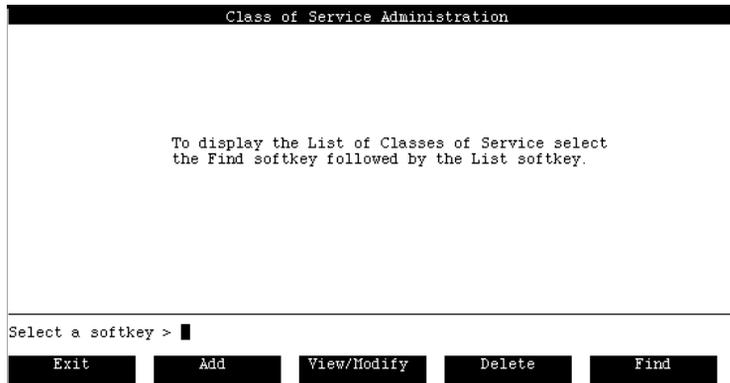
A COS is changed by modifying its values. To change the values, follow these steps.

Starting Point: The Main Menu.

Step Action

- 1 Select Class of Service Administration.

Result: The Class of Service Administration screen is displayed.



Step Action

2 Press the [Find] softkey.

Result: The Find Class of Service screen is displayed.

3 Specify the search criteria.

IF	THEN
you want to find a particular COS	enter the COS number in the Class of Service Number field.
you want to find a subset of COSs according to name	enter the appropriate search pattern in the Class of Service Name field. (This pattern will consist of letters and wildcard characters.)
you want to find those COSs for a particular interface	specify either MMUI or VMUIF.

Step Action

- 4 Press the [List] softkey.

Result: The List of Classes of Service screen is displayed.

Class of Service Administration									
List of Classes of Service									
COS	COS	VceMsg	Storage	Retain	Compose	DMU	AMIS	DualLang	
Num	Name	I/F	(Mins.)	ReadMsg	Msgs	/RN	Receive/Send	Prompt	
1	regular lo	MMUI	3	0		N/N	No	No	No
2	reg w. dnu	MMUI	3	0		Y/N	No	No	No
3	manager	MMUI	10	14		Y/Y	Yes	Yes	No
4	executive	MMUI	30	0		Y/Y	Yes	Yes	Yes
5	foreign	MMUI	3	0		N/N	No	No	No
6	directory	MMUI	3	0		N/N	No	No	No

Select a softkey >

Exit		View/Modify	Delete	
------	--	-------------	--------	--

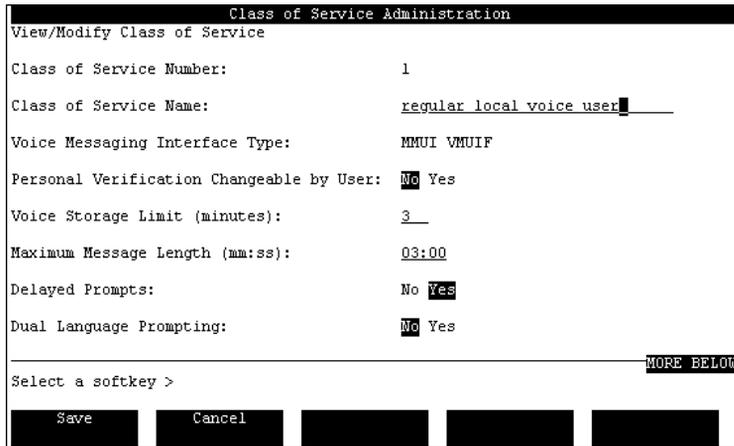
Note: For MMUI COSs, the Compose Msgs column remains blank. For VMUIF COSs, the Dual Lang Prompt column remains blank.

- 5 Move the cursor to the definition you want to modify.
- 6 Press the spacebar to select it.

Step Action

7 Press the [View/Modify] softkey.

Result: The View/Modify Class of Service screen is displayed.



Note: The fields that appear in the View/Modify Class of Service screen depend on what features are installed on your system. For detailed field descriptions, see “The Add Class of Service screen (MMUI)” on page 26-13 or “The Add Class of Service screen (VMUIF)” on page 26-30.

8 Make the necessary changes to the COS.

9 Save or cancel the changes.

IF

you want to save the changes

you want to exit the screen without saving the changes

THEN

press the [Save] softkey.

Result: The changes to the COS are saved. All users belonging to the COS will use the updated values in the COS. The List of Classes of Service screen is displayed.

press the [Cancel] softkey.

Result: Any changes that you have made are not saved and the List of Classes of Service screen is displayed.

Field descriptions

The View/Modify Class of Service screen contains the same fields as the Add Class of Service screen. For field descriptions, see “The Add Class of Service screen (MMUI)” on page 26-13 or “The Add Class of Service screen (VMUIF)” on page 26-30.

Deleting a Class of Service

Introduction

This section deals with deleting a Class of Service (COS) from the system.

Procedure

Starting Point: Main Menu

Step Action

- 1 Select Class of Service Administration.

Result: The Class of Service Administration is displayed.

Class of Service Administration

To display the List of Classes of Service select the Find softkey followed by the List softkey.

Select a softkey > █

Exit Add View/Modify Delete Find

- 2 Press the [Find] softkey.

Result: The Find Class of Service screen is displayed.

Class of Service Administration

Find Class of Service

Class of Service Number: ___

Class of Service Name: _____

Voice Messaging Interface: Any MMUI VMUIF

Select a softkey > █

Exit List Print List Print Details

Step Action

- 3 Specify the search criteria.

IF

you want to find a particular COS

you want to find a subset of COSs according to name

you want to find those COSs for a particular interface

THEN

enter the COS number in the Class of Service Number field.

enter the appropriate search pattern in the Class of Service Name field. (This pattern will consist of the letters and wildcard characters to indicate the pattern that the found COSs must match.)

specify either MMUI or VMUIF.

- 4 Press the [List] softkey.

Result: The List of Classes of Service screen is displayed.

Class of Service Administration									
List of Classes of Service									
COS Num	COS Name	VceMsg I/F	Storage (Mins.)	Retain ReadMsg	Compose Msgs	DMU /RN	AMIS Receive/Send	DualLang Prompt	
1	regular lo	MMUI	3	0		N/N	No No	No	
2	reg w. dnu	MMUI	3	0		Y/N	No No	No	
3	manager	MMUI	10	14		Y/Y	Yes Yes	No	
4	executive	MMUI	30	0		Y/Y	Yes Yes	Yes	
5	foreign	MMUI	3	0		N/N	No No	No	
6	directory	MMUI	3	0		N/N	No No	No	

Select a softkey >

Exit		View/Modify	Delete	
------	--	-------------	--------	--

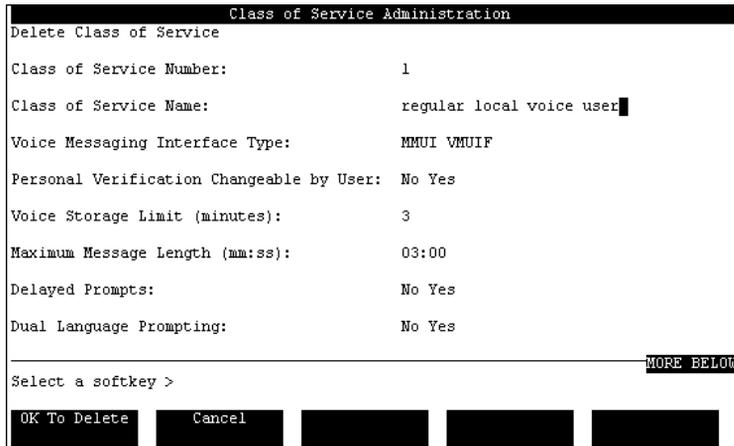
Note: For MMUI COSs, the Compose Msgs column remains blank. For VMUIF COSs, the Dual Lang Prompt column remains blank.

- 5 Move the cursor to the definition you want to delete.
- 6 Press the spacebar to select it.

Step Action

7 Press the [Delete] softkey.

Result: The Delete Class of Service screen is displayed.



Note: The fields that appear in the Delete Class of Service screen depend on what features are installed on your system. For detailed field descriptions, see “The Add Class of Service screen (MMUI)” on page 26-13 or “The Add Class of Service screen (VMUIF)” on page 26-30.

8 Delete the COS or exit the screen without deleting.

IF	THEN
you want to delete the COS	press the [OK to Delete] softkey.
you want to exit the screen without deleting the COS	press the [Cancel] softkey.

***Section C:* Assigning Classes of Service to users**

In this section

Assigning a Class of Service to a user	26-64
Creating and Assigning a Personal Class of Service to a user	26-65
The Class of Service conversion utility for converted systems	26-66

Assigning a Class of Service to a user

Description

To assign a user to a particular COS, select the COS number in the Class of Service field in the Add Local Voice User screen. For a complete description of this screen, see Chapter 8, “Local voice users”.

See also

Please see Chapter 8, “Local voice users” for the procedures.

Creating and Assigning a Personal Class of Service to a user

Description

If a user has special requirements that are not met by any of the existing COSs, you can create a personal COS for that user. All personal COSs must be maintained individually, since any changes made to a system COS will not affect the personal COSs that exist on the system. If, for example, it is decided that all users will be given access to a particular feature, you would have to modify all personal COSs as well as the system COSs.

See also

To create a personal COS, see “Assigning a user to a class of service” on page 8-20.

The Class of Service conversion utility for converted systems

Description

If you have converted your system from Release 8 or earlier, all existing users will each have a personal class of service. This means that all users still have their Meridian Mail Release 8 personal settings and are not connected to or related to any system COSs. Therefore, after a conversion you must ensure that all existing users are reassigned to system COSs. This is done by adding the necessary COSs, then using the COS Conversion utility.

Process

This utility checks each user's personal COS. If it matches an existing system COS, the user is assigned to that COS. User mailboxes that do not match a system COS remain with personal COSs. You can use this utility to view these unassigned mailboxes and then use the utility to either add a system COS based on the personal COSs or assign the unassigned mailbox to a defined COS.

See also

The COS Conversion utility is available from the tools level and allows you to reassign users to COSs. See the *System Administration Tools Guide* (NTP 555-7001-305) for details.

Chapter 27

Hardware administration

In this chapter

Overview	27-2
The Hardware Administration menu	27-3
Section A: Viewing the node configuration	27-5
Section B: Viewing the data port configuration	27-17
Section C: Printing node and data port information	27-45

Overview

Introduction

The Hardware Administration screens allow you to view the contents of the hardware database in your Meridian Mail system. The hardware database is a system utility that maintains a current listing and description of all nodes, cards, and ports in your system.



CAUTION
Risk of audit failure

Do not leave any Hardware Administration menu on the administrative console overnight, as important system audits may fail due to lack of available memory, and there will be a security risk.

Available configurations

The MMP40 processor card is required for all Meridian Mail platforms, with the exception of Card Option. The Card Option platform uses the 68K processor card.

Modifying the hardware database

The Hardware Administration function allows you to view aspects of the Hardware database. If you or a representative from your support organization need to modify the hardware database, you must use the “Modify hardware” tool. Refer to *System Administration Tools* (NTP 555-7001-305).

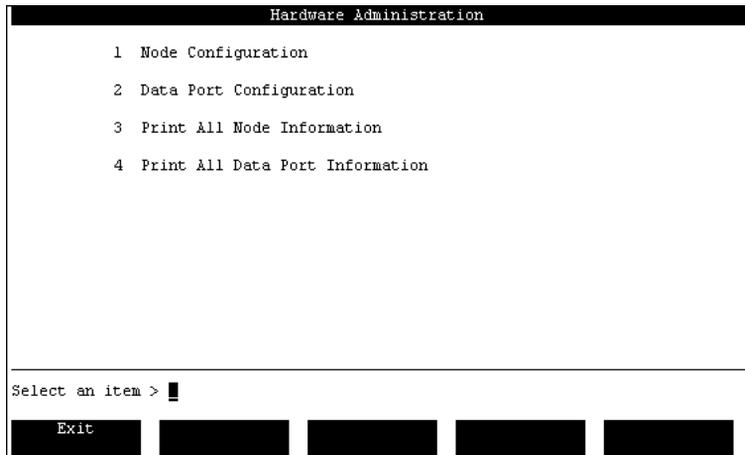
The Hardware Administration menu

Introduction

The Hardware Administration menu is accessed directly from the main System Administration menu.

Hardware Administration menu

The Hardware Administration menu is displayed in the following illustration.



Procedure

To access the Hardware Administration facilities, follow these steps.

Starting Point: The Main Menu

Step Action

- 1 Select Hardware Administration.
Result: The Hardware Administration menu appears.
 - 2 Choose the number of the action you wish to perform and press <Return>.
Result: The screen corresponding to your selection appears.
See the following sections for details:
See "The Node Configuration screen" on page 27-7.
See "The Data Port Configuration screen" on page 27-23.
See "Printing node and data port information" on page 27-47.
 - 3 Press [Exit] to return to the Main Menu.
-

***Section A:* Viewing the node configuration**

In this section

Overview	27-6
The Node Configuration screen	27-7
The View Node screen	27-10

Overview

Introduction

The Node Configuration screen provides a summary listing of the cards found in all nodes in your system (see “The Node Configuration screen” on page 27-7).

The View Node screens provide a more detailed view of individual nodes (see “The View Node screen” on page 27-10).

The Node Configuration screen

Introduction

The Node Configuration screen is used to view a summary listing of the cards in all nodes on your system.

Accessing the Node Configuration screen

To view the Node Configuration screen, follow these steps.

Step	Action
1	Select Hardware Administration from the Main Menu. Result: The Hardware Administration menu appears.
2	Select Node Configuration from the Hardware Administration menu. Result: The Node Configuration screen appears.

The screen

The following illustration shows a Node Configuration screen for a two-node MMP40 system.

Note: The illustrations in this section do not necessarily represent the hardware configuration on your system. They are examples only.

Hardware Administration								
Node Configuration								
Node	Card_1	Card_2	Card_3	Card_4	Card_5	Card_6	Card_7	Card_8
1	UTIL	MMP40	UP8	UP8	UP8	Empty	Empty	Empty
2	UP8	UP8	UP8	MMP40	UTIL	Empty	Empty	Empty

Move the cursor to the node number and press the space bar to select.

Exit View

Field descriptions

The following fields appear on the Node Configuration screen.

Node

Description	Refers to the number of the node within the configuration.
Default	None.

Card_x

Description Identifies the card slot in the defined node, where “x” represents the position of the card slot. The card slots are numbered from left to right.

Valid entries The possible card types are listed here. Depending on your system type, you will not see all of these cards on your system.

MMP40

This is the Meridian Mail processor (CPU) card which includes a 24 MHz 68040 processor, 16 Mbytes of memory, up to two RS-232 serial ports, and a SCSI interface processor. It is displayed for MMP40 systems.

RSM

This is an RS-232 service module (for non-EC systems).

Bus

This is the high-speed bus (also called HABC for High Availability Bus Controller).

MSP

This is the multi-purpose signal processor.

NVP

This is the 16 kbyte network voice processor.

NVP32

This is the 32 kbyte network voice processor.

UTIL

This card, on EC systems only, contains a high speed bus. It also includes four auxiliary RS-232 ports. (1- to 4-node systems require one of these cards; 5-node systems with 60 or more ports require two of these cards.)

VP4/VP8 cards

These cards are voice processor cards that provide four and eight channels respectively.

Empty

The card slot is empty.

The View Node screen

Introduction

The View Node screen provides a detailed view of the cards and ports that make up a node, including card types and locations, port types, and port attributes.

MSP nodes and SPN nodes

Two types of nodes are described in this section: an MSP node and an SPN node.

The MSP node is always node 1 on your system. It contains system-related cards such as the MMP40 card. Depending on the system size, it may also contain voice cards.

An SPN node is a voice node and contains mostly voice cards. All other nodes besides node 1 are SPN nodes.

Viewing node configurations

To view the node configurations for your system, follow these steps.

Step Action

- 1 Select Hardware Administration from the Main Menu.
Result: The Hardware Administration menu appears.
 - 2 Select Node Configuration from the Hardware Administration menu.
Result: The Node Configuration screen appears.
 - 3 Move the cursor to the node you want to view and press <Spacebar>.
Result: Your selection is highlighted.
 - 4 Select [View] to view the configuration information for the highlighted node.
Result: The View Node screen appears. See "View Node screen (MSP node)" on page 27-11. and "View Node screen (SPN node)" on page 27-12 for examples.
 - 5 Select [Exit] to return to the Node Configuration screen when you have finished viewing the node configuration. Select [Exit] again to return to the Hardware Administration main menu.
-

**View Node screen
(MSP node)**

The following diagram illustrates a View Node screen for an EC MMP40 system when the node is an MSP node.

```

Hardware Administration
View Node 1 (C=Card D=DSP P=Port)
C-D-P   Card_Type  Port_Type  Attributes
6       UTIL      Data:      J4: 9   J5: 10
6 1     Data:      Terminal Printer NWModem MMLink AML/CSL SMDI PMS
        AdminPlus MSLink Modem
6 2     Data:      Terminal Printer NWModem MMLink AML/CSL SMDI PMS
        AdminPlus MSLink Modem
6 3     Data:      Terminal Printer NWModem MMLink AML/CSL SMDI PMS
        AdminPlus MSLink Modem
6 4     Data:      Terminal Printer NWModem MMLink AML/CSL SMDI PMS
        AdminPlus MSLink Modem
7       MMP40
7 1     Data:      Terminal Printer NWModem MMLink AML/CSL SMDI PMS
        AdminPlus MSLink Modem
7 2     Data:      Terminal Printer NWModem MMLink AML/CSL SMDI PMS
        AdminPlus MSLink Modem
Select a softkey >
Exit

```

Note: If the MMP40 node you are viewing is an MSP node, the following types of cards may be installed:

- MMP40, Bus, RSM, and VP on non-EC systems
- MMP40, UTIL, and VP on EC systems

View Node screen (SPN node)

The following diagram illustrates the View Node screen for an EC MMP40 system when the node is an SPN node.

```

Hardware Administration
View Node 2 (C=Card D=DSP P=Port)
C-D-P   Card_Type  Port_Type  Attributes
1
1-1-1   UPS       Voice:     TN: Octal 36 -0-2 -8  AgtPosId: 9999
1-1-2   Voice:     TN: Octal 36 -0-2 -9  AgtPosId: 9999
1-2-1   Voice:     TN: Octal 36 -0-2 -10 AgtPosId: 9999
1-2-2   Voice:     TN: Octal 36 -0-2 -11 AgtPosId: 9999
1-3-1   Voice:     TN: Octal 36 -0-2 -12 AgtPosId: 9999
1-3-2   Voice:     TN: Octal 36 -0-2 -13 AgtPosId: 9999
1-4-1   Voice:     TN: Octal 36 -0-2 -14 AgtPosId: 9999
1-4-2   Voice:     TN: Octal 36 -0-2 -15 AgtPosId: 9999
2
2-1-1   UPS       Voice:     TN: Octal 40 -0-2 -0  AgtPosId: 9999
2-1-2   Voice:     TN: Octal 40 -0-2 -1  AgtPosId: 9999
2-2-1   Voice:     TN: Octal 40 -0-2 -2  AgtPosId: 9999
MORE BELOW
Select a softkey >
Exit

```

Note: An SPN node might have the following types of cards installed:

- MMP40, NVP32, or NVP16 on non-EC systems
- MMP40, VP4, or VP8 on EC systems

Field descriptions

The View Node screens display the following read-only information about each card on the node.

C-D-P

Description	This is the physical location of the port in the Meridian Mail system, where <ul style="list-style-type: none"> • C is the card • D is the DSP number (which is displayed for voice processor cards only) • P is the port number
-------------	---

Card_Type

Description	This indicates the function of the card.
Valid entries	The possible card types are listed here. Depending on your system type, you will not see all of these cards on your system.

MMP40

This is the Meridian Mail processor (CPU) card which includes a 24 MHz 68040 processor, 16 Mbytes of memory, up to two RS-232 serial ports, and a SCSI interface processor. It is displayed for MMP40 systems.

RSM

This is an RS-232 service module (for non-EC systems).

Bus

This is the high-speed bus (also called HABC for High Availability Bus Controller).

MSP

This is the multi-purpose signal processor.

NVP

This is the 16 kbyte network voice processor.

NVP32

This is the 32 kbyte network voice processor.

UTIL

This card, on EC systems only, contains a high speed bus. It also includes four auxiliary RS-232 ports. (1- to 4-node systems require one of these cards; 5-node systems with 60 or more ports require two of these cards.)

VP4/VP8 cards

These cards are voice processor cards that provide four and eight channels respectively.

Empty

The card slot is empty.

Port_Type

Description	This field describes the type of port, where <ul style="list-style-type: none"> • Data indicates a serial data communications port • Device indicates a mass storage device or tape drive • Voice indicates a voice processor port • Multi indicates a multimedia port
-------------	--

J4 (UTIL card only)

Description	This indicates the Meridian 1 network loop number connected to J4 on the utility card. This field is read-only, and is configured at the Tools level. See the <i>System Administration Tools Guide</i> (NTP 555-7001-305).
-------------	--

J5 (UTIL card only)

Description	This indicates the Meridian 1 network loop number connected to J5 on the utility card. This field is read-only, and is configured at the Tools level. See the <i>System Administration Tools Guide</i> (NTP 555-7001-305).
-------------	--

Attributes (for ports with type = Data)

- | | |
|-------------|--|
| Description | <ul style="list-style-type: none">• Terminal indicates a connection to an administration terminal.• Printer indicates a printer serial connection.• NWModem indicates a connection to a modem used for networking calls. <p><i>Note:</i> Ports on the MMP40 and the SBC card do not support networking. The RSM card (on non-EC systems) or UTIL card (on EC systems) do support networking.</p> <ul style="list-style-type: none">• MMLink indicates the Meridian ACCESS Link, which is the communications channel for Meridian ACCESS.• AML/CSL (Meridian Link) indicates there is a communications channel between Meridian Mail and a Meridian 1.• SMDI (not applicable) indicates a communications channel between Meridian Mail and a DMS-100, DMS-10, SL-100, AT&T, ROLM, or NEC switch.• PMS (for Hospitality systems) is the serial link between Meridian Mail, the PMS system, and the Meridian 1 for PMS data.• AdminPlus indicates a connection to a PC equipped with Meridian Mail Reporter.• Modem indicates a connection to a modem used for remote access.• MSLink indicates a connection to a PC running Meridian Mail AutoAdmin. |
|-------------|--|

Attributes (for ports with type = Device)

- | | |
|-------------|---|
| Description | <ul style="list-style-type: none">• Disk indicates a mass storage subsystem (hard disk) is present.• Tape indicates a cartridge tape subsystem is present. |
|-------------|---|

Attributes (for ports with type = Voice or Multi)

Description	<ul style="list-style-type: none"><li data-bbox="696 203 1242 557">• TN (Meridian 1) This stands for Terminal Number <Density + Address> where Density is either Single, Double, or Quadruple. (This is Octal on Card Option systems.) The Address consists of the set of numbers lll-ss-c-uu, where: lll = loop (0-255) ss = shelf (0-3 for single density, 0-1 for double, 0 for quadruple) c = card (0-15) uu = unit (0-3 for single density, 0-7 for double, 0-15 for quadruple)<li data-bbox="696 565 1242 817">• AgtPosId indicates the Agent Position ID for the voice port. This is equivalent to the Position ID for the virtual agent. It is unique across the entire Meridian 1 customer and is associated with a particular (agent) telephone set. It is not necessary to fill in this field, but you may want to use this field to further label and track your ports. The default value is 9999.
-------------	---

***Section B:* Viewing the data port configuration**

In this section

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Overview

Introduction

The Data Port Configuration screen summarizes the data ports on all nodes in your system. From this screen, you can select and view data port configurations for devices that are part of your system.

For Networking systems, the modem port settings can be modified through these screens. To modify any other data port (except AML/CSL), use “Modify hardware” at the Tools level. See *System Administration Tools* (NTP 555-7001-305).

Cumulative baud rate

The cumulative baud rate of ACCESS links and AdminPlus and MSLink data ports on a node cannot exceed 19 200 on node 1, 38 400 on other nodes, and 9600 on Card Option.

Recommended data port uses for Card Option

The following table describes the recommended port uses for a Card Option system.

Port	Allowable Uses
DP1	Network Modem, GAC, Printer, ACCESS/AdminPlus/AutoAdmin
DP2	Network Modem, GAC, Printer, ACCESS/AdminPlus/AutoAdmin
DP3	Network Modem, Printer, PMSI to PMS System, ACCESS/AdminPlus/AutoAdmin
DP4	Network Modem, Printer, PMSI to SL-1, ACCESS/AdminPlus/AutoAdmin

Recommended data port uses for EC systems

The following table describes the recommended data port uses for EC systems.

Port	Allowable uses
Node 1, MMP40 port 1	System console
Node 1, MMP40 port 2	AML
Node 1, Utility Card port 1	Network Modem, GAC, MAT, Printer, ACCESS/AdminPlus/AutoAdmin
Node 1, Utility Card port 2	Network Modem, GAC, MAT, Printer, ACCESS/AdminPlus/AutoAdmin
Node 1, Utility Card port 3	Network Modem, PMSI Link to PMS, GAC, MAT, Printer, ACCESS/AdminPlus/AutoAdmin
Node 1, Utility Card port 4	Network Modem, PMSI Link to SL-1, GAC, MAT, Printer, ACCESS/AdminPlus/AutoAdmin
Node 2, MMP40 port 1	GAC, MAT, Printer, ACCESS/AdminPlus/AutoAdmin
Node 2, MMP40 port 2	GAC, MAT, Printer, ACCESS/AdminPlus/AutoAdmin
Node 3, MMP40 port 1	GAC, MAT, Printer, ACCESS/AdminPlus/AutoAdmin
Node 3, MMP40 port 2	GAC, MAT, Printer, ACCESS/AdminPlus/AutoAdmin
Node 4, MMP40 port 1	GAC, MAT, Printer, ACCESS/AdminPlus/AutoAdmin
Node 4, MMP40 port 2	GAC, MAT, Printer, ACCESS/AdminPlus/AutoAdmin
Node 5, MMP40 port 1	GAC, MAT, Printer, ACCESS/AdminPlus/AutoAdmin
Node 5, MMP40 port 2	GAC, MAT, Printer, ACCESS/AdminPlus/AutoAdmin
Second Utility card port 1	Network Modem, GAC, MAT, Printer
Second Utility card port 2	Network Modem, GAC, MAT, Printer

Port	Allowable uses
Second Utility card port 3	Network Modem, GAC, MAT, Printer
Second Utility card port 4	Network Modem, GAC, MAT, Printer

Recommended data port uses for Modular Option systems The following table describes the recommended data port uses for Modular Option systems.

Port	Allowable uses
Node 1, MMP40 port 1: DP1	System console
Node 1, MMP40 port 2: DP2	AML
Node 1, RSM port 1: DP3	Network Modem, SMDI, GAC, MAT, Printer, ACCESS/AdminPlus/AutoAdmin
Node 1, RSM port 2: DP4	Network Modem, SMDI, GAC, MAT, Printer, ACCESS/AdminPlus/AutoAdmin
Node 1, RSM port 3: DP5	Network Modem, SMDI, PMSI Link to PMS, GAC, MAT, Printer, ACCESS/AdminPlus/AutoAdmin
Node 1 RSM port 4: DP6	Network Modem, SMDI, PMSI Link to SL-1, GAC, MAT, Printer, ACCESS/AdminPlus/AutoAdmin
Node 2, MMP40 port 1: DP7	SMDI, GAC, MAT, Printer, ACCESS/AdminPlus/AutoAdmin
Node 2, MMP40 port 2: DP8	ACCESS/AdminPlus/AutoAdmin, Maintenance
Node 2, RSM port 1: DP9	Network Modem, SMDI, GAC, MAT, Printer
Node 2, RSM port 2: DP10	Network Modem, SMDI, GAC, MAT, Printer
Node 2, RSM port 3: DP11	Network Modem, SMDI, GAC, MAT, Printer
Node 2, RSM port 4: DP12	Network Modem, SMDI, GAC, MAT, Printer
Node 3, MMP40 port 1: DP13	SMDI, GAC, MAT, Printer, ACCESS/AdminPlus/AutoAdmin
Node 3, MMP40 port 2: DP 14	ACCESS/ AdminPlus/AutoAdmin, Maintenance

Port	Allowable uses
Node 3, RSM port 1: DP 15	Network Modem, SMDI, GAC, MAT, Printer
Node 3, RSM port 2: DP16	Network Modem, SMDI, GAC, MAT, Printer
Node 3, RSM port 3: DP 17	Network Modem, SMDI, GAC, MAT, Printer
Node 3, RSM port 4: DP 18	Network Modem, SMDI, GAC, MAT, Printer
Node 4, MMP40 port 1: DP 19	SMDI, GAC, MAT, Printer, ACCESS/AdminPlus/AutoAdmin
Node 4, MMP40 port 2: DP 20	ACCESS/AdminPlus/AutoAdmin, Maintenance
Node 4, RSM port 1: DP21	Network Modem, SMDI, GAC, MAT, Printer
Node 4, RSM port 2: DP 22	Network Modem, SMDI, GAC, MAT, Printer
Node 4, RSM port 3: DP 23	Network Modem, SMDI, GAC, MAT, Printer
Node 4, RSM port 4: DP 24	Network Modem, SMDI, GAC, MAT, Printer
Node 5, MMP40 port 1: DP 25	SMDI, GAC, MAT, Printer, ACCESS/AdminPlus/AutoAdmin
Node 5, MMP40 port 2: DP26	ACCESS/AdminPlus/AutoAdmin, Maintenance
Node 5, RSM port 1: DP 27	Network Modem, SMDI, GAC, MAT, Printer
Node 5, RSM port 2: DP 28	Network Modem, SMDI, GAC, MAT, Printer
Node 5, RSM port 3: DP 29	Network Modem, SMDI, GAC, MAT, Printer
Node 5, RSM port 4: DP 30	Network Modem, SMDI, GAC, MAT, Printer

The Data Port Configuration screen

Introduction

The Data Port Configuration screen summarizes the data ports on all nodes in your system. You can select and view the data port configurations for only those devices that are part of your system.

Accessing the Data Port Configuration screen

To view the Data Port Configuration screen, follow these steps.

Step	Action
1	Select Hardware Administration from the Main Menu. Result: The Hardware Administration menu appears.
2	Select Data Port Configuration from the Hardware Administration menu. Result: The Data Port Configuration screen appears.

The screen

The following illustration shows the Data Port Configuration screen for a 2-node MMP40 EC system.

Port Location	Description	Device Type	Status
1-3-1	Node 1 MMP40 Port 1	Terminal	InService
1-3-2	Node 1 MMP40 Port 2	AML/CSL	InService
1-8-1	Node 1 RSM Port 1	AdminPlus	InService
1-8-2	Node 1 RSM Port 2	Terminal	InService
1-8-3	Node 1 RSM Port 3	PMS	InService
1-8-4	Node 1 RSM Port 4	Modem	InService

Move the cursor to the data port location and press the space bar to select.

Exit View/Modify

Field descriptions

The Data Port Configuration screen displays the following information.

Port Location

Description	This is the physical location of the port in the Meridian Mail system (node-card-port).
-------------	---

Description

Description	This field identifies the node, card type, and port.
-------------	--

Device Type

Description	This field identifies the function of the port.
-------------	---

Valid values	See the data port tables in the “Overview” on page 27-18.
--------------	---

Status

Description	This field identifies the current operational state of the port.
-------------	--

Valid values	The status will be one of the following:
--------------	--

InService

The data port is operational.

OutOfService

The data port is no longer operational because the node has been disabled.

Faulty

The system has detected an error in the data port.

Unequipped

The data port has not been defined in the hardware database.

Viewing data ports

Introduction

This section describes the different data port screens that can be displayed. Depending on the device type that has been selected when you press View/Modify, the appropriate version of the View Data Port screen appears as follows:

- Terminal data ports (console or MAT/GAC)
- Printer data ports
- MMLink data ports
- NWModem data ports
- PMS data ports
- AdminPlus data ports
- Modem data ports
- MSLink data ports

Procedure

To view data ports, follow these steps.

Step	Action
-------------	---------------

- | | |
|---|---|
| 1 | Select "Hardware Administration" from the Main Menu.
Result: The Hardware Administration menu appears. |
| 2 | Select Data Port Configuration from the Hardware Administration menu.
Result: The Data Port Configuration screen appears. |

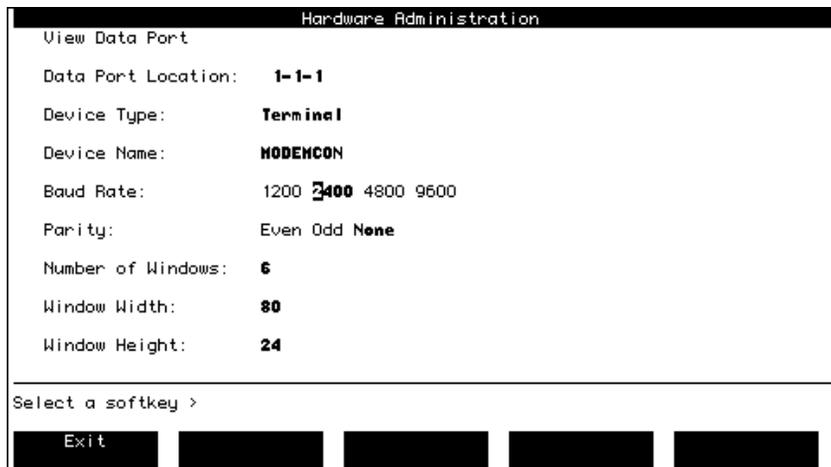
Step Action

- 3 Move the cursor to the port you want to view (or modify, if NWModem) and press <Space Bar>.
Result: Your selection is highlighted.
- 4 Select [View/Modify] to view the configuration information for the highlighted port.
Result: The View Node screen appears for the selected device. (If NWModem was selected, the Modify Data Port screen is displayed.) For further information, see the appropriate section for the selected device, as follows:
“View Terminal data ports” on page 27-27
“View Data Port screen—MAT or GAC” on page 27-28
“View Printer data port” on page 27-30
“View MMLink data port” on page 27-32
“View/Modify NWModem data port” on page 27-34
“View PMS data port” on page 27-36
“View Modem data port” on page 27-40
“View MSLink data port” on page 27-42
- 5 Select [Exit] to return to the Data Port Configuration screen when you have finished viewing the data port configuration. Select [Exit] again to return to the Hardware Administration screen.
Result: The “Hardware Administration” screen is redisplayed.
-

View Terminal data ports

View Data Port screen—Console

The View Data Port screen for terminals (Console) allows you to view information about the terminal connected to the selected port.



View Data Port screen—MAT or GAC

The View Data Port screen for terminals (MAT or GAC) allows you to view information about the terminal connected to the selected port.

```

Hardware Administration
View Data Port
Data Port Location: 1-2-1
Device Type: Terminal
Device Name: CONSOLE
Baud Rate: autobaud
Parity: Even Odd None
Number of Windows: 6
Window Width: 80
Window Height: 24

Select a softkey >
Exit
  
```

Field descriptions

The View Data Port (Terminal — Console or MAT/GAC) screens display the following read-only information about the terminals connected to the device type.

Data Port Location

Description This is the physical location of the port (node-card-port).

Valid entries A terminal must be located on port 1 of node 1.

Device Type

Description This field describes the device type.

Valid entries “Terminal” is displayed.

Device Name

Description This is the name that identifies the terminal. This name is assigned by the system when Meridian Mail is installed, or when the port is reconfigured using the Install/data tape. The Device Name for a terminal data port can also be modified later using the “Modify hardware” tool.

Baud Rate

Description	The selected baud rate is highlighted.
Valid entries	The baud rate must be set to 2400 for all system types except Card Option. For Card Option systems, 2400 is recommended, but it must match the baud rate set on the Option 11 switch.

Parity

Description	This is the method by which data is communicated.
Valid entries	This can be set to Even, Odd, or None, depending on the current setup of the terminal connected to the port. It is usually set to None.

Number of Windows

Description	This field specifies the number of windows that can be used simultaneously.
Valid entries	Set this field to 6 for the system administration terminal.

Window Width

Description	This field specifies the window width used.
Valid entries	Set this field to 80 for the terminal.

Window Height

Description	This field specifies the window height used.
Valid entries	Set this field to 24 for the terminal.

View Printer data port

Introduction

The View Data Port screen for printers allows you to view the baud rate and parity of the printer that is connected to the selected port.

A printer can be attached directly to the administration terminal. It does not require a separate data port.

SEERs and Operational Measurement reports can be directed to a particular printer. If you choose to do this, define the printer port using the “Modify hardware” tool. See *System Administration Tools* (NTP 555-7001-305). Once this has been done, specify the printer in the General Options screen. See Chapter 13, “General options.”

View Data Port screen This is the View Data Port screen for printer ports.

Hardware Administration	
View Data Port	
Data Port Location:	1-1-2
Device Type:	Printer
Device Name:	PRTO 112
Baud Rate:	1200 2400 4800 9600
Parity:	Even Odd None
Select a softkey >	
Exit	

Field descriptions

The View Data Port (Printer) screen displays the following read-only information about the terminals connected to the device type.

Data Port Location

Description	This is the physical location of the port (node-card-port).
-------------	---

Device Type

Description	This field describes the device type.
-------------	---------------------------------------

Valid entries	“Printer” is displayed.
---------------	-------------------------

Device Name

Description	This is the name that identifies the printer data port. This name is assigned by the system when Meridian Mail is installed, or when the port is reconfigured using Install/data tape or the “Modify hardware” tool.
-------------	--

Baud Rate

Description	The selected baud rate is highlighted.
-------------	--

Valid entries	The setting will depend on the current setup of the printer connected to the port.
---------------	--

Parity

Description	This is the method by which data is communicated.
-------------	---

Valid entries	The setting will depend on the current setup of the printer connected to the port.
---------------	--

View MMLink data port

View Data Port screen The View Data Port screen for Meridian ACCESS Link allows you to view the link characteristics.

```

Hardware Administration
View Data Port
Data Port Location: 1-1-3
Device Type: MMLink
Device Name: ACC0113
Baud Rate: 4800 500
Parity: Even Odd None

Select a softkey >
Exit
  
```

Field descriptions

The following read-only information is displayed on the screen.

Data Port Location

Description This is the physical location of the port (node-card-port).

Valid entries On node 1, this must be an RSM port (on non-EC systems) or the Utility port (on an EC system).

Device Type

Description This field describes the type of port.

Valid entries This field is set to "MMLink."

Device Name

Description This is the name of the device. This name is assigned by the system when Meridian Mail is installed, or when the port is reconfigured using the Install/data tape, or the "Modify hardware" tool.

Baud Rate

Description	This field can be set to any rate for MMLink, subject to the cumulative baud rates specified for the system.
Valid entries	4800 and 9600 are the only available baud rates.

Parity

Description	This is the method by which data is communicated.
Valid entries	This field is not used for MMLink.

View/Modify NWModem data port

Modify Data Port screen

The Modify Data Port screen for Networking modems allows you to view the NWModem data port information, and to specify the directory number (DN) of the modem connected to the selected port.

Hardware Administration

Modify Data Port

Data Port Location: **1-1-4**

Device Type: **NWModem**

Device Name: **M000 114**

Network Modem DN:

Select a softkey >

Save Cancel

Field descriptions

The following fields are displayed on this screen. Only the Network Modem DN field is modifiable.

Data Port Location

Description	This is the physical location of the port in the Meridian Mail system (node-card-port).
Valid entries	Do not configure networking on an SBC or MMP40 port. For EC Systems, use one of the ports on the Utility card. For non-EC systems, use one of the ports on the RSM card.

Device Type

Description	This field describes the type of port.
Valid entries	This field is set to "NWModem."

Device Name

Description	This is the name of the device. This name is assigned by the system when Meridian Mail is installed, or when the port is reconfigured using the Install/data tape, or the “Modify hardware” tool.
-------------	---

Network Modem DN

Description	This is the directory number (up to eight digits) used to identify the modem connected to the port.
-------------	---

View PMS data port

Introduction

PMS data ports are applicable only to Hospitality systems. You do not need to configure this port if your Meridian Mail hospitality system is not connected to a Property Management System (PMS).

View Data Port screen

The View Data Port screen for PMS allows you to view the baud rate and parity of the serial connection to the Meridian 1.

```

Hardware Administration
View Data Port
Data Port Location: 1-8-3
Device Type: PMS
Device Name: PMS0 183
Baud Rate: 1200 2400 4800 9600
Parity: Even Odd None

Select a softkey >
Exit
  
```

Field descriptions

The following read-only fields are displayed on this screen.

Data Port Location

Description	This is the physical location of the port in the Meridian Mail system (node-card-port).
-------------	---

Device Type

Description	This field describes the type of port.
-------------	--

Valid entries	This field is set to "PMS."
---------------	-----------------------------

Device Name

Description	This is the name of the device. This name is assigned by the system when Meridian Mail is installed, or when the port is reconfigured using the Install/data tape, or the “Modify hardware” tool.
-------------	---

Baud Rate

Description	The selected baud rate is highlighted.
-------------	--

Valid entries	The baud rate must be set to 1200.
---------------	------------------------------------

Parity

Description	This is the method by which data is communicated.
-------------	---

Valid entries	This field must be set to None.
---------------	---------------------------------

View AdminPlus data port

Introduction

This screen is available only if AdminPlus is installed.

View Data Port screen

The View Data Port for AdminPlus screen allows you to view the baud rate and parity of the serial connection to the Meridian Mail Reporter PC.

```

Hardware Administration
View Data Port
Data Port Location: 1-8-1
Device Type: AdminPlus
Device Name: ADMNO 18 1
Baud Rate: 2400 4800 5600
Parity: Even Odd None

Select a softkey >
Exit
  
```

Field descriptions

The following read-only fields are displayed on this screen.

Data Port Location

Description	This is the physical location of the port in the system (node-card-port).
-------------	---

Device Type

Description	This field describes the type of port.
-------------	--

Valid entries	This field is set to "AdminPlus."
---------------	-----------------------------------

Device Name

Description	This is the name of the device. This name is assigned by the system when Meridian Mail is installed, or when the port is reconfigured using the Install/data tape.
-------------	--

Baud Rate

Description	The selected baud rate is highlighted.
Valid entries	The baud rate should be set to 2400, 4800, or 9600, subject to the cumulative baud rate restrictions for MMLink, MSLink, and AdminPlus data ports on a node. See “Cumulative baud rate” on page 27-18.

Parity

Description	This is the method by which data is communicated.
Valid entries	This field must be set to None.

View Modem data port

View Data Port screen The View Data Port for Modems screen allows you to view the modem characteristics.

```

Hardware Administration
View Data Port
Data Port Location: 1-8-4
Device Type: Modem
Device Name: CON0 184
Baud Rate: [200] 2400 4800 9600
Parity: Even Odd None

Select a softkey >
Exit
  
```

Field descriptions The following read-only fields are displayed on this screen.

Data Port Location

Description This is the physical location of the port in the system (node-card-port).

Device Type

Description This field describes the type of port.

Valid entries This field is set to Modem.

Device Name

Description This is the name of the device. This name is assigned by the system when Meridian Mail is installed, or when the port is reconfigured using the Install/data tape.

Baud Rate

Description	The selected baud rate is highlighted.
Valid entries	The setting depends on the current setup of the modem connected to the port.

Parity

Description	This is the method by which data is communicated.
Valid entries	The setting depends on the current setup of the modem connected to the port.

View MSLink data port

View Data Port screen The View Data Port screen for MSLink allows you to view the link characteristics of the link to the PC running Meridian Mail AutoAdmin.

```

Hardware Administration
View Data Port
Data Port Location: 2-3-1
Device Type: MSLink
Device Name: MSL0231
Baud Rate: 2400 4800 9600 19200 38400
Parity: Even Odd None

Select a softkey >
Exit
  
```

Field Descriptions

The following read-only information is displayed on the screen.

Data Port Location

Description	This is the physical location of the port (node-card-port).
-------------	---

Device Type

Description	This field describes the type of port.
-------------	--

Valid entries	This field is set to "MSLink."
---------------	--------------------------------

Device Name

Description	This is the name of the device. This name is assigned by the system when Meridian Mail is installed, or when the port is reconfigured using the Install/data tape.
-------------	--

Baud Rate

Description	This field can be set to any rate for MSLink, subject to the cumulative baud rates specified for the system.
Valid entries	2400, 4800, 9600, 19 200, and 38 400 are the available baud rates.

Parity

Description	This is the method by which data is communicated.
Valid entries	This field must be set to None. It cannot be modified.

***Section C:* Printing node and data port information**

In this section

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Overview

Introduction

The Hardware Administration menu can be used to print the following information for your system:

- node configuration
- data port configuration

Printing node and data port information

Introduction

Node and data port information can be printed through the Hardware Administration menu.

Procedure

To print node and data port information, follow these steps.

Step Action

- 1 Select "Hardware Administration" from the Main Menu.
Result: The Hardware Administration menu appears.
 - 2 Choose either "Print All Node Information" or "Print All Data Port Information" and press <Return>.
Result: The following softkeys appear: [Continue Printing] and [Cancel Printing]. You are prompted to check that the printer is ready and online.
 - 3 Press [Continue Printing] to print the information.
Result: The node or data port information begins printing. Once printing is complete, the Hardware Administration menu is redisplayed. You may stop printing at any time by selecting [Cancel Printing].
 - 4 Use [Cancel Printing] to cancel printing and return to the Hardware Administration menu.
Result: Printing stops and the Hardware Administration menu is displayed. There may be some delay before control is returned to the screen while the system waits for the printer to stop printing.
-

Chapter 28

System status and maintenance

In this chapter

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Overview

Introduction

The System Status and Maintenance function provides monitoring and control screens through which you can obtain views of the operational state of the system at four levels:

- system
- card
- DSP port
- disk

The System Status and Maintenance functions are used in the course of routine maintenance, and allow you to take any component of the system out of service for maintenance. It also allows you to perform diagnostics on selected components and schedule regular diagnostic activities.

A component can be taken out of service by disabling it (forcing it out of its operational state), or by performing a courtesy disable, which progressively disables active DSP ports as they become idle. The Courtesy Disable function available within System Status and Maintenance avoids any disruption of calls in progress.

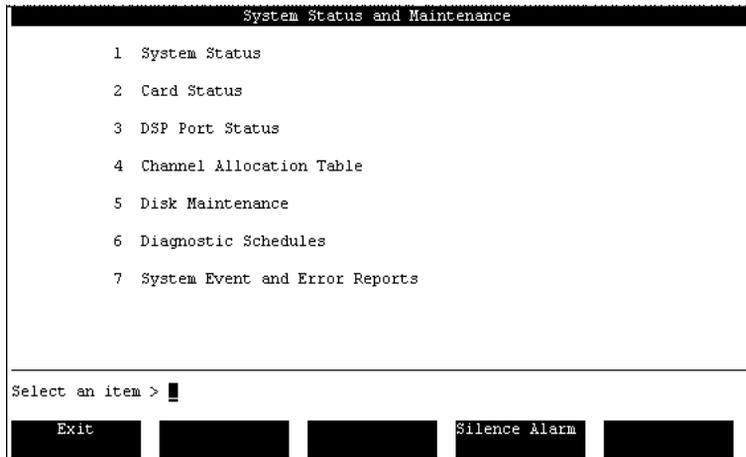
See also

For help in developing a regular maintenance routine that includes System Status and Maintenance functions, see Chapter 18, “Routine maintenance”.

What is system status and maintenance?

System Status and Maintenance menu

When you select System Status and Maintenance from the Main Menu, this menu is displayed.



Types of tasks

A variety of tasks can be performed from this menu. The types of tasks are as follows.

System courtesy down

Take this action for broad maintenance activities, such as reconfiguring the Meridian 1, which requires powering down Meridian Mail.

Courtesy disable ports or (forced) disable nodes

Take this action to disable all ports on a node. This is necessary to put certain cards out of service (such as the MMP40 card) if they need to be replaced or if diagnostics need to be run.

Card disable

Take this action before performing diagnostics on an in-service card.

Courtesy disable or (forced) disable of DSP ports

Take this action before performing tests on a DSP port.

Channel Allocation Table modification

When you move agents from one queue to another (in order to dedicate them to a particular service), you must also modify the Channel Allocation Table to show this change.

Disk maintenance

On systems with Disk Shadowing installed, this selection allows you to disable or reenable Disk Shadowing. On both shadowed and unshadowed systems, this selection allows you to view the state of disks and run disk diagnostics.

Schedule diagnostic activities

This action provides a means of scheduling voice path diagnostics for a Meridian Mail system.

System Events and Error Reports

This allows you to set various System Error and Event Reporting options. For details, see Chapter 29, “SEERs and Meridian Mail Alarms”.

***Section A:* System Status**

In this section

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Overview

Introduction

The System Status screen allows you to view the operational status of the system, change the status of nodes, courtesy disable the system, or courtesy disable ports on individual nodes.

This screen is identical to the System Status screen displayed from the Logon screen, except that this screen has more softkeys available which allow you to perform specific maintenance tasks.

When to use this feature

The System Status functions can be used to

- check the status of your system if you suspect that your system is not performing properly
- disable the system, a node, or DSP ports to perform routine maintenance or diagnostics
- disable a node to put a faulty card out of service so that it can be replaced (it is good practice to courtesy disable ports on the node that you want to disable)

System not performing properly

You may suspect a problem in your system if

- callers are unable to get through to users' mailboxes to leave a message
- users are unable to access Meridian Mail (phone rings, but Meridian Mail never picks up)
- the call must ring several times before the call is transferred to Meridian Mail

The above scenarios suggest that one of the following may be true:

- not enough channels are idle to handle the current demand
- parts of the system are faulty (the AML link, a node, or DSP port, for example)

Checking system status

Check the System Status screen to determine if callers or users are unable to get through to Meridian Mail because all channels are busy (active), or because parts of the system are faulty or disabled.

The System Status screen

Introduction

This section describes the System Status screen.

The System Status screen that you access from the System Status and Maintenance menu provides the following functions:

- Enable Node (see “Disabling/enabling nodes” on page 28-17)
- Disable Node (see “Disabling/enabling nodes” on page 28-17)
- Courtesy Disable Ports (see “Courtesy disabling/enabling ports” on page 28-18)
- Courtesy Down System/Activate System (see “Disabling/activating the system (“Courtesy Down”)” on page 28-15)

Note: Enable Node, Disable Node, and Courtesy Disable Ports softkeys do not appear on single node systems.

Reaching the screen— two ways

There are two ways to reach two different versions of the System Status screen: from the Main Menu and from the Logon/Status screen.

From the Logon/Status screen

To reach an abbreviated version of the System Status Screen from the Logon/Status screen, follow these steps.

Starting Point: The Logon/Status screen

Step Action

- 1 Press the [System Status] softkey.

Result: The System Status screen is displayed.

System Status										
System Status: InService					Alarm Status: Critical=Off Major=On Minor=On					
Last Event: 66-11 Disk 0 is still down										6/10 12:08
Link Status: 1-7-2: InService										
Node	Type	Status	DSP Port Status						Storage Used	
			Active	Idle	OutSv	Faulty	Pending	Others	Voice	Text
1	MSP	InService								
2	SPN	InService	0	24	0	0	0	0	0%	1%
3	SPN	InService	0	24	0	0	0	0	0%	1%
4	SPN	InService	0	24	0	0	0	0	0%	1%
Select a softkey >										
Exit										

Note: You will not be able to access the maintenance softkeys from this version of the screen.

Field descriptions

The following fields appear on the System Status screen.

System Status

Description	This field displays the current system status.
Possible status types	<p>There are four possible status types.</p> <p><i>InService</i> This indicates the system is running.</p> <p><i>CourtesyPending</i> This indicates that the system is in the process of shutting down. This appears after using the [Courtesy Down System] softkey. Incoming calls are directed to an attendant. Calls in progress are not interrupted. Each DSP port is courtesy disabled as it becomes idle. The software remains loaded.</p> <p><i>CourtesyDown</i> This indicates that the system has shut down and is no longer operational or accepting calls, but the software remains loaded. When the system is down, the [Courtesy Down System] softkey becomes [Activate System]. When the [Activate System] softkey is used, the system restarts.</p> <p><i>Loading</i> This indicates the system is loading software during bootup.</p>

Alarm Status

Description	This indicates the state of each of the types of alarms described below.
Alarm types	<p>There are three possible alarm types.</p> <p>Critical These alarms indicate a service-affecting problem that requires immediate attention.</p> <p>Major These alarms indicate a service-threatening problem that may be allowed to persist for up to 24 hours. If not attended to, the alarm could become critical.</p> <p>Minor These alarms indicate a problem that has no impact on the system or users.</p> <p>For more details, see Chapter 29, “SEERs and Meridian Mail Alarms”.</p>
Alarm states	<p>Each alarm type can be in one of the following states.</p> <p>Off This state indicates that there are no new alarms. This does not necessarily mean that there are no error conditions.</p> <p>On This status indicates that one or more alarm situations were detected.</p> <p>Unk This indicates that the status is unknown.</p>

Last Event

Description	This is the most recent system event or error report (SEER) logged.
-------------	---

Link Status

Description	This is the state of the AML link to the Meridian 1.
Link states	<p>The link can be in one of the following states:</p> <p>InService This indicates that the link is operational.</p> <p>Faulty This state indicates that a hardware problem exists but that the data port remains operational.</p>

Node	
Description	This is the node number.
Type	
Description	This is the type of node.
Status	
Description	<p>This is the status of the nodes in your system.</p> <p><i>Note:</i> The status at this level does not indicate the status of a given card on the node. For information on cards, see “The Card Status screen” on page 28-21.</p>
Node states	<p><i>InService</i> This state indicates that the node is operational.</p> <p><i>Unequipped</i> This indicates that the node has not been defined in the hardware database. Refer to <i>System Administration Tools</i> (NTP 555-7001-305) for instructions on modifying the hardware database.</p> <p><i>Faulty</i> This indicates that a hardware problem was detected or a critical program on the node is not operational.</p> <p><i>OutOfService</i> This indicates that the node is no longer operational as a result of a forced disable.</p> <p><i>Loading</i> This state indicates that the node is currently starting up and loading software into memory.</p> <p><i>ShuttingDown</i> This state indicates that the node is being put out of service.</p> <p><i>Booting</i> This indicates that the operating system is being loaded on the node.</p>

DSP Port Status

Description	These fields reflect the state of each DSP port on the associated node. For each DSP port that is in a particular state, an entry is made in the appropriate column.
DSP States	<p>A DSP port may be in one of the following states.</p> <p>Active This indicates that the DSP port is operational and is currently in use.</p> <p>Idle This indicates that the DSP port is operational but not in use at the moment. The DSP port is ready to accept calls.</p> <p>OutSv This state indicates that the associated DSP port is not operational, as a result of a courtesy disable or forced disable.</p> <p>Faulty This state indicates that an error has been detected in the DSP port.</p> <p>Pending This state indicates that there has been a request to either shut down or restart the DSP port. The port is in the process of either shutting down or restarting.</p> <p>Others This state indicates that the DSP port is temporarily unavailable. This usually occurs while the system is booting up. The status remains as "Others" while the software is loading. Once fully loaded, the status becomes "Active" or "Idle." The status may also appear as "Others" when you reenables a port (for as long as the necessary software is loading). The status returns to "Idle" once the port has been enabled.</p>

Storage Used

Description	These fields indicate the amount of voice and text storage used as a percentage of available storage on the user volume of this node. (If the disk on a node is bad, percentages are not displayed.)
-------------	--

Disabling/activating the system ("Courtesy Down")

Introduction

Use Courtesy Down for broad maintenance activities, such as reconfiguring the Meridian 1, which requires powering down Meridian Mail.

During a Courtesy Down, incoming calls are directed to an attendant. Calls in progress are not interrupted. Each DSP port is courtesy disabled as it becomes idle. The software remains loaded. This prevents Meridian Mail users from being suddenly disconnected from their voicemail session.

Procedure

These steps describe how to Courtesy Down the Meridian Mail system, and reenble the system after a Courtesy Down.

Starting Point: The System Status screen

Step Action

- 1 Press [Courtesy Down System].
Result: You are prompted as to whether you want to Courtesy Down the system.
- 2 Press the up arrow until Yes appears as the response and press return.
Result: The [Activate System] softkey replaces the [Courtesy Down System] softkey.
It may take some time to disable the system since all active DSP ports on all nodes must first become idle.
- 3 After the system reaches CourtesyDown state, are all DSP ports now in the "OutSv" or "Others" columns?
 - If yes, go to step 4.
 - If no, disable the DSP ports manually according to the steps in "Disabling/enabling DSP ports in single mode" on page 28-40 or "Disabling/enabling DSP ports in range mode" on page 28-42, then go to step 4.

Step Action

- 4 Perform the required maintenance activities.
 - 5 Reenable the system by pressing [Activate System].
Note: The system can be reenabled at any time during the Courtesy Down process.
 - 6 After the system returns to "InService" status, are all DSP ports either Idle or Active?
 - If all DSP ports are Idle or Active, press [Exit].
 - If some DSP ports are in the OutSv or Others columns, reenable the DSP ports manually according to the steps in "Disabling/enabling DSP ports in single mode" on page 28-40 or "Disabling/enabling DSP ports in range mode" on page 28-42, then press [Exit].
-

Disabling/enabling nodes

Introduction

Take this action to disable all ports on a node. This is necessary in order to put certain cards out of service (such as the MMP40 card) if they need to be replaced or if diagnostics need to be run.

Note 1: You cannot disable an MSP node.

Note 2: This function is not available on single node systems.

Tip

Once the node is disabled, you can reactivate the system while the node is disabled. This will allow Meridian Mail to remain operational for users on the other nodes while you are working on the disabled node.

Procedure

To disable, then re-enable a node, use the following steps.

Starting Point: The System Status screen

Step Action

- 1 Is the node currently disabled?
 - If no, go to step 2.
 - If yes, go to step 5.
 - 2 Courtesy Down the system. See “Disabling/activating the system (“Courtesy Down”)” on page 28-15.
 - 3 Press the [Disable Node] softkey.
Result: You are prompted for the node number.
 - 4 Enter the node number followed by <Return>.
Result: The node status changes to “OutOfService.”
 - 5 Perform any required maintenance activities.
 - 6 Press [Enable Node].
Result: You are prompted for the node number.
 - 7 Enter the node number followed by <Return>.
Result: The node status changes to “InService.”
-

Courtesy disabling/enabling ports

Introduction

When you courtesy disable ports, incoming calls on a particular node are directed to an attendant. Calls in progress are not interrupted. Each DSP port is courtesy disabled as it becomes idle. The software remains loaded. This prevents Meridian Mail users from being suddenly disconnected from their voicemail session.

Take this action to courtesy disable all ports on a node. This is necessary in order to put certain cards out of service if they need to be replaced or if diagnostics need to be run.

Note: This function is not available on single node systems.

Procedure

To courtesy disable ports, then re-enable them, use the following steps.

Starting Point: The System Status screen

Step Action

- 1 Is the node currently disabled?
 - If no, go to step 2.
 - If yes, go to step 4.
- 2 Press [Courtesy Disable Ports].

Result: You are prompted for the number of an in-service node.
- 3 Enter the node number followed by <Return>.

Result: As the DSP ports for the node become free, the System Status screen will show the DSP ports for that node as being in "Pending" then in "OutSv" state.
- 4 Perform any required maintenance activities.
- 5 Press [Enable Node].

Result: You are prompted for the number of an out-of-service node.
- 6 Enter the node number followed by <Return>.

Result: The status of the DSP ports for the node changes to "Others" and then to "Idle."

***Section B:* Card Status**

In this section

Overview	28-20
The Card Status screen	28-21
Enabling/disabling cards	28-27
Running out-of-service diagnostics	28-28

Overview

Introduction

The Card Status option on the System Status and Maintenance menu allows you to check the status of the cards on your system, enable or disable voice processor cards as required, and run out-of-service diagnostics on a disabled or faulty card.

To disable cards that are not voice processor cards (for example, an MMP40 card), you must use the disable-node function (see “Disabling/enabling nodes” on page 28-17).

When to use this feature

The Card Status screen can be used to

- check the status of the cards in your system if you suspect that your system is not performing properly (see “The Card Status screen” on page 28-21)

The Card Status screen will show you if any of the cards are faulty or disabled. If a card is faulty or disabled, perform a diagnostic check on the card (see “Running out-of-service diagnostics” on page 28-28).

- disable a voice processor card to perform a diagnostic check, or to replace the card (see “Enabling/disabling cards” on page 28-27)

Note: Only voice processor cards can be disabled through the Card Status screen. To disable other cards, you must use the disable-node function (see “Disabling/enabling nodes” on page 28-17).

- perform a diagnostic check on a card that you suspect is not working properly, or on a new card that has just been installed in your system (see “Running out-of-service diagnostics” on page 28-28)

The Card Status screen

Introduction

The Card Status screen displays the operational status of the cards in your system. The enable/disable softkeys displayed on this screen are used to enable and disable voice processor cards only.

If you suspect a problem with your system hardware, you can use this screen to check that all the cards on a node are functioning properly. You can also run diagnostics on a card from the Card Status screen.

Before running diagnostics on a card, you must first disable it. See “Enabling/disabling cards” on page 28-27.

Reaching the screen

To check card status, use the following steps.

Starting Point: The Main Menu

Step	Action
1	Select System Status and Maintenance. Result: The System Status and Maintenance menu is displayed.
2	Select Card Status
3	Do you have a multinode system? <ul style="list-style-type: none">If yes, you are prompted for the node number. Enter the node number followed by <Return>. Result: The Card Status screen for the node you requested is displayed.If no, you are immediately taken to the Card Status screen.

Card status screen

The screen has the same appearance for all Meridian Mail platforms, but the types of cards listed under the Description field will vary. The types of cards available are described in the section “Field descriptions” on page 28-23.

System Status and Maintenance			
Card Status for Node 2			
System Status: InService		Alarm Status: Critical=Off Major=0n Minor=0n	
Card#	Location	Description	Status
1	2-1-0	16 Megabyte Meridian Mail Processor	InService
2	2-2-0	Voice Processor	InService
3	2-3-0	Voice Processor	InService
4	2-4-0	Voice Processor	InService

Select a softkey >

Exit	Enable Card	Disable Card		OutOfService Diagnostics
------	-------------	--------------	--	-----------------------------

Field descriptions

The following fields appear on the Card Status screen.

System Status

Description	This field displays the current system status.
Possible status types	<p>There are four possible status types.</p> <p><i>InService</i> This indicates the system is running.</p> <p><i>CourtesyPending</i> This indicates that the system is in the process of shutting down.</p> <p><i>CourtesyDown</i> This indicates that the system has shut down and is no longer operational or accepting calls.</p> <p><i>Loading</i> This indicates the system is loading software during bootup.</p>

Alarm Status

Description	This indicates the state of each of the types of alarms described below.
Alarm types	<p>There are three possible alarm types.</p> <p>Critical These alarms indicate a service-affecting problem that requires immediate attention.</p> <p>Major These alarms indicate a service-threatening problem that may be allowed to persist for up to 24 hours. If not attended to, the alarm could become critical.</p> <p>Minor These alarms indicate a problem that has no impact on the system or users.</p> <p>For more details, see Chapter 29, “SEERs and Meridian Mail Alarms”.</p>
Alarm states	<p>Each alarm type can be in one of the following states.</p> <p>Off This state indicates that there are no new alarms. This does not necessary mean that there are no error conditions.</p> <p>On This status indicates that one or more alarm situations were detected.</p> <p>Unk This indicates that the status is unknown.</p>

Card #

Description	This is the number of each card in the selected node.
-------------	---

Location

Description	This is the physical location (Node-Card-Port) of each card in the selected node.
-------------	---

Description

Description	This is the type of card at that location.
Valid entries	The possible card types are listed here. Depending on your system type, you will not see all of these cards on your system.

16 Megabyte Meridian Mail processor (MMP40)

This is the Meridian Mail processor (CPU) card which includes a 24 MHz 68040 processor, 16 Mbytes of memory, up to two RS-232 serial ports, and a SCSI interface processor. It is displayed for MMP40 systems.

RS232 Service Module (RSM)

This is an RS-232 card (for non-EC systems).

High Speed Bus

This is the high-speed bus (also called HABC for High Availability Bus Controller).

Network Voice Processor (NVP)

This is the 16 kbyte network voice processor.

32K Network Voice Processor (NVP32)

This is the 32 kbyte network voice processor.

Utility (UTIL)

This card, on EC systems only, contains a high speed bus. It also includes four auxiliary RS-232 ports. (1- to 4-node systems require one of these cards; 5-node systems with 60 or more ports require two of these cards.)

Voice Processor (VP4/VP8)

These cards are voice processor cards that provide four and eight channels respectively.

Empty

The card slot is empty.

Status

Description	This is the current state of each card on the selected node.
Card states	<p><i>InService</i> This state indicates that the card is operational.</p> <p><i>Faulty</i> This state indicates that a hardware problem has been detected for the card.</p> <p><i>Unequipped</i> This state may indicate one of two conditions: (a) the card slot is empty but a card is defined as being in that location in the hardware database or (b) the card is in the slot but is not defined in the hardware database.</p> <p><i>OutOfService</i> This state indicates that the card has been disabled.</p>

Enabling/disabling cards

Introduction

Only voice processor cards can be disabled from the Card Status screen. To disable other cards (such as the MMP40 card), you must use the disable-node function (see “Disabling/enabling nodes” on page 28-17).

Procedure

Starting Point: The Card Status screen

Step Action

- 1 Press [Disable Card].
Result: You are prompted for the number of the card you wish to disable.
Note: You can only disable voice processor cards from this screen.
 - 2 Enter the number of the card followed by <Return>.
Result: The system may take some time disabling the card. The message “WORKING...” will be displayed during this interval. The card is disabled when its status changes to “OutOfService”.
 - 3 Perform diagnostics on the card as described in “Running out-of-service diagnostics” on page 28-28.
 - 4 Press [Enable Card].
Result: You are prompted for the number of an out-of-service card.
 - 5 Enter the number of an out-of-service card followed by <Return>.
Result: The system may take some time enabling the card. The message “WORKING...” will be displayed during this interval. The card is enabled when its status changes to “InService”.
-

Running out-of-service diagnostics

Introduction

If you suspect a card is faulty, run out-of-service diagnostics on the card. If the test shows the card is faulty, it is assigned a “Faulty” status which can be observed on the Card Status screen.

Procedure

Starting Point: The Card Status screen

Step Action

- 1 Are you running out-of-service diagnostics on a voice processor card?
 - If yes, disable the voice processor card according to the instructions in “Enabling/disabling cards” on page 28-27.
 - If no, disable the node according to the instructions in “Disabling/enabling nodes” on page 28-17.
- 2 Press [OutOfService Diagnostics].

Result: You are prompted for the number of an out-of-service card.
- 3 Enter the card number followed by <Return>.

Result: The message “WORKING...” will be displayed while diagnostics are running. When diagnostics are completed, the result is displayed in a screen message.

IF diagnostics

THEN

fail

the card status will be “Faulty.” There is a hardware problem with the card and it should be replaced. Refer to the *Installation and Maintenance Guide* for your platform.

pass

the card can be reenabled.

pass on a card that was already in a “Faulty” state

the card is put in “OutOfService” state.

***Section C:* DSP Port Status**

In this section

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Single mode and range mode	28-39
Disabling/enabling DSP ports in single mode	28-40
Disabling/enabling DSP ports in range mode	28-42

Overview

Introduction

The DSP Port Status screen allows you to view the operational status of the DSP ports in the system and enable or disable individual ports when necessary.

Definition: DSP

A DSP is a Digital Signal Processor which is located on a voice processor card. Each DSP supports two physical port locations. As a result, each DSP can support two voice processing ports or one multimedia port (for multimedia services, both physical ports of a DSP are used to configure one multimedia port). The configured port (voice or multimedia) is referred to as a DSP port or just as a port.

When to use this feature

You would use this feature to

- check the status of DSP ports (are any ports Faulty or OutOfService?)
- disable a port prior to modifying information relating to the port on the Channel Allocation Table
If you are dedicating a port, or assigning a specific outbound service to a port, you must show this on the Channel Allocation Table. A port must be disabled before any information relating to it can be modified on the Channel Allocation Table.
- reenable a port that was taken out of service

The DSP Port Status screen

Introduction

This section describes the DSP Port Status screen.

The DSP Port Status screen that you access from the System Status and Maintenance menu provides the following functions:

- Enable Port (see pages 28-40 to 28-42)
- Disable Port (see pages 28-40 to 28-42)
- Courtesy Disable Port (see pages 28-40 to 28-42)
- Change to Range Mode/Change to Single Mode (see “Single mode and range mode” on page 28-39)

Reaching the screen— two ways

There are two ways to reach two different versions of the System Status screen.

From the Main Menu

To reach the DSP Port Status screen from the Main Menu, follow these steps.

Starting Point: The Main Menu

Step Action

- 1 Select System Status and Maintenance.
Result: The System Status and Maintenance menu is displayed.
- 2 Select DSP Port Status.

Step Action

- 3 Do you have a multinode system?
- If yes, you are prompted for the node number. Enter the number followed by <Return>.
 - If no, the DSP Port Status screen is displayed immediately.

Result: The DSP Port Status screen is displayed.

```

System Status and Maintenance
DSP Port Status for Node 2 (C=Card D=DSP P=Port)

System Status: InService          Alarm Status: Critical=Off Major=On Minor=On

C-D-P      DSP Port Status
2-1-*      1-Idle
2-2-*      2-Idle
2-3-*      3-Idle          4-Idle
2-4-*      5-Idle          6-Idle
3-1-*      7-Idle          8-Idle
3-2-*      9-Idle          10-Idle
3-3-*      11-Idle         12-Idle
3-4-*      13-Idle         14-Idle
4-1-*      15-Idle         16-Idle
4-2-*      17-Idle         18-Idle
4-3-*      19-Idle         20-Idle
4-4-*      21-Idle         22-Idle

Select a softkey > █
Exit      Enable Port  Disable Port  Courtesy
           Change to  Disable Port  Range Mode
  
```

From the Logon screen

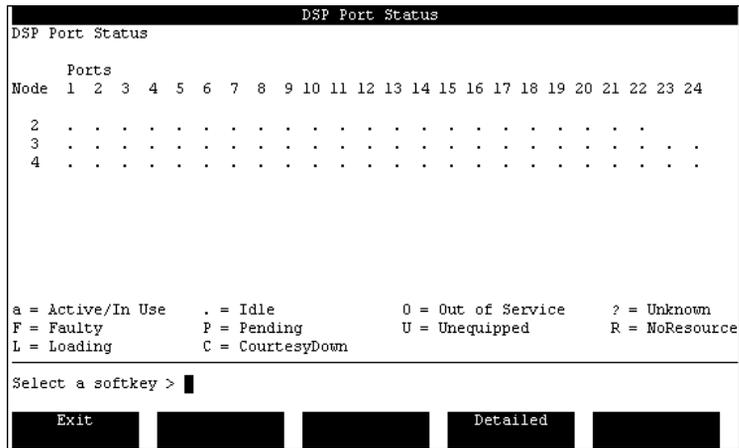
To reach an abbreviated version of the DSP Port Status Screen from the Logon screen, follow these steps.

Starting Point: The Logon/Status screen

Step Action

- 1 Press the [DSP Port Status] softkey.

Result: The DSP Port Status screen is displayed.



Note: You will not be able to access the maintenance softkeys from this version of the menu.

See also

For a description of the Detailed view of this screen, see “Detailed view of the DSP Port Status screen” on page 28-38.

DSP port status screen

The following is an example of the DSP Port Status screen displayed when you select DSP Port Status from the System Status and Maintenance menu.

```

System Status and Maintenance
DSP Port Status for Node 2 (C=Card D=DSP P=Port)

System Status: InService          Alarm Status: Critical=Off Major=On Minor=On

C-D-P      DSP Port Status
2-1-*      1-Idle
2-2-*      2-Idle
2-3-*      3-Idle          4-Idle
2-4-*      5-Idle          6-Idle
3-1-*      7-Idle          8-Idle
3-2-*      9-Idle          10-Idle
3-3-*      11-Idle         12-Idle
3-4-*      13-Idle         14-Idle
4-1-*      15-Idle         16-Idle
4-2-*      17-Idle         18-Idle
4-3-*      19-Idle         20-Idle
4-4-*      21-Idle         22-Idle

Select a softkey > █

Exit      Enable Port  Disable Port  Courtesy
          Change to   Disable Port  Disable Port  Range Mode
  
```

When the status for a port is not displayed, this means that both ports from the DSP were used to configure one multimedia port, so only one configured port is present instead of two.

In the screen example, the first two ports on card 2 have been configured into one multimedia port (port 1). And the next two ports on card 2 have also been configured into one multimedia port (port 2).

The port numbering on this screen is also adjusted so that no number is skipped, even if a port is blocked for a multimedia port. As a result, the port numbers reflect the total number of configured ports on the node. The port numbers shown here match the port numbers shown in the DSP Port Status screen accessed from the Logon screen.

Field descriptions

The following fields appear on the DSP Port Status screen.

System Status

Description	This field displays the current system status.
Possible status types	<p>There are four possible status types.</p> <p><i>InService</i> This indicates the system is running.</p> <p><i>CourtesyPending</i> This indicates that the system is in the process of shutting down.</p> <p><i>CourtesyDown</i> This indicates that the system has shut down and is no longer operational or accepting calls.</p> <p><i>Loading</i> This indicates the system is loading software during bootup.</p>

Alarm Status

Description	This indicates the state of each of the types of alarms described below.
Alarm types	<p>There are three possible alarm types.</p> <p><i>Critical</i> These alarms indicate a service-affecting problem that requires immediate attention.</p> <p><i>Major</i> These alarms indicate a service-threatening problem that may be allowed to persist for up to 24 hours. If not attended to, the alarm could become critical.</p> <p><i>Minor</i> These alarms indicate a problem that has no impact on the system or users.</p> <p>For more details, see Chapter 29, “SEERs and Meridian Mail Alarms”.</p>
Alarm states	<p>Each alarm type can be in one of the following states.</p> <p><i>Off</i> This state indicates that there are no new alarms. This does not necessarily mean that there are no error conditions.</p> <p><i>On</i> This status indicates that one or more alarm situations were detected.</p> <p><i>Unk</i> This indicates that the status is unknown.</p>

C-D-P (location)

Description	This is the physical location of each DSP port on the selected node (card number-DSP-port).
-------------	---

DSP Port Status

Description	This is the current state of each DSP port. The status can be one of the following.
-------------	---

DSP states	Active This status indicates that the DSP port is operational and in use.
------------	--

Idle This status indicates that the DSP port is operational but not currently in use.

Faulty This status indicates that the system has detected an error in the DSP port.

UnEquipped This status indicates that the DSP port is not defined in the hardware database. For more information about modifying the hardware database, refer to *System Administration Tools* (NTP 555-7001-305).

POutService This status indicates that the DSP port is in the process of shutting down. If [Courtesy Disable Port] was used, the DSP port is still active while in this state. Once the active call is disconnected, the port status will be OutOfService.

OutOfService This status indicates that the DSP port is no longer operational as a result of a courtesy disable or forced disable.

NoResources This status indicates a transition state that occurs during the initial stages of software loading (after a request to enable a port). When software begins to load, the port is initially in this state, followed by Loading and then Idle, once the software has finished loading.

DSP states
(continued)

Loading This status indicates that the DSP port is currently starting up after a request to enable and that the necessary software is loading.

CtsyDown This status indicates that the DSP port is down as a result of a Courtesy Down System.

PCtsyDown This status indicates that the DSP port is in the process of shutting down as a result of a Courtesy Down System, pending the disconnection of any active calls. The DSP port is still active while in this state. Once the active call is disconnected, the port status will be CtsyDown.

Detailed view of the DSP Port Status screen

Introduction

When you access the DSP Port Status screen from the Logon screen, you can get a detailed view by pressing the [Detailed] softkey.

For each port, you are told the port type (basic-voice, full-voice, or multimedia) and the port status (for example, Idle, Active, or OutOfService).

When to use this feature

If you have a mixture of port types (basic-voice, full-voice, multimedia), the detailed view presents a clear picture of what types of ports are installed in your system, how many, and where.

The screen

The following is an example of the DSP Port Status screen—Detailed view.

```

DSP Port Status
DSP Port Status
Ports
Node 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24
2 M. M. M. M. . BO BO BO BO VO VO
3 VO VO
4 VO VO

V = Full Voice      B = Basic Voice      M = Multimedia
a = Active/In Use  . = Idle             O = Out of Service  ? = Unknown
F = Faulty         P = Pending          U = Unequipped      R = NoResource
L = Loading        C = CourtesyDown

Select a softkey >
Exit                Brief
  
```

In this example, node 2 has four idle multimedia ports (M.). Node 2 also has four basic-voice ports that are out of service (BO). All other ports are full-voice ports that are out of service (VO).

Single mode and range mode

Description

Single mode allows you to enable, disable, or courtesy disable individual DSP ports one at a time.

Range mode allows you to enable, disable, or courtesy disable a contiguous range of DSP ports at once. For example, it will work if you need to disable ports 3 to 7, but not if you need to disable ports 1, 3, and 7.

Disabling/enabling DSP ports in single mode

Introduction

This section describes how to disable ports in single mode (one port at a time).

Note: If a port is faulty and you attempt to disable it, the screen message will be the same as if you are disabling an idle port. However, the port will not be disabled. A faulty port cannot be disabled or enabled.

Disable Port versus Courtesy Disable Port

The procedure in this section asks you to check if a port is idle or active before disabling it. If a port is idle, you can use the Disable Port softkey. If a port is active (it is processing a call to Meridian Mail), you can use the Courtesy Disable Port softkey.

The courtesy disable method waits until the call is disconnected before disabling the port. This prevents users from being disconnected suddenly from Meridian Mail.

If you use the Disable Port softkey to disable an active port, the caller is abruptly disconnected.

Procedure**Starting Point:** The System Status and Maintenance menu**Step Action**

- 1 Select DSP Port Status.
 - If you have a single node system, the DSP Port Status screen is displayed. Go to step 3.
 - If you have a multinode system, go to step 2.
 - 2 For multinode systems, enter the number of the node on which the DSP port resides, followed by <Return>.
Result: The DSP Port Status screen is displayed.
 - 3 Is the DSP port active?
 - If yes, press [Courtesy Disable Port].
 - If no, press [Disable Port].**Result:** You are prompted for the number of a DSP port.
 - 4 Enter the DSP port number followed by <Return>.
Result: The system may take some time to disable the port. In the case of a courtesy disable, the system waits until the active call has been disconnected.

The system displays a message informing you that the port is being disabled. The message "WORKING..." may also be displayed.

While the port is being disabled, its status will change to POutService and then to OutOfService.
 - 5 Perform any required maintenance activities.
 - 6 Press [Enable Port].
Result: You are prompted for the number of a DSP port.
 - 7 Enter the DSP port number followed by <Return>.
Result: The system may take some time to enable the port. The system displays a message informing you that the port is being enabled. The message "WORKING..." may also be displayed.

While the port is being enabled, its status will change to "Loading" and then to "Idle."
 - 8 Press [Exit] to return to the System Status and Maintenance menu.
-

Disabling/enabling DSP ports in range mode

Introduction

Range mode allows you to disable or enable a contiguous range of DSP ports at once. This saves time over disabling or enabling ports one at a time.

Note: If a port is faulty and you attempt to disable it, the screen message will be the same as if you are disabling an idle port. However, the port will not be disabled. A faulty port cannot be disabled or enabled.

Disable Port versus Courtesy Disable Port

The procedure in this section asks you to check if the ports are idle or active before disabling them. If the ports are idle, you can use the Disable Port softkey. If some of the ports are active (they are processing calls to Meridian Mail), you can use the Courtesy Disable Port softkey.

The courtesy disable method waits until the call is disconnected before disabling the port. This prevents users from being disconnected suddenly from Meridian Mail.

If you use the Disable Port softkey to disable an active port, the caller is abruptly disconnected.

Procedure**Starting Point:** The System Status and Maintenance menu**Step Action**

- 1 Select DSP Port Status.
 - If you have a single node system, the DSP Port Status screen is displayed. Go to step 3.
 - If you have a multinode system, go to step 2.
- 2 For multinode systems, enter the number of the node on which the DSP port resides, followed by <Return>.
Result: The DSP Port Status screen is displayed.
- 3 Press [Change to Range Mode].
Result: The softkey now shows [Change to Single Mode].
- 4 Are DSP ports active?
 - If yes, press [Courtesy Disable Port].
 - If no, press [Disable Port].**Result:** You are prompted for the number of the first DSP port in the range you want to force disable or courtesy disable.
- 5 Enter the number of the first DSP port in the range followed by <Return>.
Result: You are prompted for the number of the last DSP port in the range.
- 6 Enter the number of the last DSP port in the range followed by <Return>.
Result: The system will begin to disable the DSP ports. This may take some time. If you are courtesy disabling the ports, the system will wait for each port to become idle before it disables them.

While the ports are being disabled, their status will change to "POutService" and then to "OutOfService." The message "WORKING..." may also be displayed at this time.

After the disabling is completed, the system displays a message indicating the number of ports that were successfully disabled, and the number of ports that could not be disabled.
- 7 Perform any required maintenance activities.
- 8 Press [Enable Port].
Result: You are prompted for the number of the first DSP port in the range of ports you wish to enable.

Step Action

- 9 Enter the number of the first DSP port followed by <Return>.
Result: You are prompted for the number of the last DSP port in the range.
 - 10 Enter the number of the last DSP port followed by <Return>.
Result: The system may take some time enabling the ports. The system displays a message to inform you that the DSP ports are being enabled. While the ports are being enabled, their status will change to "Loading" and then to "Idle."
After the enabling is completed, the system displays a message indicating the number of ports that were successfully enabled, and the number of ports that could not be enabled.
 - 11 Press [Exit] to return to the System Status and Maintenance menu.
-

***Section D:* Channel Allocation Table**

In this section

Overview	28-46
The Channel Allocation Table	28-47
Modifying the Channel Allocation Table	28-59

Overview

Introduction

The Channel Allocation Table (CAT) allows you to

- view how channels are currently allocated across different queues and services
- see what the distribution of port types is (the number of basic, full-voice, and multimedia ports)
- move agents from one queue to another as part of the procedure to dedicate a port

When to use this feature

Normally, you will not have to configure this table. When the Meridian Mail software is installed, the installation technician configures the switch to match the Channel Allocation Table.

This is also true when you perform a channel expansion (to add new agents). You generally do not have to modify the CAT because it is updated with the information that was provided during the expansion.

However, when you move agents from one queue to another (in order to dedicate them to a particular service), you will have to modify the CAT to show that the agent is now associated with a different queue and that the agent is dedicated to a particular service.

When to dedicate ports

Dedicating ports to a particular service reduces the overall efficiency of your port usage, so you should consider whether it is necessary to dedicate ports. Note that even when you have separate queues set up for basic, full-voice, and multimedia ports, these ports can be shared for outbound services (such as Remote Notification and Fax Outcalling).

For more information about port types and dedicating ports, see the section "Planning your configuration" on page 23-13.

The Channel Allocation Table

Introduction

The Channel Allocation Table (CAT) determines how agents on the switch are associated with DSP ports on Meridian Mail.

Agents are identified by a terminal number (TN), an ACD directory number (DN), and a single call non-ringing (SCN) DN. Each DSP port must be associated with an existing ACD agent in the Meridian 1 database. This is to handle the queuing of calls coming in to Meridian Mail, and to handle dial-out features such as Remote Notification and Delivery to Non-Users.

ATTENTION

The Channel Allocation Table (CAT) should only be configured by those who know how to program the switch.

When to use

When you move agents from one queue to another (in order to dedicate them to a particular service), you will have to modify the CAT to indicate the ACD DN with which the agent is now associated, as well as the service to which it is dedicated.

Note that even when you have separate queues set up for basic, full-voice, and multimedia ports, these ports can be shared for outbound services (such as Remote Notification and Fax Outcalling).

For a complete explanation of how to dedicate ports, and how to decide if you need to dedicate ports, see the section "Planning your configuration" on page 23-13.

Reaching the screen

To reach the Channel Allocation Table screen, use the following procedure.

Starting Point: The Main Menu

Step Action

- 1 Select System Status and Maintenance.
Result: The System Status and Maintenance menu is displayed.
- 2 Select Channel Allocation Table.
- 3 Do you have a multinode system?
 - If yes, you are prompted for the node number. Enter the node number followed by <Return>.**Result:** The Channel Allocation Table for the node you requested is displayed.
 - If no, you are immediately taken to the Channel Allocation Table.

The CAT screen

The Channel Allocation Table also lists the maximum number of voice ports and minimum number of multimedia ports that you can configure, and how the different port types are currently allocated. The Choice of Services list at the top of the screen lists all the services that can be dedicated to a port. To hide this list, press the [Hide Choice of Services] softkey.

```

System Status and Maintenance
Channel Allocation Table for Node 2 (C=Card D=DSP P=Port)
Choice of Services:
ALL All Services          AN AMIS Networking      AS Announcement Service
EN Enterprise Networking EM Express Messaging      FOC Fax Outcalling
ACC Meridian ACCESS      NW Meridian Networking PM Prompt Maintenance
RA Remote Activation      OC RM/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-----
72      68          2          68          M/F: 2  V/F: 66  V/B: 2

# C-D-P  TN      ACD DN      SCN      Type Capability Outbound
1 2-1-1 009-0-02-00 3651 2800 Multi Full ALL
      009-0-02-01 blocked for Multimedia port 2-1-1.
2 2-2-1 009-0-02-02 3651 2802 Multi Full ALL
      009-0-02-03 blocked for Multimedia port 2-2-1.
3 2-3-1 009-0-02-04 3659 2804 Voice Full Basic ALL

```

MORE BELOW

Select a softkey >

Save	Cancel	[]	[]	Hide Choice of Services
------	--------	-----	-----	-------------------------

How port information is presented

Ports that are configured to support multimedia services (multimedia ports) require the use of both DSP ports supported by a DSP. The location of the first port supported by the DSP is considered the location of the multimedia port. The second physical port location supported by the DSP is considered to be blocked for the multimedia port. This is reflected in the CAT by a row following the multimedia port with the message “blocked for Multimedia port C-D-P,” where C-D-P is the “Card-DSP-Port” number of the multimedia port.

The number of DSP ports on a system may be very large. Therefore, when you choose to view the CAT on a multinode system, you are prompted for a node number to limit the scope to one node at a time. The CAT screen then displays information for that node.

Field descriptions

The following items appear on the Channel Allocation Table screen.

Choice of Services

Description	This is a list of voice or fax services and their associated acronyms.
Service restrictions	<p>The following services are available only if voice menus are installed:</p> <ul style="list-style-type: none"> • AS (Announcement Service) • PM (Prompt Maintenance) • RA (Remote Activation) • TS (Thru-Dial Service) • MS (Voice Menu Service) <p>Greeting Change Service (GS) is available only if Voice Messaging (VMUIF) is installed. Express Messaging (EM) and Call Answering (CA) are available only if Voice Messaging (MMUI) or Hospitality is installed.</p> <p>Transcription Service (TR) and Voice Forms Service (VF) are available only if the Voice Forms feature is installed.</p> <p>Meridian Networking (NW), Meridian ACCESS (ACC), AMIS Networking (AN), RN/DNU Outcalling (OC), and Fax Outcalling (FOC) appear only if the feature is installed.</p>

Limit

Description	This is the number of physical port locations on the system from which voice and multimedia ports are derived.
-------------	--

MaxVoice

Description	This is the maximum number of voice ports (basic and full) allowed on the system according to your system's keycode. This number plus the MinMulti number is the maximum number of ports allowed on the system.
-------------	---

MinMulti

Description This is the minimum number of multimedia ports required on the system according to your system's keycode. The system will not allow you to reduce the number of multimedia ports on the system to below the MinMulti value.

MaxFull

Description This is the maximum number of full service ports (full service voice or multimedia) allowed on the system according to your system's keycode.

Allocated

Description This field shows how the ports are currently allocated between full service multimedia, full service voice, and basic service voice.

Allocations

- **M/F** The number of full service multimedia ports on the system.
- **V/F** The number of full service voice ports on the system.
- **V/B** The number of basic service voice ports on the system. Basic service ports must also be voice ports.

Note: Multimedia ports require full service capability, so basic service multimedia ports are not available.

C-D-P	
Description	This is the physical location of the DSP port in the Meridian Mail system.
Numbering scheme	<p>This number represents the card-DSP-port number. The node number is shown in the title at the top of the screen for multinode systems. This is a read-only field.</p> <p>The number to the left of the C-D-P field counts the ports and corresponds to the port numbers shown in the DSP Port Status screen.</p>
TN	
Description	<p>This is the terminal number or routing address. This is a read-only field specifying the physical location of the corresponding agent in the switch.</p> <p>The elements in the address represent the network loop, shelf, card slot, and unit (port) on the switch.</p>
ACD DN	
Description	<p>This is the primary DN. This is the directory number assigned to the ACD agent queue that contains this port.</p> <p><i>Note:</i> Before changing the Primary DN, the DSP port must be disabled (use the DSP Port Status screen). If the port is not disabled, this is a read-only field.</p>
Multiple queues	If you have more than one agent queue in your configuration (to service different types of ports or dedicated services), ensure that you enter the ACD DN of the queue that contains this port. This ACD DN is configured in Overlay 23 on the Meridian 1.

SCN	
Description	<p>This is the Single Call Non-ringing DN. This DN corresponds to the secondary DN of the agent that corresponds to this port. This DN is the Key 1 Single Call Non-ringing DN (SCN-DN) assigned to the corresponding agent (not the agent ID associated with Key 0 on the agent set).</p> <p><i>Note:</i> Before changing the SCN DN, the DSP port must be disabled (use the DSP Port Status screen). If the port is not disabled, this is a read-only field.</p>
Considerations	<p>This DN is taken from Overlay 11 on the Meridian 1. If the DN is not the same as the SCN DN taken from Overlay 11 on the Meridian 1, then features that require Meridian Mail to generate a call (such as Call Sender and Thru-Dial) will not function.</p> <p>For more information about this DN, refer to “Programming the Meridian 1” in the <i>Installation and Maintenance Guide</i> (NTP 555-70x1-250).</p>
For Card Option Users	<p>Do not change the SCN DNs. They have been configured by Meridian Mail technicians. Changing them could create a conflict.</p>

Type

Description	This field could show “Voice” or “Multi.”
Values	<p>Voice This indicates a port that can provide voice services (such as Voice menus, Announcements, RN/DNU Outcalling, and so on).</p> <p>Multi This indicates a port that can provide multimedia-related services (such as Fax Outcalling), as well as voice services. A “Multi” port is configured from two port locations. As a result, the next port location is labeled as “blocked.”</p>

Capability

Description	This field indicates the range of services supported on this port. The two ranges are “Basic” and “Full.” Note that all basic services can also run on full service ports.
Basic services	The following “Basic” services are available:
	<ul style="list-style-type: none"> • ACC—Meridian ACCESS • AS—Announcement Service • MS—Voice Menu Service • PM—Prompt Maintenance • RA—Remote Activation • TS—Thru-Dial Service • VS—Voice Softkey
Full services	“Full” services include all basic services plus the following:
	<ul style="list-style-type: none"> • VM—Voice Messaging • EM—Express Messaging • CA—Call Answering • AN—AMIS Networking Agent • OC—RN/DNU Outcalling • HM—Hospitality Messaging • CO—Post-Checkout Mailbox • VF—Voice Forms Service • TR—Transcription Service • NW—Meridian Networking • FOC—Fax Outcalling
	<p><i>Note:</i> RN/DNU Outcalling supports Remote Notification and Delivery to Non-User features. Fax Outcalling supports Fax-on-Demand same-call delivery and fax call-back delivery, Fax Information (FI), and Fax Item Maintenance (FIM).</p>

Outbound	
Description	<p>When Meridian Mail makes an outbound call, it checks this column to see what ports can be used. "ALL" indicates the port can be used for any outbound service (the port is shared for outbound calls).</p> <p>If you are dedicating the port to a particular service (outbound or inbound service), enter the service acronym in this column. This will prevent Meridian Mail from using that port for another outbound service.</p>
Example	<p>If you enter "OC" in this column for a particular port, the only outbound calls that can be made through this port are OC (RN/DNU) calls. At the same time, OC can use only this port to make outbound calls.</p> <p>Note: You must disable the DSP port (see the DSP Port Status screen) before changing the service associated with it.</p>
Defaults	The default is "ALL," which indicates a shared DSP port.
Fax Outcalling considerations	<p>A multimedia port can be shared for outbound services (enter "ALL" in the Outbound column).</p> <p>You can achieve optimum traffic capacity for fax calls on a multimedia port by dedicating the port to Fax Outcalling and then using only the Fax Call Back method of delivery. For details, refer to the <i>Site and Installation Planning Guide</i> (NTP 555-70x1-200).</p>
Meridian ACCESS considerations	<p>If you enter ACC (Meridian ACCESS) in the Outbound column, a second field, Class, is displayed. For information and examples on how to configure ACCESS applications (for example, Meridian IVR), refer to the "Configuration examples" chapter in the <i>Meridian ACCESS Configuration Guide</i> (NTP 555-7001-315).</p>

Should you dedicate ports?

Introduction

When you dedicate a port to a particular service (for example, Fax on Demand, Outcalling [RN/DNU]), that port cannot be used for any other service, including voice messaging (call answering, logging in to Meridian Mail). That port is reserved for the service that you have assigned to it.

When ports are shared, they can be used for any service, including voice messaging.

Sharing your ports usually produces the most efficient system. When a port is dedicated, you can have a situation where callers are unable to log in to Meridian Mail because all shared ports are busy, while the dedicated port remains unused because it is reserved for the particular service assigned to it.

Ports are dedicated for incoming calls through the use of ACD queues and the VSDN table.

Ports are dedicated for outgoing calls through the "Outbound" column on the CAT table. Ports that are assigned to different queues can be shared for outgoing calls (for example, Remote Notification and Fax Outcalling).

See also

For a complete explanation of dedicated ports, see the section "Planning your configuration" on page 23-13.

When would you dedicate a port to a particular service

If you need to ensure that you always have a certain number of ports free for a particular service (for example, an important voice menu, FOC, or OC), then you may decide you need to dedicate ports to that service.

Dedicating ports for basic, full-voice, and multimedia services

If you have a mixture of port types (basic service, full service voice, and multimedia ports), then you need to set up a separate ACD queue for each port type. In effect, the ports become dedicated to a specific level of service, for incoming calls. The separate queues ensure that a call made to Meridian Mail is connected to a port that is capable of providing the service

Should you dedicate ports?

requested (for example, a call to a fax menu is directed to a multimedia port).

For outgoing calls made by Meridian Mail (for example, Remote Notification, Delivery to Non-User, and Fax Outcalling), the ports can be shared.

How outbound calls are processed

These are calls made by Meridian Mail (for example, to deliver a remote notification, a delivery-to-non-user message, or a fax). When Meridian Mail makes an outbound call, it seeks a port that has the service capability to make the call (a basic port for basic services, a full-voice port for full services, a multimedia port for fax deliveries).

Meridian Mail begins by seeking the lowest-grade port required. If those are busy, Meridian Mail searches the next higher port type.

Example

For example, RN requires the use of a full-voice port. Meridian Mail seeks an idle full-voice port to make the call. If all full-voice ports are busy, Meridian Mail will seek an idle multimedia port (if the multimedia ports are set up to be shared).

Port type/service required	Action taken
Basic-service (ACCESS)	Meridian Mail seeks an idle basic service port to complete the call. If all basic ports are busy (active), Meridian Mail seeks an idle full-voice port. If all full-voice ports are busy, Meridian Mail seeks an idle multimedia port.
Full-voice (RN, DNU)	Meridian Mail seeks an idle full-voice port. If all full-voice ports are busy, Meridian Mail seeks an idle multimedia port.
Multimedia (Fax delivery)	Meridian Mail seeks an idle multimedia port. If all multimedia ports are busy, Meridian Mail waits for one of the multimedia ports to become idle.

When ports are shared for outbound calls

All idle ports can be used for any outbound service. The only restriction is that a full-voice service must use a full-voice port or a multimedia port, and a multimedia service must use a multimedia port.

When ports are dedicated for outbound calls

When you assign a specific outbound service to a port (for example, OC or FOC), then no other outbound service can use that port. The port can still be used for any inbound service (incoming calls), unless you have also set up a separate queue for that port.

If you want the port to be completely reserved for a particular service, make it fully dedicated by setting up a separate queue as well as assigning the particular service to the port in the “Outbound” column in the CAT table.

For more information, see “Fully dedicating ports – blocking inbound and outbound calls” on page 23-49.

Modifying the Channel Allocation Table

Channel allocation and dedication

Consider whether it is beneficial or necessary to dedicate ports (channels). See “Should you dedicate ports?” on page 23-23. See the section “Planning your configuration” on page 23-13.

ATTENTION

- Update the Channel Allocation Table only when the system is idle or during low traffic periods.
- The Channel Allocation Table should only be configured by those who are knowledgeable about programming the switch.

Procedure

To modify the Channel Allocation Table, use the following steps.

Starting Point: The System Status and Maintenance menu

Step Action

- 1 Disable the DSP port(s) you wish to reconfigure.
 - To disable a single port, see “Disabling/enabling DSP ports in single mode” on page 28-40.
 - To disable a range of ports, see “Disabling/enabling DSP ports in range mode” on page 28-42.
- 2 Select Channel Allocation Table from the System Status and Maintenance menu.
 - If you have a single node system, the Channel Allocation Table is displayed. Go to step 4.
 - If you have a multinode system, go to step 3.
- 3 Enter the number of the node on which the port resides, followed by <Return>.
- 4 Modify the ports. For each disabled port, you can change the values in the following fields:
 - ACD DN
 - SCN DN
 - Capability (for voice ports)
 - Outbound (Service)

Step Action

Note: Ports that are not disabled can only be viewed. For disabled ports, the port capability (Full or Basic) is highlighted and the ACD DN, SCN, and Outbound fields are underlined.

System Status and Maintenance									
Channel Allocation Table for Node 2 (C=Card D=DSP P=Port)									
Limit; MaxVoice MinMulti; MaxFull;					-----Allocated-----				
72	68	2	68		M/F: 2	V/F: 66	V/B: 2		
#	C-D-P	TN	ACD DN	SCN	Type	Capability	Outbound		
1	2-1-1	009-0-02-00	3651	2800	Multi	Full	ALL		
		009-0-02-01	blocked for Multimedia port 2-1-1.						
2	2-2-1	009-0-02-02	3651	2802	Multi	Full	ALL		
		009-0-02-03	blocked for Multimedia port 2-2-1.						
3	2-3-1	009-0-02-04	3659	2804	Voice	Full	Basic	ALL	
4	2-3-2	009-0-02-05	3659	2805	Voice	Full	Basic	ALL	
5	2-4-1	009-0-02-06	3650	2806	Voice	Full	Basic	ALL	
6	2-4-2	009-0-02-07	3650	2807	Voice	Full	Basic	ALL	
7	3-1-1	009-0-03-00	3650	2808	Voice	Full	Basic	ALL	
8	3-1-2	009-0-03-01	3650	2809	Voice	Full	Basic	ALL	
9	3-2-1	009-0-03-02	3650	2810	Voice	Full	Basic	ALL	
10	3-2-2	009-0-03-03	3650	2811	Voice	Full	Basic	ALL	

MORE BELOW

Select a softkey >

Save	Cancel			Display Choice of Services
------	--------	--	--	----------------------------

5 Are you satisfied with the changes?

- If yes, press [Save].
- If no, press [Cancel].

Result: On a single node system, you are returned to the System Status and Maintenance menu.

On a multinode system, you are prompted for another node. If you have to reallocate ports on another node, return to step 3. Otherwise, press [Cancel] to return to the System Status and Maintenance menu.

6 Reenable any DSP ports you have put out of service.

- To enable a single port see “Disabling/enabling DSP ports in single mode” on page 28-40.
- To enable a range of ports see “Disabling/enabling DSP ports in range mode” on page 28-42.

***Section E:* Disk Maintenance**

In this section

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Replacing a failed disk	28-69
Reenabling disk shadowing (synching a disk pair)	28-70
Running diagnostics on a disk or a disk pair	28-72

Overview

Introduction

The Disk Maintenance screen allows you to view the operational state of the disks on your system. If your system is a shadowed system, you can also synch or unsynch a disk pair using the functions available through this screen.

When to use this feature

Shadowed or Unshadowed system

If you suspect that your disks are not functioning properly, use the Disk Maintenance screen to check the status of the disks on your system. See “Checking disk status” on page 28-63.

If you suspect a particular disk or disk pair is not functioning properly, you can run a diagnostic check using the [Diagnostics] softkey on the Disk Maintenance screen. See “Running diagnostics on a disk or a disk pair” on page 28-72.

Shadowed system

If you need to replace or repair one of the disks in a disk pair, you must first disable disk shadowing for the disk pair (unsynch the disk pair). The Disk Maintenance screen provides a softkey for unsynching a disk pair. See “Disabling disk shadowing (unsynching)” on page 28-68.

After a disk has been replaced or repaired, you need to synchronize the disk pair. The Disk Maintenance screen provides a softkey for synching a disk pair. See “Reenabling disk shadowing (synching a disk pair)” on page 28-70.

Checking disk status

Introduction

The Disk Maintenance screen lists the disks on your system and displays their current states.

Disk status

A disk can be in one of the following states:

- **ReadWrite** The disk is in service (functioning properly according to Meridian Mail).
- **NoAccess** The disk is disabled. Check your SEERs for more information.
- **Faulty** The disk has failed a diagnostics check that was performed using the [Diagnostics] softkey from the Disk Maintenance screen.

Shadowed systems only

- **Write** The disk is being written to. A disk may have this status during a disk synchronization.

Procedure

To check disk status, use the following steps.

Starting Point: The Main Menu

Step	Action
------	--------

- | | |
|---|--|
| 1 | Select System Status and Maintenance.
Result: The System Status and Maintenance menu is displayed. |
| 2 | Select Disk Maintenance.
Result: The Disk Maintenance screen is displayed. |
-

**Disk Maintenance screen:
Unshadowed system**

The following is an example of the Disk Maintenance screen on an unshadowed system.

```

System Status and Maintenance
Disk Maintenance
System Status: InService           Alarm Status: Critical=Off Major=0n Minor=0n

Disk Node  HWLOC  Prime
          Type (N-C-ID) Status
1  MSP  1-7-0  ReadWrite
2  SPN  2-1-0  ReadWrite
3  SPN  3-7-0  NoAccess
4  SPN  4-1-0  ReadWrite

Select a softkey >
Exit          Diagnostics

```

**Disk Maintenance screen:
Shadowed system**

The following is an example of the Disk Maintenance screen on a shadowed system.

```

System Status and Maintenance
Disk Maintenance
System Status: InService           Alarm Status: Critical=Off Major=0n Minor=0n

Disk Node  HWLOC  Prime      HWLOC  Shadow  Pair
Pair Type (N-C-ID) Status      (N-C-ID) Status  Status
1  MSP  1-7-0  ReadWrite  1-7-2  ReadWrite  InSynch
2  SPN  2-1-0  ReadWrite  2-1-2  NoAccess  OutofSynch
3  SPN  3-7-0  NoAccess   3-7-2  ReadWrite  OutofSynch
4  SPN  4-1-0  ReadWrite  4-1-2  ReadWrite  InSynch

Select a softkey >
Exit          Synch Disk Pair  UnSynch Disk Pair  Diagnostics

```

Field descriptions

The following fields appear on the Disk Maintenance screen.

System Status

Description	This field displays the current system status.
Possible status types	<p>The possible status types are as follows.</p> <p><i>InService</i> This indicates the system is running.</p> <p><i>CourtesyPending</i> This indicates that the system is in the process of shutting down.</p> <p><i>CourtesyDown</i> This indicates that the system has shut down and is no longer operational or accepting calls.</p> <p><i>Loading</i> This indicates the system is loading software during bootup.</p>

Alarm Status

Description	This indicates the state of each of the types of alarms described below.
Alarm types	<p>There are three possible alarm types.</p> <p><i>Critical</i> These alarms indicate a service-affecting problem that requires immediate attention.</p> <p><i>Major</i> These alarms indicate a service-threatening problem that may be allowed to persist for up to 24 hours. If not attended to, the alarm could become critical.</p> <p><i>Minor</i> These alarms indicate a problem that has no impact on the system or users.</p> <p>For more details, see Chapter 29, “SEERs and Meridian Mail Alarms”.</p>
Alarm states	<p>Each alarm type can be in one of the following states.</p> <p><i>Off</i> This state indicates that there are no new alarms. This does not necessary mean that there are no error conditions.</p> <p><i>On</i> This status indicates that one or more alarm situations were detected.</p> <p><i>Unk</i> This indicates that the status is unknown.</p>

Disk Pair (appears only on Shadowed systems)

Description	This is the number assigned to the disk pair.
When used	You are prompted for the disk pair number when performing the Synch Disk Pair, Unsynch Disk Pair, or Diagnostics functions.

Disk (appears only on Unshadowed systems)

Description	This is the number assigned to the disk.
-------------	--

Node Type

Description	This is the type of node (for example, an MSP node or SPN node).
-------------	--

HWLOC

Description	The hardware location of the disk (node number–card number–disk ID).
Example	The numbers 1–7–0 refer to: Node number (1) Card number (7) Disk id (0)

Prime Status

Description	This is the status of the disk on the node in an unshadowed system, or the status of the prime disk of a disk pair in a shadowed system.
Possible states	A disk can be in one of the following states: ReadWrite The disk is operating properly. NoAccess The disk is disabled. Write The disk is being written to (during a disk synchronization in a shadowed system). Faulty The disk failed a diagnostic check that was performed using the [Diagnostics] softkey on the Disk Maintenance screen.

Shadow Status

Description This is the status of the shadow disk of a disk pair in a shadowed system.

Possible states A disk can be in one of the following states:

ReadWrite The disk is operating properly.

NoAccess The disk is disabled.

Write The disk is being written to (during a disk synchronization).

Faulty The disk failed a diagnostic check that was performed using the [Diagnostics] softkey on the Disk Maintenance screen.

Pair Status

Description This is the status of the disk pair. This field appears only on a shadowed system.

Possible states A disk pair can be in one of the following states:

InSynch Both disks are functioning properly and the disk pair is in synch.

OutOfSynch One of the disks has been disabled, so the disk pair is out of synch.

Synching The disk pair is currently being synchronized. When this is happening, the screen also displays the progress of the synchronization in terms of percentage completed.

NoAccess Both disks in the disk pair are in NoAccess state.

Disabling disk shadowing (unsynching)

Introduction

Disk shadowing is disabled for a disk pair by unsynching the disk pair. It is necessary to disable disk shadowing if you need to repair or replace one of the disks in a disk pair.

Procedure

To disable disk shadowing, use the following steps.

Starting Point: The Main Menu

Step	Action
------	--------

- | | |
|---|--|
| 1 | Select System Status and Maintenance.
Result: The System Status and Maintenance menu is displayed. |
| 2 | Select Disk Maintenance.
Result: The Disk Maintenance screen is displayed. |
| 3 | Press the [Unsynch Disk Pair] softkey.
Result: You are prompted to enter a disk pair number. |
| 4 | Enter the disk pair number for the disk pair that you need to disable.
Result: The system asks you which disk should be disabled (the Primary Disk or the Shadow Disk). |
| 5 | Select the disk that you plan to repair or replace (Primary disk or Shadow Disk).
Result: The disk is placed in NoAccess state (it is disabled).
Note: If the other disk is in NoAccess state, the request to disable the disk is denied. One of the disks in a disk pair must be in ReadWrite state to keep the node operational. |
-

Replacing a failed disk

**Where to find
information**

The procedures for replacing a failed disk are provided in the *Installation and Maintenance Guide* (NTP 555-70x1-250).

Reenabling disk shadowing (synching a disk pair)

Introduction After a disk has been replaced or repaired, you need to synchronize the disk pair to reenabling disk shadowing. The Disk Maintenance screen provides a softkey for synching a disk pair.

Tip If you need to synch more than one disk pair, you can begin synching subsequent disk pairs as soon as the first disk pair has started synching. You do not have to wait for one disk pair to finish synching before synching another disk pair.

Timing This procedure takes at least thirty minutes. The actual time depends on the size of the source disk.

Procedure To re-enable disk shadowing, use the following steps.

Starting Point: The Main Menu

Step Action

-
- | | |
|---|---|
| 1 | Select System Status and Maintenance.
Result: The System Status and Maintenance menu is displayed. |
| 2 | Select Disk Maintenance.
Result: The Disk Maintenance screen is displayed. |
| 3 | Press the [Synch Disk Pair] softkey.
Result: You are prompted to enter a disk pair number. |
| 4 | Enter the number of the disk pair that you need to synch (to re-enable disk shadowing for the disk pair) and press <Return>.
Result: The synching begins. |
-

What happens during synchronization The screen displays the progress of the synchronization. It displays the percentage of synchronization that is complete.

The status of the disk that is being written to changes to “Write” until the synching is complete. When complete, the status of both disks is set to ReadWrite if both disks are functioning properly. If one of the disks in the disk pair is faulty, the synching will fail and you are notified by a screen message.

Reenabling disk shadowing (syncing a disk pair)

Screen showing disk synchronization

The following is an example of a Disk Maintenance screen with a disk synchronization in progress.

```

System Status and Maintenance
Disk Maintenance
System Status: InService          Alarm Status: Critical=Off Major=0n Minor=0n

Disk Node  HWLOC  Prime      HWLOC  Shadow  Pair
Pair Type (N-C-ID) Status    (N-C-ID) Status  Status
1  MSP  1-7-0  ReadWrite  1-7-2  ReadWrite  InSynch
2  SPN  2-1-0  ReadWrite  2-1-2  Write      Synching on Node 2  3%done
3  SPN  3-7-0  NoAccess   3-7-2  ReadWrite  OutofSynch
4  SPN  4-1-0  ReadWrite  4-1-2  ReadWrite  InSynch

Select a softkey >
Disk Pair 2 disk synchronization started.
Exit      Synch Disk      UnSynch Disk      Diagnostics
          Pair          Pair
  
```

Running diagnostics on a disk or a disk pair

Introduction

If you suspect a problem with a disk, run the diagnostic function on the disk. The system responds with a message indicating if the disk is ok (passed) or faulty (failed).

Procedure

To run the diagnostic function on a disk or disk pair, use the following steps.

Starting Point: The Main Menu

Step Action

- 1 Select System Status and Maintenance.
Result: The System Status and Maintenance menu is displayed.
 - 2 Select Disk Maintenance.
Result: The Disk Maintenance screen is displayed.
 - 3 Press the [Diagnostics] softkey.
Result: You are prompted to enter a disk number (or a disk pair number on a shadowed system).
 - 4 Enter the number of the disk or disk pair you want to check.
Result (on a shadowed system): The system asks you which disk you want to check (the Primary Disk or the Shadow Disk). Select one of the disks. After a few moments, the system responds with the results of the diagnostic check.
Result (on an unshadowed system): After a few moments, the system responds with the results of the diagnostic check.
-

Possible results

The system will respond with one of the following messages.

Message	Meaning
Disk diagnostics passed.	The disk is functioning normally.
Disk diagnostics failed. xxxx (where “xxxx” is the error code)	The disk is not functioning properly. A SEER is generated which will provide more details on what the problem is and what action you should take.
Invalid component state to do disk diagnostics.	If the disk is not in a valid state (InService, OutOfService, Faulty, or Unconfigured), then the diagnostics routine will not run. Contact your regional support centre.
Cannot perform diagnostics. Disk Synchronization in progress.	The disk pair you have selected is currently being synched. You must wait for the synching to complete before you can run diagnostics on one of the disks in the disk pair.
Invalid node state to run diagnostics on this disk.	The node must be InService, OutOfService, or in Standby state for the diagnostics routine to run.

***Section F:* Diagnostic Schedules**

In this section

Overview	28-76
What are Voice Path Diagnostics?	28-77
Changing the parameters and schedule for diagnostics	28-78
Analyzing the results of the diagnostics	28-82

Overview

Introduction

The Diagnostics Schedules screen allows you to schedule a diagnostic check on the voice channels in your system. You can control what time the diagnostics take place (to avoid peak traffic periods), and whether a faulty channel is taken off-line.

When to use this feature

If you have not enabled voice path diagnostics yet, you would use this feature to

- schedule when you want voice path diagnostics to take place

If the voice path diagnostic tests are causing a traffic problem, you can use this feature to

- change the voice path diagnostics schedule to a less-busy time
- disable voice path diagnostic testing
- change what happens when voice path diagnostics fail (whether channels taken offline or left InService)
- change the duration of the voice path diagnostics
- change the minimum number of channels that must be idle before voice path diagnostics will run

What are Voice Path Diagnostics?

Definition: Voice Path Diagnostics	Voice Path Diagnostics is a feature that tests the operational state of the voice channels.
How the test is done	<p>The system sets up calls which go from Meridian Mail to the switch and back. Two channels are tested at a time (one to make the call to the switch, one to receive the call from the switch). Only InService channels are tested.</p> <p>The test continues until either</p> <ul style="list-style-type: none">• all InService channels are tested or• the maximum duration allowed for the tests runs out
Definition: Originator and Destination	The Originator is the port used to make the call from Meridian Mail to the switch. The Destination is the port used to receive the call back from the switch to Meridian Mail.
Possible test results	A channel can pass, fail, or be left untested. For more details, see “Analyzing the results of the diagnostics” on page 28-82.

Changing the parameters and schedule for diagnostics

Introduction

The parameters and schedule for diagnostics are defined on the Diagnostic Schedules screen.

On this screen you can

- enable or disable diagnostics
- change the time or days that diagnostics are run
- change the maximum duration for voice path diagnostics
- determine if a faulty channel is automatically taken out of service
- determine the minimum number of idle channels that must be present before voice path diagnostics are run

Note: Changes to the schedule or parameters while diagnostics are running will not take effect until the current diagnostics session is completed.

The Diagnostic Schedules screen

The following is an example of the Diagnostic Schedules screen.

System Status and Maintenance

Diagnostic Schedules

Start Time (hh:mm): 02:00

Schedule Diagnostics on the Following Days:

Monday	No	Yes
Tuesday	No	Yes
Wednesday	No	Yes
Thursday	No	Yes
Friday	No	Yes
Saturday	No	Yes
Sunday	No	Yes

Bus Controller Diagnostics: Disabled **Enabled**

Voice Path Diagnostics: Disabled **Enabled**

Mark Channel Faulty if Voice Path Diagnostics Fail: **No** Yes

Select a softkey > **MORE BELOW**

Save Cancel

All the fields do not fit on the first screen. When you scroll to the next screen, one additional field is displayed: “Minimum Number of Idle Channels for Voice Path Diagnostics.”

Field descriptions

The following fields appear on the Diagnostic Schedules screen.

Start Time (hh:mm)

Description	This is the time that voice path diagnostics begin.
Tip	Set the start time to a low-traffic part of the day.
Default	3:00 am (03:00)

Schedule Diagnostics on the Following Days

Description	For each day listed, select Yes to allow diagnostics to run on that day, or select No to disable diagnostics for that day.
Default	For each day, the default is Yes.

Voice Path Diagnostics

Description	This field determines if voice path diagnostics are enabled or disabled.
Default	Enabled

Mark Channel Faulty if Voice Path Diagnostics Fail

Description	Set this field to Yes if you want a faulty channel to be taken out of service. If you set this field to No, the channel remains InService. In either case, a SEER is issued indicating the channel is faulty.
Considerations	If channels are taken out of service by the diagnostics routine, system performance may be affected as the number of channels InService decreases. Keep in mind that even if faulty channels are left InService, you still need to investigate why the channel is being tagged as faulty by the diagnostics routine.
Default	No

Maximum Duration of Voice Path Diagnostics (hh:mm)

Description	This is the maximum length of time voice path diagnostics are allowed to run during one session.
Considerations	While diagnostics are running, two channels are unavailable for use. This may impact system performance if the diagnostics continue into a high-traffic time period.
Default	2 hours (02:00)

Minimum Number of Idle Channels for Voice Path Diagnostics

Description	<p>This is the number of channels that must be idle in addition to the two channels required for the diagnostic tests. If this field is set to 2, then 4 channels must be idle before voice path diagnostics will begin.</p> <p>After voice path diagnostics finishes testing a pair of channels, it checks again to make sure there are enough idle channels in addition to the two channels required for testing, as specified in this field, before continuing.</p>
Considerations	If the diagnostics are causing a traffic problem, you may wish to increase the number of idle channels that must be present.
Example	If this field is set to 2, then 4 channels must be idle before each diagnostic test. After voice path diagnostics finishes testing a pair of channels, it checks that at least 4 channels are idle before acquiring 2 of those idle channels for the next test. In this manner, voice path diagnostics continues until all channels have been tested, or until the Maximum Duration value is exceeded.
Default	2

Procedure

To change the parameter or schedule settings for the diagnostic routines, use the following steps.

Starting Point: The Main Menu

Step Action

- 1 Select System Status and Maintenance.
Result: The System Status and Maintenance menu is displayed.
 - 2 Select Diagnostic Schedules.
Result: The Diagnostic Schedules screen is displayed.
 - 3 Fill in the fields as required. See "Field descriptions" on page 28-79.
 - 4 Are you satisfied with the changes?
 - If yes, press [Save].
Result: The changes are saved and you are returned to the System Status and Maintenance menu.
 - If no, press [Cancel].
Result: The changes are not saved and you are returned to the System Status and Maintenance menu.
-

Analyzing the results of the diagnostics

Introduction The results of the diagnostics are provided through SEERs.

Possible test results The following possible results are presented in the SEERs.

Test result	Originator's state	Destination's state	Meaning/Action taken
Passed	n/a	n/a	Both the originator and destination ports are tagged as passed.
Failed (after testing)	Untested	Passed	The originator port is faulty. A major alarm SEER is generated to inform you of the failure. If the Mark Channel Faulty if Voice Path Diagnostics Fail field on the Diagnostic Schedules screen is set to Yes, the originator port's status is changed to OutOfService.
Failed (after testing)	Passed	Untested	The destination port is faulty. A major alarm SEER is generated to inform you of the failure. If the Mark Channel Faulty if Voice Path Diagnostics Fail field on the Diagnostic Schedules screen is set to Yes, the destination port's status is changed to OutOfService.
Failed (due to inability to test)	Untested	Untested	The status of the ports remain unchanged because the ports were not tested. The maximum duration for diagnostics ran out before these ports were tested.

**Summary SEER
(number 7400)**

When a diagnostics session is completed (all InService channels are tested, or the maximum duration allowed expires), a summary SEER is generated.

The SEER number is 7400, with severity level “Info,” and type “Admin.”

This SEER provides the following information:

- the total number of InService channels found on the system
- the total number of channels tested
- the total number of channels failed
- the total number of channels untested
- a list of failed channels

**Other SEERs
(class 74)**

Scan the SEERs generated during the diagnostic session for class 74 SEERs. Class 74 SEERs include SEERs related to failed or untested channels.

**Impact on Operational
Measurement reports**

On the Services Summary report, the count for the Voice Path Diagnostics service will be greater than or equal to the number of channels tested.

The count for the default voice service (usually Voice Menus) will also show some additional calls in the time period in which voice path diagnostics was running. This is because the default voice service is used to assist in establishing the call loop between Meridian Mail and the switch.

Chapter 29

SEERs and Meridian Mail Alarms

In this chapter

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Section A: SEERs and Alarms	29-3
Section B: Customizing SEER processing	29-15
Section C: Notification options for SEERs and alarms	29-27

Overview

Introduction

This chapter describes System Event and Error Reports (SEERs) and Meridian Mail alarms in the following sections.

Section A: SEERs and Alarms provides conceptual information about SEERs and Alarms. Procedures for SEER retrieval and alarm silencing are described in this section.

Section B: Customizing SEER processing provides information regarding SEER remapping, SEER throttling, and SEER escalation.

Section C: Notification options for SEERs and alarms describes the SEER and alarm processing path in the Meridian Mail system. Also, the procedures for setting up SEERs printing, filtering, and triggering are described.

***Section A:* SEERs and Alarms**

In this section

What is a SEER?	29-4
Retrieving SEERs	29-6
What is an alarm?	29-9
How to check alarm status	29-10
Silencing an alarm	29-12

What is a SEER?

Concept

System Event and Error Reports (SEERs), which are generated by the Meridian Mail system software components, identify every significant system event and error that occurs.

An event is a minor glitch or an announcement of normal system activities (for example, the start of an automatic tape backup). Events documented in a SEER do not usually indicate a problem with the Meridian Mail functionality.

An error is a hardware or software fault that may prevent Meridian Mail from functioning properly (for example, a hardware component that failed diagnostics, or a failure to find a system file). An error creates one or more SEERs.

You must be able to read, interpret, and assess the severity of events and errors to determine if they are regular system events (such as a system audit) or system errors. An understanding of SEERs is also essential for diagnosing problems. Before asking for help in dealing with a major system problem, the system administrator must be ready to provide a collection of SEER reports from which the Northern Telecom support staff can determine the history of the problem. From these reports, maintenance personnel will be able to diagnose the problem effectively.

SEER components

Each SEER is identified by a number consisting of two parts:

- SEER class, which classifies a particular software component
- SEER number, which identifies a particular report for a class

Example

SEER 6603 is SEER number 03 from class 66.

What is a SEER?

Note: Due to ongoing improvements in the software, there may be instances where the information on the SEER itself is different from the information presented in the *Maintenance Messages (SEERs) Reference Manual* (NTP 555-7001-510). Should this occur, the information in the SEER printed out by your system should take precedence.

How SEERs are accessed

SEERs can be displayed on a terminal or printed out on a printer. The reports provide information about the SEER class, SEER number, the severity level of errors, the date and time the SEER was generated, and a description of the event or error that occurred at that time. This information is used primarily by system administrators and maintenance personnel to confirm that a system is running correctly, to isolate a system fault, to diagnose a hardware or software problem, or to solve a problem.

SEERs are printed and stored in the SEER file on the system disk at the time of the error or event. The SEERs stored on disk can be viewed or printed at a later time. The SEER file holds up to 4000 records.

Retrieving SEERs

Introduction

This topic provides information required for retrieving SEERs from the SEER history file that resides on the system disk. SEERs are retrieved by class only.

The SEER Retrieval screen

This is an example of the SEER Retrieval screen.

```
System Event and Error Reports
SEER Retrieval
SEER Class:      11
Severity Level:  Critical Major Minor All
SEER Type:      Error Admin System All

Report Start (mm/dd/yy hh:mm): 05/31/96 12:00 (or blank for oldest)
Report End   (mm/dd/yy hh:mm): 05/31/96 16:00 (or blank for newest)

Select a softkey>
Exit      View Reports  Print Reports
```

Field descriptions

This table describes the fields in the SEER Retrieval screen.

SEER Class	
Description	The class of SEERs that you want to retrieve. If you leave the field blank, all classes will be retrieved.
Classes	For a list of supported SEERs classes, refer to the <i>Maintenance Messages (SEERs) Reference Manual</i> (NTP 555-7001-510).
Default	The field is blank.
Severity Level	
Description	The severity level of the SEERs class.
Options	Critical, Major, Minor, All
Default	All
SEER Type	
Description	The SEER type required.
Options	Error, Admin, System, All
Default	All
Report Start/End	
Description	This field allows the administrator to specify the start and end date and time for the SEER retrieval. If left blank, the search provides all SEERs meeting the search criteria that are in the history file.
Default	The field is blank.

Procedure

To retrieve SEERs from the history file, follow these steps.

Starting Point: The Main Menu

Step Action

-
- 1 Select System Status and Maintenance.
Result: The System Status and Maintenance screen is displayed.
 - 2 Select System Event and Error Reports from the menu.
Result: The System Event and Error Reports screen is displayed.
 - 3 Select SEER Retrieval.
Result: The SEER Retrieval screen is displayed.
 - 4 Complete the SEER Class, Severity Level, and SEER Type fields for the SEERs that you want to retrieve.
Note: If the SEER Class field is left blank, all classes of SEERs are retrieved.
 - 5 Enter the Report Start and Report End criteria to narrow the search to a specific date and time interval. Otherwise, leave these fields blank.
 - 6 Use this table to determine the next step.

IF you want to	THEN press the
view the SEERs retrieved by the search	[View Reports] softkey.
print the SEERs retrieved by the search	[Print Reports] softkey.
- Result:** For View Reports, the reports are displayed. For Print Reports, press the [Continue Printing] softkey to print the report. Press the [Cancel Printing] softkey to cancel printing and return to the SEER Retrieval screen.
- 7 Press the [Exit] softkey to return to the System Event and Error Reports menu.
-

What is an alarm?

Introduction

An alarm is an audible notification that something is not right with the Meridian Mail system. Alarms are sounded if a corresponding severity level SEER is issued to indicate a system problem.

Alarm types

There are three types of alarms: critical, major, and minor.

Critical alarm

These alarms indicate a service-affecting problem that requires immediate attention.

Major alarm

This type of alarm indicates a service-threatening problem that may be allowed to persist (for up to 24 hours). If not attended to, the alarm could become critical.

Minor alarm

This type of alarm indicates a problem that has no impact on the system or users.

How to check alarm status

Introduction

This procedure explains how to check for the status of alarms.

Checking alarm status from outside Meridian Mail

To check which alarms are on (or off) if you are not currently logged in to Meridian Mail, follow these steps.

Starting Point: Meridian Mail Logon/Status screen

Step Action

- 1 Press the [System Status] softkey.

Result: The System Status screen is displayed.

```

System Status
System Status: InService      Alarm Status: Critical=0n Major=0n Minor=0n
Last Event:  41-67 A VSS terminated on Node 2, Cause=UnexpectedUnLoad1/02 20:47
Link Status:  1-3-2: InService

Node  Type  Status      Active Idle  DSP Port Status      Storage Used
      Type  Status      Active Idle  OutSv Faulty Pending Others  Voice Text
1   MSP  InService    0    1    5    0    0    0    19%  6%
2   SPN  InService    0   16    0    0    0    0    1%  3%

Select a softkey >
Exit

```

- 2 View the Alarm Status field in the upper right-hand corner for the alarms status.

Checking alarm status from within Meridian Mail

To check which alarms are on (or off) if you are logged in to Meridian Mail, follow these steps.

Starting Point: The Main Menu

Step Action

- 1 Select System Status and Maintenance.
Result: The System Status and Maintenance screen is displayed.
- 2 Select System Status from the menu.
Result: The System Status screen is displayed.

```

System Status and Maintenance
System Status: InService      Alarm Status: Critical=Off Major=Off Minor=On
Last Event:  91-5 MWIAUDIT VS202: The Audit is Finished.      12/20 11:46
Link Status:  1-2-2: InService

                                DSP Port Status
Node  Type Status      Active Idle OutSv Faulty Pending Others  Storage Used
1    MSP  InService      0    19    1    0    0    0    0    4%  1%
2    SPN  InService      0    23    1    0    0    0    0    0%  1%

Select a softkey >
Exit      Enable Node  Disable Node  Courtesy      Courtesy Down
           Disable Ports  System

```

- 3 View the Alarm Status field in the upper right-hand corner for the alarms status.

Silencing an alarm

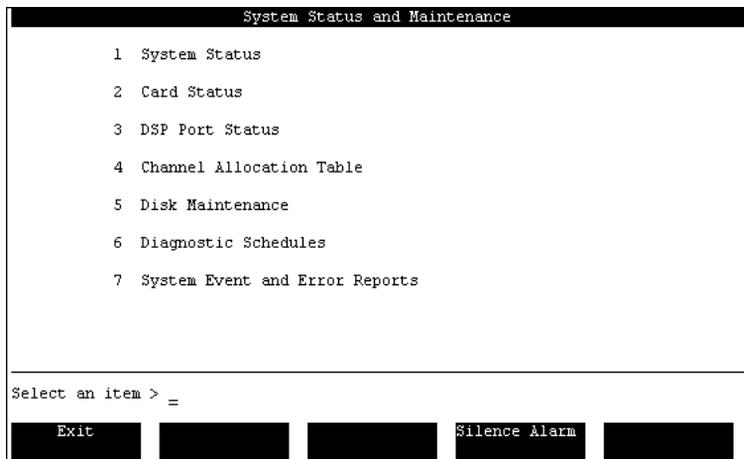
Introduction

The Meridian Mail system will sound an alarm if the corresponding severity level SEER is issued indicating that a problem exists. Alarms are silenced from the Logon/Status or the System Status and Maintenance screen.

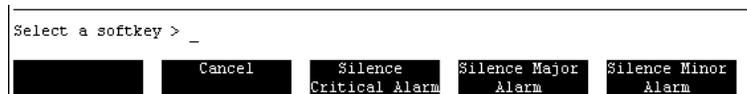
Alarms persist until you silence them. (There is no timeout period after which they are turned off by the system.)

System Status and Maintenance screen

This is an example of the [Silence Alarm] softkey on the System Status and Maintenance screen.



When the [Silence Alarm] softkey is pressed, the softkeys change to include [Silence Critical Alarm], [Silence Major Alarm], and [Silence Minor Alarm] as shown below.



**Silencing an alarm
when logged in to
Meridian Mail**

To silence an alarm when logged in to Meridian Mail, follow these steps.

Starting Point: The Main Menu

Step Action

- 1 Select System Status and Maintenance.
Result: The System Status and Maintenance screen is displayed.
 - 2 Press the [Silence Alarms] softkey.
Result: The [Silence Critical], [Silence Major], and [Silence Minor Alarm] softkeys are displayed.
 - 3 Press the appropriate softkey to cancel the type of alarm that is sounding.
Result: The alarm is silenced.
Press [Cancel] to return to the System Status and Maintenance screen.
-

**Silencing an alarm
from the Logon/
Status screen**

To silence an alarm from the Meridian Mail Logon/Status screen, follow these steps.

Starting Point: The Meridian Mail Logon/Status screen

Step Action

- 1 Press the [Silence Alarms] softkey.
Result: The [Silence Critical], [Silence Major], and [Silence Minor Alarm] softkeys are displayed.
 - 2 Press the appropriate softkey to cancel the type of alarm that is sounding.
Result: The alarm is silenced.
Press [Cancel] to return to the Meridian Mail Logon/Status screen.
-

***Section B:* Customizing SEER processing**

In this section

Overview	29-16
Using SEER remapping	29-17
Using SEER throttling	29-20
Using SEER escalation	29-23

Overview

Introduction

This section includes descriptions of three SEERs features: remapping, throttling, and escalation, as well as procedures for setting up these features on the Meridian Mail system.

Using SEER remapping

Description

SEERs remapping allows the system administrator to remap or reassign the severity level of up to 60 SEERs to a higher or lower severity level. The remapping can be applied to individual SEERs only, and the revised configuration is stored in the System Profile on disk. This means that the parameters do not have to be reentered after a system reboot.

Note: SEER remapping is not the same as memory remapping. Memory remapping is done using the special utility, SE_UTIL function, with the aid of your distributor. For information on memory remapping, refer to the *Maintenance Messages (SEERs) Reference Manual* (NTP 555-7001-510).

The SEER remapping changes are made using the SEER Remap Table. Changes are effective immediately upon saving the table. No validation is performed on the revised SEERs to determine if the entered SEER actually exists, if the severity level is different from the existing severity level, or if the SEER has already been remapped using memory remapping.

If the altered severity level is no longer required, delete the entry from the SEER Remap Table instead of resetting the severity level back to the original.

Procedure

To remap SEERs, follow these steps.

Starting Point: The Main Menu

Step Action

- 1 Select System Status and Maintenance.
Result: The System Status and Maintenance menu is displayed.
 - 2 Select System Event and Error Reports.
Result: The System Event and Error Reports menu is displayed.
 - 3 Select SEER Remap Table.
Result: The SEER Remap Table is displayed.
 - 4 Enter the SEER number in the SEER field.
 - 5 Use the tab key to move the cursor to the Severity field. Enter the new severity.
 - 6 Use the tab key to move the cursor to the Message Trigger field. To set the message trigger, enter Yes in this field.
 - 7 Use this table to determine the next step.

IF	THEN
you have more SEERs to remap	repeat steps 4 through 6.
you have entered all SEERs in the table that require remapping	go to step 8.
 - 8 Press the [Save] softkey to save the remapping table.
Result: The table is saved and the SEERs are remapped.
Press the [Cancel] softkey to cancel changes to the remap table.
Result: The changes are cancelled and you are returned to the System Event and Error Reports menu.
-

Using SEER throttling

Introduction

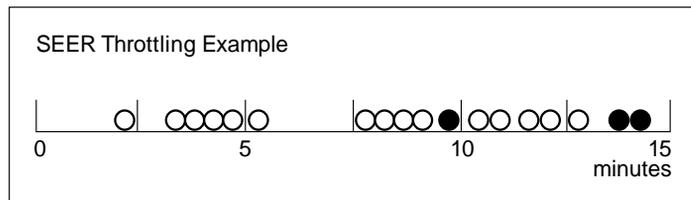
To reduce SEER proliferation, the customer administrator can control the flow of duplicate messages for a specified period of time. SEER throttling monitors SEERs and stops printing a specific SEER type if too many of that type are generated within a given interval.

If the parameters for throttling are exceeded, the throttled SEER will not be sent to the Message Trigger Mailbox or the SEER printer. The configuration for SEER throttling is stored in the System Profile; therefore, the throttling data does not have to be reentered after a system reboot.

When SEER throttling is invoked, a SEER is generated to alert users. SEER throttling will “timeout” after an interval and allow the system to continue to print the prohibited SEER type. If the original error condition still exists, another spurt of SEERs will be displayed until SEER throttling is triggered again. This provides you with ongoing monitoring of the error situation.

Example

In this example, the throttling threshold count is set to 5, and the throttling threshold interval is set to 5 minutes. The circles in the following diagram represent occurrences of the same SEER. Note that the sixth occurrence of the SEER is not throttled, even though it occurs within five minutes of the first occurrence of the SEER, because throttling of an individual SEER is reset at the end of the throttling threshold period (for example, 5 minutes, 10 minutes, and so on).



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Using SEER throttling

Example (cont'd)

The black circles indicate instances when the SEER has been throttled. The throttled SEER will not be sent either to the Message Trigger Mailbox or the SEER printer (if filtered printing was chosen).

SEER Configuration screen

This is an example of the SEER Configuration screen.

```

System Event and Error Reports
SEER Configuration
Message Trigger Mailboxes:
  Mailbox: 7555
  Mailbox: 7556
SEER Printer Output:           None Filtered Unfiltered
SEER Throttle Threshold Count: 5      Throttle Interval (hh:mm): 00:05
SEER Escalation Threshold Count: 0    Escalation Interval (hh:mm): 00:05
SEER Filters:
  SEER Severity Threshold:      None Critical Major Minor
  SEER Type Threshold:         Error Admin
Select a softkey>
Save      Cancel
  
```

Field descriptions

The following table describes the fields used for SEER throttling in the SEER Configuration screen.

SEER Throttle Threshold Count

Description	
Description	This field is used to indicate the number of duplicate SEERs that must occur within the SEER Throttle Threshold Interval at which time the duplicate SEER will be throttled for the remainder of the SEER throttle threshold interval.
Range	0 to 100. The 0 indicates that SEER Throttling is not activated.
Default	5

SEER Throttle Interval

Description	This field is used to specify the time period in hours and minutes (hh:mm) where the number of duplicate SEERs must exceed the SEER Throttle Threshold Count value at which time the SEER Throttling is to occur.
Range	00:01 to 24:00 (1 minute to 24 hours)
Default	00:05

Setting SEER throttling

To set throttling for SEERs, follow these steps.

Starting Point: The Main Menu

Step Action

- 1 Select System Status and Maintenance.
Result: The System Status and Maintenance screen is displayed.
 - 2 Select System Event and Error Reports from the menu.
Result: The System Event and Error Reports screen is displayed.
 - 3 Select SEER Configuration.
Result: The SEER Configuration screen is displayed.
 - 4 In the SEER Throttle Threshold Count field, enter the threshold count.
 - 5 In the SEER Throttle Interval field, enter the interval that you want to use for throttling the SEERs.
 - 6 Press the [Save] softkey to save your choices.
Result: The changes are saved and you are returned to the System Event and Error Reports menu.
Press the [Cancel] softkey to cancel changes to the SEER configuration.
Result: The changes are cancelled and you are returned to the System Event and Error Reports menu.
-

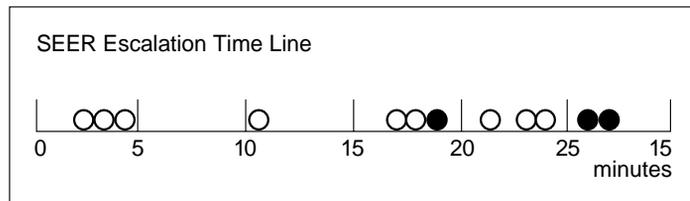
Using SEER escalation

Introduction

The administrator can escalate the severity level of frequently issued minor and major SEERs to the next level. If the same SEER is issued a specified number of times during a specified period of time, the severity level of the SEER is escalated to the next highest severity level. This applies to Minor and Major SEERs only. Info SEERs cannot be escalated.

Example

The escalation threshold count is set to 4, and the escalation threshold interval is set to 10 minutes for this example. The occurrence of a Major SEER is represented by a circle.



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The black circles indicate occurrences of the major SEER that will be escalated to a critical severity level. The occurrence of the SEER at 11 minutes will not be escalated because the fourth occurrence of the SEER is outside the 10-minute interval; however, in the 10 to 20 minute range four SEERs occur, causing the fourth SEER to be escalated to the critical severity level.

SEER Configuration screen

This is an example of the SEER configuration screen.

```

System Event and Error Reports
SEER Configuration
Message Trigger Mailboxes:
  Mailbox: 7555
  Mailbox: 7556
SEER Printer Output:           None Filtered Unfiltered
SEER Throttle Threshold Count: 5   Throttle Interval (hh:mm): 00:05
SEER Escalation Threshold Count: 0  Escalation Interval (hh:mm): 00:05
SEER Filters:
  SEER Severity Threshold:       None Critical Major Minor
  SEER Type Threshold:          Error Admin
Select a softkey>
Save Cancel

```

Field descriptions

The following table describes the fields used for SEER escalation in the SEER Configuration screen.

SEER Escalation Threshold Count

Description	This field is used to indicate the number of duplicate SEERs that must occur within the SEER Escalation Threshold Interval before the SEER severity is raised to the next highest level.
Range	0 to 100. The 0 indicates that SEER Escalation is not activated.
Default	0

SEER Escalation Interval

Description	This field is used to specify the time period in hours and minutes (hh:mm) where the number of duplicate SEERs must exceed the SEER Escalation Threshold Count value before the SEER severity is raised to the next highest level.
Range	00:01 to 24:00 (1 minute to 24 hours)
Default	00:05

Setting SEER escalation

To set SEERs escalation, follow these steps.

Starting Point: The Main Menu

Step Action

- 1 Select System Status and Maintenance.
Result: The System Status and Maintenance screen is displayed.
 - 2 Select System Event and Error Reports from the menu.
Result: The System Event and Error Reports screen is displayed.
 - 3 Select SEER Configuration.
Result: The SEER Configuration screen is displayed.
 - 4 In the SEER Escalation Threshold Count field, enter the threshold count.
 - 5 In the Escalation Interval field, enter the interval that you want to use for SEERs escalation.
 - 6 Press the [Save] softkey to save your choices.
Result: The changes are saved and you are returned to the System Event and Error Reports Menu.
Press the [Cancel] softkey to cancel changes to the SEER configuration.
Result: The changes are cancelled and you are returned to the System Event and Error Reports menu.
-

***Section C:* Notification options for SEERs and alarms**

In this section

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Notification options for SEERs and alarms	29-29
Using SEER filtering	29-31
Using SEER triggering	29-35
SEERs printing	29-38
Setting the SEER printer port name	29-40

Overview

Introduction

This section describes

- the route that a SEER takes after it is issued by the Meridian Mail system
- using the SEER filtering and triggering features
- setting up printing for SEERs

Notification options for SEERs and alarms

Introduction

This section describes the route that a SEER follows after it has been issued by the Meridian Mail system.

How the Meridian Mail system processes a SEER

The following provides an overview of how the Meridian Mail system processes a SEER.

1. The SEER is issued by the Meridian Mail system. An audible alarm sounds if the severity level is critical, major, or minor and the alarm feature has been wired on your system.
2. The system scans the memory remap table for the SEER that has been issued. If the SEER matches an entry in the memory remap table, the SEER's severity and type is changed to that of the table entry.
3. If the SEER does not match an entry in the memory remap table, the system scans the SEER remap table. If the SEER matches an entry in the SEER remap table, the SEER's severity is changed to that of the table entry.
4. Next, the remapped SEER severity is escalated if the escalation thresholds are exceeded. The SEER is sent to the SEER history file.

5. The next step in the SEER path is determined by the following.

IF the SEER configuration is set to	THEN
Unfiltered	printer filtering and throttling is applied to the SEER and the output is sent to the printer. The processing ends.
Message Trigger is set to YES in the Remap Table	SEER filtering is bypassed and the SEER is sent to the Message Trigger mailbox after passing through SEER throttling. The processing continues with step 6.
Filtered and Message Trigger is not set to Yes	SEER filtering is applied to the SEER. If the SEER passes through the filter, processing continues with step 6.

6. SEER throttling checks the SEER to see if it is a duplicate that exceeds the throttling threshold.
7. If the SEER passes SEER Throttling and the Message Trigger is set to Yes, a trigger message is composed and deposited in the Message Trigger mailbox. Also, the SEER is printed on the console printer.

Using SEER filtering

Introduction

SEER filtering parameters allow the administrator to limit the number of SEERs sent to the Message Trigger Mailbox. Only the SEERs required for proper system operation, maintenance, or hacker monitoring activity should be sent to the Message Trigger Mailbox.

The administrator may choose to filter the SEERs based on the severity or type of SEER, or both. The filtering parameters can also be used to limit the SEERs that are sent to the SEER printer if the appropriate SEER Printer Output option is selected. You cannot filter individual SEERs or SEER classes.

Filtering by severity level

The following table describes the filtering possibilities if SEER filtering is set using the severity level only.

Minimum Severity Level	SEERs sent to Message Trigger Mailbox
None	Only those SEERs which have the Message Trigger Field set to YES in the SEER Remap Table.
Critical	Only critical SEERs. This is the default value.
Major	Only major and critical SEERs.
Minor	Minor, major, and critical SEERs. <i>Note:</i> An appropriate warning appears if Minor is selected, as there is a possibility of flooding the Message Trigger Mailbox at this level of SEER.

Filtering by SEER type

The following table describes the filtering possibilities if SEER filtering is set according to the SEER type only.

SEER type	SEERs sent to Message Trigger Mailbox
Error	Error SEERs only. Error level SEERs may indicate a system problem which can be corrected by the administrator, perhaps with the assistance of technical support.
Admin	Admin and Error SEERs only. The ADMIN level of filtering is designed to allow the administrator to concentrate on those SEERs which are important, and not overload the administrator with informational SEERs. This will eliminate the nightly audit SEERs, and others which do not require the attention of the typical system administrator.

Filtering by severity and SEER type

When multiple filtering parameters are set, only those SEERs which pass through both filters are sent to the Message Trigger Mailbox.

For example, if the severity level is set to Critical and the SEER type is set to Error only Critical Error type SEERs will be sent to the Message Trigger Mailbox.

SEER Configuration screen

This is an example of the SEER Configuration screen.

```

System Event and Error Reports
SEER Configuration
Message Trigger Mailboxes:
  Mailbox: 7555
  Mailbox: 7556
SEER Printer Output:          None Filtered Unfiltered
SEER Throttle Threshold Count: 5   Throttle Interval (hh:mm): 00:05
SEER Escalation Threshold Count: 0  Escalation Interval (hh:mm): 00:05
SEER Filters:
  SEER Severity Threshold:  None Critical Major Minor
  SEER Type Threshold:      Error Admin
Select a softkey>
Save      Cancel

```

Field descriptions

The following table describes the fields used for SEER filtering in the SEER Configuration screen.

SEER Filters

Description	This read-only field indicates that the remaining fields in the screen are applicable to the filter which determines whether a SEER is sent to the Message Trigger Mailbox or to the printer, or both.
-------------	--

SEER Severity Threshold

Description	This field is used to specify the minimum severity level a SEER must have to be sent to the Message Trigger Mailbox and/or the SEER printer. If None is selected, only SEERs that have the Message Trigger Field set to Yes in the SEER Remap Table are sent.
Options	None, Critical, Major, or Minor
Default	Critical

SEER Severity Threshold

Description	This field is used to specify the SEER type a SEER must have to be sent to the Message Trigger Mailbox and/or the SEER printer.
Options	Error and Admin
Default	Admin

Setting SEER filtering To set SEERs filtering, follow these steps.

Starting Point: The Main Menu

Step Action

- 1 Select System Status and Maintenance.
Result: The System Status and Maintenance screen is displayed.
 - 2 Select System Event and Error Reports from the menu.
Result: The System Event and Error Reports screen is displayed.
 - 3 Select SEER Configuration.
Result: The SEER Configuration screen is displayed.
 - 4 In the SEER Severity Threshold field, select the severity.
 - 5 In the SEER Type Threshold field, select the type of SEER that you want filtered.
 - 6 Press the [Save] softkey to save your choices.
Result: The changes are saved and you are returned to the System Event and Error Reports menu.
Press the [Cancel] softkey to cancel changes to the SEER configuration.
Result: The changes are cancelled and you are returned to the System Event and Error Reports menu.
-

Using SEER triggering

Introduction

SEER triggering is used so that the system administrator can be paged when a SEER generated by Meridian Mail meets filtering and throttling criteria used for the Message Trigger Mailbox.

The administrator can specify up to two mailbox numbers that will receive a message if a SEER meets the requirements to be sent to the SEER printer when filtered output is selected. SEER filtering can be bypassed by specifying Yes for the Message Trigger field for the SEER in the SEER Remap Table. The message is tagged as urgent and includes the SEER number, severity, and type.

Remote Notification can be configured for the mailbox to allow a support person to be notified immediately of the occurrence of the SEER by page or phone.

SEER Configuration screen

This is an example of the SEER Configuration screen.

```

System Event and Error Reports
SEER Configuration
Message Trigger Mailboxes:
  Mailbox: 7555
  Mailbox: 7556
SEER Printer Output:          None Filtered Unfiltered
SEER Throttle Threshold Count: 5      Throttle Interval (hh:mm): 00:05
SEER Escalation Threshold Count: 0    Escalation Interval (hh:mm): 00:05
SEER Filters:
  SEER Severity Threshold:  None Critical Major Minor
  SEER Type Threshold:      Error Admin
Select a softkey>
Save      Cancel

```

Field descriptions

The following table describes the fields used for SEER triggering in the SEER Configuration screen.

Message Trigger Mailboxes

Description	This read-only field indicates that the next pair of fields in the screen are applicable to the configuration of the Message Trigger Mailboxes. When a SEER occurs that meets the Trigger requirements (as set in the SEER Filters fields), a message containing the SEER number and severity is sent to the mailbox specified belonging to the corresponding customer group specified. (For SEERs related to the Meridian Mail Hacker Monitor, the CLID and mailbox/dialed number are included.) These mailboxes can be configured with Remote Notification to page or phone a person when the message arrives in the mailbox.
-------------	--

Customer Number

Description	The customer number that contains the mailbox that you want to set as the Message Trigger mailbox.
Default	1

Mailbox

Description	This is the mailbox number to which the SEER trigger message is sent when the SEER triggering criteria are met. Validation is performed on the mailbox number to ensure its existence. This mailbox can be either a local voice user mailbox or an NMS mailbox (local site mailbox).
Default	The field is blank.

Procedure

To set SEERs triggering, follow these steps.

Starting Point: The Main Menu

Step Action

-
- | | |
|---|---|
| 1 | Select System Status and Maintenance.
Result: The System Status and Maintenance screen is displayed. |
| 2 | Select System Event and Error Reports from the menu.
Result: The System Event and Error Reports screen is displayed. |
| 3 | Select SEER Configuration.
Result: The SEER Configuration screen is displayed. |
| 4 | In the Message Trigger Mailboxes field, enter the mailbox or mailboxes where the message is to be sent. |
| 5 | Check that the correct SEERs Filters have been set. (See "Setting SEER filtering" on page 29-34.) |
| 6 | Press the [Save] softkey to save your choices.
Result: The changes are saved and you are returned to the System Event and Error Reports Menu.

Press the [Cancel] softkey to cancel changes to the SEER configuration.
Result: The changes are cancelled and you are returned to the System Event and Error Reports menu. |
-

SEERs printing

Introduction

This section describes setting up SEERs printing in the SEERs configuration screen.

SEER Configuration screen

This is an example of the SEER Configuration screen.

```

System Event and Error Reports
SEER Configuration
Message Trigger Mailboxes:
  Mailbox: 7555
  Mailbox: 7556
SEER Printer Output:           None Filtered Unfiltered
SEER Throttle Threshold Count: 5   Throttle Interval (hh:mm): 00:05
SEER Escalation Threshold Count: 0  Escalation Interval (hh:mm): 00:05
SEER Filters:
  SEER Severity Threshold:       None Critical Major Minor
  SEER Type Threshold:           Error Admin
Select a softkey>
Save Cancel
  
```

Field descriptions

The following table describes the field used for setting up SEER printing in the SEER Configuration screen.

SEER Printer Output

Description	This field is used to indicate whether SEER printing should be turned on or off and whether unfiltered SEERs are printed or not.
Options	Filtered, Unfiltered, None
Default	Unfiltered

Setting SEERs printing

To set up SEERs printing, follow these steps.

Starting Point: The Main Menu

Step Action

- 1 Select System Status and Maintenance.
Result: The System Status and Maintenance screen is displayed.
 - 2 Select System Event and Error Reports from the menu.
Result: The System Event and Error Reports screen is displayed.
 - 3 Select SEER Configuration.
Result: The SEER Configuration screen is displayed.
 - 4 In the SEER Printer Output field, select None, Filtered, or Unfiltered.
 - 5 Press the [Save] softkey to save your choice.
Result: The changes are saved and you are returned to the System Event and Error Report screen.
Press the [Cancel] softkey to cancel changes to the SEER configuration.
Result: The changes are cancelled and you are returned to the System Event and Error Reports menu.
-

Setting the SEER printer port name

Introduction

Use the SEER printer port name field in the General Options screen to allow SEER printing on a printer other than the SEER console printer.

General Options screen

This is an example of the General Options screen.

```

General Administration          MORE ABOVE
General Options

                                Integrated Mailbox Administration
                                Voice Messaging (MMUI)
                                Voice Messaging (VMUIF)
                                Voice Menus & Announcements
                                Voice Forms
                                Meridian Mail Networking

Date Format for Administration
and Maintenance Reports:      mm/dd/yy yy/mm/dd dd/mm/yy

Valid printer port/device names can be viewed by selecting View/Modify for
each printer from Data Port Configuration in the Hardware Administration menu.

SEER Printer Port Name:      PRT0232      (Blank implies the console port)
Reports Printer Port Name:   _____  (Blank implies the console port)

Select a softkey >
Save      Cancel      _____  _____  _____

```

Field description

This table describes the SEER Printer Port Name field.

SEER Printer Port Name

Description	This is the printer port to which the SEER printer is connected. It requires additional data ports on an RSM card. The data ports must be defined as printer ports in the hardware database.
Default	The default is blank. If this field is left blank, the SEERs will print to the console printer port.
Maximum length	The printer port name may consist of a maximum of 12 alphanumeric characters.

Procedure

To set or change the SEER printer port name values, follow these steps.

Note: Remember that not specifying a printer port name implies sending the SEERS printing to the console.

Starting Point: The Main Menu

Step Action

- 1 Select General Administration from the Main Menu.
Result: The General Administration screen is displayed.
 - 2 Select General Options from the General Administration menu.
Result: The General Options screen is displayed.
 - 3 Use the cursor keys to move to the SEER printer name field.
 - 4 Enter a port name in the SEER Printer Port Name field.
Note: If this field is left blank, SEERs printing is done on the console.
 - 5 Use the softkeys to save or cancel the changes.
 - Press [Save].
Result: The changes are saved, and you are returned to the General Administration screen.
 - Press [Cancel].
Result: The changes are not saved, and you are returned to the General Administration screen.
-

Chapter 30

Operational Measurements

In this chapter

Overview	30-2
Section A: Overview of Operational Measurements (OM)	30-3
Section B: Setting up Operational Measurements	30-11
Section C: Interpreting Operational Measurements	30-25

Overview

Introduction

This chapter describes Operational Measurement (OM) reports and the procedures required to gather, store, and analyze OM information.

Section A: Overview of Operational Measurements (OM), describes Operational Measurements and how they are useful.

Section B: Setting up Operational Measurements, provides information required to set up Meridian Mail so that the Operational Measurements data is gathered and stored.

Section C: Interpreting Operational Measurements, provides procedures and guidelines for interpreting Operational Measurement reports.

***Section A:* Overview of Operational Measurements (OM)**

In this section

Overview	30-4
What are Operational Measurements?	30-5
How Operational Measurements are useful	30-7

Overview

Introduction

This section describes Operational Measurements and provides information about their use.

What are Operational Measurements?

Introduction

The Operational Measurement (OM) reports allow administrators and Nortel support staff to study how a Meridian Mail system is being used. These reports may be used to determine if a change in the system is required to improve the level of service provided by Meridian Mail. For example, if overall traffic on the system is higher than was originally anticipated, a channel expansion may be necessary.

OM reports also show which features are being used a lot, and which features are not being used at all. OM reports can also reveal potential technical problems with the system, such as low disk space (the amount of disk space affects Meridian Mail's ability to store messages and perform its functions).

Traffic reports

Traffic reports shows how much the system is being used. The reports identify the number of calls processed, and the number of times users log in to Meridian Mail or access particular features such as Voice Messaging, Voice Menu applications, and Outcalling. For detailed descriptions, examples, and analyses of available traffic reports, see Chapter 31, "Operational Measurements traffic reports".

User Usage reports

User Usage reports monitor how specific users employ voice messaging, Meridian Networking (if installed), and AMIS Networking (if installed). Information is broken down to show user activity on a daily basis. For detailed descriptions, examples, and analyses of User Usage reports, see Chapter 32, "User Usage reports".

Outcalling Audit Trail reports

Outcalling Audit Trail reports provide you with statistics that allow you to monitor the use of Remote Notification (RN) and Delivery to Non-User (DNU) features. Two different reports can be generated: a summary report and a detail report. Each report provides statistics for a certain period of time (as specified by you) by user's name and mailbox. The information in the summary report helps in problem determination. The detail report provides call detail records that allow you to

troubleshoot outcalling problems. For a detailed description of these reports, see Chapter 33, “Audit Trail reports”.

Fax Audit Trail reports Fax Audit Trail reports provide you with statistics that allow you to monitor how users are using the Fax on Demand features. Two different reports can be generated: a summary report and a detail report. Each report provides statistics for a certain time period (as specified by you). The information in the summary report helps in problem determination. The detail report provides call detail records that allow you to trouble shoot fax problems. For a detailed description of these reports, see Chapter 33, “Audit Trail reports”.

How Operational Measurements are useful

Overview

The information that follows describes ways of using Operational Measurements (OM) report statistics.

Using OM to monitor system usage

You can use OM reports to monitor how the system is being used. For example, you can use these reports to determine which features are being used and which are not, and if the use of the system matches what the expectations were when the system size was being determined. If the system is busier than was anticipated, then you may need to expand the system.

Using OM to detect potential system problems

Similarly, OM reports can also be used to identify potential system problems, and possibly the cause of the problems. Although you should always use input from the users of the system to help determine if there is a problem, OM reports provide more definite data to work with.

Example

If callers or users complain that they cannot access the Meridian Mail system, channels may be tied up or disk space may be low. OM reports can help you determine if the problem is with system capacity or inefficient usage.

Potential problems that can be detected using OM

Some of the potential problems that can be detected through OM reports are discussed in the following examples.

Example 1: Disk space low

If the voice space used on a disk volume is consistently over your disk usage warning level, then disk space is getting low. Steps should be taken to reduce the voice space used. Check the Voice Space Used column of the Disk Usage Detail report, and see “Analyzing the Disk Usage Detail report” on page 31-54 in Chapter 31.

**Potential problems
(cont'd)****Example 2: Channels busy**

The Channel Usage Detail report shows the number of calls and voice mail usage (in CCS) per channel. If the number of calls is high or the average message length is exceptionally long, the channels may be too busy to handle all incoming calls. As a result, users may not be able to access Meridian Mail. Several of the “Analyzing” sections that follow the sample reports refer to analyzing or dealing with high traffic problems.

Example 3: Inefficient usage

The Services Summary Traffic report provides an overview of how much your Meridian Mail features are being used. If you notice that some features are not being used at all, this may indicate that the users are not aware of the feature (or do not know how to use it), or that the feature is not required. The users may require more training. Use broadcast messages to give brief pointers or to inform users of available training courses or material.

Example 4: Unauthorized usage

If the Thru-Dial feature is being accessed more frequently during off-hours or if the average length of the Thru-Dial sessions is long, this may indicate that unauthorized users (hackers) are accessing your Meridian Mail system in order to use the Thru-Dial feature (for example, to make long distance calls). If you notice unusual use of the Thru-Dial feature, review the dialing restrictions for Thru-Dial (refer to the *Voice Services Application Guide* [NTP 555-7001-325] for details). Also, if you are using an access password for Thru-Dial, change the access password and continue to monitor the Thru-Dial usage. For more information, see “Services Summary report” in Chapter 31, “Operational Measurements traffic reports”, for the number of Thru-Dial sessions and the average session lengths during specific time periods.

Using OM as a billing tool

As an accounting and billing tool, Operational Measurements are used to generate the daily user billing files (for local activity). Use the User Usage reports to compile data for billing. If you have the AdminPlus feature installed, use Meridian Mail Reporter (MMR) to compile data for billing.

If your organization does not bill users of Meridian Mail, you may not need to use the User Usage component of Operational Measurements. However, it can also be used for tracking problems or history or for security reasons (for example, who is logging on and receiving messages).

Using OM as a capacity planning tool

As a capacity planning tool, Operational Measurements are used to generate traffic reports that you subsequently analyze to determine whether your system requires an upgrade either in disk storage, channel capacity, or perhaps in the number of nodes (should the number of users on your system approach one of the limits discussed in the *Messaging Overview* [NTP 555-7001-100]). If your organization's use of Meridian Mail is fairly stable, you need only use the traffic measurement component of Operational Measurements on an infrequent basis to verify that the system's resources are adequate for your needs.

***Section B:* Setting up Operational Measurements**

In this section

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Calculating disk space required for OM data storage	30-15
Operational Measurements Options screen	30-19
Fields in the Operational Measurement Options screen	30-21
Setting Meridian Mail to collect and receive data	30-24

Overview

Introduction

This section describes the procedures for setting up Meridian Mail Operational Measurements. These procedures include the following:

- using the Operational Measurements menu
- calculating disk space required for OM data storage
- setting Meridian Mail to collect and receive data

Using the Operational Measurements menu

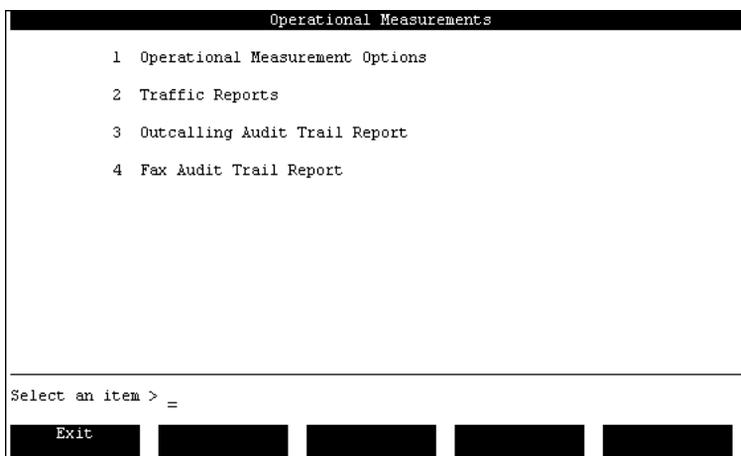
Introduction

The Operational Measurements menu is used to access the screens necessary for

- viewing or changing the parameters related to the collection and storage of OM data
- viewing and printing the OM reports available on your system

Operational Measurements menu

The following is an example of the Operational Measurements menu.



Note: The Outcalling and Fax Audit Trail report options appear only if these features are installed on your system.

Procedure

To use the Operational Measurements menu, follow these steps.

Starting Point: The Main Menu

Step Action

-
- | | |
|---|--|
| 1 | Select Operational Measurements.
Result: The Operational Measurements menu is displayed. |
| 2 | To choose an item from the menu, enter the number and press <Return>.
Result: The appropriate screen is displayed.
Note: To return to the Main Menu at any time, press the [Exit] softkey twice. |
-

Calculating disk space required for OM data storage

Introduction

Use this section to calculate the disk space required for Operational Measurement data storage.

Understanding system disk capacity requirements

Planning for system disk capacity for OM data is very important. Because OM data must be stored in a fixed amount of disk space, it is periodically overwritten by new data. You must ensure that you view or print any vital information before it is overwritten (the Operational Measurement Options screen defines how long data is stored). You must also ensure that OM data does not exceed the available storage capacity.

ATTENTION

If total storage exceeds 100%, you will run out of disk space. You should attempt to keep your disk usage for OM data below 60% to allow sufficient space for the rest of the system.

Should your calculations yield a result greater than 100%, reduce the number of days for which traffic or user usage data, or both, are stored, and repeat your calculations. The values presented in the “Storage requirement estimates” on page 30-17 are based on typical parameters for various Meridian Mail configurations. Should your system deviate markedly in any of these assumed traffic patterns, you will need to experiment to determine what your system can accommodate.

Procedure

To calculate the total disk storage required for OM data, follow these steps. As you follow these steps, refer to the “Storage requirement estimates” on page 30-17.

Step Action

-
- 1 Determine the number of days that you wish to store the OM traffic data and user usage data before it is overwritten.
Make a note of the number of days you decide on so that you can enter these values in the Operation Measurement Options screen (see “Operational Measurements Options screen” on page 30-19).
 - 2 Use the table “Storage requirement estimates” on page 30-17 to determine the billing data cost and the user usage data cost. The “data cost” refers to the percentage of disk volume VS1 text space required.
For example, a single-node, 24-port, 26-hour system would have a billing data cost of 2.89% and a user usage data cost of 0.36%.
 - 3 Multiply the billing data cost by three (two days plus the current day’s data are stored).
For example, $3 \times 2.89\%$
 - 4 Multiply the number of traffic days by 1 percent to the result of step 3.
For example, $8 \times 1\%$
 - 5 Multiply the number of user usage days by the user usage data cost.
For example, $31 \times 0.36\%$
 - 6 Add the results from step 3, step 4, and step 5.
-

Example

For a single-node, 24-port, 26-hour system, and 31 user usage days, and 8 days of traffic stored:

number of days traffic data is stored = 8

number of days user usage data is stored = 31

billing data cost = 2.89%

user usage data cost = 0.36%

Total storage = $(3 \times 2.89\%) + (8 \times 1\%) + (31 \times 0.36\%) = 27.83\%$

Calculating disk space required for OM data storage

Storage requirement estimates

Use this table to estimate the amount of storage required for each operational measurement. Billing data cost and user usage data cost refer to the percentage of VS1 text space used.

System type	Number of ports	Billing data cost	User usage data cost
Card Option			
5, 10 hr	12	1.77%	0.22%
24 hr	12	1.56%	0.20%
54 hr	12	0.74%	0.09%
100 hr	12	0.44%	0.06%
Single node			
5, 11 hr	24	3.25%	0.41%
24, 26, 54 hr	24	2.89%	0.36%
100 hr	24	2.38%	0.30%
200 hr	24	2.09%	0.26%
2 node			
26 hr	48	6.06%	0.76%
54, 84, 114 hr	48	5.48%	0.69%
200 hr	48	5.31%	0.67%
400 hr	48	4.68%	0.59%
3 node			
30, 60, 90, 120, 200 hr	48	4.40%	0.55%
400 hr	48	4.00%	0.50%
4 node			
45, 90, 120, 180, 300 hr	72	5.85%	0.74%
600 hr	72	5.20%	0.65%
5 node			
60, 120, 180, 240, 400 hr	96	6.22%	0.78%
800 hr	96	5.50%	0.69%

Traffic assumptions

The preceding table is based on a typical system with an eight-hour business day, and the following traffic:

- 25% of the time at busy hour traffic (2 hours)
- 5% of the time at greater than busy hour traffic (25 minutes)
- 70% of the time at less than 75% of busy hour traffic (5 hours and 35 minutes)
- average call holding time of 40 seconds

Operational Measurements Options screen

Introduction

The Operational Measurement Options screen is used by the system administrator to define how system and user statistics are collected. This includes the time at which traffic data collection begins and ends every day, how often collected traffic statistics are written to disk, and whether or not traffic data, user usage data, or audit trail data is collected. Also included are the number of days of data that are stored for traffic, user usage data, and audit trail reports, and the percentage at which audit trail data collection will automatically be disabled.

Note: If the AdminPlus/Meridian Mail Reporter option is installed, it is important that a minimum set of OMs are collected. Refer to the *Meridian Mail Reporter 2.0 User's Guide* (P0847870).

Operational Measurement Options screen

The following is an example of the Operational Measurement Options screen.

Part 1

```

Operational Measurements
Operational Measurement Options
Collect Traffic Data:           Disabled Enabled
Traffic Period Start (hh:mm):   01:00
Traffic Period End (hh:mm):     01:00
Traffic Commit Interval (hh:mm): 01:00
Number of days of Traffic Data stored: 8
Collect User Usage/Session Trace Data: Disabled Enabled
Number of days of User Usage Data stored: 31
Collect Audit Trail Data:       Disabled Enabled

```

MORE BELOW

Save Cancel [] [] []

Part 2

```

Operational Measurements
Operational Measurement Options
Traffic Period End (hh:mm):     01:00
Traffic Commit Interval (hh:mm): 01:00
Number of days of Traffic Data stored: 8
Collect User Usage/Session Trace Data: Disabled Enabled
Number of days of User Usage Data stored: 31
Collect Audit Trail Data:       Disabled Enabled
Number of days of Audit Data stored: 7
Shutdown Audit Trail at Volume Full (%): 85 %

```

Save Cancel [] [] []

Fields in the Operational Measurement Options screen

Overview	The following section describes the fields on the Operational Measurement Options screen.
Collect Traffic Data	When this field is Enabled, a statistical record of voice messaging and other voice services, voice channel traffic, Meridian Networking and AMIS Networking message traffic, and disk space usage will be collected and stored on disk. The default is Enabled.
Traffic Period Start (hh:mm)	This is for the time at which data begins to be collected, based on the 24-hour clock. The valid range is from 00:00 to 23:30. You may enter values only in half-hour increments, for example, 01:00, 01:30; 02:00, 02:30, and so on. The default is 01:00.
Traffic Period End (hh:mm)	This is for the time at which data stops being collected, based on the 24-hour clock. To continuously collect traffic data, set the Period Start field equal to the Period End field (that is, Period Start = 01:00 and Period End = 01:00). In this manner, data will be collected 24 hours a day. The valid range is 00:00 to 23:30. You may enter values only in half-hour increments, for example, 01:00, 01:30; 02:00, and 02:30. The default is 01:00.
Traffic Commit Interval (hh:mm)	<p>The value in this field determines how often the collected traffic statistics are written to the hard disk within the defined traffic period. The default is 01:00. The valid range is from 00:00 to 23:30.</p> <p>Commit intervals should be entered in half-hour increments and be equally divisible into the period range. The smallest allowed interval is 30 minutes. However, a one-hour interval will provide similar granularity of data and will require only half as many writes to disk (resulting in less disk usage) as the 30-minute interval.</p>

Example

If the Collect Traffic Data field is set to Enabled and

Traffic Period Start = 08:00,
Traffic Period Stop = 17:00,
Traffic Commit Interval = 1:30,

traffic data is collected between 8:00 a.m. and 5:00 p.m. daily, and traffic reports are written to the hard disk every 1 hour and 30 minutes during this period. The first report is written out at 9:30 a.m. and the last one is written out at 5:00 p.m.

Note: The traffic commit interval can be set to 24 hours. However, an interval greater than two hours is not recommended because the accumulated numbers may be too large to be accommodated by the fields in the report screens. If a number is too large, >999 is displayed in the field to indicate overflow. Furthermore, any data that is not written to disk is lost if a system reboot occurs.

Number of days of Traffic Data stored

This field determines the number of days that traffic data is maintained before being overwritten by new traffic data.

Example

If this field is set to 8, on the 9th day you will not be able to view traffic data collected on the first day as it will have been overwritten, but you will be able to view the data from the remaining eight days. The old traffic data is removed from the disk at 1:20 a.m. each day. The data for the current day is not included in the number of days of traffic data stored. The valid range is 1 to 8 days. The default is 8 days.

Collect User Usage/ Session Trace Data

This field controls the collection of both user usage data and session trace data. Session trace data includes detailed voice messaging session statistics. The session statistics are kept for two days, regardless of how long you define user usage data to be stored. (For example, on Monday you can view Saturday's data, but not Friday's data.) Session reports can be accessed using the Session Trace tool (refer to *System Administration Tools* [NTP 555-7001-305]). The default is Enabled.

Number of days of User Usage Data stored	This field controls the number of days of user usage summary statistics data that is kept on the hard disk before it is overwritten. The range is from 1 to 63. The default is 31.
Collect Audit Trail Data	This field appears only if Outcalling or Fax On Demand is installed. When this field is set to Enabled, Outcalling or Fax Audit Trail reports are generated by the system. These reports can be used to obtain information about a specific outcalling or fax callback session. The reports give you either summary or detailed information about the number of calls, the start time and duration of calls, the numbers called, and details of the call status. The default is Enabled. See Chapter 33, “Audit Trail reports,” in this guide for more information.
Number of Days of Audit Data stored	This field appears only if either Outcalling or Fax On Demand is installed. This field is used if the Collect Audit Trail Data field is set to Enabled. This field indicates the number of days the audit trail data will be stored on disk before being overwritten. The number of days can range from 1 to 63, with a default of 7.
Shutdown Audit Trail at Volume Full (%)	This field appears only if either Outcalling or Fax On Demand is installed. This field is used if the Collect Audit Trail Data field is set to Enabled. When the volume on which audit trail data is stored meets this percentage, collection of audit trail data is disabled. (Note that this is a percentage of text space, not voice space.) The range for this field is from 1% to 100%. The default is 85%.
OM Collection ACCESS Class	This field indicates the class number of the ACCESS application for which Operational Measurements should be collected. The valid range for this number is 0 to 8999. It is primarily intended to be used to collect messenger desktop access of Meridian Mail ports. <i>Note:</i> This field is available only if ACCESS is installed.

Setting Meridian Mail to collect and receive data

Introduction

Use the Operational Measurement Options screen to define the parameters for collecting the OM information from your Meridian Mail system.

Procedure

To set the Operational Measurement parameters, follow these steps.

Starting Point: The Operational Measurements menu

Step Action

- 1 Select Operational Measurements.
Result: The Operational Measurement Options screen appears.
 - 2 Set the parameters as required. For information on setting these parameters, see “Fields in the Operational Measurement Options screen” on page 30-21.
 - 3 Choose step 4 to save the changes or step 5 to cancel.
 - 4 Press [Save].
Result: The changes are saved and the Operational Measurements menu is redisplayed.
Note: Any saved changes force all traffic data to be committed at the time of the save, regardless of the interval and period specified. This action will also create an irregular time period (the time up to the save) that will appear on the traffic reports. Also, a SEER is issued to indicate that the changes have taken effect.
 - 5 Press [Cancel].
Result: Any changes you have made are discarded; the Operational Measurements menu is redisplayed.
-

***Section C:* Interpreting Operational Measurements**

In this section

Overview	30-26
Calculating centi-call seconds	30-27
Interpretation guidelines	30-28

Overview

Introduction

This section describes the calculation of centi-call seconds and provides guidelines that are useful when interpreting OM reports.

Calculating centi-call seconds

Introduction

Many of the OM reports provide usage time in centi-call seconds. Centi-call seconds (CCS), or hundreds of call seconds, can be calculated using the formula in this section.

Definition

CCS is a traffic measurement statistic. One CCS is equal to 100 seconds of call connection time per hour. The CCS is based on the total number of call seconds, not the average length, multiplied by the number of accesses.

Formula

To calculate the CCS value, use the following formula.

$$CCS = \frac{60 \text{ minutes}}{\text{interval (in minutes)}} \times \frac{\text{total call seconds}}{100 \text{ seconds}}$$

The first part of the formula compensates for intervals that are not one hour.

Examples

320 total call seconds during a half-hour interval produces the following CCS:

$$CCS = \frac{60 \text{ minutes}}{30 \text{ minutes}} \times \frac{320 \text{ seconds}}{100 \text{ seconds}} = 2 \times 3.2 = 6.4 \approx 6$$

If the interval is one hour, the first part of the formula can be ignored. For example, 320 total call seconds over a one-hour interval produces the following CCS:

$$CCS = \frac{60 \text{ minutes}}{60 \text{ minutes}} \times \frac{320 \text{ seconds}}{100 \text{ seconds}} = 1 \times 3.2 = 3.2 \approx 3$$

Interpretation guidelines

Introduction

When interpreting the OM reports, consider the following guidelines.

Service counts

Look not only at the counts for each service but also at the relationship between the counts for different services.

Example

Both Express Messaging and Call Answering features allow messages to be left in the system. Therefore, both counts should be taken into consideration when looking at the total number of incoming messages during a particular time period.

System size

Know the size of the system, both channels and disk capacity. Smaller systems will be much more sensitive to high traffic counts and durations than larger systems.

How your organization uses the system

Know how your organization uses the system.

Many of the counts and durations will have a direct relationship to how the organization uses the system as part of its overall operation (for example, voice messaging only, auto attendant, menus, and so on). If you do not know how the organization functions, find someone within the organization who does, and interpret the information together. That person will provide the necessary knowledge about how the organization works, and you can provide the information about the system.

If there is unusual system activity

Make sure you have taken any unusual operational activity into consideration.

For example, is it a national holiday? an election day? or was there a major news event recently? Such unusual activities may cause an abnormal usage of your system that will distort the figures.

- Report relationships** Many reports relate to one another.
- For instance, the Services Summary report provides a summary of the voice menus, fax, announcement traffic, and other services, but the Services Detail report provides much more detail about particular services. Know what reports a system can produce, and know which ones relate to others. Read through each report and move back and forth through the information, making sure you have optimized the interpretation and analysis process.
- User consultation** Consult the users of the system to gain further insight into a report's findings.
- Find out how the system is working for the users and if they have any problems to report. Some apparent system problems may be the result of improper usage of the system (perhaps due to lack of training or awareness of certain system features).
- Impact of new features or services** Consider how long a feature or service has been in operation.
- When something is new, it may generate more traffic than normal as a result of curiosity, or it may generate less traffic due to lack of familiarity with the new feature, so the initial figures may be distorted.
- Working with multiple Meridian Mail systems** If you are working with numerous Meridian Mail systems, remember that each Meridian Mail system is unique.
- Make sure you apply all the previously described guidelines separately to each system.

Chapter 31

Operational Measurements traffic reports

In this chapter

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Section B: Traffic reports	31-9

Overview

Introduction

This chapter is devoted to Operational Measurement (OM) traffic reports. These reports show how much the system is being used. The reports identify the number of calls processed, and the number of times a user logs in to Meridian Mail or accesses particular features such as Voice Messaging, Voice Menu applications, and Outcalling.

Section A: Generating traffic reports, describes how to generate, view, and print OM traffic reports. The section also describes the Traffic Reports screen, which lists the reports that can be generated.

Section B: Traffic reports, provides descriptions and analyses for all of these reports.

***Section A:* Generating traffic reports**

In this section

Overview	31-4
Traffic Reports screen	31-5
Generating traffic reports	31-7

Overview

Introduction

This section describes the Traffic Reports screen and the procedure for generating, viewing, and printing traffic reports. All traffic reports that can be generated are listed on the Traffic Report screen. For descriptions and analyses for all of the traffic reports, see Section B: Traffic reports, on page 31-9.

Traffic Reports screen

Introduction

This section describes the Traffic Reports screen. Access the Traffic Reports screen by selecting Traffic Reports on the Operational Measurements screen.

The screen

The following is an example of the Traffic Reports screen.

```

Operational Measurements
Traffic Reports

Services Summary:           No Yes
Voice Messaging Detail:    No Yes
Channel Usage Detail:      No Yes
Services Detail:           No Yes
Networking Detail:         No Yes
AMIS Networking Detail:    No Yes
Outcalling Detail:         No Yes
Fax Delivery Detail:       No Yes
Disk Usage Detail:         No Yes
Hospitality Statistics:    No Yes
Guest Console Statistics:  No Yes

Report Start (mm/dd/yy hh:mm): 05/01/96 18:00 (or blank for oldest)
Report End   (mm/dd/yy hh:mm): 05/02/96 18:00 (or blank for newest)

Select a softkey >
Exit      View Reports  Print Reports
  
```

Available traffic reports

Each line in the Traffic Reports screen represents a specific type of report. The following is a list of the available traffic reports. Some of the reports are available only if additional features are installed on your Meridian Mail system. For descriptions and analyses of these reports, see Section B: Traffic reports:

- Services Summary
- Voice Messaging Detail
- Channel Usage Detail
- Services Detail (if the Fax on Demand, Voice Forms, or Voice Menus feature is installed)
- Networking Detail (if Meridian Networking is installed)
- AMIS Networking Detail (if AMIS Networking is installed)
- Outcalling Detail (if Outcalling is installed)

- Fax Delivery Detail (if Fax on Demand is installed)
- Disk Usage Detail
- Hospitality Statistics (if the Hospitality feature is installed)
- Guest Console Statistics (if the Hospitality feature is installed)

Generating traffic reports

Introduction

This section describes the procedure for generating traffic reports. The Traffic Reports screen allows you to choose which reports you want to view and print. Also, you have the option of choosing a Report Start and Report End date and time.

Procedure

To generate traffic reports, follow these steps.

Starting Point: The Operational Measurements screen

Step Action

- 1 Select Traffic Reports from the Operational Measurements screen.
Result: The Traffic Reports screen displays.
- 2 Move the cursor to the report titles you wish to view or print. Use the arrow keys to toggle the field value to Yes.
- 3 (This step is optional.) Specify start and stop times for the report period by entering the values in the Report Start (mm/dd/yy hh:mm) and Report End (mm/dd/yy hh:mm) fields. (The format mm/dd/yy hh:mm is the default. The format can be changed in General Administration, General Options. For more information, see Chapter 13, "General options".
Note: The values you enter are based on the 24-hour clock. The valid range is from 00:00 to 23:59 (12:00 midnight to 11:59 p.m.). If the Report Start and Report End fields are left blank, the defaults of start of available data and end of available data are used respectively.
- 4 Go to step 5 to view the reports on the terminal, step 6 to print the reports, or step 7 to cancel.

Step Action

- 5 Press [View Reports].

Result: The selected report screens are displayed one at a time. Follow the instructions in the table below to view the next report, exit the screen, or view the next page in the same report.

IF you want to	THEN press softkey
leave the current report and go to the next report	[Next Report].
exit all reports and return to the Traffic Reports screen	[Exit].
view subsequent pages of the current report (if available)	[Next Page].

For descriptive and analytical information on individual reports, see Section B: Traffic reports, on page 31-9.

- 6 Press [Print Reports].

Result: You are prompted to ensure the printer is ready and online.

During printing, you have two options available.

IF you want to	THEN press softkey
print the reports	[Continue Printing].
cancel printing at any time	[Cancel Printing].

Note: There may be some delay before control is returned to the screen because it waits for the printer to stop printing.

- 7 Press [Exit].

Result: The Operational Measurements menu is displayed again.

***Section B:* Traffic reports**

In this section

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Overview

Introduction

This section provides descriptions and analyses of each traffic report. Included are an example report screen and field descriptions.

Services Summary report

Overview

The Services Summary report provides statistics for each of the services installed in your system. The total number of times a user dialed a service (number of accesses), and the average length of each access are given.

The screen

The following is an example of the Services Summary report screen.

Operational Measurements					
Services Summary					
Interval	Start-End	Service Name	Number of Accesses	Average Length (in seconds)	Voice Mail Usage (in CCS)
5/01	18:00-19:00	Thru-Dial	53	7	4
		Voice Menus	301	12	36
		Voice Messaging	1022	65	664
		Call Answering	1437	29	416
		AMIS	0	0	0
		Express Messaging	86	49	42
		Voice Announcements	31	111	34
		Meridian Networking	0	0	0
		Voice Administration	0	0	0
		Voice Prompt Admin	0	0	0
		Time of Day Control	0	0	0
		Post Check Out	0	0	0
		Delivery to Non-User	0	0	0

Select a softkey > _

Exit	Next Report		Next Page	
------	----------------	--	--------------	--

Fields in the Services Summary report

Interval Start-End Data are divided into intervals. The length of the interval depends on the entry made in the Traffic Commit Interval field in the Operational Measurement Options screen. The number of intervals displayed depends on the entries made in the Traffic Period Start and Traffic Period End fields in the Operational Measurement Options screen.

Example

If data is collected 24 hours a day (from 01:00 to 01:00), and the commit interval is one hour, the report will divide the data into 24 intervals for each day included in the report. The amount of data displayed in this report depends on the Report Start and Report End entries that were made in the Traffic Reports screen. If no report start and end dates and times were given, all data currently stored on disk are displayed.

Service Name This field displays the name of the service that was accessed.

Number of Accesses This field displays the number of calls (peg count) made to the corresponding service. The number of Thru-Dial accesses includes accesses to Voice Service Thru-Dial (automated attendants), Call Service Thru-Dial, and Logon Thru-Dial.

Note: If a call continues past the interval, the access is counted only in the second interval (when the call is completed), although the call length is properly divided between the two intervals.

Example 1

If a call starts ten minutes before the end of an interval, that ten minutes of call length is counted in that interval. If the same call continues for five minutes into the next interval, the five minutes is counted in the second interval. The number of accesses is increased by zero in the first interval and by one in the second interval. The call is pegged in this way to match the way calls are tracked by the switch.

Example 2

If a call that spans two intervals is the only call to that service in those intervals, the number of accesses in the first interval would be zero while the number of accesses in the second interval would be one.

**Average Length
(in seconds)**

This field displays the average length of the corresponding voice service sessions during the specified interval.

**Voice Mail Usage
(in CCS)**

This field displays the amount of time that a Meridian Mail service was active in the defined interval. The value is given in CCS (hundred call-seconds), a traffic measurement statistic. One CCS is equal to 100 seconds of call connection time per hour. The CCS is based on the total number of call seconds, not the average length multiplied by the number of accesses.

Analyzing the Services Summary report

Introduction

Use the summary report, including the CCS values, to get an overall sense of which services are generating the most traffic and which are generating little or no traffic. Consider the example and the information that follows when doing your analysis.

Example

The second line in the sample report on page 31-12 shows that 301 calls, with an average length of 12 seconds, were placed to the Voice Menu service for a total of 3612 seconds (301 x 12). This equates to 36 CCS in the one-hour interval. The CCS count is computed for the one-hour interval as follows:

$$CCS = \frac{3612 \text{ seconds}}{100 \text{ seconds}} = 36.12 \approx 36$$

A feature is not being used

This may mean that the feature is not working properly, or that the users are not aware of the feature and therefore do not use it.

Suggested action

After the administrator notices a low (or no) usage of a particular feature, it is up to the administrator to do additional research to determine if there is a technical problem with the feature, or if it simply is not being used, or if it is normal for the usage to be low for the observed time period.

If a particular feature is generating an unusually high amount of traffic

If a feature is generating an unusually high amount of traffic, you may encounter system performance problems such as no free channels.

Suggested actions

Run the report that goes with that service, if there is one, for more information. As the administrator, you may need to do more research beyond checking the OM reports to learn more about the nature of the problem to come up with a solution. For example, you need to determine if the high traffic level was due

to some unusual event that affected your organization (if so, the high traffic would not be expected to continue).

If the high traffic for a particular feature is expected to continue, one solution may be to dedicate a channel to the feature so that the feature does not tie up the whole system. For more details on dedicating channels, see Chapter 23, “Configuring Meridian Mail services”. Another solution is to expand the system if overall traffic for the whole system is higher than what was originally anticipated for the system.

Check the average length for Voice Menu and Announcement accesses

Another area to check is the average length for Voice Menu and Announcement accesses (see “Services Summary report” on page 31-12).

Suggested action

If the average length is long, review your menus and announcements to see if they can be shortened or rearranged for more efficient use.

In menus, place the popular items first so that users do not need to stay on the line as long before the item they want is presented. If a menu has a long average length and it accesses an announcement, try to shorten the announcement.

High number of Call Answering accesses**Suggested action**

If the number of Call Answering accesses is high, check the logon count versus the number of times Call Answering has been accessed (the Voice Messaging Detail report gives the logon count).

If the logon count is low compared to the number of Call Answering accesses, this means that users are accumulating several messages before logging on to listen to them. Too many accumulated messages lowers the amount of available disk space to the point where overall system performance may be affected.

Users are having trouble logging in at a certain time**Suggested action**

If users are having trouble logging in to Meridian Mail at a certain time, check the level of traffic for that time period.

You may have found your heavy traffic period or busy hour. If there is no way to reduce the traffic during that time period, you may need to expand your system.

The number of Thru-Dial accesses is unusually high

If you have an unusually high number of Thru-Dial accesses, this may be a sign of hackers present on your system.

Suggested actions

If you suspect hackers are accessing the Thru-Dial feature, first check how the Thru-Dial service is set up to see if the OM data are unusual. If your research suggests the possible presence of hackers, review the dialing restrictions for Thru-Dial (refer to the *Voice Services Application Guide* [NTP 555-7001-325] for details). Also, if you are using an access password for Thru-Dial, change the access password and continue to monitor the Thru-Dial usage.

Voice Messaging Detail report

Introduction

The Voice Messaging Detail report provides information about logon sessions, Call Answering sessions, and messages composed during logon sessions. If data is unavailable for a given statistic, N/A (not available) is displayed instead of a value. For example, if the interval is one minute long, the system may interpret that interval as having zero length, so no data is available. A 1-minute interval may be created if you update and save the OM options, which forces all traffic data to be written to disk at that point and results in an irregular interval.

If a value is too large to fit in a field, >999 is displayed.

The screen

The following is an example of the Voice Messaging Detail report screen.

Operational Measurements										
Voice Messaging Detail (VM Logon, Call Answering and Express Messaging)										
Interval Start-End	Number of Calls		Number of Sessions		Session Length		Messages Created		Message Length	
	Int	Ext	EM/Ans	Log	Avg	Max	EM/Ans	Log	Avg	Max
5/01 13:00-14:00	18	0	2	16	238	470	0	2	20	25
5/01 14:00-15:00	12	2	5	9	310	310	1	32	14	14
5/01 15:00-16:00	17	1	1	17	478	614	1	20	20	20

Select a softkey > _

Exit	Next Report			
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Fields in the Voice Messaging Detail report

Interval Start-End

Data are divided into intervals. The length of the interval depends on the entry made in the Traffic Commit Interval field in the Operational Measurement Options screen. The number of intervals displayed depends on the entries made in the Traffic Period Start and Traffic Period End fields in the Operational Measurement Options screen.

Example

If data are collected 24 hours a day (from 01:00 to 01:00), and the commit interval is one hour, the report will divide the data into 24 intervals for each day included in the report. The amount of data displayed in this report depends on the Report Start and Report End entries that were made in the Traffic Reports screen. If no report start and end dates and times were given, all data currently stored on disk are displayed.

Number of Calls (Int and Ext)

This field shows the number of Voice Messaging, Call Answering, or Express Messaging calls made. The data are displayed in the following subfields.

Int

This display indicates the number of calls made from inside the switch during the specified interval.

Ext

This display indicates the number of calls made from outside the switch during the specified interval.

Number of Sessions (EM/Ans and Log)

This is the number of sessions in the interval.

EM/Ans

This display indicates the number of sessions used for Express Messaging and Call Answering services.

Log

This display indicates the number of time users logged into their mailboxes during the interval.

Note: The sum of the values in these two columns should equal the sum of the two Number of Calls values. To determine the number of messages that were actually received or created during these sessions, check the Messages Created fields.

**Session Length
(Avg and Max)**

This field indicates the average length and maximum length (in seconds) of Call Answering, Express Messaging, and logon sessions for the interval.

**Messages Created
(EM/Ans and Log)**

This field indicates the number of messages created during the interval.

EM/Ans

This display indicates the number of messages left during Express Messaging and Call Answering services.

Log

This display indicates the number of messages that were created (using the compose, forward, or reply command) during the interval.

**Message Length
(Avg and Max)**

This field indicates the average length and the maximum length (in seconds) of messages received and created during the interval. Since message length has an impact on disk storage, use this information to determine if enough disk space has been provisioned for voice messages.

Analyzing the Voice Messaging Detail report

Introduction

The first line in the sample report on page 31-18 shows that 18 calls were placed to Meridian Mail. Sixteen were logon sessions (for example, to compose, forward, or listen to messages). Two calls accessed the Express Messaging or Call Answering feature (an attempt to leave a message at another mailbox). If the number of sessions does not equal the number of calls, there is a problem with your system.

EM/Ans Sessions and Messages are similar in number

The number of EM/Ans sessions should match or be close to the number of EM/Ans messages created. When there are more EM/Ans sessions than EM/Ans messages created (as in the sample report), this means that during an Express Messaging session, or after reaching the Call Answering greeting, users are hanging up without leaving a message, or they are pressing 0 to transfer to an attendant. Either of these results in Express Messaging or Call Answering sessions but no messages created.

Suggested actions

If the disparity between the two numbers is high, the users may need some training on the use of Express Messaging and Call Answering. Also, users should review their greetings. If greetings are unfriendly or if instructions are too complex, this may be causing users to hang up without leaving a message.

There is a high number of calls and long messages

On this report, watch for high numbers of calls and long messages. Too many calls in a short period of time and users leaving long messages will tie up channels and prevent others from accessing Meridian Mail.

Suggested action

You may need to expand your system.

Channel Usage Detail report

Introduction

The Channel Usage Detail report provides details about channel activity for incoming and outgoing calls, including average session lengths and CCS statistics.

The screen

The following is an example of the Channel Usage Detail report screen.

Operational Measurements							
Channel Usage Detail							
Interval	Start-End	Channel	Number of Incoming Calls	Number of Outgoing Calls	Incoming Avg Length (in seconds)	Outgoing Avg Length (in seconds)	Voice Mail Usage (in CCS)
5/01	18:00-19:00	1	0	0	0	0	0.0
	09:00-10:00	2	44	0	42	0	18.5
		3	43	0	47	0	20.2
		4	40	0	49	0	19.6
		5	46	0	40	0	18.4
		6	48	1	35	30	17.1
		7	47	1	39	31	18.6
		8	45	1	38	30	17.4
		9	47	2	36	33	17.6
		10	43	0	47	0	20.2
		11	46	0	40	0	18.4
		12	44	0	42	0	18.5
		13	49	0	40	0	19.6

Select a softkey > _

Exit	Next Report		Next Page	
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Fields in the Channel Usage Detail report

Interval Start-End Data are divided into intervals. The length of the interval depends on the entry made in the Traffic Commit Interval field in the Operational Measurement Options screen. The number of intervals displayed depends on the entries made in the Traffic Period Start and Traffic Period End fields in the Operational Measurement Options screen.

Example

If data are collected 24 hours a day (from 01:00 to 01:00), and the commit interval is one hour, the report will divide the data into 24 intervals for each day included in the report. The amount of data displayed in this report depends on the Report Start and Report End entries that were made in the Traffic Reports screen. If no report start and end dates and times were given, all data currently stored on disk are displayed.

Channel	This field indicates the channel being monitored.
Number of Incoming Calls	This field indicates the number of incoming calls during the interval.
Number of Outgoing Calls	This field indicates the number of outgoing calls during the interval.
Incoming Avg Length (in seconds)	This field indicates the average length of incoming calls during the interval.
Outgoing Avg Length (in seconds)	This field indicates the average length of outgoing calls during the interval.
Voice Mail Usage (in CCS)	This field represents the amount of time in terms of CCS that a Meridian Mail channel was active in the defined interval. CCS is a traffic measurement statistic. The value is displayed in the nearest one tenth of a CCS (for example, 11.0).

Note: There is a similar Voice Mail Usage field in the Services Summary Traffic report (see “Services Summary report” on

page 31-12). However, because the two fields measure usage differently (one in terms of channels and the other in terms of voice services), there may be small differences between the two fields if you calculate the totals for the displayed values.

Analyzing the Channel Usage Detail report

Introduction

The CCS for each channel gives an indication of how busy each channel is. With Automated Call Distribution (ACD), the traffic (measured in CCS) should be evenly distributed across all channels over a lengthy period (for example, 12 hours).

Equal distribution of channel traffic

Channels with short durations will have a higher number of calls than channels with long durations, but the average amount of traffic (for example, CCS) for each nondedicated channel should be similar.

Suggested action

If the traffic is not evenly distributed, check if all channels are working properly. If a channel has no traffic at all for the entire period of the report, this may indicate that the channel is out of service. If any channels are dedicated to a particular service, the number of calls for the dedicated channels may differ significantly from the number of calls on the other channels.

Users are having trouble accessing Meridian Mail

Users may have trouble accessing Meridian Mail (for example, callers are getting ringback or a busy signal) if the system is busy.

Suggested action

Check if the dedicated channel appears to have much fewer calls than other channels. If so, you may be better off removing the dedication and opening the channel to all services. A busy system cannot afford to have any channels that are not sharing the full load on the system.

Services Detail report

Introduction

This report is available only if Fax on Demand, Voice Forms, or Voice Menus is installed on your system. The Services Detail report records the number of accesses, direct or indirect, to voice menus, announcements, fax items, thru-dial service, time-of-day controllers, and voice forms. Direct accesses occur when a user dials the VSDN of the service. Indirect accesses occur when a service is accessed from another service through a menu selection.

The screen

The following is an example of the Services Detail report screen.

Operational Measurements														
Services Detail														
Interval Start-End														
Cust#	ID	Service	For each menu item, the number of accesses are:											
		Accesses	1	2	3	4	5	6	7	8	9	0	*	#
			18:00-19:00 No Activity											
5/01		09:00-10:00												
	AS	1003	11	0	0	0	0	0	0	0	0	0	0	0
	MS	1011	2	0	0	0	0	0	0	0	0	0	0	0
	FI	3001	2	0	0	0	0	0	0	0	0	0	0	0
	MS	4022	2	1	0	0	1	0	0	0	0	0	0	0
	MS	4023	5	0	0	1	0	0	1	0	2	0	0	0
	MS	4033	42	6	21	0	0	0	0	0	0	0	0	0
	MS	4058	167	41	116	0	6	4	0	0	0	0	1	2
	VF	1013	1	-	-	-	-	-	-	-	-	0	-	-
	TD	1023	2	-	-	-	-	-	-	-	-	-	-	-
	TS	1033	1	-	-	-	-	-	-	-	-	0	-	-
Select a softkey > _														
Exit			Next Report			Next Page								

Fields in the Services Detail report

Interval Start-End

Data are divided into intervals. The length of the interval depends on the entry made in the Traffic Commit Interval field in the Operational Measurement Options screen. The number of intervals displayed depends on the entries made in the Traffic Period Start and Traffic Period End fields in the Operational Measurement Options screen.

Example

If data are collected 24 hours a day, and the commit interval is one hour, the report will divide the data into 24 intervals for each day included in the report. The amount of data displayed in this report depends on the Report Start and Report End entries that were made in the Traffic Reports screen. If no report start and end dates and times were given, all data currently stored on disk are displayed.

ID

This is the service followed by the ID number. The services are as follows.

Acronym	Service	Acronym	Service
AS	Announcement	VF	Voice Forms
MS	Voice Menu	TD	Time of Day
FI	Fax Information	TS	Thru-Dial

Service Accesses

This is the number of times the service was accessed (either directly or indirectly) during the measurement period.

For each menu item, the number of accesses are

This is the total number of times that each menu option was used during the measurement period. For stand-alone announcements and fax items, all frequencies are 0. If announcements or fax items are accessed through a voice menu, then there is an access count if a caller presses 0 to revert to the attendant.

Note: The number of accesses for the individual menu items may not add up to the number of accesses for the menu itself (Service Accesses) because some callers will hang up after reaching the menu if they do not want to choose any of the menu options, or if they want to talk to a live person.

Similarly, calls from rotary dial phones that are able to directly access a menu will be counted in the Service Accesses column but not in the number of accesses for individual menu items, since the rotary dial phone does not have the touch-tone capability required to select a menu item.

For Thru-Dial and Voice Forms, the number of accesses for key "0" count the number of times callers press zero to revert to the attendant. The "-" (dashes) emphasize no other count keys are being counted. For Time of Day, all menu item accesses are shown as dashes.

Analyzing the Services Detail report

Introduction

This report provides a detailed breakdown of which menu items, announcements, or fax items are actually being accessed, and a sense of the traffic that each service is generating.

Note: For a proper analysis of this report, have a printed copy of the service in front of you for reference.

While reviewing the report, consider the following.

If the menu requires reorganization

Menu items that are at the end of the menu (for example, item 8 or 9) are being accessed more frequently than earlier items.

Suggested action

You may wish to reorganize the menu so that the popular items are presented first.

This structure prevents users from having to wait through all the earlier options before hearing the one they want, thus reducing the call length.

A service is generating a high volume of traffic

A particular service is generating a high volume of traffic.

Suggested action

Find out if there is any call blockage (that is, users are unable to access the system).

If announcements or menus are causing call blockage, see if the information can be provided in some other way than through Meridian Mail (for example, through hard-copy memos or bulletin boards). If the service is a definite requirement and its usage cannot be decreased, then your system may require a channel expansion.

There are menu items with few or no accesses

If a menu item has few or no accesses, the reason may be either that there is a lack of training or awareness regarding those items, or that those items are simply not required.

Suggested action

If you find that certain services are not required, either remove them or replace them with more useful services. Check with the application owners to ensure the correct telephone number has been provided to the target audience. Be sure to rerecord the greetings and menu choices to reflect the changes.

The traffic pattern is unusual

Is the traffic high or low for a particular service?

Suggested action

Consult the users to determine if there was some unusual reason for the change in traffic.

If the high or low traffic is expected to return to acceptable levels, no adjustment may be necessary to the system.

Networking Detail report

Introduction

This report is available only on systems with Meridian Mail Networking installed. The Networking Detail report displays traffic totals for each active site within the Meridian Mail network for traffic generated by Meridian Mail, Enterprise, and AMIS Virtual Node Networking. 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.

The screen

The following is an example of the Networking Detail report screen.

Operational Measurements														
Networking Detail														
Interval	Start-End	Messages Received	Messages Delivered					Network Usage			Failures			
Site	(from Site)	Eco	Std	Urg	MDN	Ack	Failed	Att	Suc	Time	No	Not	Prot	
		-----to site-----					to Send			(min)	Res	Reach	Error	
05/01 10:00-11:00														
111	100	10	10	5	0	0	0	2	1	2:32	6	12	0	
112	100	0	0	2	0	0	0	4	2	4:04	0	0	0	
05/01 11:00-12:00														
111	25	15	11	8	0	0	0	3	1	3:02	4	9	0	
112	50	0	0	4	0	0	0	6	4	5:09	2	3	0	

Select a softkey > _

Exit	Next Report			
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Fields in the Networking Detail report

Interval Start-End Data are divided into intervals. The length of the interval depends on the entry made in the Traffic Commit Interval field in the Operational Measurement Options screen. The number of intervals displayed depends on the entries made in the Traffic Period Start and Traffic Period End fields in the Operational Measurement Options screen.

Example

If data is collected 24 hours a day and the commit interval is one hour, the report will divide the data into 24 intervals for each day included in the report. The amount of data displayed in this report depends on the Report Start and Report End entries that were made in the Traffic Reports screen. If no report start and end dates and times were given, all data currently stored on disk are displayed.

Site This is the remote site ID to which the row of data applies.

Messages Received This field indicates the number of messages received successfully by the local site from the specified remote site.

Messages Delivered This is the number of messages delivered from the local site to the identified remote site during the specified interval. This statistic is further subdivided into the following categories based on the type of message.

Eco

These are messages that have been classed as economy.

Std

These are messages that have been classed as standard.

Urg

These are messages that have been classed as urgent.

NDN

These are non-delivery notification messages sent by the system to users whose messages could not be delivered to some of the intended recipients due to incorrect addressing.

Ack

These are acknowledgments sent to the remote site to indicate that a message (that was tagged for acknowledgment) was read by the Meridian Mail user at the local site.

Failed to send

This indicates messages for which each delivery attempt failed and the messages could not be delivered to the remote site within the stale time threshold (refer to the *Meridian Networking Installation and Administration Guide* [NTP 555-7001-244] for information about stale-dating). Failed to Send messages are returned to the user with a Non-Delivery Notification (NDN). The user then may forward the message to the remote user again.

Network Usage

This statistic indicates the number of networking calls placed by the local site to the specified remote site during the specified interval. It is further broken down into the following categories.

Att

This indicates the number of attempted calls. For outgoing sessions, this field is incremented each time a channel is acquired to make a call to this remote site (for Meridian Networking, a modem is also successfully allocated). For incoming sessions, it is incremented when the call is answered, and the network passwords and site IDs are confirmed.

Note: Virtual Node AMIS does not use network passwords.

Suc

This indicates the number of successful calls. For Meridian Networking outgoing connections, it is incremented when the call is placed to this remote site and the network passwords and site IDs are confirmed. For incoming sessions, it is incremented provided the maximum number of ports is not exceeded. For Virtual Node AMIS or Enterprise sessions, it is incremented

once for each session in which at least one message is successfully sent or received.

Time (min)

This indicates the total amount of time (in minutes) used by networking calls to and from the specified remote site.

Failures

A failure refers to a single unsuccessful attempt to send a networking message. Networking will attempt to send these messages the next time it is scheduled to send messages to the remote site. If a message experiences many failures and is not delivered within a certain period of time, it will be reported in the Failed to Send field and the message is returned to the sender.

No Res

The No Resources failure means that one of the following occurred:

- no channels available
- maximum number of outgoing connections is reached
- if Meridian Networking, there were no modems available

Not Reach

This field is incremented each time a network connection is dropped or a problem is encountered while sending or receiving message information.

Prot Error

This field is incremented if a protocol violation is detected.

Analyzing the Networking Detail report

Introduction

This report provides a detailed breakdown of the networking usage on the system. While viewing the reports, consider the following information.

Note: For a proper analysis of this report, have a diagram of the network in front of you to refer to.

High number of “Failed to Send” messages

If the number of “Failed to Send” messages is high, there may be a problem with your networking setup.

Suggested action

Check to make sure that the remote site is not down. If the remote site is up and running, check the networking schedule parameters to see if they are correct. For details on changing networking parameters, refer to one of the following documents:

- *Meridian Networking Installation and Administration Guide* (NTP 555-7001-244)
- *Virtual Node AMIS Networking Installation and Administration Guide* (NTP 555-7001-245)
- *Enterprise Networking Installation and Administration Guide* (NTP 555-7001-246)

The number of NDNs delivered is high

If the number of NDNs delivered is high, this indicates that messages couldn't be delivered to local users. This may be due to one of the following:

The local users do not exist, the address in the message is incorrect, or the user cannot receive composed messages (Class of Service field):

- The local systems disk is full.
- The network setup is incorrect.
 - Site numbers and location IDs are defined differently from remote sites.
 - Mailbox number/dial plan is configured incorrectly.

Suggested action

Check that the disk is not full. If that is not the problem, confirm that the network setup is the same as the remote site's network database. If this is not the problem, confirm the existence of the remote site which the mailboxes cannot be delivered to and confirm that the site can receive composed messages.

The ratio of urgent networking messages to others sent is high

If the number of urgent networking messages sent is high compared to the number of standard messages, the system may not have enough channels or modems (Meridian Mail Networking only) to support the actual traffic.

Suggested action

If this is a problem, you may want to change the networking configuration. For details on changing networking parameters, refer to one of the following documents:

- *Meridian Networking Installation and Administration Guide* (NTP 555-7001-244)
- *Virtual Node AMIS Networking Installation and Administration Guide* (NTP 555-7001-245)
- *Enterprise Networking Installation and Administration Guide* (NTP 555-7001-246)

AMIS Networking Detail report

Introduction

This report is available only on systems with AMIS Networking capability. The AMIS Networking Detail report displays open AMIS traffic totals for AMIS Networking for your site. (Virtual Node AMIS traffic is displayed by site on the Networking Detail Report.) AMIS Virtual Node traffic is not included in this report. Statistics are shown for the number of AMIS messages received at your site and delivered to other voice messaging systems, the connect time, and the number of failures for each time interval displayed in the report.

The screen

The following is an example of the AMIS Networking Detail report screen.

Operational Measurements											
AMIS Networking Detail											
Interval	Start-End	Messages Received	Messages Delivered				Connect Time (mm:ss)	Failures			
			Eco	Std	Urg	NDM		Failed	No Res	Not Reach	Prot Error
5/0	10:00-11:00	12	0	5	2	0	0	4:00	0	1	1
5/0	11:00-12:00	0	0	2	0	0	0	2:00	0	1	0
5/0	12:00-13:00	24	0	5	1	0	0	8:00	0	0	1
5/0	13:00-14:00	6	0	2	1	0	0	3:00	0	1	1

Select a softkey > _

Exit	Next Report		:	:
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Fields in the AMIS Networking Detail report

Interval Start-End

Data are divided into intervals. The length of the interval depends on the entry made in the Traffic Commit Interval field in the Operational Measurement Options screen. The number of intervals displayed depends on the entries made in the Traffic Period Start and Traffic Period End fields in the Operational Measurement Options screen.

Example

If data are collected 24 hours a day (from 01:00 to 01:00), and the commit interval is one hour, the report will divide the data into 24 intervals for each day included in the report. The amount of data displayed in this report depends on the Report Start and Report End entries that were made in the Traffic Reports screen. If no report start and end dates and times were given, all data currently stored on disk are displayed.

Messages Received

This field indicates the number of AMIS messages that were received at the local site during the time interval indicated.

Messages Delivered

This field indicates the number of AMIS messages (originating from the local site) that were delivered to other voice messaging systems during the interval indicated. This statistic is further subdivided according to the type of message.

Eco

This indicates the number of messages, tagged as economy, that were delivered to other AMIS voice messaging systems during the specified interval.

Std

This indicates the number of messages, tagged as standard, that were delivered to other AMIS voice messaging systems during the specified interval.

Urg

This indicates the number of messages, tagged as urgent, that were delivered to other AMIS voice messaging systems during the specified interval.

NDN

These are nondelivery notification messages sent by the local system to users at other messaging systems whose messages could not be delivered to the intended recipient at the local site. Messages may not be delivered for the following reasons:

- The address is incorrect (for example, the mailbox does not exist).
- The user does not have the ability to receive AMIS messages (Class of Service field).
- The disk is full.
- A system error occurred.

Failed

This indicates the number of unsent messages. These messages experienced a series of failures and could not be sent before the stale period.

Connect Time (mm:ss) This number indicates the total amount of time (in minutes and seconds) used by AMIS Networking calls during the time interval indicated.

Failures

This indicates the number of AMIS messages that were not successfully delivered to other AMIS messaging systems due to specific problems. This statistic is further subdivided into the types of problems that may prevent messages from being delivered.

No Res

The No Resources failure means that a voice port could not be accessed to send these messages to another AMIS site.

Not Reach

This field is incremented each time a network connection is dropped or a problem is encountered while sending or receiving message information.

Prot Error

The Protocol Error failure means that the connection was made to the remote AMIS site, but message delivery was prevented by a protocol error.

Analyzing the AMIS Networking Detail report

Introduction

This report provides a detailed breakdown of the AMIS Networking usage on the system. While viewing the reports, consider the following information.

The number of NDNs delivered or the number of “Failed to Send” messages is high

If the number of NDNs delivered or the number of “Failed to Send” messages is high, there may be a problem with your networking setup or the switch/telephone network. Since Open AMIS requires the user to enter the DN to dial at the destination messaging system, it may be that users are addressing messages incorrectly.

Also, if the failed to send is high, check the “Number Of Messages To Transmit Per Session” field. Try setting it to a higher number, for example, nine. (Also, make sure a billing DN is defined.)

Suggested action

Refer to the *AMIS Networking Installation and Administration Guide* (NTP 555-7001-242) for details on the proper setup of the networking feature.

The ratio of urgent networking messages to others sent is high

If the number of urgent networking messages sent is high compared to the number of standard messages, the system may not have enough channels to support the actual traffic.

Suggested action

If this is a problem, you may want to change the networking configuration in the Networking Call Maximum field. Refer to the *AMIS Networking Installation and Administration Guide* (NTP 555-7001-242) for details on changing networking parameters.

Outcalling Detail report

Introduction

This report is available only if Outcalling is installed on your system. The Outcalling Detail report details outcalling activity for the Remote Notification (RN) and Delivery to Non-Users (DNU) services.

The screen

The following is an example of the Outcalling Detail report screen.

Operational Measurements											
Outcalling Detail (Remote Notification and Delivery to Non-User)											
Interval	Start-End	Number of New Requests		Number of Attempts			Number of Successes		Wait Time		
		RN	DNU	RN	DNU	Retries	RN	DNU	Avg (sec)	Max (sec)	
5/01	13:00-14:00	3	1	3	1	2	0	0	1	15	54
Select a softkey > _											
Exit		Next Report									

Fields in the Outcalling Detail report

Interval Start-End

Data are divided into intervals. The length of the interval depends on the entry made in the Traffic Commit Interval field in the Operational Measurement Options screen. The number of intervals displayed depends on the entries made in the Traffic Period Start and Traffic Period End fields in the Operational Measurement Options screen.

Example

If data are collected 24 hours a day (from 01:00 to 01:00), and the commit interval is one hour, the report will divide the data into 24 intervals for each day included in the report. The amount of data displayed in this report depends on the Report Start and Report End entries that were made in the Traffic Reports screen. If no report start and end dates and times were given, all data currently stored on disk are displayed.

Number of New Requests

This field indicates the total number of new requests that were made for outcalling services during the interval.

RN

This indicates the number of new requests for the Remote Notification service.

DNU

This indicates the number of new requests for the Delivery to Non-User service.

Number of Attempts

This indicates the total number of Remote Notification and Delivery to Non-User attempts made during the interval.

New Request

This number represents the number of attempts that have been made to answer the new requests for RN and DNU. If the Number of Attempts does not equal the Number of New Requests (see the previous field), the system is not keeping up with outcalling requests and more channels may need to be allocated to outcalling.

Retries

This number represents the number of times that the Remote Notification and Delivery to Non-Users services have retried calls because one of the following occurred at the destination number.

Event at Destination Number	Service Affected
the number was busy	RN and DNU
there was no answer	RN and DNU
the phone or pager service answered but no logon occurred	RN
the required DTMF confirmation was not given	DNU

Number of Successes This indicates the number of successful remote notifications and messages successfully delivered to non-users that occurred during the interval.

RN

RN successes are measured in terms of user login. In other words, an RN call is considered successful if the user logs in to his or her mailbox when the notification is received (on the same call as the notification). If the user receives the notification, hangs up, and then logs in to his or her mailbox, this is not counted as a success since the user terminated the notification call without logging in.

Note: For remote notification to a pager, RN calls are never counted as successful in reports because the paging service cannot log in to the mailbox. A better measure of the effectiveness of RN calls to pagers is to compare the number of RN retries to RN attempts. However, bear in mind that an RN retry does not necessarily mean the RN attempt to the paging service failed; it only signifies that the user did not log on within the retry interval.

DNU

A DNU call is considered successful if the called party answers the call (and DTMF confirmation is given if required).

Wait Time

These values are an indication of how long it takes for the outcalling agent to acquire a channel to outcall to the specified directory number (DN).

Avg (sec)

This is the average amount of time, based on all outcalling attempts made during the interval, that it took the outcalling agent to acquire the resources necessary to make the outcall.

Max (sec)

This number represents the outcalling attempt that took the longest amount of time to acquire the resources necessary to make the outcall.

Analyzing the Outcalling Detail report

Low usage of Outcalling features

The sample report may indicate minimal use of the Outcalling features. The following reasons may help explain why.

Users do not know how to use the service

If so, train all outcalling users on how to use the service.

Users are unaware that the service exists

If so, inform the users of the service and provide training if necessary.

Users do not need to use the service

Consult the users to determine if they really do not need the service. Delete the service from the mailbox of those users who confirm that they do not need the outcalling service.

Technical problem with the service

Have the problem investigated and fixed.

The number of retries is high

If the number of retries is high, the reason may be one of the following:

- The destination number was busy.
- There was no answer at the destination.
- The user at the destination answered the call but did not log in.

Users are not retrieving messages

If users are consistently not retrieving messages, they may not be aware of how to properly use the outcalling service; or there could be a technical problem preventing users from retrieving the messages.

Suggested action

Consult the users to find out if the problem is with the system or with the users.

New attempts and new requests are unequal The number of new attempts should roughly equal the number of new requests. If the number of new requests is somewhat greater than the number of new attempts, then the system is not keeping up with the demand for outcalling RN or DNU.

Suggested action

The system may need more channels. Increase the limit set by “Maximum Number of Outcalling Channels” on the Outcalling Administration screen to allow more channels to be used for outcalls.

The wait time is high The wait time indicates how long the outcalling agent has to wait for a free channel. If the wait time is high, this also indicates a need for more channels. Increase the limit set by “Maximum Number of Outcalling Channels” on the Outcalling Administration screen to allow more channels to be used for outcalls.

The number of attempts and successes are not equal The number of successes should equal the number of attempts. If the numbers are not equal, then the reason may be one of the following:

- There may be a problem with the destination phone/pager.
- Although Meridian Mail may not have any outcalling restrictions, the switch might. For example, long distance dialing may be restricted.
- The Outcalling feature may have been set up incorrectly by either the administrator or the user.
- If the channels were tied up for a long time, the retry time outs may have expired. If the wait times are high, then this is probably what happened.

Suggested action

You may need to dedicate channels to outcalling or increase the number of channels dedicated to outcalling.

Fax Delivery Detail report

Introduction

This report is available only if Fax on Demand is installed on your system. The Fax Delivery Detail report details activity for the fax services.

The screen

The following is an example of the Fax Delivery Detail report screen.

Operational Measurements							
Fax Delivery Detail							
Interval	Start-End	Number of New Requests	Number of New Attempts	Number of Retries	Number of Successes	Wait Time	
						Avg	Max
5/01	13:00-14:00	5	5	2	5	60	90
5/01	14:00-15:00	12	12	5	11	66	112
5/01	15:00-16:00	7	7	3	7	62	100
5/01	16:00-17:00	10	10	5	9	65	105

Select a softkey > _

Exit	Next Report			
------	----------------	--	--	--

Fields in the Fax Delivery Detail report

Interval Start-End	<p>Data are divided into intervals. The length of the interval depends on the entry made in the Traffic Commit Interval field in the Operational Measurement Options screen. The number of intervals displayed depends on the entries made in the Traffic Period Start and Traffic Period End fields in the Operational Measurement Options screen.</p> <p>Example</p> <p>If data are collected 24 hours a day (from 01:00 to 01:00), and the commit interval is one hour, the report will divide the data into 24 intervals for each day included in the report. The amount of data displayed in this report depends on the Report Start and Report End entries that were made in the Traffic Reports screen. If no report start and end dates and times were given, all data currently stored on disk are displayed.</p>
Number of New Requests	<p>This indicates the total number of new requests that were made for the fax callback services during the interval.</p>
Number of New Attempts	<p>This indicates the number of attempts made to process new requests for fax callback services during the interval.</p>
Number of Retries	<p>This indicates the number of attempts made to process old requests for fax callback services during the interval because one of the following occurred during the call:</p> <ul style="list-style-type: none">• No carrier was received from the destination fax machine.• Transmission errors occurred.
Number of Successes	<p>This indicates the number of successful fax callbacks during the interval.</p>
Wait Time	<p>Avg</p> <p>This indicates the average amount of time, based on all fax callback attempts made during the interval, that the fax outcalling agent needed to acquire the resources necessary to make the call.</p>

Fields in the Fax Delivery Detail report

Max

This number represents the fax callback attempt that took the longest amount of time during the interval to acquire the resources necessary to make the call.

Analyzing the Fax Delivery Detail report

There is minimal use of fax outcalling

There could be several reasons for minimal use of the Fax Outcalling features.

Users do not know how to use the service

If so, train all fax callback users on how to use the service.

Users are unaware that the service exists

If so, inform the users of the service and provide training if necessary.

Technical problem with the service

Have the problem investigated and fixed.

The number of retries is high

If the number of retries is high, the reason may be one of the following:

- The destination number was busy or the machine was out of paper.
- There was no answer at the destination.
- A transmit error prevented the fax from being received.

The number of new attempts should equal the number of new requests. If the number of new requests is greater than the number of new attempts, then the system is not keeping up with the demand for fax outcalling. The system may need more multimedia channels.

If the wait time is high, this also indicates a need for more channels. The wait time indicates how long the fax outcalling agent has to wait for a free channel.

The number of successes do not equal the number of attempts

The number of successes should equal the number of attempts. If the numbers are not equal, then the reason may be one of the following:

- There may be a problem with the destination fax device.
- Although Meridian Mail may not have any outcalling restrictions, the switch might. For example, long distance dialing may be restricted.

- The fax outcalling feature may have been set up incorrectly by either the administrator or the user.
- If the channels were tied up for a long time, the retry time-outs may have expired. If the wait times are high, then this is probably what happened. You may need to dedicate channels to fax outcalling or increase the number of channels dedicated to fax outcalling.

The wait time is high

If the wait times are too long for the desired service levels, increase the Maximum Number of Fax Delivery Channels on the Fax Administration screen and add multimedia ports to the system.

Disk Usage Detail report

Introduction

The Disk Usage Detail report provides information on disk space usage on the voice storage volumes.

The screen

The following is an example of the Disk Usage Detail report screen.

Operational Measurements					
Disk Usage Detail					
Interval	Start-End	Volume Name	Voice Volume Size (hh:mm)	Voice Space Used (%)	Text Space Used (%)
5/01	10:00-11:00	VS1	1:51	33	47
		VS2	33:15	33	17
		VS202	25:45	10	30
5/01	11:00-12:00	VS1	1:51	33	47
		VS2	33:15	33	17
		VS202	25:45	10	30

Select a softkey > _

Exit	Next Report			
------	-------------	--	--	--

Fields in the Disk Usage Detail report

Interval Start-End Data are divided into intervals. The length of the interval depends on the entry made in the Traffic Commit Interval field in the Operational Measurement Options screen. The number of intervals displayed depends on the entries made in the Traffic Period Start and Traffic Period End fields in the Operational Measurement Options screen.

Example

If data are collected 24 hours a day (from 01:00 to 01:00), and the commit interval is one hour, the report will divide the data into 24 intervals for each day included in the report. The amount of data displayed in this report depends on the Report Start and Report End entries that were made in the Traffic Reports screen. If no report start and end dates and times were given, all data currently stored on disk are displayed.

Volume Name This shows the name of the user volume (for example, VS1, VS2, VS202, VS203, and so on). Volumes are sections on Meridian Mail disks. For more information, see “Distributing local voice users evenly over volumes” on page 7-19 of Chapter 7, “User administration—an overview.”

Voice Volume Size (hh:mm) This shows the amount of disk space that has been used, displayed in hours and minutes. One hour of voice storage is equivalent to 8.5 Mbytes.

Voice Space Used (%) This indicates the percentage of the volume’s voice capacity used at the end of the interval.

Text Space Used (%) This indicates the percentage of the volume’s text capacity used at the end of the interval.

Analyzing the Disk Usage Detail report

Voice space

The voice space used will fluctuate, especially if your system has an automatic read-message deletion feature enabled. However, if the Voice Space Used percentage is consistently over your disk usage warning level, then steps should be taken to reduce the amount of voice space used.

ATTENTION

If the system generates a SEER 1103, print this Disk Usage Detail report immediately. This SEER indicates that your system has reached physical or virtual capacity. Check that the nightly audit is functioning. Remove files on the volume in question. If the operation involved VS1, remove directory entries or OM files. The effect of corrective actions may be delayed until the nightly audit is run. Consider redistributing users on multiple nodes, turning on automatic message deletion, or buying a storage upgrade.

Reducing voice space You can reduce the voice space used by deleting unnecessary mailboxes and ensuring that distribution lists are up to date. If these unnecessary or unused mailboxes are on distribution lists, they may be storing messages sent using outdated distribution lists. With no one logging on to delete the messages, the messages continue to accumulate and use up more disk space. You can also encourage users to delete their messages more frequently, or even reduce the allowable maximum message length (see Chapter 26, “Class of Service administration”).

Reviewing voice menus, forms, and announcements

To lower voice space used, you can also review all voice menus, voice forms, and voice announcements to see if their size can be reduced. For example, unused menu items can be removed. You can also consult the User Usage reports to identify users with excessive storage. This might happen if a user stops accessing his or her mailbox (for example, if the user is on vacation), but callers continue to leave messages.

Are the storage volumes evenly balanced?

If voice space used is high on some volumes but low on others, you may need to move high-usage subscribers to low-usage volumes in order to balance system resources. If the voice space used on all volumes is high, you may need to expand your system.

The text space has changed dramatically

Text space used should not fluctuate greatly from day to day, although it will vary over time. Any large fluctuations or significant steady increases in the text space used should be reported to your technical support organization.

Hospitality Statistics report

Introduction

This report is available only on Hospitality (HVS) systems. Hospitality Statistics include totals for guests checked in and out, as well as statistics on post-checkout mailboxes for each reporting interval.

The screen

This is an example of the Hospitality Statistics report screen.

Operational Measurements									
Hospitality Statistics									
----- Post-Checkout Mailboxes -----									
Interval	Start-End	#Guests Checked In	#Guests Checked Out	#Expired Unread Messages	#New Unread Messages	Total Msg Length (in minutes)	Unread	#Messages Unread Read	
5/01	07:00-08:00	8	22	2	0	87		12	6
5/01	08:00-09:00	15	17	0	8	104		12	6
5/01	09:00-10:00	23	9	0	4	89		11	7
5/01	10:00-11:00	29	6	0	2	93		11	8
5/01	11:00-12:00	21	6	3	4	93		11	5
5/01	12:00-13:00	17	7	0	0	93		9	4

Select a softkey > _

Exit	Next Report			
------	----------------	--	--	--

Fields in the Hospitality Statistics report

Interval Start-End	This field indicates the start and end time of each reporting interval within the reporting period.
#Guests Checked In	This field indicates the total number of guests checked in during the interval.
#Guests Checked Out	This field indicates the total number of guests checked out during the interval.
#Expired Unread Messages	This field indicates the total number of unread messages that expired from post-checkout mailboxes which were holding unread messages.
#New Unread Messages	This field indicates the total number of new or unread messages in all post-checkout mailboxes that were created during the interval to hold unread messages.
Total Unread Msg Length (in minutes)	This field indicates the total length (in minutes) of unread messages in all post-checkout mailboxes.
#Messages (Unread, Read)	This field indicates the total number of unread and read messages in all post-checkout mailboxes.

Analyzing the Hospitality Statistics report

Introduction

When looking at the individual columns on the report, you should consider the following information.

#Guests Checked In / #Guests Checked Out

If the hotel's Property Management System (PMS) keeps statistics on how many people were checked in and how many were checked out during a particular time period, these numbers should match the numbers listed in the Hospitality Statistics report. If the numbers do not match, the manual check in and check out functions on the guest administration console (GAC) can be used to reconcile the differences.

If you do not have a PMS, you may wish to use other methods to confirm the checked-in/checked-out values.

#Expired Unread Messages

If the number of post-checkout mailboxes that expire with unread messages is more than three, then you may wish to instruct the checkout clerk and the bellman to remind guests during the checkout process to listen to their messages before checking out. You may want to think about other methods that will help or remind guests to retrieve their messages before they check out of or leave the hotel.

#New Unread Messages

If the number of new post-checkout mailboxes is more than five, you should look at how guests are notified of messages waiting. Consider better methods of informing your guests that they have messages waiting. Also think about how you can help or remind guests to retrieve their messages before they check out.

Total Unread Msg Length / #Messages Unread or Read

If you can find methods that will reduce the number of post-checkout mailboxes (see the previous points), then the unread messages length and the number of unread messages should not be a problem. You should try to keep the numbers in this column as low as possible, since unread messages are an unnecessary strain on your system.

Guest Console Statistics report

Introduction

This report is available only on Hospitality (HVS) systems. The Guest Console Statistics report contains totals for activities that were performed using the Guest Administration Console (GAC) menus for each reporting interval. Refer to the *Guest Administration Console Guide (NTP 555-7001-222)* for descriptions of GAC functions.

The screen

The following is an example of the Guest Console Statistics report screen.

Operational Measurements										
Guest Console Statistics										
Interval	Start-End	View Mbox	Updt Mbox	View PCO Mboxes	Copy Mbox	Check In	Check Out	Re-Check In	View Status	Updt Status
5/01	07:00-08:00	40	20	130	0	0	0	0	70	1
5/01	08:00-09:00	43	19	120	0	0	0	1	65	0
5/01	09:00-10:00	90	47	98	0	0	0	0	53	0
5/01	10:00-11:00	56	31	101	1	0	1	0	58	0
5/01	11:00-12:00	43	19	87	0	0	0	0	78	0
5/01	12:00-13:00	29	11	75	1	0	0	0	58	1

Select a softkey > _

Exit	Next Report			
------	-------------	--	--	--

Fields in the Guest Console Statistics report

Interval Start-End	This field indicates the start and end time of the reporting interval.
View Mbox	This field indicates the number of times View/Modify a Mailbox was used to view a guest mailbox.
Updt Mbox	This field indicates the number of times View/Modify a Mailbox was used to modify a guest mailbox.
View PCO Mboxes	This field indicates the number of times View Post-Checkout Mailboxes was used.
Copy Mbox	This field indicates the number of times Copy Mailbox was used.
Check In	This field indicates the number of times Manual Mailbox Check In was used.
Check Out	This field indicates the number of times Manual Mailbox Check Out was used.
Re-Check In	This field indicates the number of times Manual Mailbox Re-Check In was used.
View Status	This field indicates the number of times Hospitality System Status was viewed but was not used to change the system status.
Updt Status	This field indicates the number of times Hospitality System Status was used to make changes to the system status.

Analyzing the Guest Console Statistics report

Introduction

When looking at the individual columns on the report, you should consider the following information.

The number of View Mbox is high

This should be a minimal number. If it is not, find out why it was necessary to use the view mailbox feature so often. If there was a lot of updating (see the Updt Mbox column), then this may be why the view mailbox feature was used so often.

The number of Updt Mbox is high

If the number of updates is high, investigate what was being updated and why.

For example, if guests' names were being updated, check that the spelling of guest names are always confirmed during the Reservation and Front Desk procedures.

If many of the updates were the result of a forgotten password and you are currently using the check-in date method of generating a password, consider using the last name method. Guests with check-in date passwords may be concerned that their mailboxes are not secure and want to change their password. Also, ensure that guest collateral (such as instruction cards) provide easy instructions on how to change their password.

There are numerous View PCO Mboxes

This number should be low. If it is not, make sure that guests are reminded during the checkout process to retrieve their messages prior to checkout. The guest collateral should also state clearly that guests should retrieve messages prior to checkout.

How to use the Copy Mbox field information	<p>If you have a PMS system, the GAC could have been used to make a manual room change.</p> <p>If you do not have a PMS, then the number in this field should match the front office room-change records. For every guest who changed rooms, there should have been a Copy Mailbox.</p>
How to use the Check In field information	<p>If you have a PMS system, the GAC could have been used to check in a guest.</p> <p>If you do not have a PMS, then the number in this field should match the front office check in records. For every guest who checked in, a mailbox should have been activated (and counted in the Check In column).</p>
How to use the Check Out field information	<p>If you have a PMS system, the GAC could have been used to check out a guest.</p> <p>If you do not have a PMS, then the number in this field should match the front office checkout records. For every guest who checked out, a mailbox should have been deactivated (and counted in the Check Out column).</p>
The Re-Check In number is higher than zero	<p>This number should be zero. If not, check with the front office records to try to determine why guests were checked out and then checked in again.</p>
The Hospitality System is not being checked regularly	<p>It should be part of the hotel staff's procedure to regularly check the Hospitality System status at least once every hour. If no system alarm is installed, you may want to check the system status more often.</p>
The Hospitality System Status has not been updated	<p>Any time the Hospitality System Status is updated (Updt Status), an investigation should be conducted.</p> <p>Find out if it was a link problem or a human error. If the problem is technical, find the root cause and fix the problem. If the problem is human error, you may need to rewrite procedures or retrain the hotel staff.</p>

Chapter 32

User Usage reports

In this chapter

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Overview

Introduction

The User Usage report provides statistics for local voice messaging usage on a per-user basis. If AMIS Networking or Meridian Networking is installed, then 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, enable it.

The User Usage Reports screen

Introduction

User Usage reports search criteria are specified in the User Usage Reports screen.

The screen

The following is an example of the User Usage Reports screen.

```

CORP. Operational Measurements
User Usage Reports
Selection Criteria:      All Lastname Mailbox Department
Sorted:                 Alphabetical By_Department
Include Local Usage:   No Yes
Include Meridian Network Usage: No Yes
Include AMIS Network Usage: No Yes

Report Start (mm/dd/yy): _____ (or blank for oldest)
Report End (mm/dd/yy):  _____ (or blank for newest)

Select a softkey >
Exit      View Reports  Print Reports
```

Fields in the User Usage Reports screen

Introduction

The following fields appear on the User Usage Reports screen. Select parameters and choose options required to create the type of report you need.

Selection Criteria

The following options are search parameters. Statistics matching your selection are displayed in the report.

All

When this option is selected, user usage data for all local users will be displayed in the report.

Lastname

When this option is selected, you are prompted for the last name of the subscriber whose data you want to view. If the last name is not found, use the Find Users feature in User Administration to verify that the name exists in the system. You may use wildcard characters (“+”, “?”, or “_”) to retrieve a group of users.

Mailbox

When this option is selected, you are prompted for the mailbox number of the user whose data you want to view. You may use wildcard characters (“+”, “?”, or “_”) to retrieve a range of mailboxes. If the mailbox number is not found, use the Find Users feature in User Administration to verify that the mailbox number exists in the system.

Department

When this option is selected, you are prompted for a department name. All users associated with that department will be displayed in the report. The entry you make must correspond to an existing entry in the system. Use wildcard characters (“+”, “?”, or “_”) to retrieve a group of departments.

Note: When searching by department, users with blank department fields will not be displayed.

Sorted

If your selection criterion is All Users, you can choose to sort the user data alphabetically, according to user names, or according to department names.

Note: When sorting by department, users with blank department fields will not be displayed.

Include Local Usage

This field is displayed if Meridian Networking and/or AMIS Networking are enabled. (If networking is not installed, the report displays only local usage.) Set the field to Yes to include user usage data for local voice messaging. This includes information about the number of Express Messaging and logon sessions the user had during the specified interval, the number of messages that were created during the Express Messaging and logon sessions and the total length of those messages, the amount of time that the user was connected to Meridian Mail, and the amount of disk space used by those messages. The default is Yes.

Include Meridian Network Usage

This field is displayed if Meridian Networking is enabled. When this field is set to Yes, the report will include user usage data for Meridian Networking activity. This information includes the number of economy, standard, and urgent messages that users created during the specified interval as well as the total length of the messages created (for each of the three types of messages). The default is No.

Include AMIS Network Usage

This field is displayed if AMIS Networking is enabled. When this field is set to Yes, the report will include user usage data for AMIS Networking activity. This information includes the number of economy, standard, and urgent messages that users created during the specified interval as well as the total length of the messages created (for each of the three types of messages). The default is No.

**Report Start
(mm/dd/yy)**

This is the date on which the selected reports are to start. If Report Start predates the earliest available date, the report starts with the earliest available date. Leave this field blank to retrieve reports for the earliest available data. (The format mm/dd/yy hh:mm is the default. The format can be changed in General Administration, General Options. For more information, see Chapter 13, “General options”.

**Report End
(mm/dd/yy)**

This is the date on which the selected reports are to end. If Report End exceeds the latest available period, the report ends with the last available period. Leave this field blank to report on the most recent data. (The format mm/dd/yy hh:mm is the default. The format can be changed in General Administration, General Options. For more information, see Chapter 13, “General options”.

Generating User Usage reports

Introduction

The following information describes the procedure to generate User Usage reports.

Procedure

To generate User Usage reports, follow these steps.

Starting Point: Main Menu

Step Action

-
- 1 Select Operational Measurements.
Result: The Operational Measurements screen is displayed.
 - 2 Select User Usage Reports from the Operational Measurements menu.
Result: The User Usage Reports screen is displayed.
 - 3 Choose the selection criteria by which you want to retrieve data.
 - 4 If the selection criterion is All, select how you want the data to be sorted: alphabetically (by user name) or by department name.
 - 5 Select the type of data you want to view: local usage, Meridian Networking, or AMIS Network usage. You can select all three if required.
Note: Meridian Networking and AMIS Networking usage are available only if Meridian Networking or AMIS Networking is installed.
 - 6 If you wish to specify a start and stop time for the reporting period, enter the required values in the Report Start and Report End fields.
 - 7 Choose one of the following options.

TO	GO to step
view User Usage reports	8.
print User Usage reports	9.
exit User Usage reports	10.

Step Action

- 8 Press [View Reports].
Result: The selected report screens are displayed (see the following pages for descriptions of each report).
Press [Next Page] to view subsequent pages of the report; press [Exit] to return to the User Usage Reports screen.
- 9 Press [Print Reports].
Result: You are prompted to make sure that your printer is ready and online.
Press [Continue Printing] to print the reports, or press [Cancel Printing] at any time to cancel printing. There may be some delay before control is returned to the screen because it waits for the printer to stop printing.
- 10 Press [Exit].
The Operational Measurements menu is redisplayed.
-

User Usage report

Introduction

When you view the report on the terminal or from a printout, the data is arranged as shown in the diagram below. These examples show all types of user usage data (local, Meridian Networking, and AMIS Networking).

The screen

The following is an example of the User Usage report.

Last Name		First Name		Department	MailBox	COS
Potts		Brian		Admissions	8050	0
Local Usage:						
	Number of Sessions		Connect Time	Number of Messages		Message Length
Date	EM/Ans Logon		(mm:ss)	EM/Ans Logon		(mm:ss)
6/10/96	3	8	5:03	3	4	0:16

Total	3	8	5:03	3	4	0:16

Last Name		First Name		Department	MailBox	COS
Lang		Kathy		Records	7000	15
Local Usage:						
	Number of		Connect	Number of		Message
						Disk
Select a softkey > _						
Exit				Next Page		

The following is an example of a User Usage report when Meridian Networking and AMIS Networking is installed.

CORP.		User Usage Reports				
Meridian Network Usage:						
	Number of	Total	Number of	Total	Number of	Total
	Economy	Length	Standard	Length	Urgent	Length
Date	Messages	(mm:ss)	Messages	(mm:ss)	Messages	(mm:ss)
6/10/96	8	2:23	7	11:40	0	00:00
Total	8	2:23	7	11:40	0	00:00
AMIS Network Usage:						
	Number of	Total	Number of	Total	Number of	Total
	Economy	Length	Standard	Length	Urgent	Length
Date	Messages	(mm:ss)	Messages	(mm:ss)	Messages	(mm:ss)
6/10/96	10	3:10	1	1:30	0	00:00
6/10/96	10	3:10	1	1:30	0	00:00
Last Name	First Name	Department	MailBox	COS		
Delray	Marina	Executive	7049	0		
Select a softkey > _						
Exit			Next			
			Page			

Fields in the User Usage report

Introduction

These are the fields that are displayed in the User Usage report.

Header fields

Last Name

This is the user's last name.

First Name

This is the user's first name.

Department

This is the user's department name.

Mailbox

This is the user's mailbox number.

COS

This is the class of service number assigned to the user.

Local Usage fields

Date

This is the date of the reporting interval.

Number of Sessions

This is the number of Express Messaging, Call Answering, and logon sessions that occurred during the interval. To check the number of messages that were actually received or created during these sessions, check the Number of Messages field.

- *EM/Ans* refers to the total number of sessions created by Express Messaging or Call Answering calls to this mailbox. The number of abandoned calls (where no message is left) can be calculated by subtracting the number of EM/Ans messages from the number of EM/Ans sessions.
- *Logon* refers to the number of times the user logged into the mailbox for any reason.

Connect Time (mm:ss)

This is the length of time (in minutes and seconds) that the user was connected to the Voice Messaging service on the given date.

Number of Messages

This is the number of messages that the user received and created on the given date.

- *EM/Ans* refers to the number of messages left in the user's mailbox by both the Express Messaging and Call Answering services. The number of abandoned calls (where no message is left) can be calculated by subtracting the number of EM/Ans messages from the number of EM/Ans sessions.
- *Logon* refers to the number of messages that the user created on the report date.

Message Length (mm:ss)

This is the total time (in minutes and seconds) of all call answering messages received and messages created by the user or deposited in the user's mailbox on the given date.

Disk Used (mm:ss)

This is the amount of storage used by the user (measured in minutes and seconds) on the given date. This includes storage for greetings and personal verifications (spoken name recordings).

**Meridian and AMIS
Networking usage
fields****Date**

This is the date of the reporting interval.

Number of Economy Messages

This is the number of economy messages that the user created on the given date.

Total Length (mm:ss)

This is the total length (in minutes and seconds) of all networking messages created by the user on the given date and tagged as economy.

Number of Standard Messages

This is the number of standard messages that the user created on the given date.

Total Length (mm:ss)

This is the total length (in minutes and seconds) of all networking messages created by the user on the given date and tagged as standard.

Number of Urgent Messages

This is the number of urgent messages that the user created on the given date.

Total Length (mm:ss)

This is the total length (in minutes and seconds) of all networking messages created by the user on the given date and tagged as urgent.

Analyzing User Usage reports

The EM/Ans numbers are high and the logon count is low

The user may be accumulating too many messages before checking the mailbox and thereby contributing to a low disk space problem.

Suggested action

If disk space is already low (check the Disk Usage Detail report), you may need to make the user more aware of the importance of not accumulating messages.

Monitor the length of messages closely. If messages are too long for some users, you may wish to shorten their storage limit to encourage the users to empty their mailboxes more frequently. (For more information, see Chapter 7, “User administration—an overview”.) You can also alter the maximum message length parameter (see Chapter 26, “Class of Service administration”) to deter callers from leaving long messages.

You can assign a class of service (COS) with a shorter storage limit to encourage the users to empty their mailboxes more frequently (see Chapter 7, “User administration—an overview”). You can also alter the maximum message length parameter (see Chapter 26, “Class of Service administration”) to deter callers from leaving long messages.

The number of logons is zero

Suggested action

Check the Time of Last Logon field in the View/Modify Local Voice User screen. If a considerable amount of time has passed since the last successful logon, you may want to contact the user to see if he or she is having any problems logging on. For example, the user may not know how to log on and retrieve messages (especially if this is a new user), or the user may have forgotten the mailbox password and has stopped trying to log on.

Chapter 33

Audit Trail reports

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Overview

Introduction

This chapter describes the two types of Operational Measurement (OM) Audit Trail reports—Outcalling and Fax. These reports are useful for monitoring the use of these two features.

Section A: Collecting Audit Trail data, describes the procedure for enabling the collection of audit trail data.

Section B: Outcalling Audit Trail reports, provides descriptions and analyses for the Outcalling Audit Trail reports.

Section C: Fax Audit Trail reports, provides examples, descriptions, and analyses for the Fax Audit Trail reports.

***Section A:* Collecting Audit Trail data**

In this section

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Overview

Introduction

This section describes the Operational Measurements Options screen and the procedure for setting up the collection of audit trail data.

Enabling the collection of audit trail data

Introduction

You must explicitly enable the collection of audit trail data, and specify how long this data should be stored before being deleted.

Operational Measurement Options screen

The following is an example of the Operational Measurement Options screen.

Operational Measurements		MORE ABOVE
Operational Measurement Options		
Traffic Period End (hh:mm):	<u>01:00</u>	
Traffic Commit Interval (hh:mm):	<u>01:00</u>	
Number of days of Traffic Data stored:	<u>8</u>	
Collect User Usage/Session Trace Data:	Disabled Enabled	
Number of days of User Usage Data stored:	<u>31</u>	
Collect Audit Trail Data:	Disabled Enabled	
Number of days of Audit Data stored:	<u>7</u>	
Shutdown Audit Trail at Volume Full (%):	<u>85</u> %	
<div style="display: flex; justify-content: space-between; margin-top: 10px;"> Save Cancel </div>		

Fields used to enable audit trail data collection

These fields are used to enable audit trail data collection.

Collect Audit Trail Data

Description	This field determines whether or not audit trail data is collected.
Options	Enabled and Disabled
Default	Enabled

Number of days of Audit Data stored

Description	The field determines how long the collected audit trail data will be stored on disk before being overwritten.
Range	1 to 63 days
Default	7

Shutdown Audit Trail at Volume Full (%)

Description	Use this field to identify the percentage at which you want the collection of audit trail data to stop.
Example	If set to 80%, audit trail data collection is disabled when the volume on which audit data is stored reaches 80% capacity. If set to 100%, collection of data will not stop until the volume is completely full. This is not recommended.
	<i>Note:</i> This is a percentage of text space, not voice space.
Default	85%

Procedure

To enable the collection of audit trail data, follow these steps.

Starting Point: The Main Menu

Step Action

- 1 Select Operational Measurements.
 - 2 Select Operational Measurement Options.
Result: The Operational Measurement Options screen is displayed. Three fields on the screen (Collect Audit Trail Data, Number of days of Audit Data stored, and Shutdown Audit Trail at Volume Full) are used to enable audit trail data collection.
 - 3 Set the Collect Audit Trail Data field to Enabled if currently disabled (Enabled is the default.)
 - 4 Specify the number of days that audit trail data should be stored on disk.
Note: Detailed field descriptions are provided on the preceding pages.
 - 5 In the Shutdown Audit Trail at Volume Full (%) field, enter the percentage full at which collection of audit trail data should stop.
The default is 85%.
 - 6 To save the current configuration, go to step 7. To exit without saving, go to step 8.
 - 7 Press [Save].
Result: The outcalling data is saved and you are returned to the Operational Measurements menu.
 - 8 Press [Cancel].
Result: Any changes you have made are not saved and you are returned to the Operational Measurements menu.
-

***Section B:* Outcalling Audit Trail reports**

In this section

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Overview

Introduction

Outcalling audit trail statistics allow you to monitor how users are using the Remote Notification (RN) and Delivery to Non-User (DNU) features. There are two Outcalling Audit Trail reports that you can generate: a summary report and a detail report. Each report provides outcalling data for a certain period of time as specified by you.

Report types

The following two report types are available for Outcalling.

Outcalling Audit Trail Summary report

The summary report shows each outcall (RN or DNU) that was made during the reporting interval, along with the user who made the call, the user's mailbox number, the target number, and the status of the call. It shows only completed (answered) calls.

Outcalling Audit Trail Detail report

The detail report provides a more thorough account of each outcall request, including the start time and duration of the call, the DN of the channel that was used to place the call, and the number of retries (if any). It shows all outcalls, both successfully completed and unsuccessful.

Generating an Outcalling Audit Trail report

Introduction

The Outcalling Audit Trail Report screen is accessed from the Operational Measurements menu. This is a report selection screen in which you specify the type of report you want to retrieve (summary or detail) as well as the duration of the report period. You must specify whether you want to generate a report for a particular user, mailbox number, phone number, or all. You can either generate a report that includes all of the information currently stored on disk for that user (mailbox number or phone number) or generate a shorter report for a specific time period. The report can either be viewed on your terminal or printed.

The Outcalling Audit Trail Report screen

The following is an example of the Outcalling Audit Trail Report screen.

```
Operational Measurements
Outcalling Audit Trail Report

Report Type:  Summary Detail
Selection Criteria: All Name Mailbox Target_Phone_Number

Report Start (mm/dd/yy hh:mm): _____ (or blank for oldest)
Report End   (mm/dd/yy hh:mm): _____ (or blank for newest)

Select a softkey >

Exit      View Reports  Print Reports
```

Fields in the Outcalling Audit Trail Report screen

The following fields are used to specify the information required to generate an Outcalling Audit Trail report.

Report Type	
Description	Use this field to select the type of report to be generated.
Options	Your options are Summary and Detail. A summary report shows only completed calls. A detail report shows all actions, such as Submission, both successful and unsuccessful.
Default	Summary
Selection Criteria	
Description	All entries in the database can be viewed, or you can view data for a specific user, mailbox number, or phone number.
Options	All, Name, Mailbox, Target_Phone_Number
Default	All
Last Name	
Description	This field is displayed if Selection Criteria is set to Name. To view outcalling data for a particular user, enter that user's last name (and first name in the next field, as there may be more than one user with the same surname).
Limitations	This field does not accept the characters "+", "?", and "_" (underscore).
First Name	
Description	This field is displayed if Selection Criteria is set to Name. To view outcalling data for a particular user, enter that user's full first name (as well as the last name in the previous field).
Limitations	This field does not accept the characters "+", "?", and "_" (underscore).

Mailbox

Description This field is displayed if Selection Criteria is set to Mailbox. To view outcalling data for a specific mailbox, enter the full mailbox number.

Limitations This field accepts numeric data only.

Target Phone Number

Description This field is displayed if Selection Criteria is set to Target Phone Number. To view outcalling data for a particular target phone number or pager number (the number entered in the Target DN field in the outcalling schedule), enter the full number in this field.

Limitations This field accepts numeric data only.

Report Start/End

Description Enter the start date and time and end date and time to indicate the reporting period.

Note: If NMS is installed, you may enter a mailbox number for a voice user at another location, prefixed by the appropriate location code. However, if Meridian Networking is installed, you cannot use a remote user's mailbox number as a search criterion.

Procedure

To generate an Outcalling Audit Trail report, follow these steps.

Starting Point: The Main Menu

Step Action

- 1 Select Operational Measurements.
- 2 Select Outcalling Audit Trail Report.
Result: The Outcalling Audit Trail Report screen is displayed.
- 3 Specify the report type (Summary or Detail).
- 4 Specify the selection criteria (Name, Mailbox, Target Phone Number, or All).
- 5 Fill in the field that corresponds to the selection criteria you choose.

Step Action

- 6 Enter the report start and end times.
Note: If these fields are left blank, all outcalling data that is currently stored on disk will be retrieved.
- 7 Choose step 8 to view the reports on the terminal or step 9 to print the reports.
- 8 Press [View Reports].
Result: The first Outcalling Audit Trail report is displayed.
When viewing the report, press [Next Page] to view the next page of the report. When the last page has been displayed, a prompt appears indicating it is the end of the report.
Note: For a description of the fields in the summary report, see “Fields in the Summary Outcalling Audit Trail report” in this chapter. For a description of the fields in the detail report, see “Fields in the Detail Outcalling Audit Trail report” in this chapter.
- 9 Press [Print Reports].
Result: You are prompted to ensure the printer is ready and online.
Press [Continue Printing] to print the report or [Cancel] if you do not want to print the report.
If you selected [Continue Printing], a [Cancel] softkey is displayed that can be used to cancel printing once printing has started.
There may be some delay before control is returned to the screen because it waits for the printer to stop printing.
- 10 Press [Exit].
You are returned to the Outcalling Audit Trail Report screen.
-

The Summary Outcalling Audit Trail report

Introduction

The Summary Outcalling Audit Trail report is displayed if you select Summary as the report type when you generate the report. This report provides summary information about the use of the Remote Notification (RN) and Delivery to Non-User (DNU) features.

The report

The following is an example of the Summary Outcalling Audit Trail report screen.

Operational Measurements					
Outcalling Audit Trail from start of data to end of data.					
Date (mm/dd/yy)					
Name	Mailbox Number				
Start	Duration	Target Phone Number	Type	Call Status	
(hh:mm)	(mm:ss)				
6/10/96					
Smith, J	7550				
12:40	1:10	91238765	DNU	Answered	
12:45	0:05	91238765	DNU	No DTMF Conf.	
13:45	0:18	8051-345643	RN	Answered	
14:40	0:50	91236789	DNU	Answered	
Select a softkey >					
End of Audit Trail report.					
Exit					

Fields in the Summary Outcalling Audit Trail report

Introduction	The following informational fields are displayed when you generate a Summary Outcalling Audit Trail report.
Date	The date the call was made.
Name	The name of the Meridian Mail user who initiated the call.
Mailbox Number	The mailbox that originated the call.
Start (hh:mm)	The time at which the call was made.
Duration (mm:ss)	The length of the call in minutes and seconds.
Target Phone Number	<p>This is the number called. A maximum of 30 digits can be displayed in this field. For calls placed to paging services (such as SkyPager), the pager identification number (PIN) is also displayed.</p> <p>Example</p> <p>In the number 8051-345643, the last six digits are the PIN number. If the full number is longer than 30 digits, the first few digits in the paging service phone number will be truncated.</p>
Type	The Outcalling service that was used: either Remote Notification or Delivery to Non-User.
Call Status	<p>The result of the call. The result status can be one of the following types.</p> <p>Answered</p> <p>This indicates that the destination number was answered and the message was heard by the called party.</p> <p>RN Disabled</p> <p>This indicates that the called party answered and pressed 3 to disable Remote Notification (RN).</p>

Call Status (cont'd)**No DTMF Conf.**

This display indicates that the called party did not press 2 to hear a DNU message (not relevant if DTMF confirmation is not required).

Not Played

This display indicates that the called party disconnected before the DNU message was played.

Analyzing the Summary Outcalling Audit Trail report

Introduction

This report provides a list of the type and result of all outcalling attempts during the specified period.

Invalid RN target

If a particular RN target is associated with RN failures, the RN target may be invalid. Check to see if only one mailbox is associated with the invalid RN target. If so, contact the user and suggest that the target RN be corrected, or correct the RN through the Meridian Mail interface. If multiple mailboxes are associated with the faulty RN target, determine why the RN target is no longer valid.

The Detail Outcalling Audit Trail report

Introduction

The Detail Outcalling Audit Trail report is displayed if you selected Detail as the report type. This report includes the information displayed in the summary report, as well as detailed information regarding the usage of the RN and DNU features.

The report

The following is an example of the Detail Outcalling Audit Trail report screen.

Operational Measurements							
Outcalling Audit Trail from start of data to end of data.							
Date (mm/dd/yy)							
Name		Mailbox Number					
Transaction (hh:mm)	Start (hh:mm)	Duration (mm:ss)	Device/Target	Phone Number	Channel DN	Re-try	
Request#	Outcall	Process	Call Status	Outcall	Action		
06/10/96							
Howes D.		8050					
00:05	00:05						
#00003	RN	Submission		Continue		0	
00:05	00:05	0:30	ToneP/7050		2800	0	
#00003	RN	Call Results	Answered	Remove, User logged in.		0	
00:06	00:06						
#00004	RN	Submission		Continue		0	
00:09	00:09						
#00005	RN	Submission		Continue		0	
Select a softkey > _							
Exit				Next Page			

Fields in the Detail Outcalling Audit Trail report

Introduction	The following fields are displayed when the Detail Outcalling Audit Trail report is chosen.
Date	This is the date the call was made.
Name	This is the name of the Meridian Mail user who initiated the call.
Mailbox Number	This is the mailbox that originated the call.
Transaction (hh:mm)	This indicates the time at which the audit trail record was stored (using 24-hour clock).
Start (hh:mm)	This indicates the time at which the current outcall process started (using 24-hour clock).
Duration (mm:ss)	This indicates the length of the call.
Device/Target Phone Number	<p>This indicates the type of device called followed by the phone/pager number. The device will be one of the following choices:</p> <ul style="list-style-type: none">• Phone• ToneP (tone pager)• Voice (voice pager)• NumPa (numeric pager)• PaSrv (pager service) <p><i>Note:</i> If the device is a paging service, the paging service phone number, followed by the pager identification number (PIN), will be displayed. The maximum length for this field is 30 digits. If this limit is exceeded, the first few digits of the paging service phone number will be truncated.</p>
Channel DN	This indicates the DN associated with the voice channel used.

- Retry** This shows the number of retries that have been made at the time of the attempt. This field increments by one whenever
- a DN is busy and is retried
 - multiple target DNs are defined and they have all been tried and either not answered or answered with no login
- Transaction Request #** This is a unique number identifying the RN or DNU request.
- Outcall Process** This shows the type of audit trail entry. This could be one of the following.
- Submission**
This type indicates that a request has been made for an Outcalling service.
- Recovery**
This type indicates that messages for outcalling have been detected and submitted after a system reboot.
- Cancellation**
This type indicates that during recovery, requests for outcalling have been detected but have been cancelled since they are no longer valid.
- Logout/Admin**
This type indicates that one of two conditions has occurred. The first possibility is that a user has logged out with unannounced messages left in his or her mailbox. Normally, if a user is listening to a message when a new message comes in, the new message is announced after the user has finished listening to the other message. However, if the user hangs up before the message has finished playing, the new message will not be announced. (In this situation, the user will continue to be notified of messages.) The second possibility is that someone (an administrator or you) has modified a user's account while there were unread messages in the user's mailbox.
- Validation**
This type indicates a checking process just before a call was/is made.

**Outcall Process
(cont'd)****Call Results**

This type indicates information regarding the Call Status and Outcall Action in the adjacent fields to the right.

Call Status

This is a general statement of the results of a call. The following list describes the possible call status results.

Busy

The RN or DNU target DN was busy. A retry attempt will be scheduled if the busy and no answer retries have not been exhausted.

Answered

An outcall to an RN or DNU target DN was placed. The RN call was answered but the user did not log in on the same call to listen to the message. Remote notification will be rescheduled if the answered retries have not been exhausted. The DNU call was answered and the message was successfully delivered.

No Answer

An outcall to an RN or DNU target was placed and the call was not answered. A retry attempt will be scheduled if the no answer retries have not been exhausted.

No DTMF Conf

An outcall to a DNU target DN was placed. The call was answered but the caller did not provide the required DTMF confirmation (in other words, he or she did not press 2 to hear the message). DNU will be rescheduled if the answered retries have not been exhausted.

Reorder

During an outcall, the target DN was dialed, and a reorder tone was detected. The primary reasons for a reorder tone are that an invalid DN was called, there were no resources to complete the call, or there were access restrictions that the DN violated. The call attempt will be treated as a busy attempt, and a retry attempt will be scheduled if the busy and no answer retries have not been exhausted.

Call Status (cont'd)**Resource Delay**

The outcall was not completed because the line on which the call was to be made was taken away due to an incoming call that was given priority. The outgoing call is retried on a different channel. If this is a persistent problem, reserve channels for outcalling and make sure no ACD queues terminate on them.

Incomplete

The outcall could not be completed. The call attempt will be treated as a busy attempt, and a retry attempt will be scheduled if the busy and no answer retries have not been exhausted. If there is an accompanying SEER, follow the action described in the *Maintenance Messages (SEERs) Reference Manual* (NTP 555-7001-510).

RN Disabled

During an RN attempt, the target DN was dialed, the call was answered, and 3 was pressed to disable Remote Notification. There will be no further RN attempts for this user until the user logs in to his or her mailbox.

Not Played

During a DNU attempt, the target DN was dialed, and the call was answered and disconnected before DNU could play its message. If the answered retries have not been exhausted, DNU will retry using the answered retry limits and intervals.

Illegal Window

A user attempted to send a DNU message. The message became stale during an illegal time window and could not be delivered. (The stale date parameter defaults to 36 hours. If a message cannot be delivered within this time, a message becomes stale.) The user receives a nondelivery notification.

Call Status (cont'd)**Stale Date**

A user attempted to send a DNU message. The message was not delivered immediately (either because it was sent during a restricted time period or the call was not answered and was, therefore, rescheduled). The message became stale during a permitted time period and could not be delivered. (The stale date parameter defaults to 36 hours. If a message cannot be delivered within this time, a message becomes stale.) The user receives a nondelivery notification.

SIT Tone

During an outcall, the target DN was dialed, and a SIT tone was detected. A SIT tone is usually a series of tones followed by a voice message, indicating that this DN is invalid. This causes remote notification for this user to be turned off by disabling all of his or her remote notification schedules. The administrator or user should define a new valid DN and reenable Remote Notification for the user. DNU is cancelled for the message and the user receives a nondelivery notification (NDN).

Bad Called DN

During an outcall, the target DN was dialed, and a bad called DN was detected by the local switch. (In other words, the target DN is invalid for some reason.) This causes Remote Notification for this user to be turned off by disabling all of his or her remote notification schedules. The administrator or user should define a new valid DN and reenable Remote Notification for the user. DNU is cancelled for the message and the user receives a nondelivery notification (NDN).

Outcall Action

This field indicates the action performed on the request. The possible results are described below.

Continue

The validation has been passed and a call attempt is to be made.

Remove, retry limit reached

After the call, the retry was not rescheduled because the retry limit had been reached.

Outcall Action (cont'd) Remove, another RN exists

The validation step determined that the user has logged on since the last RN attempt and the retry was canceled.

Reset

A problem was encountered retrieving information. Requests will be discarded and recovered from disk.

Delayed 1

A channel could not be obtained on which to call out, and an attempt will be made later to obtain one.

Delayed 2

A channel was obtained but it was taken away before the call was made. An attempt will be made to retry later.

Defer

Another call attempt has been scheduled. RN calls to pagers are always rescheduled, unless the retry limit is reached, because the user may fail to receive the page. (However, if the user logs on before the next retry, the retry will be canceled.)

Outcall Action - Reason Codes for Delivery to Non-User

Reason codes indicate why an action occurred. Possible reason codes follow.

Delivery to Non-User

DNU Interpretation
All OK
Past delivery window
Past system limit (retry, stale date)
Problem reading the message
Stale date time
Problem sending NDN, try again in 5 minutes
Message deleted by utility or file lost
Past system limit (no NDN given)
Outcalling not set up for customer

**Outcall Action -
Reason Codes for
Delivery to Non-User
(cont'd)**

Delivery to Non-User (cont'd)

DNU Interpretation
Had difficulty determining if the customer had Outcalling; will defer this request for Validation/Results stage and retry
Duplicate call made due to DNU recovery
Duplicate request discarded due to DNU recovery
Indicates invalid DN
No suitable channels
Channels out of service

Remote notification

RN Interpretation
All OK
Notification was cancelled by login
Message arrival is outside the time period
Failed to read personal profile
Outcalling not set up for customer or user
Past retry limit
RN not turned on
RN already active
RN no longer active (RN should still be active)
Message of wrong priority
Reinstated old request
Schedule missing
Failed to read the phone number
Failed to update the personal profile

**Outcall Action -
Reason Codes for
Delivery to Non-User
(cont'd)**

Remote notification (cont'd)

RN Interpretation
No messages in the user's mailbox
Duplicate recovery entry for user
Notification was cancelled by another request
Non-MM8 profile; no component list
DN no longer valid
Invalid Client ID given
RN disabled by the called party
RN turned off due to multiple retry
Had difficulty determining if the customer had Outcalling; will defer this request for Validation/Results stage and retry
RN disabled by invalid DN
No suitable channels
Channels out of service

Analyzing the Detail Outcalling Audit Trail report

Introduction

This report provides a list of the type and result of all outcalling attempts during the specified interval.

Recurring channel failures on one channel

Recurring outcalling failures on the same channel may indicate problems with the channel hardware.

Suggested Actions

To determine the channel number from the Channel DN, go to Meridian Mail Administrative screen and view the Channel Allocation Table (CAT).

1. If the system is connected to a Meridian 1 system, look under the SCN field and find Channel DN, and then look up the channel number.
2. If the system is connected to a non-Meridian 1 switch, look under the Channel DN field for the Channel DN, and then look up the channel number.

Run the Channel Problem Identification report to see if the channel has unusual traffic patterns. You may need to check the DSP hardware and switch terminal number status as well.

Remote Notification not being received

If a user complains of not receiving Remote Notification, follow the suggested actions.

Suggested actions

Run the Audit Trail with the filter set for the user mailbox over the time interval in question. Then do the following:

- Check to see if RN requests were processed for that user; if none exists, check the Mailbox Session Analysis report to see if any messages arrived during the interval.
- If there was RN activity, check the RN targets used to see if they are valid.

***Section C:* Fax Audit Trail reports**

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Overview

Introduction

Fax audit trail statistics allow you to monitor how users are using the Fax on Demand features. There are actually two Fax Audit Trail reports that you can generate: a summary report and a detail report. Each report provides fax data for a period specified by you.

Note: Before you can generate a Fax Audit Trail report, the Meridian Mail system must be set so that the collection of audit trail data is enabled (see “Enabling the collection of audit trail data” on page 33-5).

Report types

The following two types of Fax Audit Trail Data reports are available.

Summary report

The summary report shows each fax outcall that was made during the reporting interval, along with the called DN and the status of the call.

Detail report

The detail report provides a more thorough account of each outcall request, including the DN of the channel that was used to place the call and the number of retries (if any).

The Fax Audit Trail Report screen

Overview

The Fax Audit Trail Report screen is accessed from the Operational Measurements menu. This is a report selection screen in which you specify the type of report you want to retrieve (summary or detail) as well as the duration of the report period.

You must specify whether you want to generate a report for a particular billing DN, called DN, or all. You can either generate a report that includes all of the information currently stored on disk for that billing DN or called DN, or generate a shorter report for a specific time period. The report can either be viewed on your terminal or printed.

The screen

The following is an example of the Fax Audit Trail Report screen.

```
Operational Measurements
Fax Audit Trail Report
Report Type:  Summary Detail
Selection Criteria: All Billing_DN Called_DN

Report Start (mm/dd/yy hh:mm): _____ (or blank for oldest)
Report End   (mm/dd/yy hh:mm): _____ (or blank for newest)

Select a softkey >
Exit          View Reports  Print Reports
```

Fields in the Fax Audit Trail Report screen

The following table lists the fields displayed on the Fax Audit Trail Report screen.

Report Type									
Description	Use this field to select the type of report to be generated.								
Options	Summary or Detail. For a description of each report type see "Report types" on page 33-30.								
Default	Summary								
Selection Criteria									
Description	Use this field to select the appropriate report criteria.								
Options	Use this field to select the scope of the database search.								
	<table border="1"> <thead> <tr> <th>SELECT</th> <th>TO view</th> </tr> </thead> <tbody> <tr> <td>All</td> <td>all entries in the database.</td> </tr> <tr> <td>Billing_DN</td> <td>database entries matching the specified billing DN only.</td> </tr> <tr> <td>Called_DN</td> <td>database entries matching the specified called DN only.</td> </tr> </tbody> </table>	SELECT	TO view	All	all entries in the database.	Billing_DN	database entries matching the specified billing DN only.	Called_DN	database entries matching the specified called DN only.
SELECT	TO view								
All	all entries in the database.								
Billing_DN	database entries matching the specified billing DN only.								
Called_DN	database entries matching the specified called DN only.								
Default	All								
Report Start/End									
Description	Use this field to indicate the start and end time period for the report.								
Default	Blank								

Generating a Fax Audit Trail report

To generate a Fax Audit Trail report, follow these steps.

Starting Point: The Operational Measurements menu

Step Action

- 1 Select Fax Audit Trail Report.
Result: The Fax Audit Trail Report screen is displayed.
 - 2 Specify the report type (Summary or Detail).
See "Fields in the Fax Audit Trail Report screen" on page 33-32. for field descriptions.
 - 3 Select the selection criteria (Billing_DN, Called_DN, or All).
 - 4 Enter the report start and end times.
Result: If these fields are left blank, all fax outcalling data that is currently stored on disk will be retrieved.
 - 5 Press the [View Reports] softkey to view the reports, or the [Print Reports] softkey to print the reports.
Result: The first Fax Audit Trail report is displayed or printed.
Note: To cancel the request, press the [Cancel] softkey if you do not want to view or print the reports at this point.
 - 6 Press the [Next Page] softkey to view the next page of the report.
When the last page has been displayed, a prompt appears indicating it is the end of the report.
 - 7 Press [Exit].
Result: You are returned to the Fax Audit Trail Report screen.
-

Printing a Fax Audit Trail report

To print a Fax Audit Trail report, follow these steps.

Starting Point: The Operational Measurements menu

Step Action

-
- 1 Select Fax Audit Trail Report.
Result: The Fax Audit Trail Report appears.
 - 2 Change the selection criteria as desired.
 - 3 Ensure that the printer is online and has paper.
 - 4 Press [Print Reports].
Result: A new set of softkeys is displayed: [Cancel Printing] and [Continue Printing].
To cancel printing, press the [Cancel] softkey.
 - 5 Press [Continue Printing] to print the report.
Result: The report is printed and you are returned to the Operational Measurements menu.
Note: If you selected [Continue Printing], a [Cancel] softkey is displayed that can be used to cancel printing once printing has started.
-

The Summary Fax Audit Trail report

Introduction

The Summary Fax Audit Trail report is displayed if the report type chosen is Summary.

The report

The following is an example of the Summary Fax Audit Trail report.

Operational Measurements				
Fax Audit Trail from start of data to end of data.				
Date (mm/dd/yy)	Description	Duration	Call	Call Status
(hh:.., (mm:ss)			Billing DN	
6/10/96	FID 2222		3654	
16:42	1:24	7051		Transmitted
16:45	0:00	7051		No Carrier
16:55	1:19	7051		Transmit Error

Select a softkey >
End of Audit Trail Report.

Exit

Fields in the Summary Fax Audit Trail report screen

Introduction	The Summary Fax Audit Trail report displays the following information.
Date	This indicates the date the call was made.
Description	This is a description of the application.
Billing DN	This indicates the billing DN that originated the call.
Start (hh:mm)	This indicates the time at which the call was made.
Duration (mm:ss)	This indicates the length of the call in minutes and seconds.
Called DN	This indicates the destination DN for the fax delivery.
Call Status	This field displays the result of the call. The allowed values are as follows. Transmitted This state indicates that fax transmission was completed without error. Transmit Error This state indicates that the fax transmission started but was not completed successfully. No Carrier This state indicates that the fax transmission was not started because the call was not answered, or was answered but not by a compatible fax device.

Analyzing the Summary Fax Audit Trail report

Description

This report lists each fax callback call attempt. Use this report to determine which fax delivery attempts are causing the high retry counts and failures that were detected by the Fax Activity report. To explore the cause of the problems in greater detail, run the Detail Fax Audit Trail report.

The Detail Fax Audit Trail report

Introduction

The Detail Fax Audit Trail report is displayed if the report type is Detail.

The report

The following is an example of the Detail Fax Audit Trail report.

Operational Measurements							
Fax Audit Trail from start of data to end of data.							
Date (mm/dd/yy)	Description	Start	Duration	Billing DN	Called DN	Channel DN	Retry
(hh:mm)	(hh:mm)	(mm:ss)					
Request#	Outcall Process	Call Status	Outcall Action				
6/10/96				3654			
16:42	16:42						0
#*****	Submission						
16:42	16:42	1:24		7051		2800	0
#000003	Call Results	Transmitted	Remove				
16:45	16:45						0
#*****	Submission						
16:45	16:45	0:00		7051		2800	0
#000004	Call Results	No Carrier	Defer				
Select a softkey > _							
Exit				Next			
				Page			

Fields in the Detail Fax Audit Trail report screen

Introduction	In addition to the information displayed in the summary report, the detailed report contains the following information fields.
Transaction (hh:mm)	This is the time at which the delivery should have taken place.
Start (hh:mm)	This is the time at which the current outcall process started.
Duration (mm:ss)	This is the length of the call.
Called DN	This is the destination DN for the fax delivery.
Channel DN	This is the DN that was used to originate the call.
Retry	This is the number of retries that were made at the time of the attempt. This field increments by one each time a DN is retried.
Request #	This is the number of the transaction request.
Outcall Process	This is the type of audit trail entry. This could be one of the following. Submission This type indicates that a request has been made for an Outcalling service. Instead of Submission you may also see Recovery. Recovery This type indicates that faxes for outcalling have been detected and submitted after a system reboot. Validation This type indicates a checking process just before a call was or is made.

**Outcall Process
(cont'd)****Call Results**

This type indicates information regarding the Call Status and Outcall Action in the adjacent fields.

Call Status

This field indicates the status of the call attempt. The possibilities are as follows.

Transmitted

This state indicates that the fax transmission completed without error.

Transmission Error

This state indicates that the fax transmission was started but not successfully completed.

No Carrier

This state indicates that the fax transmission was not started because the call was not answered, or was answered, but not by a compatible fax device.

Illegal Window

This state indicates that the fax became stale during an illegal time window and could not be delivered. (The stale date parameter defaults to 36 hours. If a message cannot be delivered within this time, a message becomes stale.)

Stale Date

This state indicates that the fax was not delivered immediately (either because it was sent during a restricted time period, or the fax was not transmitted and was, therefore, rescheduled). The fax became stale during a permitted time period and could not be delivered. (The stale date parameter defaults to 36 hours. If a fax cannot be delivered within this time, the fax becomes stale.)

Bad Called DN

This state indicates that during an outcall, the target DN was dialed, and a bad called DN was detected by the local switch. (In other words, the target DN is invalid for some reason.) The callback fax is not delivered and is removed.

Call Status (cont'd)**Resource Delay**

This state indicates that the outcall was not completed because the line on which the call was to be made was taken away due to an incoming call that was given priority. The outgoing call is retried on a different channel. If this is a persistent problem, reserve channels for fax callback deliveries and make sure no ACD queues terminate on them.

Incomplete

This state indicates that the outcall could not be completed. The call attempt will be treated as a busy attempt, and a retry attempt will be scheduled if the busy and no answer retries have not been exhausted. If there is an accompanying SEER, follow the action described in the *Maintenance Messages (SEERs) Reference Manual* (NTP 555-7001-510).

Outcall Action

This field indicates the action performed on the request. The possibilities are as follows.

Continue

This action indicates that the validation has been passed and a call attempt is to be made.

Remove, retry limit reached

This action indicates that after the call, the retry was not rescheduled because the retry limit had been reached.

Remove

This action indicates that the fax was successfully delivered.

Reset

This action indicates that a problem was encountered retrieving information. Requests will be discarded and recovered from disk.

Delayed 1

This action indicates that a channel on which to call out could not be obtained. Will retry later.

Outcall Action (cont'd) Delayed 2

This action indicates that a channel was obtained, but it was taken away before the call was made. Will retry later.

Defer

This action indicates that another call attempt has been scheduled.

Outcall Action Reason Codes

Reason codes indicate why an action occurred. Possible reason codes follow.

Reason code
All OK
Past delivery window
Past system limit (retry, stale date, etc.)
Problem reading the message
Stale date time
Problem sending NDN, try again in 5 minutes
Message deleted by utility or file lost
Past system limit (no NDN given)
Fax on Demand not set up for customer
Had difficulty determining if the customer had Fax. Will defer this request for validation/results stage and retry.
Duplicate call made due to FP recovery
Duplicate request discarded due to FP recovery
Indicates invalid DN
No suitable channels
Channels out of service

Analyzing the Detail Fax Audit Trail report

Introduction	Use this information to analyze the Detail Fax Audit Trail report data.
Call Back Status	Check Call Back Status for the failing fax deliveries. For incomplete calls, check to see if a SEER has been produced, and refer to the <i>Maintenance Messages (SEERs) Reference Manual</i> (NTP 555-7001-510) for information on solving the problem. For call transmission failure due to resource delay, your system may need more multimedia channels. If faxes are becoming stale (faxes are not being sent before the maximum time for delivery attempts expires), check the time windows to make sure that the faxes are not being sent during illegal time periods.
Fax delivery fails on Bad Called DN	If the fax delivery attempt fails on Bad Called DN, dial the fax phone number to find out if the number is operational. The caller may have provided a wrong number.
Call Back Action field	Check the Call Back Action field for delays (Delay 1 and Delay 2). Delays indicate busy channels. If these problems with delays persist, your system may need more multimedia channels.
Recurring fax deliveries on the same channel	<p>Recurring fax delivery failures on the same channel may indicate problems with the channel hardware. To determine the channel number from the Channel DN, go to the Meridian Mail Administrative screen and view the Channel Allocation Table (CAT):</p> <ul style="list-style-type: none">• If the system is connected to a Meridian 1 system, look under the SCN field and find Channel DN, then look up the channel number.• If the system is connected to a non-Meridian 1 switch, look under the Channel DN field for the Channel DN, then look up the channel number. <p>Run the Channel Problem Identification Report to see if the channel has unusual traffic patterns. You may need to check the DSP hardware and switch terminal number status as well.</p>

Chapter 34

Bulk provisioning

In this chapter

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Section B: Working with bulk provisioning data sets	34-9
Section C: Transferring bulk provisioning data onto tape	34-27
Section D: Provisioning data into a Meridian Mail system	34-33

Overview

Introduction

This chapter contains information on the bulk provisioning feature of Meridian Mail 12. Bulk provisioning allows administrators or distributors to copy voice services such as menus, announcements, and fax items from one Meridian Mail system to another.

Section A: Introduction to bulk provisioning, provides a conceptual overview of bulk provisioning and its uses.

Section B: Working with bulk provisioning data sets, discusses bulk provisioning data sets, including the procedure to create them. As well, procedures for deleting, viewing, and printing data sets are included.

Section C: Transferring bulk provisioning data onto tape, describes the procedure for copying the bulk provisioning data sets onto tape.

Section D: Provisioning data into a Meridian Mail system, provides information about provisioning bulk provisioning data sets to the Meridian Mail system.

***Section A:* Introduction to bulk provisioning**

In this section

Overview	34-4
What is bulk provisioning?	34-5
Using bulk provisioning	34-6

Overview

Introduction

This section includes information on the concept of bulk provisioning—what it is and how it can be used. Included are examples and operational considerations.

What is bulk provisioning?

Introduction

This topic describes and gives examples of bulk provisioning.

Description

Bulk provisioning is a feature that allows the administrator to collect voice service, VSDN, and local user information into data sets, copy them to tape, and have the information copied to other Meridian Mail systems.

Bulk provisioning enables selective distribution of one system's VSDNs and services on another system.

Example

The XYZ Company head office has decided to open a new location in the western region. The new site is obtaining its own Meridian Mail system. The company's president wants his customers in the western region to receive the same greetings and services provided at head office.

In order to provide the same services (for example, menus and announcements) to the new site as they have at head office, the administrator uses bulk provisioning to collect the required services onto tape. The administrator then sends the tape to the western region site. At the new site, the administrator provisions the new system with the information on the tape.

If both sites have Meridian Mail Networking installed, the administrator can use bulk provisioning to collect local user information, copy it onto a tape and send it to the western region site where it is added as remote users. This allows the remote users to have their names played in their own voices, during message compose and when name and dial addressed. This feature helps make the network appear transparent.

Using bulk provisioning

Introduction

This topic describes uses of the bulk provisioning feature.

System setup

Bulk provisioning can be used to initialize a new Meridian Mail system. Selected or all services as well as VSDNs can be collected from the “master” Meridian Mail system into data sets, copied to tape, and provisioned to new Meridian Mail systems.

This allows the administrator to ensure that all services, including menus, announcements, fax items, time of day controllers, and all other services defined using Voice Services Administration (VSA) are distributed and installed on all Meridian Mail systems.

Once the system is set up, the administrator can also save periodic updates to tape and provision them at other Meridian Mail systems. In this way, a group of Meridian Mail systems can always be kept up-to-date with the same services and VSDNs.

Multi-customer administration

Bulk provisioning can be used to copy services (but not VSDNs or users) between customer groups on the same Meridian Mail system. This could save time and reduce errors when setting up common services.

Remote user administration

Bulk provisioning allows the administrator to add remote user information to systems with Meridian Mail networking all at once rather than one user at a time. The users’ spoken names in their own voices are included so that the administrator is no longer required to record them.

The users’ organization directory entries are copied to tape; the administrator uses this tape to provision the users on another Meridian Mail system in the network. If the networking feature is installed, local users may be copied to tape. NMS users are considered local users and may be included on the tape.

Initial setup of temporary remote voice users

Bulk provisioning of the local users information allows the administrator to provide initial setup of temporary remote users on a new system. A sender's name and mailbox information can be propagated across the network along with their messages via Enterprise Networking.

Note: Temporary remote users are subject to a nightly audit. This audit removes the less recently accessed remote users in order to lessen the load on the system. See Chapter 9, "Remote voice users." Permanent remote users remain on the system until deleted by the administrator.

Addition of remote user attributes: a comparison

The following table compares the addition of remote user attributes by network propagation and bulk provisioning.

Remote User Attribute	Remote user information added by network propagation	Remote user information added by bulk provisioning
Last name, first name	first 18 characters	entire name
Mailbox	yes	yes
Primary DN	=mailbox (if the DN=mailbox convention is set up in the network database)	=mailbox (if the DN=mailbox convention is set up in the network database)
Spoken name	yes, updated with each message sent	yes
Dialable by external callers	yes, default set by administrator	yes, default set by administrator
Department	no	yes
Temporary user flag	temporary	temporary or permanent, as selected by administrator

Bundled applications

A service bureau can create "applications" which, if bundled, could be sold as value-added packages to your mail system. For instance, a recorded front-end menu could be provided on all your systems.

***Section B:* Working with bulk provisioning data sets**

In this section

Overview	34-10
Assembling bulk provisioning data sets	34-11
Creating and modifying bulk provisioning data sets	34-14
Viewing and printing bulk provisioning data sets	34-21
Deleting bulk provisioning data sets	34-25

Overview

Introduction

This section includes information that you need to create and modify bulk provisioning data sets. Also included are instructions on viewing, printing, and deleting data sets.

Assembling bulk provisioning data sets

Introduction

This section provides information required to create new bulk provisioning data sets and modify data sets that currently exist.

Concept of bulk provisioning data sets

Bulk provisioning provides the administrator with the ability to group sets of provisioning data into a catalog. The administrator can select services, VSDNs, and local user information for provisioning to other systems. These selections are saved in a bulk provisioning data set and later copied to tape.

These data sets are the starting point for bulk provisioning. At this point, the tape is created from a data set and is sent to another site where the contents can be duplicated on the target Meridian Mail system.

The administrator can create up to 100 bulk provisioning data sets. The data sets can be stored for future use, and can be modified if required.

Using Wildcards in the Provisioning Data

Using wildcards can be useful when specifying multimedia services or VSDNs. By using wildcards, the administrator can collect much more information than the number of input fields would allow. Also, wildcards provide a means to help organize the items in the data set.

The wildcards available for use are the organization directory wildcards:

- “+” to represent any number of characters
- “_” to represent exactly one character

Example

The administrator in an automotive company can group one set of multimedia services (faxes, menus, announcements) referring to new products with service IDs beginning with the characters 11 (for example, 110001, 110002, 110003, 110004 and so on). By using a wildcard character, these services can be referred to as 11+. Another set of services relating to parts and support could be referred to as 12+. This allows the

administrator to choose specific groupings of services for various sites.

Important considerations

The administrator must be aware of the following important considerations before beginning to collect data for the provisioning data sets.

Support requirements

The administrator must ensure that the target system is correctly set up with support needed for the services and VSDNs that are being bulk provisioned. Included in these considerations are features, hours, networking sites, DNs or TNs, switch connectivity, and system restriction/permission lists.

Dependencies

The administrator must ensure that multimedia services provisioned to a target system do not have references to services that do not exist on the system. For instance, menus or time-of-day controllers typically refer to other services that should be included in the data set as well. VSDNs may also require certain services in order to function properly. Bulk provisioning does not automatically resolve these dependencies. This is the administrator's responsibility.

Hardware-specific information

Hardware-specific information is not propagated to the target system. This information includes

- port names
- link information
- network database information relating to local and remote sites
- the hardware database

Restriction/permission indexes

Restriction and permission indexes associated with specific services on the source system are brought over to the target system. The administrator must take care to ensure that the indexes make sense when preconfiguring systems across area codes on the destination system.

Dialing plan comparison

The system does not do a comparison check of the DNs of the source system against the dialing plan of the target system. This affects

- VSDNs (such as menus, announcements, and time-of-day controllers)
- billing DNs
- revert DNs
- fax confirmation DNs
- attendant DNs

Remapping capability

No capability is provided for remapping of DNs or various service IDs. The target system will have exactly the same DNs and service IDs as the source system.

The administrator should make sure that all revert DNs and service IDs make sense on the target system before beginning the bulk provisioning. If required, the administrator of the target system can use the MMI to correct DNs and service IDs of provisioned services.

System and customer profiles

Information kept in the system or customer profiles is not transferred during bulk provisioning.

Creating and modifying bulk provisioning data sets

Introduction

This section provides information required to create and modify data sets for bulk provisioning.

The Add Data Set screen

The following is an example of the Add Data Set screen.

Bulk Provisioning				
Add Data Set				
Data Set Name:	<u>Service01</u>			
Local Users:	None All Individual Volume COS Dept Enter individual user mailboxes. Wildcards + and _ permitted. 756+ _____ _____ _____ _____			
Services:	None All Individual			
VSDNs:	None All Individual			
Select a softkey >				
Save	Cancel	View Detail	Print Detail	

The View/Modify Data Set screen The following is an example of the View/Modify Data Set screen. As you can see, only its title differs from the Add Data Set screen.

```

Bulk Provisioning
View/Modify Data Set
Data Set Name: Service01
Local Users:  None All Individual Volume COS Dept
              Enter individual user mailboxes. Wildcards + and _ permitted.
              756+
Services:     None All Individual
VSDNs:       None All Individual

Select a softkey >
Save  Cancel  View Detail  Print Detail

```

Field descriptions

The following table describes the fields in the Add Data Set and the View/Modify Data Set screens.

Data Set Name	
Description	A descriptive name for the data set. This name is entered by the administrator.
Limitations	Maximum of 30 characters
Default	For the Add Data Set screen, the default is blank. (The data set name must be entered or the data set cannot be saved.) For the View/Modify Data Set screen, the data set name is displayed.

Local Users

Description	The Local Users field displays only on systems that have Meridian Mail Networking installed. Use this field to add users to the data set. Note: Only local users belonging to the networking customer group may be copied to tape.
Description	The Local Users field displays only on systems that have Meridian Mail Networking installed. Use this field to add users to the data set.
Options	None, All, Individual, Volume, COS, Dept.
Limitations	Individual: ten users (use of the wildcards “+” and “_” is allowed to expand the number of local users added). Volume: to maximum number of volumes on the system. COS: 15 classes of service. Dept.: five departments (use of the wildcards “+” and “_” is allowed to expand the number of departments added).
Default	None

Services

Description	These are the multimedia services.
Options	None, All, Individual.
Limitations	30 services (use of the wildcards “+” and “_” is allowed to expand the number of services added).
Default	None

VSDNs

Description	These are the voice service DN's included in the data set.
Options	None, All, Individual.
Limitations	20 VSDNs (use of the wildcards “+” and “_” is allowed to expand the number of VSDNs added).
Default	None

Creating bulk provisioning data sets

To create bulk provisioning data sets, follow these steps.

Starting Point: The Main Menu screen

Step Action

- 1 Select Bulk Provisioning from the Main Menu screen.

Result: The Bulk Provisioning Menu is displayed.

Bulk Provisioning	
1	Data Set Maintenance
2	Copy Data to Tape
3	Provision From Tape
Select an item > =	
Exit	

- 2 Select Data Set Maintenance.

Result: The Data Set Maintenance Menu is displayed.

Bulk Provisioning		
Data Set Maintenance		
Data Set Name	Creation Date	Modified Date
Service01	6/11/96 14:00	6/11/96 14:00
Select a softkey >		
Exit	Add	View/Modify
	Delete	Print List

- 3 Press the [Add] softkey while in the Data Set Maintenance screen.

Result: The Add Data Set screen displays.

Step Action

4 Enter a descriptive data set name in the Data Set Name field. This field allows a maximum of 30 characters.

5 Use this table to determine your next action.

IF networking	THEN go to
is installed on your system and you want to add users	step 6.
is not installed on your system	step 8.

6 Choose one of the following options.

IF you want to add	THEN select
no users	None
all users	All
individual users	Individual
users by volume they reside on	Volume
users by COS (Class of Service)	COS
users by department	Dept.

Result: For options Individual, Volume, COS, and Dept., the display is expanded to provide a number of input fields.

7 Complete the input fields as required. See "Field descriptions" on page 34-15 for information on the Local Users fields.

8 To add services and/or VSDNs to the bulk provisioning data set, move the cursor to the Services or VSDNs fields.

IF you want to add	THEN select
no services or VSDNs	None in the appropriate field
all services or VSDNs users	All
individual services or VSDNs	Individual

Result: For the Individual option, the display is expanded to provide a number of input fields.

9 Complete the input fields for Services and/or VSDNs as required. See "Field descriptions" on page 34-15 for information on the Local Users fields.

Step Action

- 10 Save the data set by pressing the [Save] softkey. (Before saving the data set, you can view the details by pressing the [View Detail] softkey to make sure that you have chosen the information you require. See "Viewing details of bulk provisioning data sets" on page 34-22.)

Result: The data set is saved. You are returned to the Data Set Maintenance screen.

Modifying bulk provisioning data sets

To modify bulk provisioning data sets, follow these steps.

Note: Use the up and down arrows (↑↓) to move between fields and the left and right arrows (← →) to move between options within a field.

Starting Point: The Main Menu

Step Action

- 1 Select Bulk Provisioning from the Main Menu screen.
- 2 Select Data Set Maintenance.

Result: The Data Set Maintenance Menu is displayed.

Bulk Provisioning		
Data Set Maintenance		
Data Set Name	Creation Date	Modified Date
Service01	6/11/96 14:00	6/11/96 14:00

Select a softkey >

Exit	Add	View/Modify	Delete	Print List
------	-----	-------------	--------	------------

- 3 Move the highlight bar to the data set that you want to modify.
Result: The data set name is highlighted.
- 4 Press the [View/Modify] softkey.
Result: The View/Modify Data Set screen is displayed.

Step Action

- 5 Change the input fields as required. See “Field descriptions” on page 34-15 for information on each of the fields.

- 6 Save the data set by pressing the [Save] softkey. (Before saving the data set, you can view the details by pressing the [View Detail] softkey to make sure that you have chosen the information you require. See “Viewing details of bulk provisioning data sets” on page 34-22.)

Result: The data set is saved. You are returned to the Data Set Maintenance screen.

Viewing and printing bulk provisioning data sets

Introduction

This section contains the information required to view and print the contents of bulk provisioning data sets.

View/Modify Data Set screen

The following is an example of the View/Modify Data Set screen.

```

Bulk Provisioning
View/Modify Data Set
Data Set Name:  Service01_____
Local Users:   None All Individual Volume COS Dept
               Enter individual user mailboxes. Wildcards + and _ permitted.
               756+
               _____
               _____
               _____
               _____
Services:      None All Individual
VSDNs:        None All Individual

Select a softkey >
Save          Cancel          View Detail   Print Detail
  
```

Field descriptions

The fields in the View/Modify Data Set screen are the same as those in the Add Data Set screen. See page 34-15 for detailed field descriptions.

Viewing details of bulk provisioning data sets To view details of bulk provisioning data sets, use the following steps. This procedure can be used when modifying existing data sets as well as when adding new data sets.

Starting Point: The Add Data Set or the View/Modify Data Set screen

Step Action

- 1 Press the [View Detail] softkey.

Result: The View Data Set Detail screen is displayed.

Bulk Provisioning			
View Data Set Detail			
Data Set Name: Service01			
Data Class	Serv Type	ID/VSDM/Mbox	Description
User		7560	Ulrichte,Lars
User		7561	Kong,Rex
User		7562	Turing,Alan
User		7563	McBain,Arnold
User		7564	Saget,John
User		7565	Lee,Roberta
User		7566	Khan,Faisal
User		7567	Howell,Wilbur
User		7568	Gillis,Andrew
User		7569	Rabbino,Jessica
Service	MS	101	Main Menu for External Calls
Service	MS	102	off hours menu
<div style="display: flex; justify-content: space-between; padding: 5px;"> Exit Next Page </div>			

- 2 Press the [Next Page] softkey (if available) to view additional screens.
- 3 Press the [Exit] softkey to exit from the View Data Set Detail screen.

Result: You are returned to the Add Data Set or View/Modify Data Set screen.

Printing bulk provisioning data

To print the detail of bulk provisioning data sets, use the following steps. This procedure can be used when modifying existing data sets as well as when adding new data sets.

Starting Point: The Add Data Set or the View/Modify Data Set screen

Step Action

- 1 Press the [Print Detail] softkey.

Result: The prompt "Please ensure that the printer is ready" is displayed.

```

Bulk Provisioning
View/Modify Data Set
Data Set Name:  Service01
Local Users:   None All Individual Volume COS Dept
               Enter individual user mailboxes. Wildcards + and _ permitted.
               756+
Services:     None All Individual
VSDNs:       None All Individual

Please ensure that the printer is ready._
Cancel Printing  Continue Printing
  
```

- 2 Use this table to determine your next action.

IF the printer is

THEN

ready

press the [Continue Printing] softkey to print the contents of the data set.

not ready

ready the printer and return to step 1.

To cancel the printing, press the [Cancel Printing] softkey at any time.

Result: When printing is complete, you are returned to the Add Data Set screen or the View/Modify Data Set.

Printing a list of bulk provisioning data sets To print a list of bulk provisioning data sets, use the following steps.

Starting Point: The Bulk Provisioning menu

Step Action

- 1 Select Data Set Maintenance.
Result: The Data Set Maintenance screen displays.
- 2 Press the [Print List] softkey.
Result: The prompt "Please ensure that the printer is ready" is displayed.
- 3 Use this table to determine your next action.

IF the printer is	THEN
ready	press the [Continue Printing] softkey to print the list of data sets.
not ready	ready the printer and return to step 2.

Result: The list of data sets is printed.

To cancel the printing, press the [Cancel Printing] softkey at any time.

Deleting bulk provisioning data sets

Introduction

This topic provides information on deleting bulk provisioning data sets.

Procedure

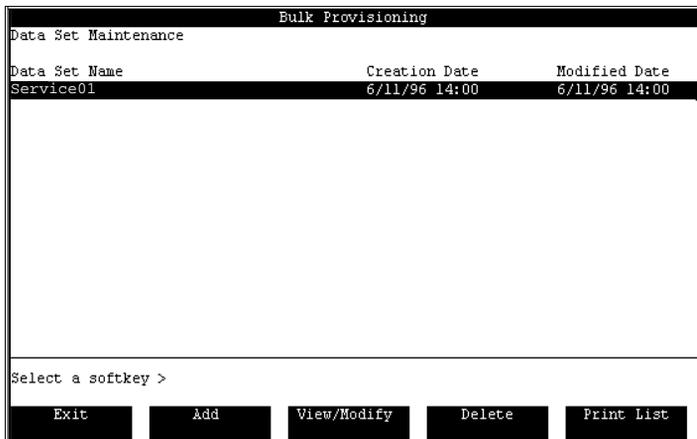
To delete bulk provisioning data sets, use the following steps.

Starting Point: The Bulk Provisioning menu

Step Action

- 1 Select Data Set Maintenance.

Result: The Data Set Maintenance screen displays.



Bulk Provisioning		
Data Set Maintenance		
Data Set Name	Creation Date	Modified Date
Service01	6/11/96 14:00	6/11/96 14:00

Select a softkey >

Exit Add View/Modify Delete Print List

Step Action

- 2 Use the up and down arrows (↑↓) to move the cursor to the data set you want to delete, then press the [Delete] softkey.

Result: The Delete Data Set screen is displayed with a read-only version of the selected data set shown.

```

Bulk Provisioning
Delete Data Set
Data Set Name:  Service01_
Local Users:   None All Individual Volume COS Dept
               Enter individual user mailboxes. Wildcards + and _ permitted.
               756+
Services:      None All Individual
VSDNs:         None All Individual

Select a softkey >
OK to Delete  Cancel  [ ]  [ ]  [ ]
```

- 3 Press the [OK to Delete] softkey to delete the data set. (To abort this procedure, press the [Cancel softkey].)

Result: The data set is deleted.

***Section C:* Transferring bulk provisioning data onto tape**

In this section

Overview	34-28
Copying provisioning data sets onto tape	34-29

Overview

Introduction

This section provides the procedure for copying bulk provisioning data sets onto tape. Also included is a diagram of the Copy Data to Tape screen and a description of the fields in the screen.

This is an example of the Copy Data to Tape screen while the copy is in progress.

Bulk Provisioning		
Copy Data to Tape		
Data Set Name	Creation Date	Modified Date
Service01	6/13/96 15:06	6/13/96 15:06
Status: Copy in progress, 75% done		
<div style="text-align: center;"> <input type="button" value="Abort"/> </div>		

Field descriptions

The following fields are contained in the Copy Data to Tape screen.

Data Set Name

Description The descriptive name of the data set created by the administrator.

Format Data set names can be a maximum of 30 characters in length.

Creation Date

Description The original creation date and time (24 hour clock) of the data set.

Format date hh:mm (where date is the system date format as selected under General Administration/General options)

Modified Date

Description The date and time (24 hour clock) that the data set was last modified.

Format date hh:mm (where date is the system date format as selected under General Administration/General options)

Status

Description	This field shows the status of the copy to tape. This field is viewable only after the tape has been retensioned and the copy to tape begins.
Format	Copy in progress, nn% done or Copy completed successfully Note: The percentage done is based on the number of items to be copied.

Before you begin

Ensure that the tape can be read by the destination system. Older systems have Archive tape drives which can only read DC150 and DC250 tapes.

Procedure

To copy provisioning data onto tape, use the following steps.

Starting Point: The Main Menu

Step Action

- 1 Select Bulk Provisioning from the Main Menu and press <Return>.
Result: The Bulk Provisioning Menu is displayed.
- 2 Select Copy Data to Tape and press <Return>.
Result: The Copy Data to Tape screen is displayed.
- 3 Using the up and down arrow keys (↑↓), move the highlight bar to the data set you want to copy to tape.
Result: The data set is highlighted.
Note: Since one data set can be selected, only one data set can be copied at a time.

Step Action

-
- 4 Load a tape into the tape drive. Make sure that the tape is not write protected.
 - 5 Press the [OK to Start Copy] softkey to begin the copy to tape.

IF the tape is**THEN**

in the tape drive in ready status	the copy to tape process begins.
not ready or write protected	the message "Tape drive not ready" or "tape write protected" is displayed. Return to step 4.

Result: The message "The tape is retensioning" is displayed. Retensioning takes approximately four minutes. After the tape has retensioned, the data are copied to the tape. The Status field displays the status of the copy to tape during the process. Press the [Abort] softkey to cancel the copy to tape at any time. When the copy to tape is complete, the message "Copy completed successfully" displays.

- 6 Use the [Exit] softkey to return to the Bulk Provisioning menu.
-

Tip

It is good practice to include a printout of the data set details (from Data Set Maintenance) along with the tape.

***Section D:* Provisioning data into a Meridian Mail system**

In this section

Overview	34-34
Before you start	34-35
Provisioning data	34-37
Viewing and printing data conflicts	34-43

Overview

Introduction

This section provides information on provisioning data sets that were copied from one Meridian Mail system onto the current Meridian Mail system.

Before you start

Introduction

This section provides important information the administrator requires before beginning the provisioning of the bulk provisioning data on the target Meridian Mail system.

How the system responds to users during restore

When provisioning of a system is in progress or completes, services that are *in use* continue to use the previous version of the service as well as the previous set of prompts even after provisioning completes. The new services and prompts are available to users if they are first accessed after the provisioning completes.

Potential conflicts between databases

Two types of conflicts, system level or data, may arise when bulk provisioning data from one Meridian Mail system to another.

	CAUTION
	Risk of data loss
	Check for system level and data conflicts before proceeding with the bulk provisioning. Failure to do so may result in a loss of data.

System level conflicts

System level conflicts will cause provisioning to fail. To overcome a system level conflict, the administrator may have to restrict the choice of data to be provisioned.

System conflicts that cause provisioning to fail include the following:

- a feature is not installed
- an insufficient number of languages are available
- networking sites are not defined

Data conflicts

Data conflicts do not cause provisioning to fail but they can cause data to be overwritten. If a particular VSDN or service is

defined on the bulk provisioning tape and is also defined on the target Meridian Mail system, the target system data will be overwritten if provisioning continues. Provisioning can be continued or canceled if data conflicts exist.

Also, if there are more users on the tape than the target system has room for, temporary users are added up to the system limit only. This may result in some users not being provisioned to the target system.

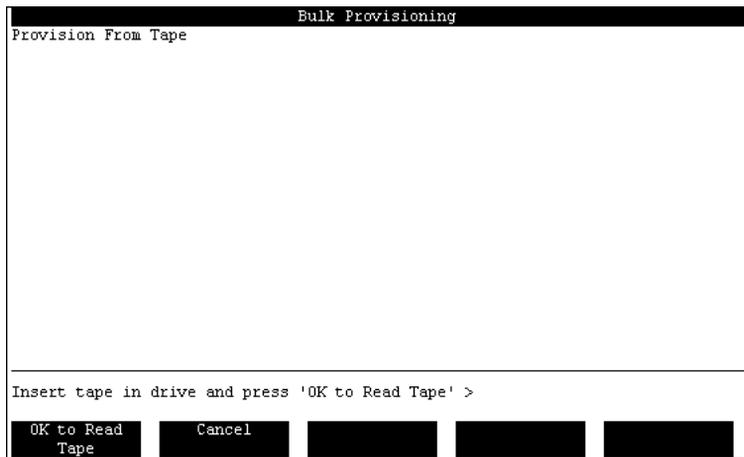
Provisioning data

Introduction

This topic provides information for provisioning the data from the tape to a Meridian Mail system. Also included are diagrams of the screens and descriptions of their fields.

The Provision From Tape initial screen

The following is an example of the Provision From Tape initial screen.



Description

The Provision From Tape initial screen contains no input fields. The [OK to Read Tape] softkey retensions the tape and reads summary information while the [Cancel] softkey returns to the bulk provisioning menu. For more information, see “Provisioning data from the bulk provisioning tape” on page 34-41.

The Provision From Tape screen

The following is an example of the Provision From Tape screen after the contents of the tape have been read.

```

Bulk Provisioning
Provision From Tape
Data Set Name:  Service01                Created On: 06/14/96 09:30
Status:        Provisioning not yet started
Provision remote users as:      Permanent Temporary
Remote Users:  None All Selected
Mailbox
ALL           Provision Number of Entries
              No Yes      10
Services:     None All
ServiceID
ALL           Provision Required Features
              No Yes      MMUI Fax Forms Menus
VSDNs:       None All
VSDN         Provision Required Features

Select a softkey >
OK to Start  Cancel  View Selected  Print Selected
Provisioning

```

Field descriptions

The following are the fields in the Provision From Tape screen.

Data Set Name

Description This is the descriptive label of the data set on the tape.

Created On

Description The date and time that the tape was created, in the date format of the destination system.

Status

Description This is the status of the provisioning process.

Provision remote users as

Options Permanent or Temporary.
Temporary users are subject to the nightly audit. For information on temporary users and the nightly audit, see Chapter 9, "Remote voice users".

Default Temporary

Remote Users

Description	This field appears only if there is user information on the tape and if networking is a feature on the target system.
Options	None, All, or Selected. If the administrator chooses Selected, additional lines display showing the grouping of users as entered in the data set definition. The administrator can then choose the users to be provisioned by using the Yes/No options.
Condition	If the data set was copied to tape by specifying All, then when provisioning from tape the selected option is not available.

Services

Description	This field appears only if there is service data on the tape. The administrator specifies the services to be provisioned from the tape.
Options	None, All, or Selected. If the administrator chooses Selected, additional lines display showing the grouping of services as entered in the data set definition. The administrator can then choose the services to be provisioned by using the Yes/No options.
Default	All
Condition	If the data set was copied to tape by specifying All, then when provisioning from tape the selected option is not available.

VSDNs

Description	This field appears only if there is VSDN data on the tape. This field is used to specify the voice service DNs that are to be included in the data set.
Options	None, All, or Selected. If the administrator chooses Selected, additional lines display showing the grouping of VSDNs as entered in the data set definition. The administrator can then choose the VSDNs to be provisioned by using the Yes/No options.
Default	All.
Condition	If the data set was copied to tape by specifying All, then when provisioning from tape the selected option is not available.

Provisioning data from the bulk provisioning tape

To restore data from the bulk provisioning tape to the Meridian Mail system, follow these steps.

Starting Point: The Bulk Provisioning Menu

Step Action

-
- 1 Select Provision from Tape from the menu.
Result: The Provision from Tape initial screen displays.
 - 2 Insert the tape in the drive and press the [OK to Read Tape] softkey.
Result: The tape begins to retension. Retensioning takes approximately four minutes.
 - 3 After retensioning is complete, the system checks the tape for bulk provisioning information.

IF the tape**THEN**

is not a valid bulk provisioning tape

you are prompted that the tape is not a bulk provisioning tape. Replace the tape and press the [OK to Read Tape] softkey to continue or the [Cancel] softkey to abort the procedure.

is a valid bulk provisioning tape

the Provision From Tape screen displays.

- 4 View the information on the Provision From Tape screen. Make changes to the Remote Users, Services, and VSDNs fields as necessary. See "Field descriptions" on page 34-38. for information on completing these fields.

Step Action

- 5 Before beginning the provisioning process, view or print the potential conflicts between the data set on the tape and the target system. To view or print data set conflicts, see "Viewing and printing data conflicts" on page 34-43.

Note: If system conflicts exist, [OK to Start Provisioning] will stop. You may wish to restart your choices by using the "Selected" option and toggling Yes to No until the conflicts are resolved.

- 6 Press the [OK to Start Provisioning] softkey to begin the provision from tape.

Result: The provisioning begins (if there are no conflicts). During the provisioning process, the status of the process displays in the Status field. The only available softkey during provisioning is [Abort]. The [Abort] softkey aborts the provisioning process at the next logical step. When provisioning is complete, the Status field displays the message "Provisioning in progress, 100% done. Tape rewinding."

**CAUTION****Risk of data loss**

If there are data conflicts, you will be informed of this and prompted to cancel or continue. If you continue, you will overwrite existing data. [Cancel] returns to the Provision from Tape screen. [Continue] will start the provisioning and overwrite conflicting items.

- 7 Press the [Exit] softkey to return to the Bulk Provisioning Main Menu.

Result: The provisioned data is ready to use. If necessary the MMI can be used to make corrections, such as changing a revert DN.

Viewing and printing data conflicts

Introduction

This section describes the procedure for viewing and printing data conflicts that may arise during bulk provisioning to another system.

The View Conflicts screen

The following is an example of the View Conflicts screen.

```

Bulk Provisioning
View Conflicts

System Level Conflicts
Remote Site 333 does not exist.

Data Conflicts

Data from tape                                Data overwritten on destination
Class Type ID/VSDM/Mbox                       Type Description
Serv MS 101                                   MS Main Menu for Extern
Serv MS 102                                   MS off hours menu
Serv MS 103                                   MS department choice su
Serv MS 104                                   MS Menu 4
Serv MS 105                                   MS Main menu in french
Serv MS 106                                   MS dept choice submenu
Serv AS 201                                   AS Upcoming product rel
Serv AS 202                                   AS Upcoming Events
Serv AS 203                                   AS Security Update

-

Exit      Next
          Page
  
```

Field descriptions

These are the fields in the View Conflicts screen.

System Level Conflicts

Description	This field shows all system level conflicts that would prevent bulk provisioning from proceeding. If there are no conflicts the field will display the word None. For more information, see "Potential conflicts between databases" on page 34-35.
-------------	--

Data Conflicts or All Entries

Description The appropriate field displays when either the Conflicts Only or the All Entries option is chosen. This field is divided into two parts: Data from tape on the left side, and Data overwritten on destination on the right side of the screen.

Data from tape

Description When the [Conflicts Only] softkey is pressed, this field shows only the data in conflict with the target system. When the [All Entries] softkey is pressed, this field shows all data that is contained on the provisioning tape for the specified selection criteria.

The information is shown by Class, Type, and ID/VSDN/MBox.

- a. Class is the general class of data on the tape. Class is Serv, VSDN, or User.
 - b. Type is the service type represented by the mnemonic used by Voice Service Administration (VSA). This applies to services and VSDNs only.
 - c. ID/VSDN/MBox is the voice service ID for a service, the DN for VSDNs, and the mailbox with a network prefix for users.
-

Data overwritten on destination

Description This field displays any data on the target system that will be overwritten if provisioning proceeds. The data is provided by Type and Description.

- Type applies to services and VSDNs only. It is the service type of the service as represented by the mnemonic used by Voice Service Administration (VSA).
- Description is the target system's name or the comment field of a data item that will be overwritten.

Note: This field will be blank if the data item does not yet exist on the target system.

Viewing data conflicts To view data conflicts before provisioning the data to the new Meridian Mail system, use the following steps.

Starting Point: The Provision From Tape screen

Step Action

- 1 Press the [View Selected] softkey.

Result: The softkeys are replaced by the [Conflicts Only] and [All Entries] softkeys.

```

Bulk Provisioning
Provision From Tape
Data Set Name: Service01          Created On: 06/14/96 09:30
Status: Provisioning not yet started
Provision remote users as:      Permanent Temporary
Remote Users: None All Selected
Mailbox                        Provision Number of Entries
ALL                            No Yes 10
Services: None All
ServiceID                      Provision Required Features
ALL                             No Yes MMUI Fax Forms Menus
VSDNs: None All
VSDN                           Provision Required Features

Select a softkey >
[ ] [ ] Conflicts Only All Entries [ ]

```

- 2 Use the following table to choose the next step.

IF you want to view	THEN press softkey
---------------------	--------------------

the conflicts between the data on the tape and the data on the target system only	[Conflicts Only].
---	-------------------

all entries on the tape (for the specified criteria) and the conflicts on the target system	[All Entries].
---	----------------

Result: The View Conflicts screen displays with the appropriate information provided.

- 3 Press the [Exit] softkey to return to the Provision From Tape screen.

Printing data conflicts To print data conflicts before provisioning the data to the new Meridian Mail system, use the following steps. The printout will go to the reports printer.

Starting Point: The Provision From Tape screen

Step Action

- 1 Press the [Print Selected] softkey.
Result: The softkeys are replaced by the [Conflicts Only] and [All Entries] softkeys. This is an example of the screen.
- 2 Use the following table to choose the next step.

IF you want to print	THEN press softkey
the conflicts between the data on the tape and the data on the target system only	[Conflicts Only].
all entries on the tape (for the specified criteria) and the conflicts on the target system	[All Entries].

Result: The following screen displays.

```

Bulk Provisioning
Provision From Tape
Data Set Name:  Service01                Created On: 05/06/96 11:35
Status:        Provisioning not yet started
Provision remote users as:      Permanent Temporary
Remote Users:  None All
Mailbox
ALL            Provision Number of Entries
              No Yes    10

Please ensure that the printer is ready. _

Cancel      Continue
Printing    Printing
  
```

- 3 Press the [Continue Printing] softkey to print the conflicts.
Result: The conflict list is printed.
Note: At any time, press the [Cancel Printing] softkey to cancel printing.

Appendix A

Integrated Mailbox Administration

In this appendix

Overview	A-2
Section A: Interaction between IMA and Meridian Mail	A-3
Section B: System installation using VMBA	A-15

Overview

Introduction

Section A: Interaction between IMA and Meridian Mail, describes the Integrated Mailbox Administration feature as well as

- the interaction of IMA and Meridian Mail with respect to potential conflicts
- the synchronization of databases
- the implementation and processing differences

In Section B: System installation using VMBA, the procedures describe the installation of a system

- at a new site with no preconfigured database on either the Meridian 1 core or Meridian Mail
- at a new site with sets and VMBs preconfigured on the Meridian 1 core but nothing configured on Meridian Mail
- at an existing site with VMBs configured on Meridian Mail but no VMBs configured on the Meridian 1 core

***Section A:* Interaction between IMA and Meridian Mail**

In this section

Overview	A-4
What is Integrated Mailbox Administration?	A-5
IMA data translations	A-6
Synchronizing IMA and Meridian Mail databases	A-9
IMA and Meridian Mail processing differences and implementation issues	A-10

Overview

Introduction

This section describes Integrated Mailbox Administration and discusses the interactions between IMA and Meridian Mail.

What is Integrated Mailbox Administration?

Description	Integrated Mailbox Administration (IMA) is a feature of Meridian Mail which works in conjunction with the Voice Mailbox Administration (VMBA) feature on the Meridian 1 switch. These features provide a single point for administration of Meridian 1 (M1) sets, Call Party Name Display (CPND), and Meridian Mail mailboxes.
Benefits	<p>IMA/VMBA provides significant time savings for both the installer and the administrator. Set datafile (including CPND) and mailboxes only have to be entered once, in one place (LD 10 for analog sets or LD 11 for digital sets), saving time and the potential for datafill inconsistencies between the two systems.</p> <p>This feature allows the installer or the administrator to add a user and a mailbox from the Meridian 1 terminal by specifying whether the user requires voice mail capabilities. If the user requires a mailbox, the Meridian 1 core sends a message to Meridian Mail to request that the user be added to the Meridian Mail database. This eliminates the step of adding the user from Meridian Mail.</p>
Prerequisite	In order to use the Integrated Mailbox Administration feature, your Meridian 1 must be running X11 Release 19 or later with the Voice Mailbox Administration feature installed. (VMBA requires X11 Release 19.2x or later.)

IMA data translations

Introduction

The Meridian 1 databases contain a subset of the data that are required to completely configure a voice mail user. When a message is sent by the Meridian 1 to Meridian Mail to add a user, Meridian Mail will use the information with some predefined defaults and rules to add the user to the Meridian Mail database.

Example

By definition, the Primary DN is the same as the mailbox number and the same as the Message Waiting Indication DN. The IMA data translations table below shows the data that are sent by the Meridian 1 and the data that are actually stored for each voice mail user.

Before you begin

Before adding users from the Meridian 1 using VMBA, the following steps must be carried out in Meridian Mail.

1. Define classes of service for the system.

For more information, see Chapter 26, “Class of Service administration”.

2. For added mailbox security, you can define a password prefix.

For more information, see “Password prefix” on page 6-136.

ATTENTION

If VMBA is enabled, do not modify those parameters which are common to both systems in Meridian Mail as this can lead to inconsistencies. The VMBA feature is considered the master and will override these settings. If necessary, you can customize those parameters which appear only in Meridian Mail since there is no chance of conflict.

IMA data translations table

Use the following table to determine which parameters are common to both the VMBA and Meridian Mail, and which can only be customized through Meridian Mail user administration facilities.

Note: Meridian Mail requires three fields to collect the last name, first name, and initials of the user. In VMBA, CPND Name is the only field required to collect all this information. In X11, this information is in the selectable format First Name, Last Name or Last Name, First Name. Commas must be entered between each element; otherwise, Meridian Mail will interpret the whole sequence as the last name.

Meridian Mail field	Meridian 1 field	What Meridian Mail stores
Location Prefix	N/A	Sets to the Local Site ID in Meridian Mail
Mailbox Number	DN	Sets to the Primary DN in Meridian Mail
Volume ID	N/A	Meridian Mail queries all available volumes and selects the least used volume
Class of Service	VMB Class of Service	Value specified from the M1
Last Name	CPND Name	Value specified from the M1, or blank if not supplied <i>Note:</i> The CPND must be entered in the one of the following selectable formats: <ul style="list-style-type: none"> • FirstName Initial,LastName Generational_Qualifier • LastName Generational_Qualifier,FirstName Initial A comma is always required before the last name. The initial is optional and can only be one character. The FirstName and LastName cannot contain spaces, or the characters "+", "_", or "?". Generational_Qualifier is optional, and supports Jr, Jr., Sr, Sr., I, II, III, IV.
First Name		
Initials		
Department	N/A	Blank

Meridian Mail field	Meridian 1 field	What Meridian Mail stores
Primary DN	DN (DN fills in the Mailbox Number and Primary DN in Meridian Mail)	Taken from value entered in the DN field
Secondary DN	Second DN (optional field)	Value specified from the M1, or blank if not supplied
Tertiary DN	Third DN (optional field)	Value specified from the M1, or blank if not supplied
MWI DN	N/A	Set to the Primary DN in Meridian Mail
Personal Verification Recorded	N/A	Set to Not Recorded in Meridian Mail. (This field is modifiable from the user's telephone set if the field <i>Personal Verification Changeable by User</i> is set to Yes in the assigned COS.)
Logon Status	N/A	Set to Enabled in Meridian Mail
Preferred Language	N/A	Set to the default language
Name Dialable by External Callers	N/A	Set to Yes in Meridian Mail
Hospitality User Class	N/A	If Hospitality is installed, this field is set to Staff in Meridian Mail. (Guest users cannot be added from the M1.)
Remote Notification Schedules	Not datafilled by the M1	Blank (This field is modifiable from the telephone set by the user if the following conditions are met: MMUI is installed on the system. Remote Notification Capability is set to Yes in the user's COS. Remote Notification Keypad Interface is set to Yes in the user's COS If these conditions are not met, remote notification schedules can only be created from the Add or View/Modify Local Voice User screen in User Administration.)
User Password	Not datafilled by the M1	The password will consist of the password prefix (configured in the Voice Security Options screen) and the user's mailbox number.

Synchronizing IMA and Meridian Mail databases

Introduction

The Meridian 1 and Meridian Mail databases are stored on separate systems; however, they can diverge under the following conditions:

- core elements of mailboxes are changed with Meridian Mail user administration
- the X11 VMBA database is loaded while VMBA is disabled
- the X11 VMBA database is updated while the AML link is down or Meridian Mail is out of service

The databases must be synchronized in one of two ways: through automatic or manually invoked audits or through uploading Meridian Mail data to the X11 VMBA database.

Audit synchronization

The two databases are synchronized through the use of automatic or manually invoked audits. If a variance is found during an audit, the result depends on whether DATA_CORRECT is enabled or disabled (X11 LD 17). If enabled, the audit will automatically change the data in Meridian Mail to conform to the X11 VMBA database. If disabled, the audit will flag variances to the Meridian 1 administration printer, allowing the administrator to determine the appropriate corrective action.

Uploading data from Meridian Mail's database to IMA

Another way of synchronizing the two databases is to upload Meridian Mail data to the X11 VMBA database.

Sites upgrading to X11 Release 19 often already have a Meridian Mail system configured. To eliminate manual entry of all the VMBA fields, an upload of existing mailbox data into the VMBA data fields is available. The upload is initiated from X11 LD 48.

See X11 documentation for more details

More detailed information, including overlays, are provided in the *X11 Features and Services* document (NTP 555-3001-305) in the chapter, "Meridian Mail Voice Mailbox Administration."

IMA and Meridian Mail processing differences and implementation issues

Introduction

This section describes a number of feature interactions, name processing differences, and implementation issues that you need to be aware of.

Meridian Mail features interactions

Make note of the following Meridian Mail feature interactions:

- This feature does not support guest users in a Hospitality environment.
This feature expects that the Meridian 1 User's Primary DN is the user's mailbox number. Staff users will typically have the primary DN equal the mailbox number. However, guest users will not have a room's primary DN the same as their mailbox number.
- If the Network Message Service (NMS) is installed, only users at the local site can be added via the Meridian 1.
The Location Prefix field defaults to the Local Site ID. Users at satellite locations must be added manually via the Meridian Mail terminal. All NMS administration should be done at the Meridian Mail administration terminal.
- IMA does not support the Meridian Mail Multi-customer feature.
- Configured mailboxes will use the default language of the default customer group on Meridian Mail.
If the default language is English, all remotely configured mailboxes will be assigned the English language option. Multi-language interaction between the Meridian 1 and Meridian Mail is not supported.
- The IMA feature supports only Local Voice Users.
- IMA should not be run while the Meridian Mail AutoAdmin feature is active.

**X11 Meridian Mail
database differences**

You should be aware of the following X11 Meridian Mail database differences:

- Database audits run every five days.
If mailbox changes are made directly at the Meridian Mail administration terminal, they may not be detected and corrected for up to five days.
- The combined first and last name is limited to 27 characters on the Meridian 1.
Meridian Mail supports up to 21 characters for the first name and 41 characters for the last name. This feature overrides these limits to total 27 characters.
- Meridian Mail limits first names to 21 characters.
If a first name is configured on the Meridian 1 (M1) core and is greater than 21 characters, it will be truncated by Meridian Mail.
- Meridian Mail only supports a subset of the characters supported for names on the Meridian 1 core.
Meridian Mail does not support the international character set option of X11 (option 211). Meridian Mail only supports North American ASCII characters (excluding +, -, and?) in the name fields. If a name that is configured on the Meridian 1 core contains characters not supported by Meridian Mail, Meridian Mail will reject the name.
- Multiple languages on the Meridian 1 are not supported by the IMA feature.
- When entering the CPND name in X11, the first name and last name (the order of names is selectable) must be separated by commas.
If commas are not entered, Meridian Mail will interpret the entire sequence of letters as the last name.
- If a mailbox is deleted on the Meridian 1 but not successfully deleted in Meridian Mail, an “orphaned” mailbox will result.
These mailboxes will be recovered if the same DN is reused in the Meridian 1 (in other words, Meridian Mail will delete the old one and add the new one), but will remain in Meridian Mail if they are not.

X11 VMBA and Meridian Mail IMA interactions

You should be aware of the following X11 VMBA and Meridian Mail interactions:

- Depending on how the VMBA option is set, if a mailbox already exists on Meridian Mail and VMBA requests a mailbox to be created for the DN corresponding to that mailbox, IMA will do one of two things:
 - delete the existing mailbox (including its voice messages) and replace it with the mailbox requested by VMBA
 - keep the mailbox messages but configure the mailbox according to the VMBA data elements
- VMBA is the master database.
Changes made using VMB will always be copied to Meridian Mail.
- If a DN must be changed on a set on the Meridian 1 core, the mailbox will have to be deleted and added again in Meridian Mail prior to changing the DN on the Meridian 1 core.
- The X11 administrator must set VMBA to off for DNs on the Meridian 1 which should not have mailboxes.
- When making changes to data elements using VMBA, make sure the same mailbox is not open in Meridian Mail user administration.
If this happens, the download will stay in pending state until the problem is resolved.

X11 VMB limitations

You should be aware of the following X11 VMB interactions:

- Only one Meridian Mail system is supported per Meridian 1 system.
- Only one customer can be configured on the Meridian 1 core for this application.
- Only 500, 2500, SL1, and digital set types are supported in this release.
- The mailbox status that is shown in Overlay 20 in the Meridian 1 indicates the status of the mailbox on the Meridian 1 core and not the status of the mailbox on Meridian Mail.

For example, if a mailbox is disabled on Meridian Mail as a result of a security violation, the state will not be updated in the Meridian 1 core.

- Operator revert is not supported because the revert DN is user-changeable.
- Configuration of Meridian Mail customer numbers, department numbers and mailbox passwords from the Meridian 1 core are not supported in this release.
- Mailboxes cannot be configured for sets served by a remote Meridian Mail subsystem.

***Section B:* System installation using VMBA**

In this section

Overview	A-16
Installing at a new site without a preconfigured database on Meridian Mail or the Meridian 1 core	A-17
Installing at a new site with sets and VMBs preconfigured on the Meridian 1 core but not on Meridian Mail	A-18
Installing at an existing site with VMBs preconfigured on Meridian Mail but not the Meridian 1 core	A-20

Overview

introduction

This section describes the three possible system installation scenarios when using VMBA:

- installation at a new site with no preconfigured database on either the Meridian 1 core or Meridian Mail
- installation at a new site with sets and VMBs preconfigured on the Meridian 1 core but nothing configured on Meridian Mail
- installation at an existing site with VMBs configured on Meridian Mail but no VMBs configured on the Meridian 1 core

Installing at a new site without a preconfigured database on Meridian Mail or the Meridian 1 core

Introduction Use this procedure to install a system using VMBA at a new site without a preconfigured Meridian Mail or Meridian 1 core database.

Procedure To install a system using VMBA at a new site with no preconfigured database, follow these steps.

Step Action

- 1 Configure and enable the AML link to Meridian Mail.
 - 2 Configure the VMBA application in LD 17 on the VAS associated with Meridian Mail. The data correction and automatic audit options for the VMBA application should be set to On to simplify database maintenance and to ensure database integrity.
Result: The VMBA application will be enabled automatically following its configuration in LD 17 if the AML link is currently active. If the AML link is not active, the VMBA application will be placed in the link out-of-service (LINKOOS) state.
 - 3 Configure the VMB classes of service on Meridian Mail. A transaction error will result if a class of service is specified on the core that has not been configured on Meridian Mail. For more information, see Chapter 26, "Class of Service administration".
 - 4 Installation is complete. VMBs can now be added, changed, and deleted in LD 10 and 11. These changes will be downloaded automatically to Meridian Mail if the AML link and VMBA are enabled. If the AML link and/or VMBA application is not enabled when doing VMB administration, the VMBs will be left in the UPDATE PENDING state and downloaded when the AML link is enabled.
-

See X11 documentation for more details

More detailed installation procedures, including overlays, are provided in the *X11 Features and Services* document (NTP 555-3001-305) in the chapter, "Meridian Mail Voice Mailbox Administration."

Installing at a new site with sets and VMBs preconfigured on the Meridian 1 core but not on Meridian Mail

Introduction

Use the following procedures to install a system using VMBA where the VMB database is preconfigured on the Meridian 1 core prior to the installation at the customer site (no VMBs should be configured on Meridian Mail). The process is divided into two parts:

- preconfiguring the database
- installing the database at the customer site

Preconfiguring the database

To preconfigure the database, follow these steps.

Step Action

- 1 Configure the VMBA application in LD 17 on the VAS associated with Meridian Mail. The data correction and automatic audit options for the VMBA application should be set to On to simplify database maintenance and to ensure database integrity. The AML link does not have to be configured at this point since there is no actual hardware to enable.
 - 2 Configure the sets and associated VMBs. The VMBs will be left in the UPDATE PENDING state.
-

Installing at a new site with sets and VMBs preconfigured on the Meridian 1 core but not on Meridian Mail

Installing the database at the customer site To install the database at the customer site, follow these steps.

Step Action

- 1 Ensure that the Meridian Mail database has been configured with the VMB classes of service that were used when preconfiguring the core database. For more information, see Chapter 26, "Class of Service administration".

ATTENTION

Do not proceed any further until this has been completed.

- 2 Configure and enable the AML link to Meridian Mail.
 - 3 The VMBA application should be enabled automatically unless it is in the manually disabled state. If it is disabled, then the VMBA application will have to be enabled in LD 48 using the **ENL VMBA <vsid>** command.
When the VMBA application has been successfully enabled, the preconfigured mailbox data will begin downloading to Meridian Mail. The VMBs successfully downloaded and configured can be printed using the PRT VMB option in LD 20.
 - 4 When the download has completed, reported errors should be manually corrected.
 - 5 Initiate the database audit by entering **ENL VMBA <vsid> AUDT ALL** in LD 48. This will verify that the VMB and CPND data on the core matches the data on Meridian Mail. The status of the audit can be obtained by entering **STAT VMBA <vsid>** or **STAT VMBA <vsid> AUDT** in LD 48.
Result: Errors detected by the audit will be corrected automatically. The installation is complete.
-

See X11 documentation for more details

More detailed installation procedures, including overlays, are provided in the *X11 Features and Services* document (NTP 555-3001-305) in the chapter, "Meridian Mail Voice Mailbox Administration."

Installing at an existing site with VMBs preconfigured on Meridian Mail but not the Meridian 1 core

Introduction

Use this procedure for installing a system using VMBA at an existing site. In most cases, these sites will have the VMBs configured already. The upload command in LD 48 can be used to upload the existing Meridian Mail VMB data to the Meridian 1 core.

Cleanup may be necessary

This command causes name data configured on Meridian Mail to be uploaded; existing names on the core will be overwritten with the names on Meridian Mail. Some name cleanup may be necessary if these names on the core are not the same as those on Meridian Mail. Once this cleanup is complete, name administration becomes easier; it is necessary to change names on the Meridian 1 core only (instead of on the core and on Meridian Mail).

Procedure

To install the system at an existing site with VMBs configured on Meridian Mail but not on the Meridian 1 core, follow these steps.

Step Action

- 1 Configure and enable the AML link to Meridian Mail.
- 2 Configure the VMBA application in LD 17 on the VAS associated with Meridian Mail. The data correction and automatic audit options for the VMBA application should be set to Off until this installation has been completed.
- 3 The application will be enabled automatically following the configuration of the VMBA application in LD 17 if the AML link is currently active. If the AML link is not active, the VMBA application will be placed in the link out-of-service (LINKOOS) state.
- 4 Initiate the database upload by entering **ENL VMBA <vsid> UPLD ALL** in LD 48.
- 5 Periodically check the status of the upload by entering the command **STAT VMBA <vsid>** or **STAT VMBA <vsid> UPLD AUDT** in LD 48.

Step Action

- 6 When an UPLOAD COMPLETE message is printed, manually resolve any errors that may have occurred during the upload.
Result: The upload is complete.
 - 7 Initiate the database audit by entering **ENL VMBA <vsid> AUDT ALL** in LD 48. This will verify that the VMB and CPND data on the core matches the data on Meridian Mail.
 - 8 Manually resolve any errors that may have been uncovered by the audit.
Result: The audit is complete. The Meridian 1 core and the Meridian Mail databases are synchronized. Perform any cleanup on names, if necessary.
 - 9 Configure the data correction and automatic audit options as desired. These options are recommended to maintain database integrity.
Result: The installation is complete. Ongoing administration of the VMBs can be performed on the Meridian 1 core from now on.
-

**See X11
documentation for
more details**

More detailed installation procedures, including overlays, are provided in the *X11 Features and Services* document (NTP 555-3001-305) in the chapter, “Meridian Mail Voice Mailbox Administration.”

Appendix B

Meridian Mail AutoAdmin Utility

In this chapter

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AutoAdmin Configurator	B-12
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Using Meridian Mail AutoAdmin	B-34
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Overview

Introduction

This chapter explains how to install, configure, and use the Meridian Mail AutoAdmin Utility.

Introduction

What is the Meridian Mail AutoAdmin Utility?

The Meridian Mail AutoAdmin Utility provides a means of propagating user database information from a central system to other local or off-site Meridian Mail systems.

Who should use AutoAdmin?

Large messaging customers of Meridian Mail who often need to administer and manage multiple systems within their organization will benefit from using AutoAdmin. These systems can support thousands of users, and an administrator may have a limited amount of time to get the additions and changes done.

AutoAdmin provides an easy way for customers to get the required information from the local user database and propagate it to any of their other Meridian Mail systems.

Supported platforms

AutoAdmin works on all Meridian Mail platforms supported by MM12, except the Compact Option.

On the windows side, the Meridian Mail AutoAdmin Utility has been developed to use a PC and runs on Microsoft Windows 95 and Windows NT 4.0.

Connecting Meridian Mail and the PC

The connection between Meridian Mail and the PC is called the MSLink (Message server link) and each Meridian Mail system can have only one of these links. The maximum supported port rate on this link is 38.4 Kbytes for the MMP40 systems and 9.6 Kbytes for the MSM and Mod GP systems, subject to the cumulative port rate on each node for these systems.

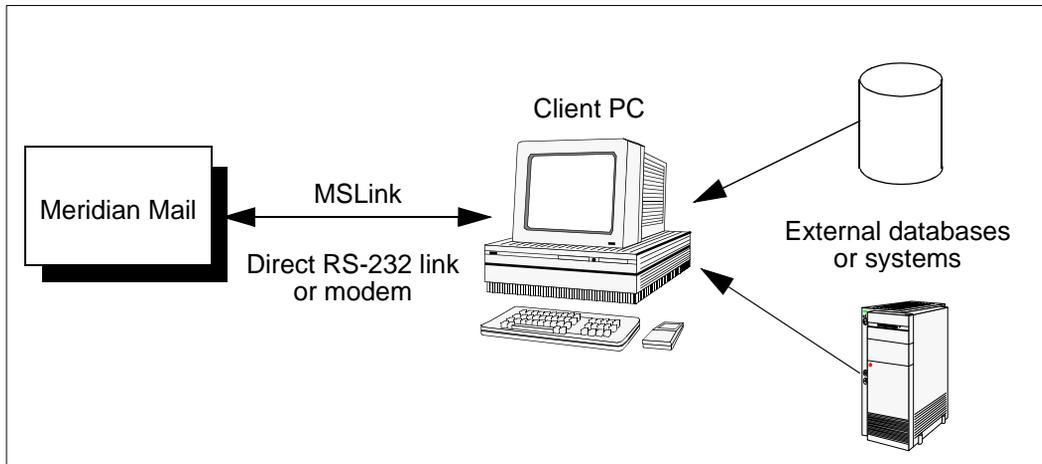
PC minimum hardware requirements

The PC (also known as the client PC) requires the following minimum hardware:

- a Pentium 90 CPU
- an SVGA video card
- a minimum of 16 Mbytes of RAM
- 10 Mbytes of hard disk space
- one 3.5-inch floppy disk drive
- one serial port, with a 16550 UART for connecting to Meridian Mail
- a keyboard
- a mouse

System configuration

The following diagram shows a typical system configuration. This configuration allows the client PC to obtain user information from external databases or computer systems and update them or add them to the Meridian Mail system.



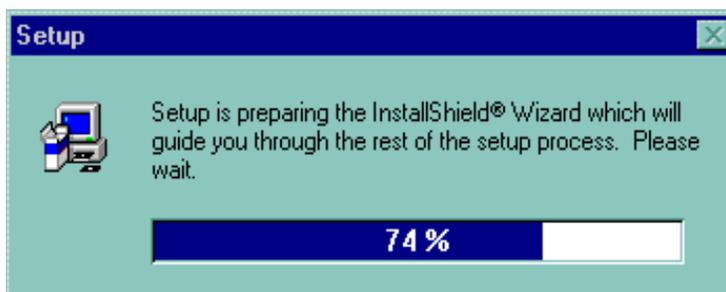
Meridian Mail AutoAdmin installation

Installation procedure To install Meridian Mail AutoAdmin on the client PC follow these steps.

Note: If this is an upgrade of AutoAdmin see “Upgrade procedure” on page B-10.

Step Action

- 1 Insert the floppy diskette into the appropriate drive.
- 2 Select the windows Start button and Select Run.
- 3 Type **q:\setup.exe** where q is the letter of the drive containing the disk. The following screen is displayed:

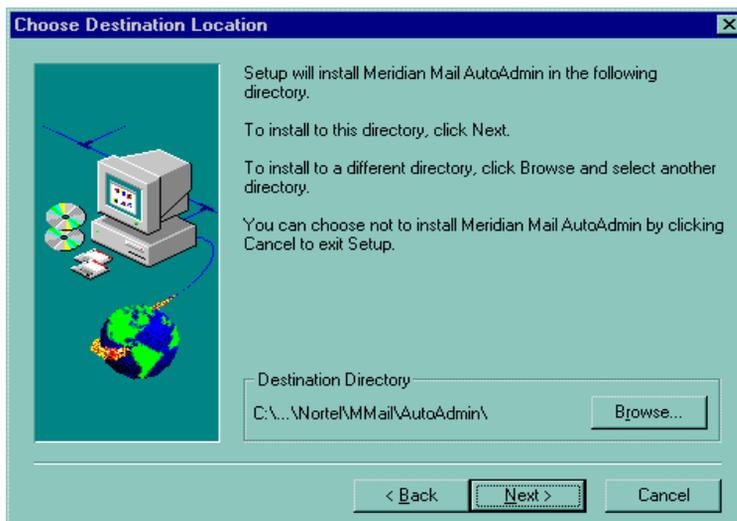


The InstallShield Wizard displays the standard screens concerning other active Windows programs and the AutoAdmin license agreement.

- 4 Follow with the appropriate action in each case.

Step Action

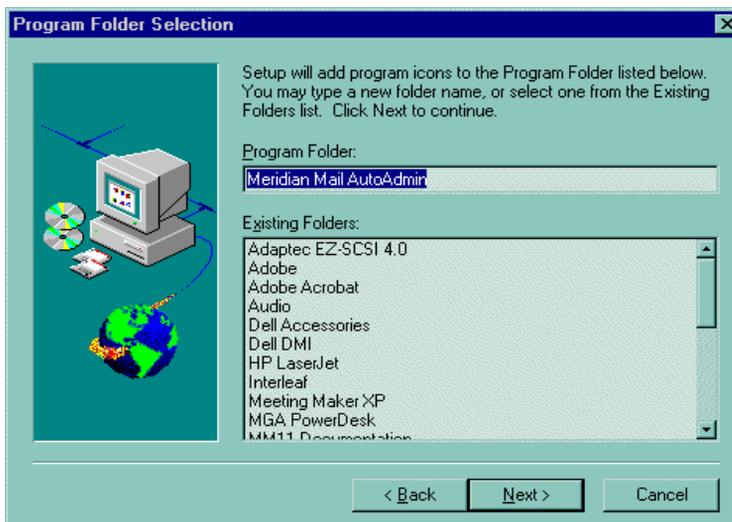
Result: The following screen is displayed concerning the choices of drive and directory.



- 5 If you want the AutoAdmin software package in another directory and/or on another drive, click on the browse button.
- 6 Type in or select the desired destination directory and double click on OK.
- 7 When you are finished, click on Next.

Step Action

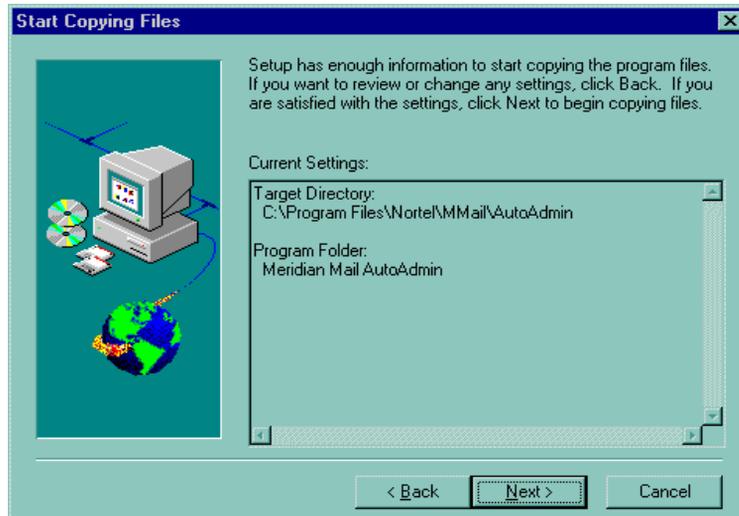
- 8 Specify the name for the program folder using the following screen.
Note: It is recommended that you keep the AutoAdmin folder name.
- 9 Click Next when you have finished.



Step Action

Result: The following screen is displayed to verify the information you have input.

- 10 If you wish to change anything you have entered so far, click Back.



Otherwise, click Next to continue with the installation.

Step Action

- 11 Click Finish to complete the installation of AutoAdmin.

Result: Once you finish the installation, your system is configured for one local site with default settings.



If you require more configuration, or need to modify the existing local site, use the configurator program that follows immediately from the installation.

Note: You may deselect the View ReadMe file. However, it is recommended that users read the ReadMe file for information on copyright, version, and support.

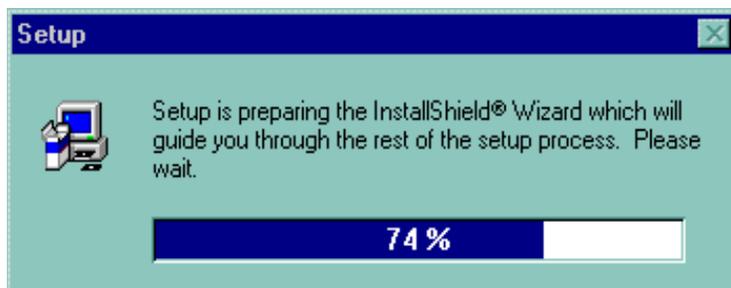
Upgrade procedure To upgrade to AutoAdmin, follow these steps.

Note: If you try to upgrade using an older version of AutoAdmin, the procedure will abort.

Step Action

- 1 Insert the floppy diskette with the AutoAdmin upgrade into the appropriate drive.
- 2 Select the Windows Start button, and select Run.
- 3 Type **q:\setup.exe** where q is the letter of the drive containing the disk.

Result: The following screen is displayed.

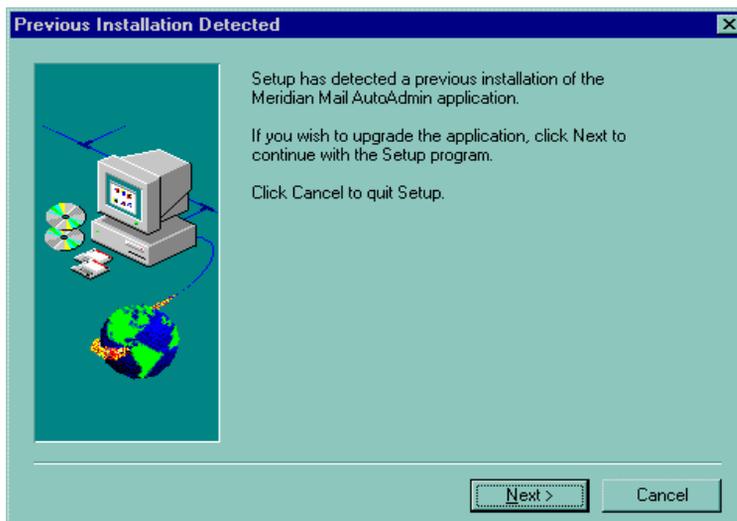


The InstallShield Wizard displays the standard screens concerning other active Windows programs.

- 4 Follow with the appropriate action in each case.

Step Action

Result: Once this is done, the following screen is displayed.



5 If you wish to upgrade, select Next and go to step 6, or select Cancel to end the procedure without an upgrade.

6 Click Next.

Result: The upgrade is installed in the same directory as the previous version of AutoAdmin.

Result: When the upgrade is completed, the following message screen is displayed:



7 Click OK to finish the upgrade.

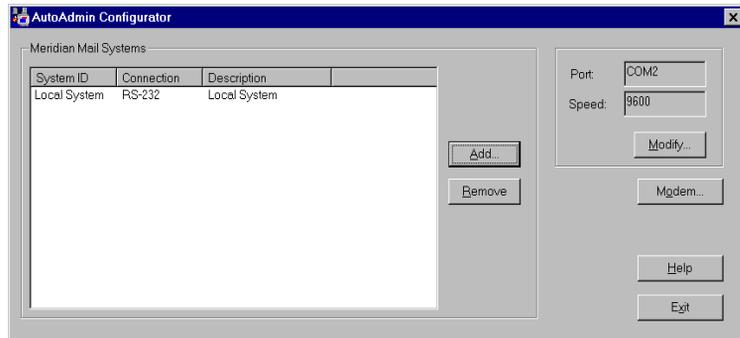
AutoAdmin Configurator

Overview

AutoAdmin Configurator is used to configure your PC connection to Meridian Mail systems. If you need to add Meridian Mail systems that need to be administered by AutoAdmin or need to change port, speed, or modem command settings, AutoAdmin Configurator is required.

Using AutoAdmin Configurator

The following window is displayed when the AutoAdmin installation is complete.



Note: In an upgrade, the configuration from the previous version remains.

Field descriptions

The following table describes the boxes and buttons in the AutoAdmin Configurator screen.

System ID	
Description	Name of the system for administrative purposes only
Maximum length	1 to 25 alphanumeric characters
Default	None
Limit	Up to 150 systems can be defined.

Connection

Description	The type of connection, which may be a serial (RS-232) connection or the dialing number of a modem
-------------	--

Values	RS-232, dialing number
--------	------------------------

Description

Description	Optional field to describe Meridian Mail system
-------------	---

Maximum length	0 to 50 alphanumeric characters
----------------	---------------------------------

Default	None
---------	------

Add

Description	Select this button when you want to add a Meridian Mail site. Type the site information in the System Settings dialog box that is displayed.
-------------	--

Remove

Description	Select this button when you wish to remove a Meridian Mail site from your site ID list. You must click on the site ID you wish to remove before clicking the Remove button.
-------------	---

Port

Description	Displays the active serial port on the PC that links AutoAdmin to a Meridian Mail system or to a modem. Although these ports are supported, your PC may or may not have them.
-------------	---

This field is read-only. To modify the setting, select the Modify button, and change the setting in the dialog box it presents.

Default	COM 1
---------	-------

Range	COM 1, COM 2, COM 3, COM 4
-------	----------------------------

Speed

Description	Shows the baud rate of the port linked to the Meridian Mail system, or to the modem. This field is read-only. To modify the setting, select the Modify button, and change the setting in the dialog box it presents.
Default	9600
Values	2400, 4800, 9600, 19200, 38400

Modify

Description	Sets the selection of port and speed
-------------	--------------------------------------

Modem

Description	Opens a dialog box that lets you set the commands to a specific modem
-------------	---

Help

Description	Opens the online help for this dialog box
-------------	---

Exit

Description	Closes the Configurator.
-------------	--------------------------

Modem Commands window

The following window displays the modem commands. Use this dialog box to define the settings for the specific type of modem that connects your PC to the Meridian Mail server.

Note: All the default settings in this dialog box are configured to the values of the U.S. Robotics 14.4 Roadster modem.

The screenshot shows a dialog box titled "Modem Commands" with a close button (X) in the top right corner. The dialog contains the following fields and buttons:

- Dial:** A row with two input boxes. The first is labeled "Prefix:" and contains "ATDT". The second is labeled "Suffix:" and is empty.
- Hangup:** A row with two input boxes. The first is labeled "Prefix:" and contains "+++". The second is labeled "Suffix:" and contains "ATH".
- Initialization:** A single input box containing "AT&F1".
- Buttons:** On the right side, there are three buttons: "OK", "Cancel", and "Help".

Field descriptions

The following table describes the boxes and buttons of the Modem Commands window.

Dial Prefix	
Description	Shows the prefix string for dialing the modem's phone number.
Default	ATDT
Hangup Prefix	
Description	Shows the prefix string for terminating the call.
Default	+++
Dial Suffix	
Description	Shows the suffix string for dialing the modem's phone number.
Default	Blank
Hangup Suffix	
Description	Shows the suffix string for terminating the call.
Default	ATH
Initialization	
Description	Shows the modem initialization string that identifies the specific modem for the PC.
Maximum length	50 alphanumeric characters
Default	AT&F1
OK	
Description	Closes the dialog box and saves the changes.
Cancel	
Description	Closes the dialog box without saving the changes.
Help	
Description	Opens the online help for this dialog box.

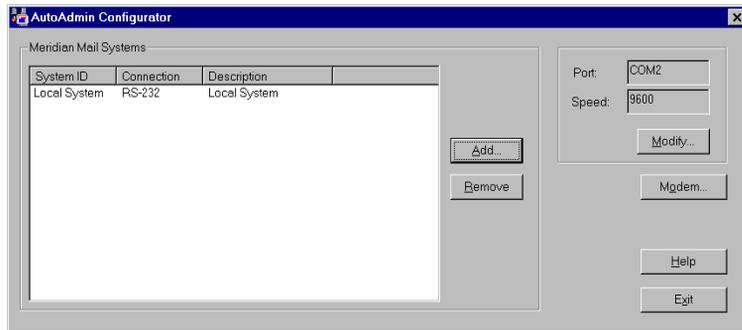
Procedure: Adding a connection to a Meridian Mail system

To add a local or remote Meridian Mail system to the AutoAdmin utility, follow these steps.

Step Action

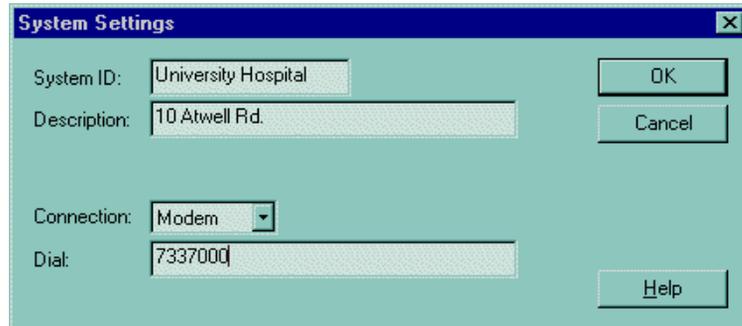
- 1 Open AutoAdmin Configurator.

Result: The following window is displayed (your display may differ).



- 2 In the Configurator dialog box, click Add.

Result: The following window appears.



- 3 Type the System ID and the Description in the system settings window.
- 4 If you select Modem in the Connection box, type the dial number for the modem connection in the Dial box.
- 5 When you are done, click OK to save and repeat the steps to add more locations, or Cancel to go back to the Configurator dialog box without saving your settings.
- 6 Click Exit to end Configurator.

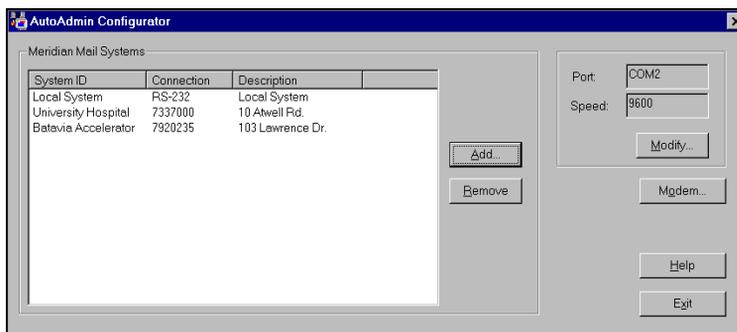
Procedure: Changing settings in Configurator

To change your PC to Meridian Mail (or modem) communication settings, follow these steps.

Step Action

- 1 Open AutoAdmin Configurator.

Result: The following window is displayed (your display may differ).

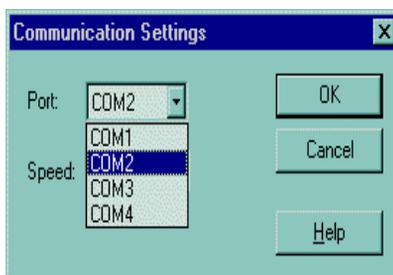


- 2 In the Configurator dialog box, click Modify, or double-click the System ID you wish to modify.

Result: The Communications Settings dialog box appears.

- 3 Select the port setting from the Port list.

Result: The following screen is displayed:



- 4 To select the baud rate of the connection, select from the Speed list.
- 5 Click OK to save the settings and return to the Configurator dialog box, or cancel to bring up the Configurator dialog box without saving your newly entered settings.

Procedure: Changing the modem settings

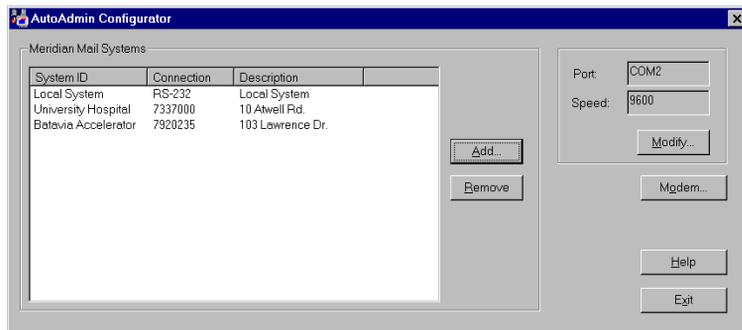
To change your modem settings, follow these steps.

Note: Change the settings for the modem connection if you have changed the modem or if you are not using the default U.S. Robotics modem. Refer to the modem's technical manual.

Step Action

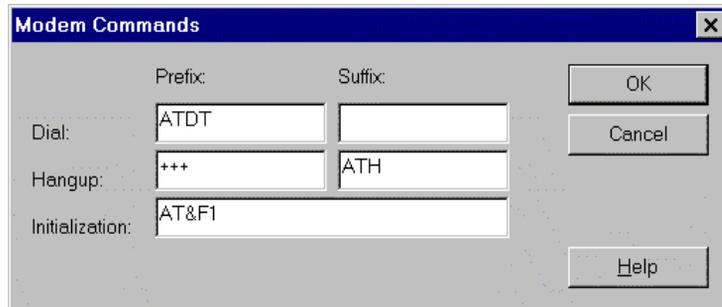
- 1 Open AutoAdmin Configurator.

Result: The following window is displayed (your display may differ).



- 2 In the Configurator dialog box, click Modem.

Result: The following screen is displayed (your screen may differ).



- 3 In the Modem Commands dialog box, enter the Dial Prefix.
- 4 To define the suffix string to dial the modem, enter the Dial Suffix.
- 5 Repeat steps 3 and 4 for the Hangup Prefix and Suffix.

Step Action

- 6 To define the initialization string that identifies the particular modem you are using, enter the initialization string.
 - 7 When you have completed your entries, click OK to save the settings or click cancel if you don't want to save.
Result: In either case, you are returned to the Configurator dialog box.
 - 8 Click Exit to end configurator.
-

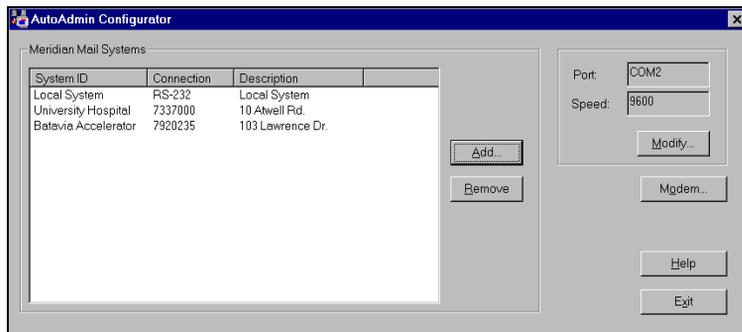
Procedure: Removing a connection to a Meridian Mail system

To remove a local or remote Meridian Mail system from the AutoAdmin utility follow these steps..

Step Action

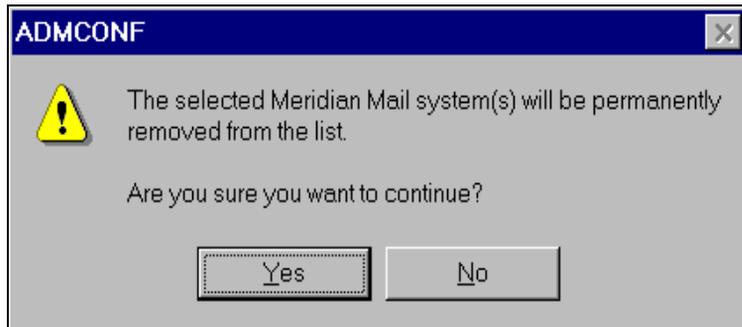
- 1 Open AutoAdmin Configurator.

Result: The following window is displayed (your display may differ).



- 2 Click the System ID of the site you wish to remove, then click Remove.

Result: The following screen is displayed.



Note: More than one system can be removed from the list at one time by selecting all the systems to remove. At least one system has to remain configured.

- 3 To continue, click Yes, to abort the remove, click No.

AutoAdmin Utility

Overview

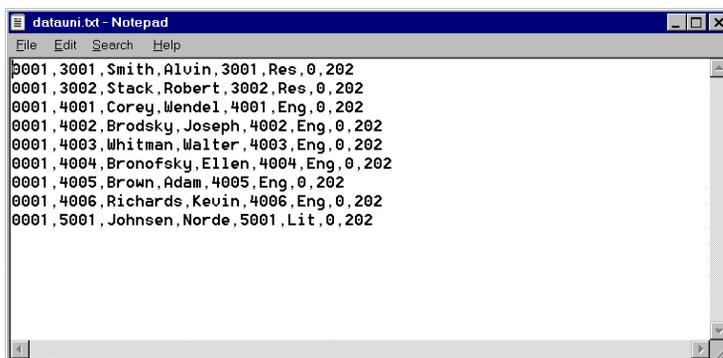
The Meridian Mail AutoAdmin Utility is the interface that allows you to take large amounts of data from a central system and channel it to your Meridian Mail systems.

Starting with text files

The first thing needed by the AutoAdmin Utility is data in the form of a text file. Simply stated, the text file is used to input the information about mailboxes. The text file is composed of information that an administrator deems necessary for mailbox identification and mailbox access.

Example:

The following illustration lists the data contained in a text file. Each piece of data is separated by a delimiter, in this case a comma. The tags used for this data are (in order of appearance): CN, MN, LN, FN, D1 DP, PL, VI.



```
datauni.txt - Notepad
File Edit Search Help
0001,3001,Smith,Alvin,3001,Res,0,202
0001,3002,Stack,Robert,3002,Res,0,202
0001,4001,Corey,Wendel,4001,Eng,0,202
0001,4002,Brodsky,Joseph,4002,Eng,0,202
0001,4003,Whitman,Walter,4003,Eng,0,202
0001,4004,Bronofsky,Ellen,4004,Eng,0,202
0001,4005,Brown,Adam,4005,Eng,0,202
0001,4006,Richards,Kevin,4006,Eng,0,202
0001,5001,Johnsen,Norde,5001,Lit,0,202
```

Tags

AutoAdmin uses mnemonics or tags to identify the pieces of information entered in the text file.

The following table lists the tags with their descriptions, string length, and values/types.

Local voice user fields	Tags	Length	Valid values/types
Mailbox number	MN	18	Numeric only
Last name	LN	41	Alphanumeric string
Customer number	CD	4	1 to 2000
Mailbox password	MP	16	Numeric only
Location prefix	LP	10	Numeric only
Volume ID	VI	3	1, 2, 202, 203 to 210
First name	FN	21	Letters, numbers, blanks (must be greater than one character, if entered)
Initials	IN	5	Letters and numbers
Department	DP	31	Any string
Class of service	CS	3	1 to 15
Primary DN	PD	30	Numeric only
Extension DN 1	D1	30	Numeric only
Extension DN 2	D2	30	Numeric only
Extension DN 3	D3	30	Numeric only
Extension DN 4	D4	30	Numeric only
Extension DN 5	D5	30	Numeric only
Extension DN 6	D6	30	Numeric only
Extension DN 7	D7	30	Numeric only
Revert DN	RD	30	Numeric only
MWI DN	MD	30	Numeric only
MWI Link	ML	2	0 (for first MWI link); 1 (for second) and so on ...

Local voice user fields	Tags	Length	Valid values/types
Name dialable by external callers	ND	1	1 for true 0 for false
Logon status	LS	1	1 for true 0 for false
Monitor mailbox during monitoring period	MO	1	1 for true 0 for false
Volume level	VL	1	1 for true 0 for false
Preferred language	PL	1	0 (for first language); 1 (for second) and so on ...
Hospitality user class	HC	1	1 for guest 0 for staff
New mailbox number	NM	18	Numeric only
New location prefix	NP	10	Numeric only

Definitions of the applied commands

The following commands are used to perform bulk file requests:

- Add mailbox
- Add/replace mailbox
- Remove mailbox
- Update mailbox

Add mailbox

The Add mailbox command allows the user to perform bulk additions to a local or remote Meridian Mail system. Only one system can be added to at a time.

Add/replace mailbox

The Add/replace mailbox command allows the user to delete all mailboxes if they exist, and information associated with the mailboxes such as greetings, saved messages, personal verifications, and cabinet profiles. The mailbox will then have new information from the text file added to it.

Remove mailbox

The Remove mailbox command is used to delete mailboxes that are listed in the text file.

Update mailbox

The Update mailbox command is used to add new information to each mailbox in the text file. This command does not delete the user profile.

The AutoAdmin window

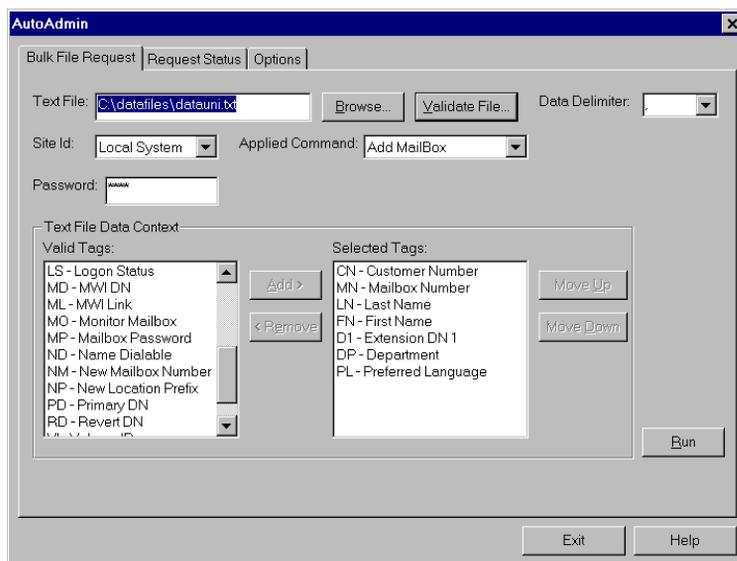
Overview

The AutoAdmin window is made up of three tabs

- Bulk file request (default window)
- Request status
- Options

Bulk file request window

The following illustrates the Bulk File Request window.



Field descriptions

This table describes the boxes and buttons in the Bulk File Request window.

Text File

Description	Displays the path and the text file being used
Maximum length	None
Default	None
More information	See "Starting with text files" on page B-21.

Validate file

Description	This button checks the syntax of the text file. The results of a validation are displayed in the request status window.
More information	See "Request status window" on page B-28.

Data delimiter

Description	Uses a one-character delimiter that divides the data in the text file
Example	1,555,Smith,Executive
Types	, (comma), tab, /, \, space
Default	, (comma)

Site ID

Description	This box allows the user to select the site ID of the Meridian Mail system used in the bulk file request. The sites are presented in alphabetical order.
Default	Local System
More information	See "AutoAdmin Configurator" on page B-12.

Applied command

Description	This box allows the user to select the appropriate operation on the selected text file. The operations are <ul style="list-style-type: none"> • Add Mailbox • Add/Replace Mailbox • Remove Mailbox • Update Mailbox
Default	Add mailbox
More information	See "Definitions of the applied commands" on page B-23

Password

Description	When clicked on, this box allows the user to enter a password. The password is indicated by asterisks when typing.
Maximum length	16 characters
Minimum length	The default minimum is 6, but this can be changed with procedures described in **Password Chapter** .

Text File Data Context - Valid tags

Description	This box lists all the tags that can be used to do a bulk file request.
Default	None

Selected Tags

Description	This box lists all the tags that will be used to define the mailbox during the bulk file request.
Default	None

Add>

Description	This button allows the user to add tags to the Selected box. Simply highlight the required tag(s) and click the Add button.
-------------	---

<Remove

Description	This button allows the user to remove tags from the Selected box. Simply highlight the required tag(s) and click the Remove button.
-------------	---

Move Up

Description	This button allows the user to position the tags by moving them up in the Selected listing. Simply highlight the required tag and click the Move up button.
-------------	---

Move Down

Description	This button allows the user to position the tags by moving them down in the Selected listing. Simply highlight the required tag and click the Move down button.
-------------	---

Run

Description Once the file has been validated, click Run to perform the chosen Applied Command.

Exit

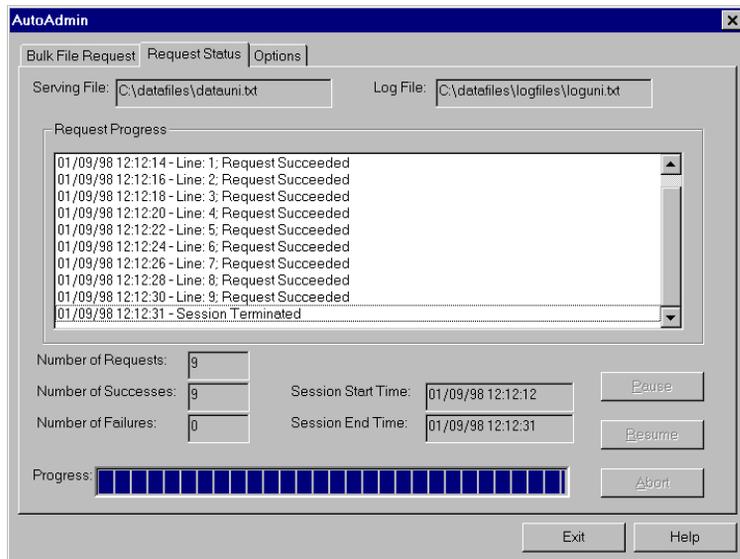
Description This button closes down AutoAdmin. If the connection to Meridian Mail is still active, then AutoAdmin cannot be closed down.

Help

Description This button provides the user with online help.

Request status window

The following illustrates the Request Status window.



Field descriptions

This table describes the boxes and buttons associated with the request status window.

Serving File

Description	This box provides the user with the path and name of the file that is presently being run by Bulk File Request and the applied command. If no file is being run, "No file specified" appears in the box.
-------------	--

Default	None
---------	------

Log File

Description	This box provides the user with the log file that is used to store verification, errors, and run data. If no file is being used to log the events, "No file specified" appears in the box.
-------------	--

Default	None
---------	------

Request Progress

Description	This box provides the user with a view of the text file being processed. For each line of data, a report is issued. If errors occur, a return code (RC) is issued for that line. The window can display only 30 lines of requests at one time.
-------------	--

Default	None
---------	------

Number of Requests

Description	Lists the total number of lines in the text file
-------------	--

Default	0
---------	---

Number of Successes

Description	Lists the lines that were processed without error
-------------	---

Default	0
---------	---

Number of failures

Description	Lists the number of lines not processed because of error
-------------	--

Default	0
---------	---

Session Start Time

Description	Displays the time that the connection to Meridian Mail was established
-------------	--

Default	Blank
---------	-------

Session End Time

Description	Displays the time that the connection to Meridian Mail was terminated
-------------	---

Default	Blank
---------	-------

Pause

Description	This button is used if the administrator needs to stop but not end the processing of data.
-------------	--

Example: A large bulk add that is being processed can be paused if an error occurs that the operator wants to note.

Resume

Description	This button is used to start processing that has been paused.
-------------	---

Abort

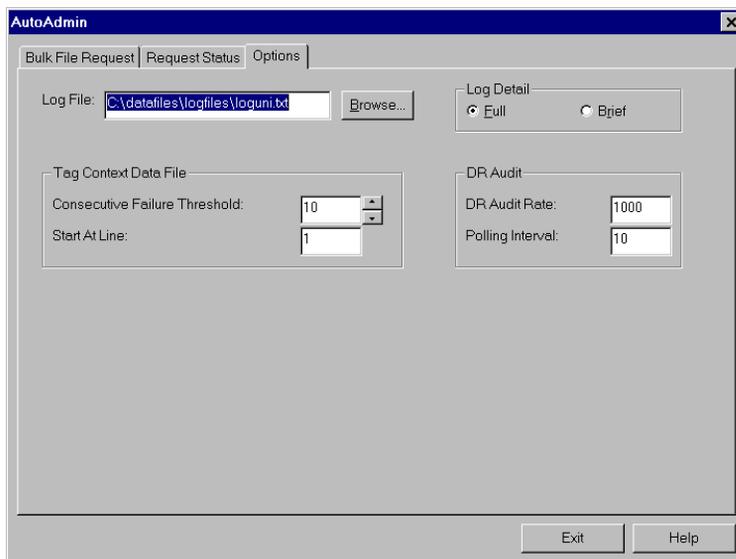
Description	This button causes AutoAdmin to finish the request currently being processed, then shuts down the connection to Meridian Mail.
-------------	--

Progress

Description	This box shows the user roughly where the process is at in terms of completing the entire text file.
-------------	--

Options window

The following figure illustrates the options window.

**Field descriptions**

This table describes the boxes and buttons in the Options window.

Log file

Description	This box allows users to type in a log file name of their choice. The default directory for the log file is the same location where the.exe for the utility is stored.
-------------	--

Default	None
---------	------

Browse

Description	This button is used to navigate to a specific log file in a specific directory or to specify where to create a log file.
-------------	--

Log Detail - Full

Description	When selected, this button provides a full description of errors that may occur during validation and processing. Example: The following is a full error message: Line 1;Tag:MN Data: RC: 20306 INF: Invalid length
Default	Full

Log Detail - Brief

Description	When selected, this button provides a brief description of information or errors that may occur during validation and processing. Example: The following is a brief error message: Line 13;Tag:D1 Data:5024 RC: 9528
Default	Full

Tag Context Data File - Consecutive Failure Threshold

Description	This box allows the user to provide a number that will stop the processing of a text file after a number of consecutive failures have occurred. Example: If 10 is the threshold number, then the processing has to encounter 10 errors in a row, not failures adding up to 10.
Default	10
Range	Use the cursor buttons to increase or decrease the number within a range of 1-100, or use the keyboard to type in a number between 1 and 10,000.

Tag Context Data File - Start at Line

Description	Shows the line in the text file from which processing will commence.
Default	1
Range	1 to 32,767

DR Audit - DR Audit Rate

Description	<p>Displays the number of individual requests that have been processed by AutoAdmin before Meridian Mail undergoes a directory audit (DR audit). A directory audit is necessary to maintain optimum processing rates. Processing of the text file is deferred until the audit is complete.</p> <p>The Meridian Mail directory will not be audited if there are 10 or fewer lines in the text file.</p>
Default	1000
Range	500 to 2000

DR Audit - Polling Interval

Description	<p>Shows the time interval which AutoAdmin waits before checking on Meridian Mail to determine whether the directory audit is processing. The interval applies only after a DR Audit has begun. Once the audit is complete, AutoAdmin continues to process requests.</p> <p>Note: The log file will be available once the directory audit is complete.</p>
Default	10 minutes
Range	5 to 30 minutes

Using Meridian Mail AutoAdmin

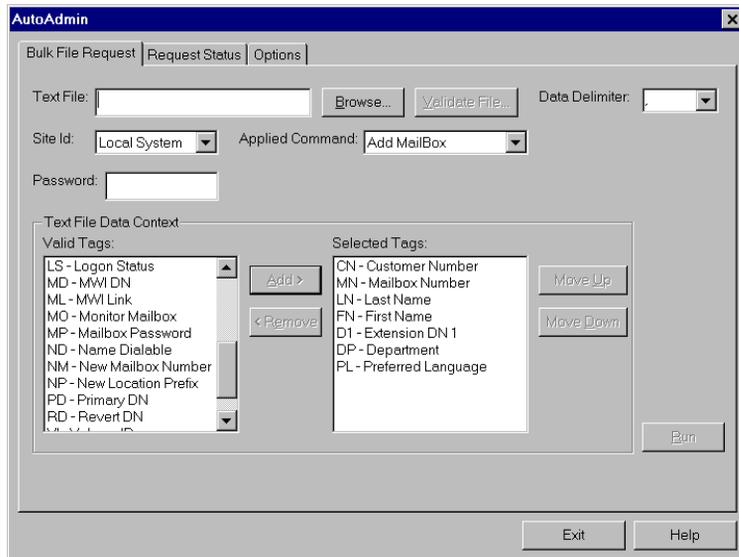
Procedure: Starting AutoAdmin

To start the Meridian Mail AutoAdmin utility, follow these steps..

Step Action

- 1 Click the AutoAdmin icon and open AutoAdmin.

Result: The following window is displayed.



- 2 Enter the path of the text file you will be using, or click on Browse and navigate to the appropriate file. When you locate it, double-click.

Result: The path and the text file name appear in the Text File box.

- 3 Click the Site box to select a site if you have more than one configured.

Step Action

- 4 Click the Password box, and type in your Meridian Mail Customer Administrator password.
Note: A new password will be required every time the site ID is changed.
- 5 If you wish to keep a log file of all processing, click the Options tab and enter a log file name in the Log File box, then return to the Bulk File Request window.
- 6 Select the operation you want to perform in the Applied Command box. Use the decision table below to find the procedure you require.

IF you want to ...	THEN go to ...
Add mailboxes	Adding mailboxes, page B-36
Add/replace mailboxes	Adding and replacing mailboxes, page B-40
Remove mailboxes	Removing mailboxes, page B-44
Update mailboxes	Updating mailboxes, page B-48

Procedure: Adding mailboxes

To add mailboxes through a bulk file request using AutoAdmin, follow these steps.

Note: The following procedure assumes you have created and selected an appropriate text file that can be used to process mailbox information, that you have typed in your password, and that you have a logfile to record your events. Refer to the procedure “Starting AutoAdmin” on page B-34 before proceeding with the following instructions

Starting Point: Applied Command window.

Step Action

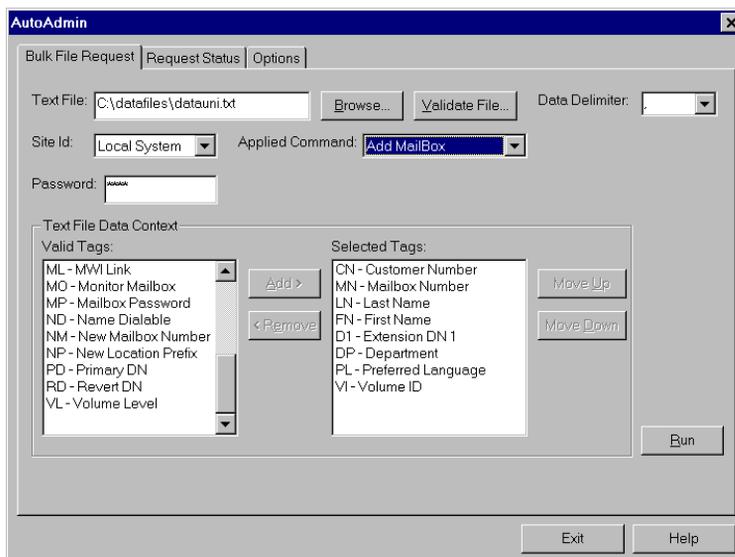
- 1 Select Add Mailbox.
- 2 Select the tags you require by first clicking on a desired tag in the Valid Tag box, then clicking the Add button.

Note: Mandatory tags for adding a mailbox are MN and LN. LN is not mandatory for adding guest mailboxes on an HVS system. For an NMS system, LP is required.

Result: Each tag is added to the Selected Tag box.

Step Action

The following is an example of a screen after tag selections have been completed. Your display may not match due to different requirements.

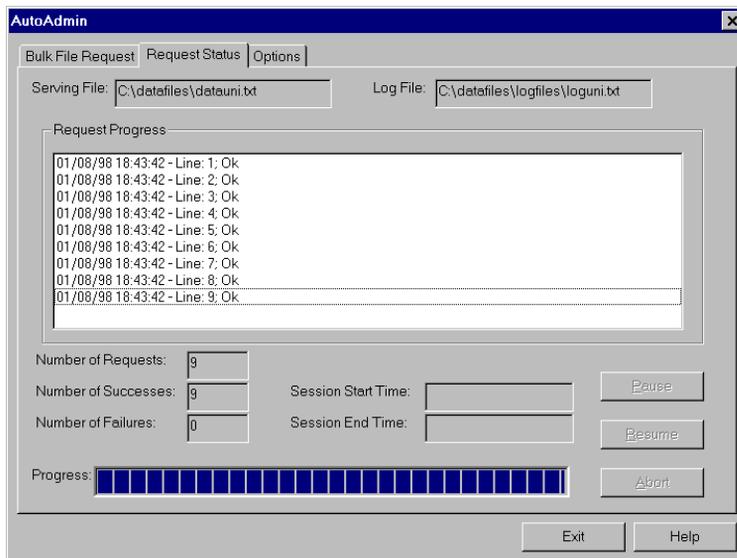


- 3 Once all required tags have been selected, click the Move Up or Move Down button to sequence the tags to reflect the text file entries.

Step Action

- 4 Click the Validate File button to check that the syntax of the text file you are using is correct.

Result: The following screen is displayed in the Request Status window (your display may differ).



5

IF your text file is ...	THEN go to ...
invalid	step 6
valid	step 8

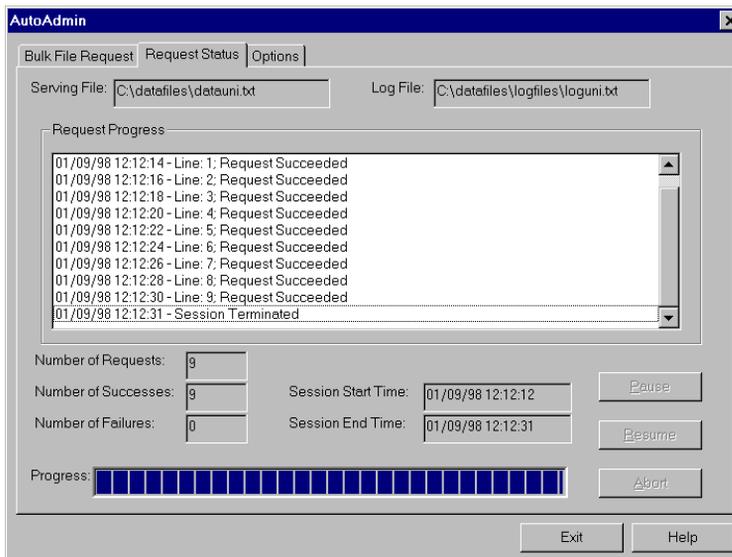
- 6 Read the error message and check the return codes, if any, in the error messages. Look up any RCs in the SEERs Guide (NTP 555-7001-510).
- 7 Make the required corrections and click Validate File again. Go to step 5.

Note: Most times the error is simply too much data and not enough tags or vice versa, or a delimiter problem.

Step Action

8 Click Run.

Result: The following screen is displayed (your display may differ).



9 If you need to perform other bulk file requests with AutoAdmin, see page B-35, step 6.

**Procedure: Add/
replace mailboxes**

To add/replace mailboxes through a bulk file request using AutoAdmin, follow these steps.

Note: The following procedure assumes you have created and selected an appropriate text file that can be used to process mailbox information. Refer to the “Procedure: Starting AutoAdmin” on page B-34 before proceeding with the following instructions.

	CAUTION
	Risk of data loss Replaced mailboxes cannot be recovered! Use this procedure with care.

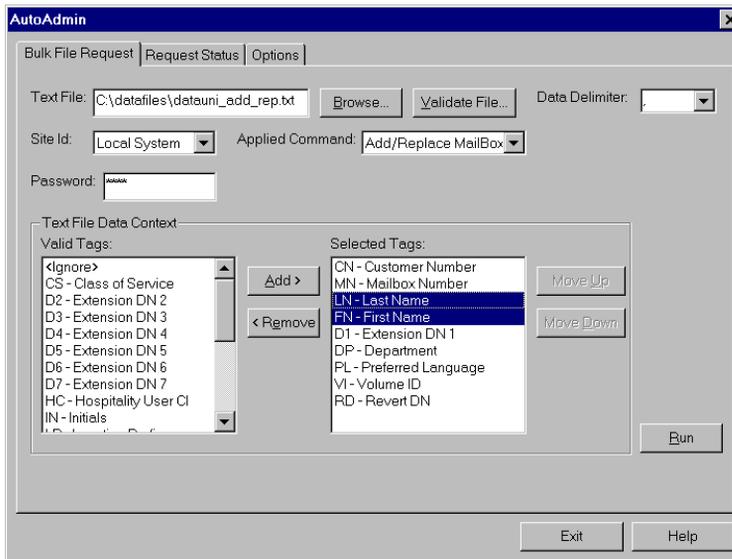
Starting Point: Applied Command window

Step Action

-
- 1 Select Add/Replace Mailbox.
 - 2 Select the tags you require by first clicking on a desired tag in the Valid Tag box, then clicking the Add button.
Note: Mandatory tags for adding/replacing a mailbox are MN and LN. LN is not mandatory for adding guest mailboxes on an HVS system. For an NMS system, LP is required as well.
Result: The tag is added to the Selected Tag box.

Step Action

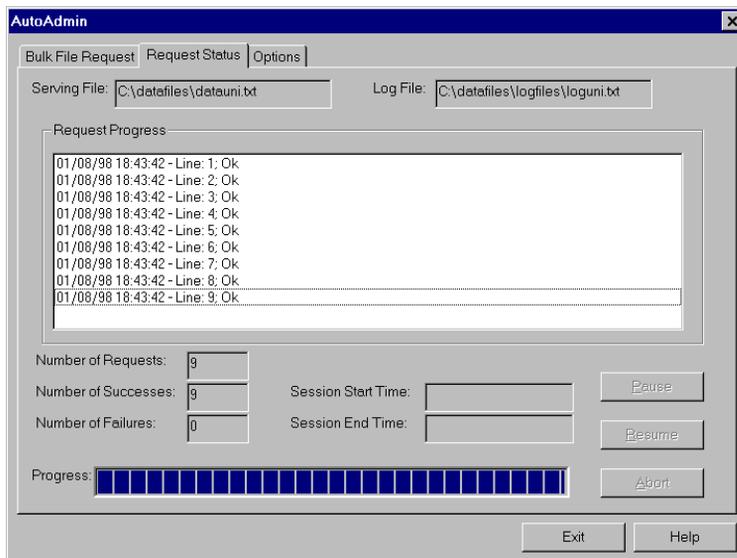
The following is an example of a screen after tag selections have been completed. Your display may differ due to requirements.



- 3 Once all required tags have been selected, click the Move Up or Move Down button to sequence the tags to reflect the text file entries.
- 4 Click the Validate File button to check that the syntax of the text file you are using is correct.

Result: The following screen is displayed in the Request Status window (your display may differ).

Step Action



- 5 Use the following decision box for validation.

IF your text file is ...	THEN go to ...
invalid	step 6
valid	step 8

Step Action

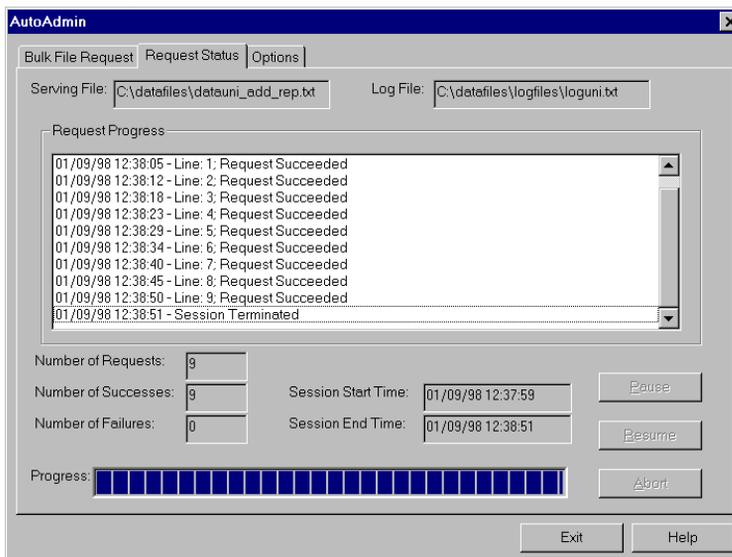
6 Read the error message and check the return codes, if any, in the error messages. Look up any RCs in the SEERs Guide (NTP 555-7001-510).

7 Make the required corrections and click Validate File again. Go to step 5.

Note: Most times the error is simply too much data and not enough tags, or vice versa, or a delimiter problem.

8 Click Run.

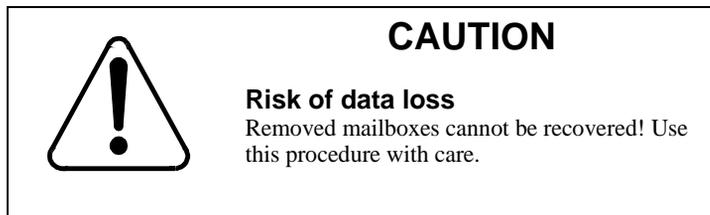
Result: The following screen is displayed (your display may differ).



9 If you need to perform other bulk file requests with AutoAdmin, see page B-35, step 6.

Procedure: Removing Mailboxes To remove mailboxes through a bulk file request using AutoAdmin, follow these steps.

Note: The following procedure assumes you have created and selected an appropriate text file that can be used to process mailbox information. Refer to the “Procedure: Starting AutoAdmin” on page B-34 before proceeding with the following instructions.



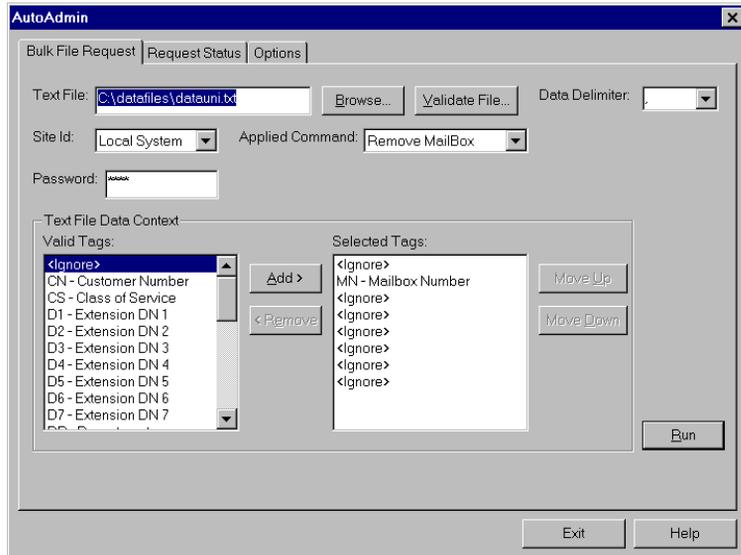
Starting Point: Applied Command window

Step	Action
------	--------

- | | |
|---|--|
| 1 | Select Remove Mailbox. |
| 2 | Select the MN tag. For an NMS system, select LP as well.
Note: If information other than the MN is entered in the text file, you can use the <Ignore> tag for each delimited piece of data in the text file.
Select <Ignore> tags as necessary.
Result: The tags are added to the Selected Tag box. |

Step Action

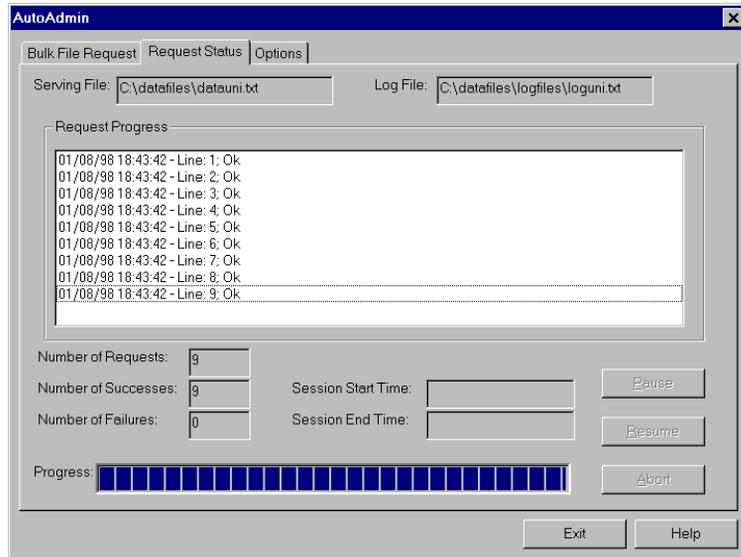
The following is an example of a screen after tag selections have been completed. Your display may differ.



Step Action

- 3 Click the Validate File button to check that the syntax of the text file you are using is correct.

Result: The following screen is displayed in the Request Status window (your display may differ).



4

IF your text file is ...	THEN go to ...
invalid	step 5
valid	step 7

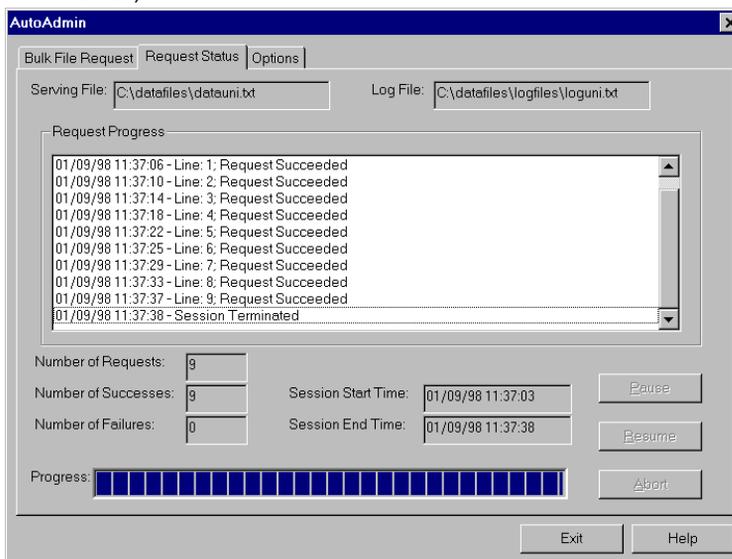
Step Action

- 5 Read the error message and check the return codes, if any, in the error messages. Look up any RCs in the SEERs Guide (NTP 555-7001-510).
- 6 Make the required corrections and click Validate File again. Go to step 4.

Note: Most times the error is simply too much data and not enough tags or vice versa, or a delimiter problem.

- 7 Click Run.

Result: The following screen is displayed (your display may differ).



- 8 If you need to perform other bulk file requests with AutoAdmin, see page B-35, step 6.
-

Procedure: Updating mailboxes

To update mailboxes through a bulk file request using AutoAdmin, follow these steps.

Note: The following procedure assumes you have created and selected an appropriate text file which can be used to process mailbox information. Refer to the “Procedure: Starting AutoAdmin” on page B-34 before proceeding with the following instructions.

Starting Point: Applied Command window

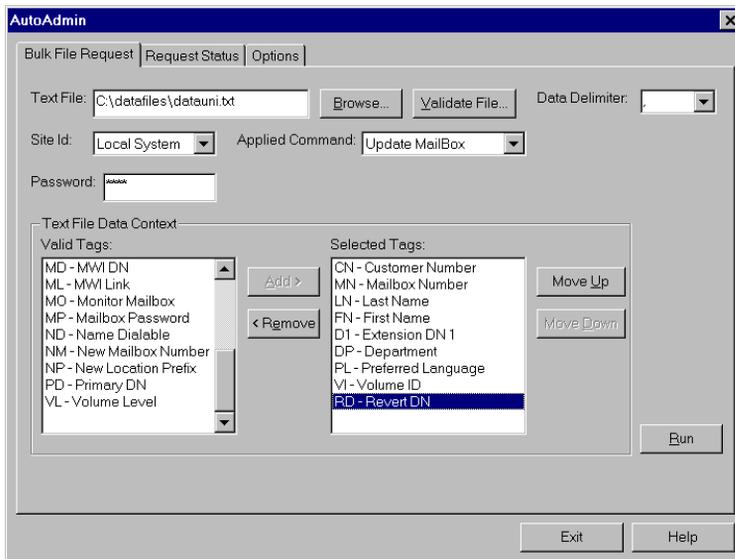
Step Action

- 1 Select Update Mailbox.
- 2 Select the tags you require by first clicking on a desired tag in the Valid Tag box, then clicking the Add button.

Note: Mandatory tags for updating a mailbox are MN and LN. LN is not mandatory for adding guest mailboxes on an HVS system. For an NMS system, LP is required as well.

Result: The tag is added to the SelectedTag box.

The following is an example of a screen after tag selections have been completed. Your display may differ due to requirements.

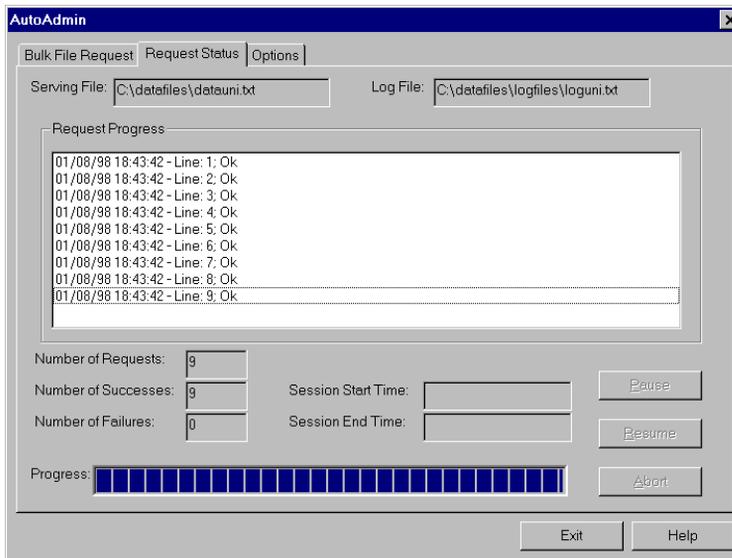


- 3 Once all required tags have been selected, click the Move Up or Move Down buttons to sequence the tags to reflect the text file entries.

Step Action

- 4 Click the Validate File button to check that the syntax of the text file you are using is correct.

Result: The following screen is displayed in the Request Status window (your display may differ).



- 5

IF your text file is ...	THEN go to ...
invalid	step 6
valid	step 8

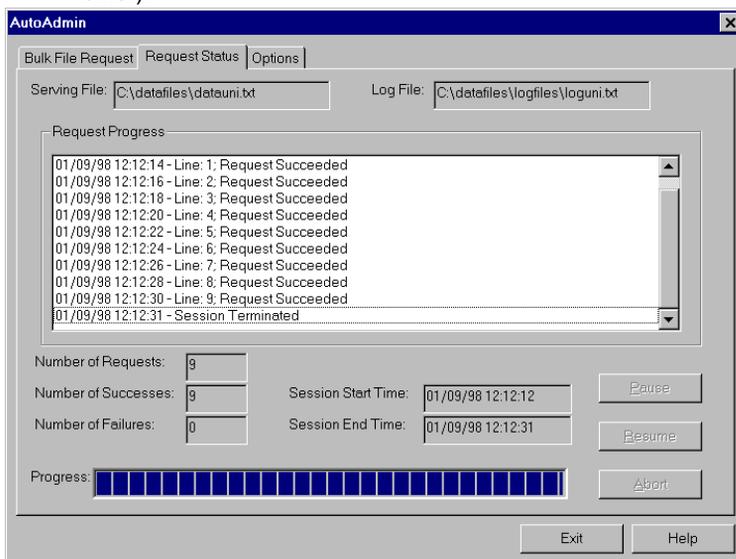
Step Action

- 6 Read the error message and check the return codes, if any, in the error messages. Look up any RCs in the SEERs Guide (NTP 555-7001-510).
- 7 Make the required corrections and click Validate File again. Go to step 5.

Note: Most times it is simply too much data and not enough tags or vice versa, or a delimiter problem.

- 8 Click Run.

Result: The following screen is displayed (your display may differ).



- 9 If you need to perform other bulk file requests with AutoAdmin, see page B-35, step 6.
-

Troubleshooting

Overview

In general, if any problems with processing the text files, the user is provided with return codes that are located in the SEERs Guide (NTP 555-7001-510).

Start-up problems

The following information provides possible solutions to start-up problems in AutoAdmin.

AutoAdmin does not start up properly

Check the AutoAdmin folder on your PC, and open it. The following files should be in it:

- cmadf.txt
- cma.dll
- datafile.dll
- Gcl52fw.dll
- pctc.dll
- poweradm.exe

If any of these files are missing from the AutoAdmin folder, reinstall AutoAdmin.

Troubleshooting

The following table provides remedies to problems with AutoAdmin start-up.

Symptom	Error indication	Remedy
AutoAdmin does not start up properly	During start-up, an error box with "data file failure" message appears.	Reinstall AutoAdmin.
	Program starts with error box message: "A required .DLL file, xxx.DLL not found".	Reinstall AutoAdmin.
	Cannot start AutoAdmin or application with no content	Close other Windows applications.

Symptom	Error indication	Remedy
Persistent communication timeout	Times out on every request	Check cable and redo command.
	Appropriate error codes returned indicating send or receive timeout	Check cable and redo command.
	Both PC COMM port and Meridian Mail dataport are not set up at the same speed	Match PC COMM and Meridian Mail dataport speeds.
	Cable or modem problem	Check both cable connection and modem; redo command

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Publication number:	555-7001-301
Product release:	12
Document release:	Standard 1.0
Date:	January 1998

Printed in the United States of America

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