

555-7001-315

Meridian ACCESS

Configuration Guide

Product release 13

Standard 1.0

November 1999

NORTEL
NETWORKS™

How the world shares ideas.

P0904494

Meridian ACCESS

Configuration Guide

Publication number:	555-7001-315
Product release:	13
Document release:	Standard 1.0
Date:	November 1999

Copyright © 1999 Nortel Networks, All Rights Reserved.

Printed in the United States of America

Information is subject to change without notice. Nortel Networks reserves the right to make changes in design or components as progress in engineering and manufacturing may warrant.

MERIDIAN, MERIDIAN 1, MERIDIAN MAIL, SL-1, SL-100, DMS-100, ACCESS, ICL, SUPERNODE, NORTEL NETWORKS, and NORTEL NETWORKS HOW THE WORLD SHARES IDEAS are trademarks of Nortel Networks. TANDBERG is a trademark of Tandberg O/S. VIPER is a trademark of Archive Corporation. SEAGATE is a trademark of Seagate Technology Inc. U.S. ROBOTICS and US ROBOTICS are trademarks of 3Com. RACAL is a trademark of Racal Electronics Plc. HAYES is a trademark of Hayes Microcomputer Products Inc. UDS is a trademark of Universal Data Systems, Inc. MAXTOR is a trademark of Maxtor Corp. DEC is a trademark of Digital Equipment Corp. HEWLETT-PACKARD is a trademark of Hewlett-Packard Company.

Publication history

- November 1999** The *Meridian ACCESS Configuration Guide* is released as Standard 1.0. This edition makes all previous editions obsolete.
- December 1997** The *Meridian ACCESS Configuration Guide* is released as Standard 1.0. No technical changes were necessary for Release 12. This edition makes all previous editions obsolete.
- August 1995** The *Meridian ACCESS Configuration Guide* is released as Standard 1.0. This version documents release 10.0 of Meridian Mail and release 2.0 of Meridian ACCESS. This edition makes all previous editions obsolete.
- March 1994** The *Meridian ACCESS Configuration Guide* is released as Standard 1.0. This version documents Release 9 of Meridian Mail. This edition makes all previous editions obsolete.

Contents

	About this guide	ix
1	Introduction	1-1
	Overview	1-2
	About Meridian ACCESS	1-3
	Preconfiguration requirements	1-4
2	Meridian ACCESS overview	2-1
	Overview	2-2
	Types of applications	2-3
	Concepts	2-4
3	Configuration examples	3-1
	Overview	3-2
	Simple incoming call application using shared channels	3-3
	System with two applications: One using dedicated incoming channels, one using shared channels	3-5
	System using dedicated channels for outgoing calls	3-8
	Multifunction applications	3-10
	Incoming and outgoing call applications	3-13
4	Plan your application	4-1
	Overview	4-2
	More on preconfiguration requirements	4-3
	Application planning	4-6

5	Configuring the Integrated Communications Link	5-1
	Overview	5-2
	About ICL	5-3
	ICL window.	5-4
	Adding a new ICL	5-5
	Modify connection	5-7
6	Configuration procedures	6-1
	Overview	6-2
	General procedure	6-3
	PBX procedures.	6-5
	Meridian Mail procedures	6-11
7	SMDI systems	7-1
	Overview	7-2
	Planning.	7-4
	Configuration examples.	7-6
	Configuration procedures	7-10
	PBX/DMS procedures.	7-13
	Meridian Mail procedures	7-19
	Index	Index-1

About this guide

In this chapter

Overview	x
Product documentation	xi
Related documentation	xii
The technical administrator's role	xiv
In this guide	xv

Overview

Introduction

This guide describes the Meridian ACCESS Enable option configuration on Meridian Mail. The guide is intended for the technical administrator responsible for Meridian ACCESS-based applications. This guide assumes that the technical administrator is familiar with Meridian Mail and private branch exchange (PBX) administration.

The Meridian ACCESS Enable option is used with such products as Meridian IVR and VISIT Messenger. In addition, Meridian ACCESS is used by licensed Value Added Developers (VADs) for highly customized interactive message processing applications.

All Meridian ACCESS-based applications (including Meridian IVR and VISIT Messenger) use a UNIX-based or Windows-based operating environment that interfaces with Meridian Mail. This document only addresses the Meridian ACCESS configuration required on Meridian Mail and does not address the specific configuration requirements of the UNIX or Windows environment.

Product documentation

Introduction

For more information on Meridian IVR, refer to the following:

Order code	Description
NT3R01DA (A0402415)	Meridian IVR operational NTPs include: <ul style="list-style-type: none"> · <i>Meridian IVR General Description</i> (555-9001-010) · <i>Meridian IVR Installation Guide</i> (555-9001-210) · <i>Meridian IVR System Administration and Reports for X-Terminal Users</i> (555-9001-300) · <i>Meridian IVR System Administration and Reports for System Console Users</i> (555-9001-301) · <i>Meridian IVR System Maintenance and Diagnostics</i> (555-9001-500)
NT3R01CA (A0402414)	Meridian IVR development NTPs include: <ul style="list-style-type: none"> · <i>Meridian IVR Application Guide</i> (555-9001-310) · <i>Meridian IVR Gateway Development Guide</i> (555-9001-312) · <i>Meridian IVR System Administration and Reports for X-Terminal Users</i> (555-9001-300) · <i>Meridian IVR System Administration and Reports for System Console Users</i> (555-9001-301)

For more information on VISIT Messenger, refer to the following:

Order code	Description
NTVM0100	<i>Symposium Messenger User Guide</i>
NTVM0300	<i>Symposium Messenger Server Administration Guide</i>

Related documentation

Introduction

You can find further Meridian Mail information in the following Nortel Networks Publications (NTPs):

What's New in Meridian Mail 13 Guide (P0904567)

Provides a comprehensive guide to what's new in Release 13 of Meridian Mail.

Meridian Mail PC Applications Guide (P09007072)

Provides information about the PC applications of Meridian Mail 13.

Installation and Maintenance Guide (NTP 555-70x1-250)

Provides information on PBX and PBX/DMS setups for various applications.

The “x” in the NTP number (70x1) represents the applicable hardware platform and corresponds to one of the following:

- 7011 for Options platforms
- 7041 for Modular Option platforms
- 7051 for Modular Option GP platforms
- 7061 for Modular Option EC platforms

Note: The NTP number for the *Card Option Installation and Maintenance Guide* (for Card Option platforms) is 555-7071-210.

System Administration Guide (NTP 555-7001-30x)

Describes all administration functions on the Meridian Mail system, including voice service configuration.

The “x” in the NTP number represents the switch connection and customer type, and corresponds to one of the following:

- 301 for single-customer systems using Meridian 1
- 302 for multi-customer systems using Meridian 1
- 307 for single-customer systems using a DMS-10, DMS-100, or SL-100 switch, or selected models of AT&T PBXs

- 308 for multi-customer systems using a DMS-10, DMS-100, or SL-100 switch, or selected models of AT&T PBXs

Site and Installation Planning Guide (NTP 555-70x1-200)

Assists in selecting and planning the Meridian Mail hardware installation site. The “x” in the NTP number represents the applicable hardware platform.

You can find further information on automatic call distribution (ACD) in the following documents:

X11 Data Administration Input/Output Guide (NTP 553-2311-311)

Provides information on setting up ACD, including details on options available on ACD queues.

X11 Input/Output Guide (NTP 553-3001-400)

Contains detailed information on overlays.

The technical administrator's role

Introduction

The technical administrator's role is to ensure the Meridian ACCESS Enable option is correctly configured for Meridian ACCESS-based products such as Meridian IVR and VISIT Messenger. The configuration varies with the product or application.

The following are some of the technical administrator's responsibilities:

- planning Meridian Mail and PBX configuration
- assigning unique application identifier "classes"
- creating or assigning Meridian Mail accounts
- allocating channels for the applications using the channel allocation table (CAT) on Meridian Mail
- setting up ACD queues on the PBX for applications that answer incoming calls
- creating a new voice service entry for each application that handles incoming calls using the voice service directory number (VSDN) Table on Meridian Mail
- using the appropriate procedures to remove applications from the system

In this guide

Introduction

This guide describes the configuration of Meridian ACCESS-based applications. Because applications vary considerably, this guide presents general information.

Some information on Meridian ACCESS-based applications can be found elsewhere (for example, Meridian Mail NTPs, or documentation for an individual application). Wherever possible, additional sources are mentioned throughout this document.

This guide contains the following chapters:

Chapter 1, “Introduction”

Describes the Meridian ACCESS product in general terms and lists preconfiguration requirements.

Chapter 2, “Meridian ACCESS overview”

Introduces Meridian ACCESS concepts and describes the architecture of a Meridian ACCESS system.

Chapter 3, “Configuration examples”

Illustrates the planning and configuration of a sample Meridian ACCESS-based application.

Chapter 4, “Plan your application”

Lists the information required and describes how to coordinate the information for configuring an application.

Chapter 5, “Configuring the Integrated Communications Link (ICL)”

Describes how to configure the Integrated Communications Link (ICL) on a personal computer (PC).

Chapter 6, “Configuration procedures”

Describes the procedures for configuring an application.

Chapter 7, “SMDI systems”

Describes the configuration procedures for SMDI configurations.

Chapter 1

Introduction

In this chapter

Overview	1-2
About Meridian ACCESS	1-3
Preconfiguration requirements	1-4

Overview

Introduction

This chapter describes Meridian ACCESS, its components, and its preconfiguration requirements.

About Meridian ACCESS

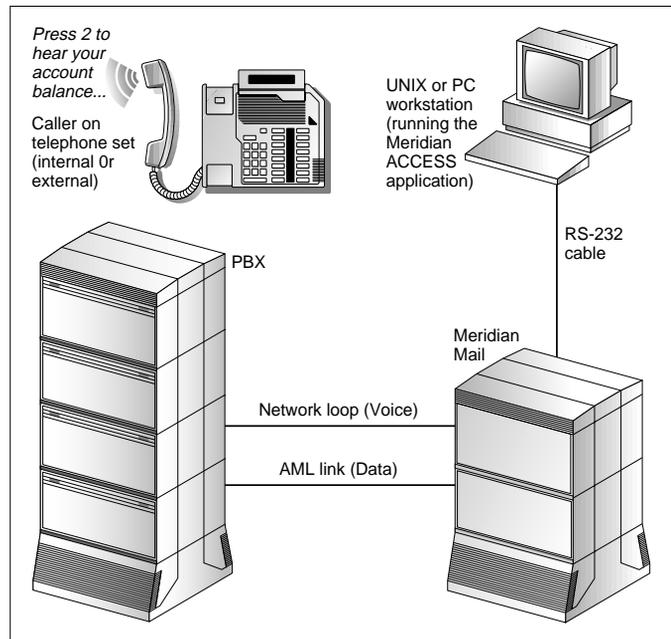
Introduction

Meridian ACCESS allows Nortel Networks products to provide services that combine the telephone with the computer. Often these services are Interactive Voice Response (IVR) applications that enable a person to retrieve information or place an order over the telephone by pressing telephone keys.

The Meridian ACCESS system

- A Meridian ACCESS system has the following components (see the figure below):
- private branch exchange (PBX) (Meridian 1, for example)
- Meridian Mail (with the Meridian ACCESS feature enabled)
- UNIX workstation or personal computer (PC) running a Meridian ACCESS-based application

Meridian ACCESS Overview diagram



These components and their functions are described in more detail in Chapter 2 "Meridian ACCESS overview."

Preconfiguration requirements

Introduction

Before configuring your system for a new Meridian ACCESS-based application, ensure that the system meets the requirements listed below.

Meridian Mail

Your Meridian Mail system must

- be fully installed according to the *Installation and Maintenance Guide* (NTP 555-70x1-250).
- have the Meridian ACCESS feature enabled—see the *System Installation and Modification Guide* (NTP 555-7001-215) for details.
- have sufficient voice channels installed.
- have sufficient storage (disk space) for voice prompts and messages.
- have a dataport available for Meridian ACCESS.

ACCESS supports basic transmit, receive, and ground pins (pins 2, 3, and 7). For Card Option systems, all dataports on the RS-232 Service Module (RSM) card are configured as Data Terminal Equipment (DTE). For Modular Enhanced Capacity (EC) systems, all dataports are configured as DTE on both the utility pack and the Single Board Computer (SBC) card. For Options NT/XT (hardware in the Cantilever/CenterMount Peripheral Equipment shelf packaging), Options ST/RT (hardware in the SL-1 Tier In-Skins packaging), Modular Option (Op), and Modular General Purpose (GP) systems, all data ports are configured as DTE on both the RSM card and the SBC card.

On MSM platforms, you require the NTGX06AB transition module for an ACCESS port on an SPN node. The NTGX06AB has serial ports configured as DTE.

When connecting to the Motorola Delta series workstation, serial ports on the 332XT I/O card are configurable as DTE or Data Communications Equipment (DCE). The Motorola also has two nine-pin SBC ports configured as DTE. When connecting DTE to DCE devices, you use a straight-through, 25-pin serial cable. You require a null

modem for a DCE-to-DCE or a DTE-to-DTE configuration.

- have silence compression turned on if you are using the Voice Prompt Editor to develop voice prompts.

See Chapter 4, “Plan your application” for further information on some of these requirements.

Meridian Integrated Communication Link (ICL) speeds

ICL supports various speeds on all platforms. Every configuration differs according to the number of links and the platform used. However, the rules in the table on page 1-6 indicate how you can best use ICL for optimal speed.

Note: ICL has a minimum baud rate of 4.8 kbyte/s and a maximum baud rate of 38.4 kbyte/s. The Windows PC supports baud rates of 19.2 and 38.4 kbyte/s.

Rules for configuring Meridian ACCESS link speeds

Platform*	Node(s)	Card or port	Slowest speed on port (kbyte/s)	Fastest speed on port (kbyte/s)	Maximum cumulative speed on node	Greatest number of links (system)
Mod EC	1	UTIL (no MMP40 port)	4.8	9.6	19.2	8
	2, 3, 4, 5	SBC	4.8	19.2	38.4	8
Mod Op, Mod GP, Options NT/XT, and Options ST/RT	1	RSM	4.8	9.6	19.2	8
	2, 3, 4, 5 (up to a maximum of 2 nodes for NT/XT and ST/RT, and up to a maximum of 5 nodes for Mod Op and Mod GP)	SBC	4.8	38.4	38.4	8
Card Op	1	RSM	4.8	9.6	9.6	2
Compact Option	1	RSM	4.8	9.6	9.6	2
MSM	1, 2, 3, 4, 5, 6, 7, 8 (voice nodes)	SPN transition module	4.8	9.6	9.6	8

*Mod EC (Modular Option Enhanced Capacity), Mod Op (Modular Option), Mod GP (Modular Option General Purpose hardware in the UEM packaging), Options NT/XT (hardware in the Cantilever/CenterMount Peripheral Equipment shelf packaging), Options ST/RT (hardware in the SL-1 Tier In-Skins packaging), Card Op (Option), and MSM (Message Services Module)

Private branch exchange

Your private branch exchange (PBX) must

- meet the requirements for Meridian Mail as specified in the *Site and Installation Planning Guide* (NTP 555-70x1-200).
- be fully configured for Meridian Mail according to the *Installation and Maintenance Guide* (NTP 555-70x1-250).
- have all voice channels configured.
- have sufficient incoming and outgoing trunks and line cards installed and configured.

UNIX workstation

The workstation refers to the hardware platform using the Meridian ACCESS-based application or product. The workstation does not have to be installed before configuration begins, but it must be functioning by the time you are ready to install and test the Meridian ACCESS-based application. The workstation must also be connected to a data port on Meridian Mail.

Note: Application requirements depend on the application. The application should provide installation and configuration details for the UNIX workstation.

PC workstation

The workstation refers to the hardware platform using the Meridian ACCESS-based application or product. The workstation does not have to be installed before configuration begins, but it must be functioning by the time you are ready to install and test the Meridian ACCESS-based application. The workstation must also be connected to a dataport on Meridian Mail.

Application requirements depend on the application. The application should provide installation and configuration details for the PC workstation.

Chapter 2

Meridian ACCESS overview

In this chapter

Overview	2-2
Types of applications	2-3
Concepts	2-4

Overview

Introduction

This chapter describes how the PBX, Meridian Mail, and Meridian ACCESS work together to provide customized voice service applications.

Meridian ACCESS uses Integrated Communication Link (ICL) for all applications.

Some kinds of Meridian ACCESS applications run on the Windows PC platform.

Types of applications

Introduction

Configuration requirements for Meridian ACCESS-based applications vary depending on the application. The following types of applications can be created and combined.

Incoming call (inbound) applications

Applications that provide a service to callers who dial in are inbound applications. Callers dial from either an internal telephone (an extension on the PBX) or an external telephone (a payphone or home telephone, for example) to the service, which is often an Interactive Voice Response (IVR) service.

Outgoing call (outbound) applications

Applications that call internal or external telephone numbers are outbound applications. The application asks Meridian Mail to begin an outgoing call and provides a service (IVR or call processing function) to a customer.

Administrative applications

Applications that do not take incoming calls or place outgoing calls are generally administrative in nature. There is a wide range of possible applications. A popular example is electronic mail notification. Meridian ACCESS can send summaries of voice messages to a host computer, and can receive notification of text messages (and turn on Message Waiting Indication at a telephone).

Web applications

Meridian ACCESS allows web-based PC applications through its web interface.

Transactional messaging applications

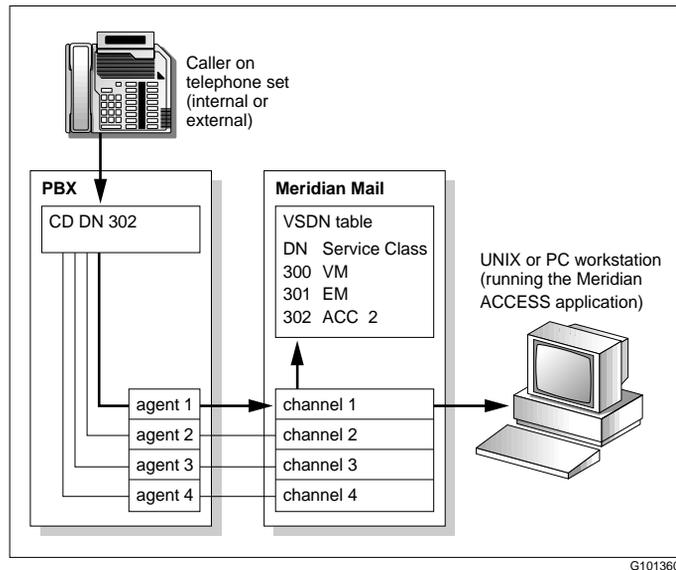
These applications combine inbound and outbound applications. Users call in to the service and leave messages in mailboxes (inbound). Then the application schedules a call to either a free agent or to the customer (outbound).

Concepts

Introduction

To plan and configure a Meridian ACCESS system, you must understand some basic concepts described in this chapter, such as private branch exchange (PBX), shared and dedicated channels, call processing, and the channel allocation table (CAT). The following illustration shows the components of a system.

Meridian ACCESS-based components



Private branch exchange

The private branch exchange (PBX) provides the telephone interface to Meridian ACCESS voice services. For Meridian 1 systems, the automatic call distribution (ACD) feature allows a number of telephones connected to the PBX (known as agent positions) to share equally in answering incoming calls. Incoming calls to an ACD directory number (DN) are placed in an ACD queue and presented to the available agents on a first-in, first-served basis. Other switches use similar queuing schemes.

In Meridian 1 systems, Meridian Mail uses ACD to receive calls from users who have dialed a voice service telephone number or directory number (VSDN), which is also the ACD DN of an

ACD queue. Calls are distributed to agent positions that correspond to voice channels on Meridian Mail. Inbound applications handle calls that originate outside the PBX. A call arrives on a trunk that terminates on an ACD queue.

Meridian Mail is usually configured so that all incoming calls share all available agents/channels. Therefore, calls are evenly distributed. Shared channel configuration involves one primary ACD DN queue that can direct calls to all configured agents. Some voice services use ACD DN queues that do not have agents assigned to them. These “virtual” ACD DN queues forward incoming calls for certain DNs to the primary ACD DN queue using the agents assigned to the primary DN.

In some cases, however, you may decide to use a dedicated channel configuration to allocate channels to a specific ACCESS application. For example, any incoming calls for the specified application funnel into a primary ACD queue for DN 3311. Four agents comprise the queue and correspond to four voice channels on Meridian Mail.

Shared versus dedicated channels

The decision to use a shared or dedicated channel configuration depends on the requirements of the application. Often the application developer specifies which configuration to use. The shared channel method uses channels more efficiently but generates more Meridian ICL traffic and Meridian Mail system load. The dedicated channel method reduces some application overhead, and is suitable for systems that use a single application and no other voice services.

Note: You may need a combination of shared and dedicated channels to achieve your organization’s call-handling objectives.

Meridian Mail

Meridian Mail provides all basic voice service capabilities to the Meridian ACCESS system. Meridian Mail stores all voice recordings and gives callers access to features like voice messaging (which also has a long list of available features), voice menus, and announcements. You can customize these features to meet the needs of a wide range of users.

Call processing

Incoming calls to a voice service (such as a Meridian ACCESS-based application) arrive on Meridian Mail channels according to ACD configuration, as previously described. Although a call may have been forwarded to another ACD DN and then reassigned to an agent position, the channel still retains information about the originally dialed DN. Meridian Mail interprets this DN according to the Voice Service-DN (VSDN) Table. The VSDN Table lists all VSDNs and type-of-service information on each DN.

VSDN table

Every voice service has a DN associated with it. When you dial this DN, the call passes to Meridian Mail. Meridian Mail starts up the appropriate voice service by looking at the VSDN table entry for that DN.

The VSDN table entry for a Meridian ACCESS-based application contains three pieces of information: the DN, service type (ACCESS), and class. A service type of ACC indicates to Meridian Mail that the call should pass to Meridian ACCESS. Every Meridian ACCESS-based application has a unique class number. The class indicates which application should be notified about the call. If the originally dialed DN corresponds to a Meridian ACCESS-based application, Meridian Mail notifies that application to handle the call.

Channel Allocation Table

The channel allocation table (CAT) contains entries for each voice channel on Meridian Mail and matches these channels to ACD agents on the PBX. This table lets you dedicate channels to a particular service on Meridian Mail or make the channels available to all services.

When channels are dedicated to a service in the CAT, Meridian Mail cannot allocate those channels to any other service. If those particular channels are not dedicated on the PBX (using a separate ACD queue as described earlier), any service can use the channels on incoming calls. The CAT controls only the resources allocated by Meridian Mail. Refer to Chapter 6 “Configuration procedures,” for details on modifying the CAT and channel restrictions.

Meridian Mail Channels

Meridian Mail has three types of channels: Multimedia channels, Full Voice channels, and Basic Voice channels. All channels are configured in the CAT.

If Basic Voice channels are dedicated as both “ACCESS” and “any” in the CAT, then all ACCESS services of any class can use only those channels, but no other voice service can use them. If Basic Voice channels are dedicated as “ACCESS” and for a specific class (for example, class five), then ACCESS applications of class five can use only those channels and no other channels.

A Basic service can use a Full Voice channel only if there are no Basic Voice channels in service. A Basic service can use a Multimedia channel only if no Full and Basic Voice channels are in service. For more information about the CAT and dedicated channels, see Chapter 6, “Configuration procedures.”

Outbound discussion

Outbound ACCESS applications must always acquire a voice channel before initiating a call. The voice channel allocated is determined by the CAT settings and an application’s class. Note that no dialing restrictions apply to the outcalling ACCESS application. Those restrictions must be enforced on the Meridian 1.

In systems configured with AML/CSL, the PBX, by default, blocks incoming calls to applications. An incoming call is presented only after the application issues the `m_AcceptCall` API function. The application must issue this function after every call to receive the next call.

If no activity occurs on the channel for one hour, Meridian 1 presents calls even if the application does not issue the `m_AcceptCall` function. As a result, presented calls can interrupt an outbound application. To ensure that the switch does not present calls, you must perform some type of activity on the channel, such as starting to make a call. The switch then stops presenting calls and interrupting an application. If you wish to use a channel only for outbound applications, not configuring an ACD queue for that channel ensures that the switch cannot present any calls.

In systems configured with SMDI, incoming calls are presented anytime after the application issues the `m_Acquire` API function.

Mailboxes

Most Meridian ACCESS-based applications require a Meridian Mail account, or mailbox, to store voice files. A single mailbox can be shared by several applications and must be shared if the applications use the same voice files. It can be useful to have different applications use different mailboxes.

Mailboxes can be customized many ways to suit a Meridian ACCESS-based application. For example, space requirements for voice files must be taken into account. As well, message waiting indication can be enabled, or it can be disabled if no telephone number is associated with the mailbox. Message retention information also can be modified.

Meridian ACCESS

Meridian ACCESS-based applications can be developed to meet many requirements. An application can receive or place telephone calls, play prompts, receive “input” in the form of digitone keypresses, transfer calls, record messages, and use Meridian Mail services. All of these functions can be built into a voice service that is tailored to meet special requirements.

With release 13.0 of Meridian Mail, you can configure multiple Integrated Communication Links to run concurrent combinations of Meridian ACCESS, Meridian IVR, VISIT Messenger, and Meridian Mail Reporter (MMR) on even a single-node system. (Prior to release 10.0 of Meridian Mail, only one link could be configured on nodes 1 and 3.)

Each Meridian ACCESS-based application on a system can be treated as a separate voice service by assigning a unique class number to the application. As discussed earlier, the VSDN table on Meridian Mail uses the service type of ACC, and this class number (which can be predetermined by the application developer or designed to be configurable by an administrator) to notify the appropriate application of a call.

A typical application program starts by “registering” with the Meridian ACCESS system. The program then acquires a

Meridian ACCESS session and logs on to a mailbox on the Meridian Mail system. Once these steps are complete, all the other Meridian Mail functions supported by Meridian ACCESS can be performed.

Chapter 3

Configuration examples

In this chapter

Overview	3-2
Simple incoming call application using shared channels	3-3
System with two applications: One using dedicated incoming channels, one using shared channels	3-5
System using dedicated channels for outgoing calls	3-8
Multifunction applications	3-10
Incoming and outgoing call applications	3-13

Overview

Introduction

This section contains several examples of Meridian ACCESS systems with different application scenarios to illustrate the variety of configuration possibilities. The following examples are shown:

- simple incoming call application using shared channels
- two applications: one using dedicated incoming channels and the other using shared channels
- application using dedicated channels for outgoing calls
- multi-function applications

These simplified examples show applications that accept only incoming calls or applications that only make outgoing calls. These examples follow the progress of a call to or from Meridian ACCESS and end when the user or customer connects to the Meridian ACCESS-based application. (Information on applications that perform both functions appear at the end of this chapter.)

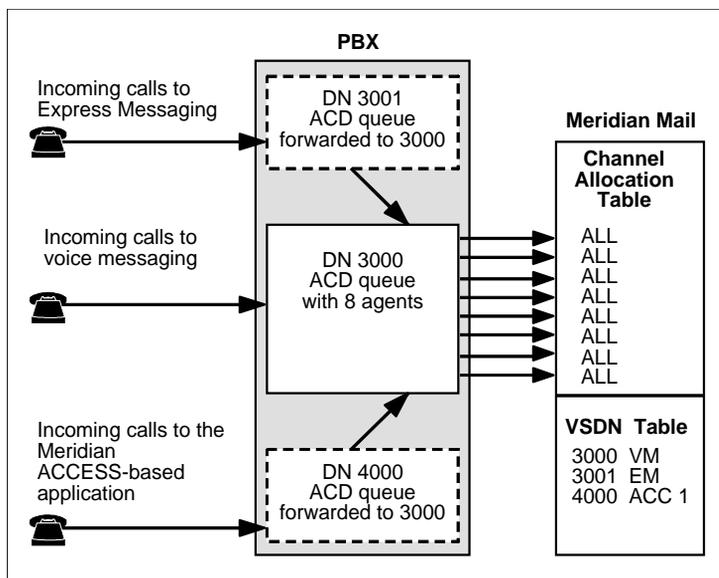
Each example is accompanied by a flowchart diagram and a configuration summary to help you apply the configuration information to your own application scenarios. Express Messaging appears in each instance as an example of a Meridian Mail voice service.

Each application scenario ends when the call disconnects and the resources are made ready for the next call. The events involved in making resources ready are not described here because they depend on the application design and do not affect configuration.

Simple incoming call application using shared channels

Introduction

The following illustration shows an eight-channel Meridian Mail system with a single Meridian ACCESS-based application that takes incoming calls. The application (which is identified to Meridian Mail as class 1) shares channels with Meridian Mail.



Sample setup for shared channel, incoming call application

When a customer calls the Meridian ACCESS-based application, the following events occur:

1. The customer dials DN 4000. DN 4000 is an ACD DN with no agents.
DN 4000 is forwarded to DN 3000.
2. The PBX routes the call to DN 3000. DN 3000 is an ACD DN with eight agents and is configured for use with Meridian Mail.
3. The PBX routes the call to the first available ACD agent assigned to DN 3000. The ACD agent corresponds to a Meridian Mail channel. The customer now hears one or a few rings before Meridian Mail picks up the call.

4. Meridian Mail receives the call (by assigning call-handling resources to that channel).
5. Meridian Mail looks up the originally dialed DN (4000) in the VSDN table. This DN has Service=ACC and Class=1, so Meridian Mail knows to pass this call on to Meridian ACCESS-based application "1."
6. The user connects to the appropriate Meridian ACCESS- based application.

When the call is complete and is disconnected, the ACD agent and Meridian Mail channel are made ready for the next call.

To set up the application

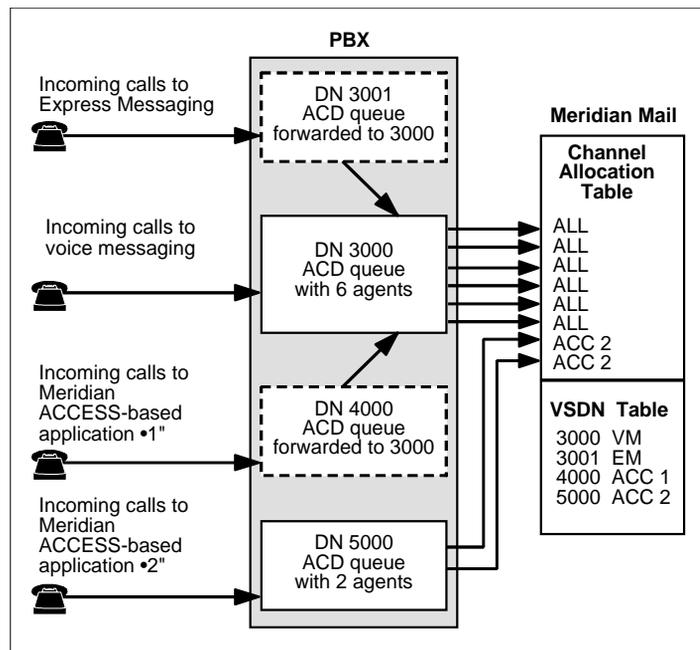
If Meridian Mail has been installed, configured, and tested (so that voice messaging and Express Messaging work correctly using all available ACD agents), the following configuration procedure must be performed to set up an application like this one:

1. Define ACD DN 4000 (using typical voice service configuration, forwarded to DN 3000) on the PBX.
2. Define DN 4000 as ACCESS-based application 1 in the VSDN table on Meridian Mail.
3. Ensure that no Basic voice channels are configured in the channel allocation table.

System with two applications: One using dedicated incoming channels, one using shared channels

Introduction

The following illustration shows an eight-channel Meridian Mail system with two Meridian ACCESS-based applications, each accepting incoming calls. Application 1(class 1) shares channels with Meridian Mail. Application 2 (class 2) uses two dedicated channels. Meridian Mail voice messaging (and any services sharing channels with it) use the remaining six channels.



Sample setup for shared channel and dedicated channel incoming call applications

The scenario for customers calling application 1 is the same as the previous scenario described on page 3-3.

When a customer calls Meridian ACCESS-based application 2, the following events occur:

1. The customer dials DN 5000.
 DN 5000 is an ACD DN with two agents and is configured for use with Meridian Mail.

System with two applications: One using dedicated incoming channels, one using shared channels

2. PBX routes the call to the first available agent assigned to DN 5000.

The ACD agent corresponds to a Meridian Mail channel. The customer may now hear one or a few rings before Meridian Mail picks up the call.

3. Meridian Mail receives the call (by assigning call-handling resources to that channel).

4. Meridian Mail looks up the originally dialed DN in the VSDN table.

DN 5000 has Service=ACC and Class=2, so Meridian Mail knows to pass this call on to Meridian ACCESS-based application 2.

5. The user is connected to the Meridian ACCESS-based application.

When the call is complete and disconnects, the ACD agent and Meridian Mail channel are made ready for the next call.

To configure the application

Assuming that Meridian Mail has been installed, configured, and tested (so that voice messaging and services function correctly use eight ACD agents), the following configuration procedure must be performed:

1. Reduce the number of ACD agents assigned to DN 3000 (the voice messaging DN) on the PBX.
2. Define ACD DN 4000 (using typical voice service configuration, forwarded to DN 3000) on the PBX.
3. Define ACD DN 5000 (as a message center DN with two agents) on the PBX.
4. Add two agents to DN 5000 (or change the ACD DN on the two removed from the voice messaging queue) on the PBX.
5. Define DN 4000 as ACCESS-based application 1 and DN 5000 as ACCESS-based application 2 in the VSDN Table on Meridian Mail.
6. Modify the Primary DN field in the channel allocation table for the two ACD agents assigned to DN 5000. Also, modify the Outbound field so that two channels are dedicated to

System with two applications: One using dedicated incoming channels, one using shared channels

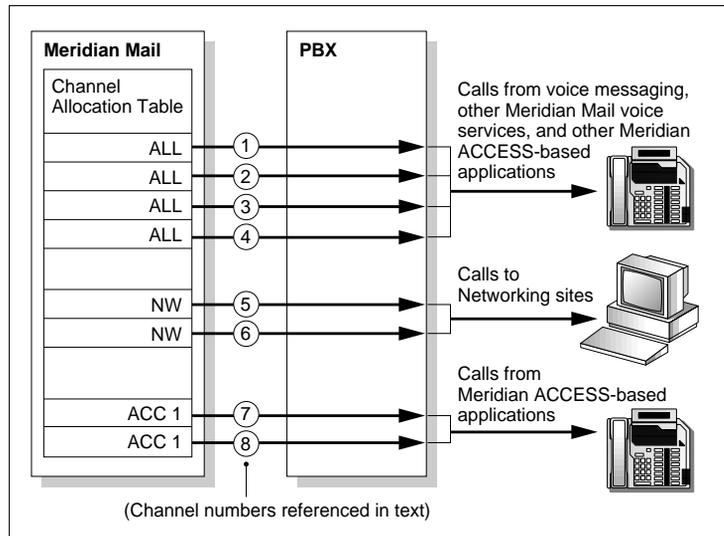
ACCESS, class 2, and the Capability field is defined as Full.

Note: If there are any Basic ports, application 1 will not be able to acquire a port.

System using dedicated channels for outgoing calls

Introduction

The following illustration shows an eight-channel Meridian Mail system with channels dedicated to particular services. Four channels are shared between voice messaging and voice services. Two channels are dedicated to outgoing networking calls. Two channels are dedicated to outgoing calls made by a particular Meridian ACCESS-based application (class 1).



Sample setup for shared- and dedicated-channel outgoing call applications

Outgoing calls made by Meridian Mail services (for example, Remote Notification service) or another Meridian ACCESS-based application (using shared channels) can be made on any of channels 1-4, because they are allocated to all services in the channel allocation table. Any outgoing networking calls must be made on either channel 5 or channel 6.

The scenario for Meridian ACCESS-based application 1 is as follows:

1. The application requests a channel to make an outgoing call.

2. Meridian Mail looks up the application class in the channel allocation table and finds two channels dedicated to that application.
3. Meridian Mail chooses the first available channel dedicated to Meridian ACCESS-based application class 1. Each channel has an ACD agent on the PBX associated with it as defined in the channel allocation table.
4. The application requests that the call be placed.
5. Meridian Mail passes the calling information to the ACD agent.
6. The PBX makes the outgoing call from the ACD agent. The application is informed of the call's progress.

When the call is complete and disconnects, the ACD agent and Meridian Mail channel are made ready for the next call.

To configure the application

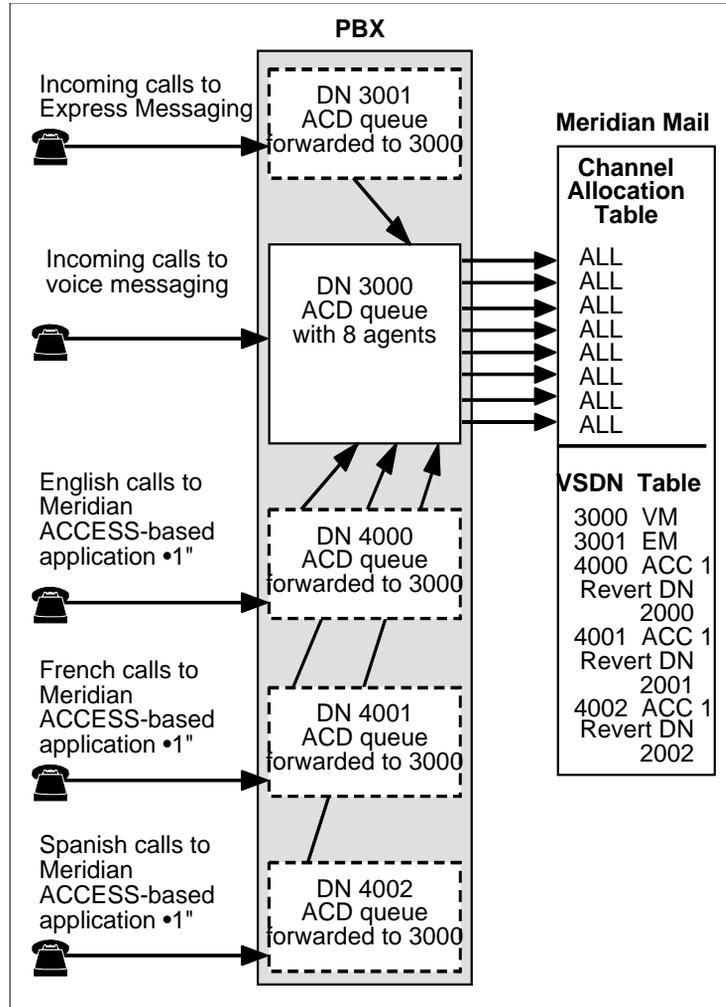
If the channel allocation table is configured for six channels shared by all services and two channels dedicated to networking, the following configuration procedure must be performed to set up an application like this one:

Modify the channel allocation table entries so that two channels are dedicated to the Meridian ACCESS service, class 1, and the Capability field is defined as Basic.

Multifunction applications

Introduction

The following figure illustrates an eight-channel Meridian Mail system with one multi-function Meridian ACCESS-based application that takes incoming calls and plays prompts in different languages, depending on the phone number dialed. The application (defined as class 1) shares Meridian Mail channels.



Sample setup for a multi-function application

When a customer calls the Meridian ACCESS-based application, the following events occur:

1. The customer dials DN 400x.

DN 400x is any one of three ACD DNs (4000, 4001, or 4002) with no agents. The DN 4000 is forwarded to DN 3000.
2. The PBX routes the call to DN 3000.

DN 3000 is an ACD DN with eight agents and is configured for use with Meridian Mail.
3. The PBX routes the call to the first available ACD agent assigned to DN 3000.

The ACD agent corresponds to a Meridian Mail channel. The customer hears one or a few rings before Meridian Mail picks up the call.
4. Meridian Mail receives the call (by assigning call-handling resources to that channel).
5. Meridian Mail looks up the originally dialed DN (400x) in the VSDN table.

This DN has Service=ACC and Class=1, so Meridian Mail knows to pass this call on to Meridian ACCESS-based application 1.
6. The user is connected to Meridian ACCESS-based application “1.”

Meridian Mail passes the originally dialed DN (400x) to Meridian ACCESS, and the application determines which prompts to play.

When the call is complete and disconnects, the ACD agent and Meridian Mail channel are made ready for the next call.

To configure the application

After Meridian Mail has been installed, configured, and tested (so that voice messaging and Express Messaging work correctly using all available ACD agents), the following configuration procedure must be performed to set up an application like this one:

1. Define ACD DN 4000, 4001, and 4002 (using typical voice service configuration, forwarded to DN 3000) on the PBX.
2. Define DN 4000, 4001, and 4002 as ACCESS-based application "1" in the VSDN table on Meridian Mail

Note: Use a different revert DN for each language so that callers can receive appropriate help.

3. Ensure that no Basic voice channels are configured in the channel allocation table.

Incoming and outgoing call applications

Introduction

The examples shown in this section illustrate the necessary components of incoming and outgoing applications. To configure applications that provide both functions, simply combine the configuration information shown in the examples.

When configuring an incoming/outgoing call application, the following guidelines apply:

Shared channels (both incoming and outgoing calls)

This is the simplest, and probably most popular, scenario. Setup involves creating new ACD DN's (on the PBX) that are forwarded to the main queue and adding an entry for each new ACD DN in the VSDN Table on Meridian Mail.

Shared incoming channels, dedicated outgoing channels

Setup involves creating new ACD DN's on the PBX that are forwarded to the main queue and adding an entry for each new ACD DN in the VSDN table on Meridian Mail. You must also update the channel allocation table to dedicate particular channels to Meridian ACCESS-based applications with the appropriate class number.

Dedicated incoming channels, shared outgoing channels

Setup involves creating new ACD DN's (on the PBX) with the appropriate number of agents assigned to them (either new agents or agents removed from the main Meridian Mail queue). You must make a new entry in the VSDN table on Meridian Mail for each ACD DN. You must also update the channel allocation table to dedicate particular channels to Meridian ACCESS-based applications with the appropriate class number.

Dedicated channels (both incoming and outgoing calls)

Setup involves creating new ACD DN's on the PBX with the appropriate number of agents assigned to them (either new agents or agents removed from the main Meridian Mail queue).

On Meridian Mail, you must make a new entry in the VSDN table for each ACD DN. You must also update the channel allocation table (CAT) to dedicate particular channels to Meridian ACCESS-based applications with the appropriate class number. For more information about the CAT, see Chapter 6, "Configuration procedures."

Chapter 4

Plan your application

In this chapter

Overview	4-2
More on preconfiguration requirements	4-3
Application planning	4-6

Overview

Introduction

Every Meridian ACCESS-based application serves a unique function, and the configuration requirements can vary widely. The process of planning for an application is an important step in the configuration process, and this chapter provides the information you need to set up your Meridian ACCESS-based application.

More on preconfiguration requirements

Introduction

The introduction to this document specifies some preconfiguration requirements that should be met before configuration takes place. Some of these requirements depend on the nature of the application and are further explained here.

Storage (disk space)

Meridian Mail stores all voice prompts, messages, greetings, and any other recorded voice for Meridian ACCESS-based applications and other voice services. If you are using other Meridian Mail features, the storage requirements for those features must also be taken into account.

When using dedicated channels, the voice prompts should be stored on the node where the channels are dedicated. This will assist in balancing the load on the disks. If a multi-node system is being used, it is possible to place a copy of the prompts on each node. However, this may not be appropriate for applications that regularly update their voice prompts.

The application developer should provide you with information on the storage requirements for each application. For details on determining system size, refer to *Meridian Mail Site and Installation Planning* (NTP 555-70x1-200).

Voice channels

To determine the appropriate number of channels for the system, estimate the traffic requirements for each application. If you are using other Meridian Mail features, the traffic requirements for those features must also be taken into account. For more information on determining system size, refer to the *Site and Installation Planning Guide* (NTP 555-70x1-200).

Refer to “Estimate traffic requirements” on page 4-3 to estimate the traffic requirements for Meridian ACCESS-based applications.

Estimate traffic requirements

1. Estimate the average length of a call to or from the application. This should include post-call processing time which is the time from disconnection of one call until the

application is ready to accept the next call. This information should be provided by the developer.

2. Estimate the number of calls for the busiest hour.
3. Multiply the average length by the number of busy-hour calls—this value is called the “total activity” for one application.
4. Repeat steps 1 to 3 for each application.
5. Add the total activity of each application to find the total activity for all applications.
6. Divide this number by 100 to determine the CCS count (CCS refers to hundreds of call seconds).
7. Look up the CCS value in the table “Determining channel capacity for an M1 (SL-1) switch with ACD queues” on page 4-4 to determine the optimum number of voice channels for Meridian ACCESS-based applications.

Determining channel capacity for an M1 (SL-1) switch with ACD queues

Capacity of system (CCS)	Number of channels
0 to 54	4
55 to 157	8
158 to 273	12
274 to 522	20
523 to 651	24
652 to 782	28
783 to 915	32
916 to 1049	36
1050 to 1183	40
1184 to 1318	44
1319 to 1455	48
1456 to 1591	52

More on preconfiguration requirements

1592 to 1729	56
1730 to 1866	60
1867 to 2004	64
The information is based on Erlang C formula. A 5 percent probability of delay exists in the ACD queue exceeding 1/6 of the average session length.	

Determining channel capacity for a DMS-100 switch with UCD queues

Capacity of system (CCS)	Number of channels
0 to 557	24
557 to 1258	48
1258 to 1983	72
1983 to 2719	96
2719 to 3461	120
3461 to 4208	144
This information is based on Erlang C formula. A 5 percent probability of delay exists in the UCD queue exceeding 1/6 of the average session length.	

Application planning

Introduction

A checklist is provided at the end of this section to help you organize your information. The checklist also points to the procedures required to complete the configuration of an application.

Before you start

The application developer should provide you with the following for each application:

- class number
- mailbox requirements
- channel allocation requirements (does the application need shared or dedicated channels?)
- number of ACD DN's required

Determine your needs

Once you have a good understanding of how the application works, determine the following:

1. Does the application receive incoming calls? If yes:
 - a. Will the calls share channels with other applications or voice services, or do they require dedicated channels?
 - b. If channels are to be dedicated to the application, how many channels/ACD agents are required?
 - c. Is the application a multi-function one?
Multi-function applications answer calls made to different numbers in different ways and require separate ACD DN's. Separate revert DN's may also be required.
2. Does the application place outgoing calls? If yes:
 - a. Will calls share channels with other applications or voice services, or do they require dedicated channels?
 - b. Will calls be placed to internal extensions, external numbers, or both?

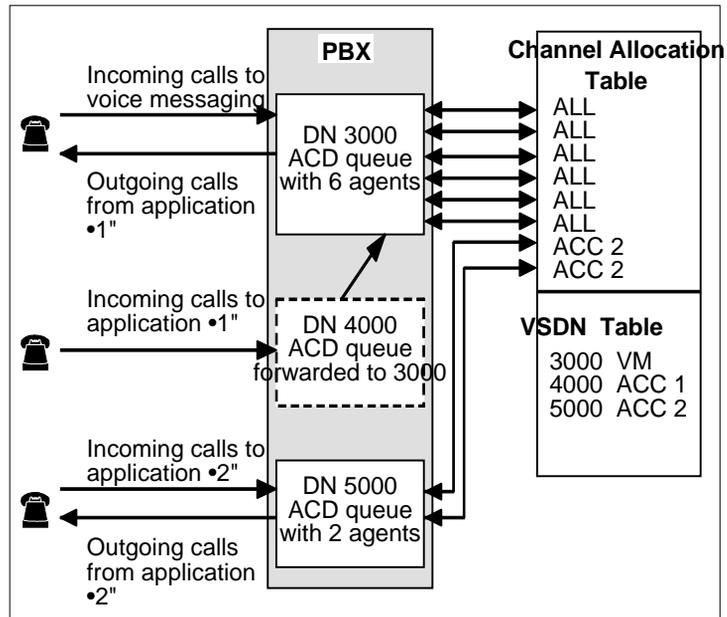
- Does your Meridian Mail system have to expand to accommodate increased traffic or storage requirements?

Draw a flowchart

Draw a flowchart or “map” of your application, similar to the diagrams shown in Chapter 3. This will help you put all of the components in place. Illustrate the complete path of a call (incoming, outgoing, or both, depending on the application), and leave room at every step for information. Each dialed DN should have PBX information (for example, DN and ACD queue information) and Meridian Mail information (for example, service type, ACCESS application class number, and revert DN) associated with it.

The following provides a sample flowchart. If Voice Messaging and other services are set up already, you do not need to describe all of them in detail. Include only the information that is relevant to your applications.

Sample flowchart



Chapter 5

Configuring the Integrated Communications Link

In this chapter

Overview	5-2
About ICL	5-3
ICL window	5-4
Adding a new ICL	5-5
Modify connection	5-7

Overview

Introduction

This chapter describes how to configure the Integrated Communications Link (ICL) on a personal computer (PC).

About ICL

Introduction

The Integrated Communications Link allows a PC to communicate with the Meridian Mail voice messaging system over an RS-232 cable. At least one PC must have an ICL configured to enable you to use the Meridian ACCESS PC Applications software.

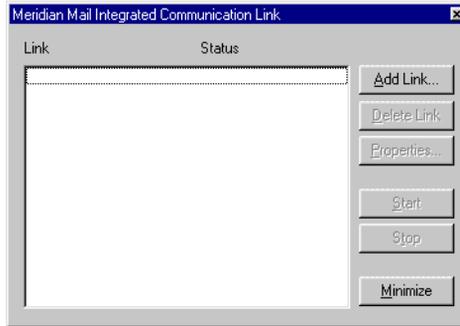
All PC applications require an ICL to be set up except Meridian Mail Reporter and Alternate User Interface. ICLs are flexible; each ICL can support multiple PC applications and PC applications can use one or more ICLs.

For more information on ICLs, see the *Meridian Mail PC Applications Guide*.

ICL window

Introduction

After installing the ICL, the Meridian Mail Integrated Communications Link window starts automatically on startup.



Box and button descriptions

The following table describes choices on the Meridian ACCESS Integrated Communication Link window.

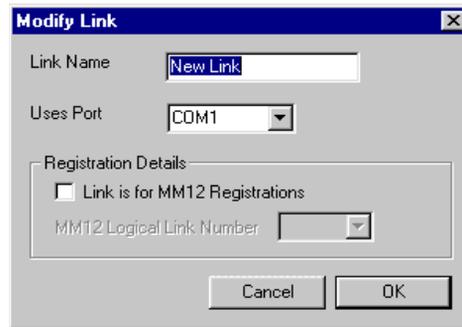
Box/Button	Description
Link	Shows the configured links on each COM port. The first link name displayed is a physical link; subsequent link names displayed are for virtual links.
Status	Shows if the link is connected or not. The status can be: <ul style="list-style-type: none"> • Synchronizing • Started • Stopping
Add Link...	Creates a new link or virtual link.
Delete Link	Removes a link or virtual link.
Properties...	Views or modifies a link or virtual link.
Start	Activates a stopped link that is selected.
Stop	Deactivates a started link that is selected.
Minimize	Removes the Meridian Mail Integrated Communication Link window from the screen. To reopen the window, click the Meridian Mail icon in the Windows task bar.

Adding a new ICL

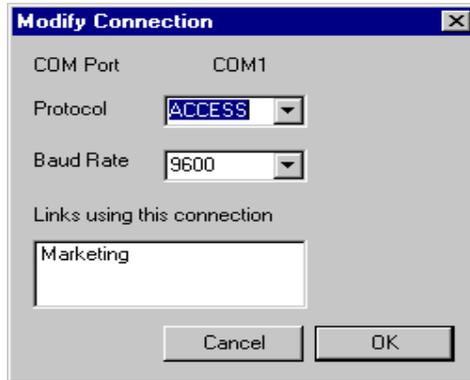
To add a new ICL

1. Click the Add Link button.

Result: The following window appears.



2. In the Link Name box, enter the name you want to assign to the link.
3. Click the pull-down button next to User Port and select the User Port.
4. If the ICL is to be used for MM12 applications, click the check box next to Link is for MM12 Registrations, then set the MM12 Logical Link Number.
5. Click OK.
6. If you are creating the first link for a COM port, the Modify Connection window will appear.



- a. Click the pull-down button next to Protocol to set the communication protocol.
- b. Click the pull-down button next to Baud rate to set the Baud rate.
- c. Click OK.

Add Link button

Use the Add Link button to create a new link or virtual link.

Box and button descriptions

The following table describes choices on the Add Link window.

Box/Button	Description
Link Name	The name of the link that is used by other Meridian ACCESS PC Applications.
Users Port	Selects the port that the ICL will use. Multiple links can share the same port.
Link is for MM12 Registration	Indicates if the link is used by MM12 applications (for example, MM12 Text Messaging).
MM12 Logical Link Number	Selects the MM12 logical link number (1-9). This option appears dimmed unless the Link is for MM12 Registration checkbox is checked.
Cancel	Closes the Modify Link window.
OK	Saves your changes to the link.

Modify connection

Introduction

When you create a new link, or if you want to change the configuration for a particular existing link, you will have to configure the communication port.

Box and button descriptions

The following table describes choices on the Modify Connection window.

Box/Button	Description
Protocol	Selects the communication protocol used. The default protocol used by the Meridian Mail switch is ACCESS.
Baud Rate	Selects the baud rate used on the connection.
Links using this connection	Lists the links that use this COM port.
Cancel	Closes the Modify Connection window.
OK	Saves your changes to the connection.

Properties button

The Properties button opens the Modify Links window. The Modify Links window is identical to the Add Links window except that you modify existing links rather than create new ones.

Chapter 6

Configuration procedures

In this chapter

Overview	6-2
General procedure	6-3
PBX procedures	6-5
Meridian Mail procedures	6-11

Overview

Introduction

This section contains all procedures involved in configuring a Meridian ACCESS-based application. Not all of these procedures apply to every application. The General procedure section of this chapter will help you determine which specific procedures you must perform. Refer to Chapter 2, “Meridian ACCESS overview”, for a description of the concepts involved.

The procedures described in this chapter use the Meridian 1 as an example. If you are configuring a system with a different PBX, refer to the appropriate manuals for that PBX for details.

Note: The procedures described in this chapter cover only the initial configuration of an application. For modification procedures, refer to the *System Administration Guide* (NTP 555-7001-30x).

General procedure

Introduction

The following procedure outlines the major steps involved in configuring an application. If a step does not apply, simply skip that step and proceed to the next one.

General procedures to configure an application

1. Draw a flowchart of your application that includes all of the necessary information for configuration purposes.

Note: Drawing a flowchart is described in Chapter 4 and flowchart examples appear in Chapter 3. Specify the following information in your flowchart:

- a. every dialed DN (ACD DN)
 - b. whether each ACD DN has channels assigned to it or is forwarded to another ACD DN (that has channels assigned)
 - c. appropriate revert DN for each dialed DN
2. For each ACD DN, add an ACD queue on the PBX.

See Adding an ACD queue (for shared channels) on page 6-5 for ACD queues that share existing Meridian Mail channels.

See Adding an ACD queue (for dedicated channels) on page 6-5 for ACD queues that have agents assigned to them (for dedicated incoming channels).

3. For applications that require dedicated incoming channels:

If you are adding new ACD agents to the new application's queue (and have purchased additional Meridian Mail channels), do the following:

- a. Add the agents to the new ACD queue.

See "Adding new ACD agents" on page 6-7.

If you are reassigning ACD agents from the Meridian Mail queue to the new application's queue, do the following:

- a. Disable any Meridian Mail channels that will be modified.

See Disabling a Meridian Mail port on page 6-11.

- b. Remove the agents from the Meridian Mail ACD queue.

See "Removing existing agents from the Meridian

- Mail queue” on page 6-8.
- c. Update the Meridian Mail ACD queue to reflect fewer agents.
See “Updating the Meridian Mail queue to reflect fewer agents” on page 6-9.
 - d. Add the “new” agents to the new ACD queue.
See “Adding new ACD agents” on page 6-7.
4. Update the channel allocation table if you are using the dedicated-channel method for incoming or outgoing calls:
 - a. Disable any channels that will be modified (if they are not already disabled).
See “Disabling a Meridian Mail port” on page 6-11.
 - b. For incoming calls on dedicated channels, modify the Primary DN and Outbound fields. For outgoing calls on dedicated channels, modify the Outbound field.
See “Modifying the Channel Allocation Table” on page 6-12.
 - c. Enable any disabled channels.
See “Enabling a port” on page 6-14.
 5. Update the VSDN Table to reflect all new DN's and their respective services, class numbers, and revert DN's.
See “Adding a new Meridian ACCESS service to the VSDN table (without multi-customer)” on page 6-14.
 6. Add voice mailboxes as necessary.
Ensure that the Storage space field contains an appropriate value.

PBX procedures

Introduction

The following procedures outline how to add an ACD queue on the PBX.

Adding an ACD queue (for shared channels)

1. Load Overlay 23 at the Meridian 1 administration terminal.
2. Respond to the prompts as shown in the table that follows.
3. Press the Return key for each prompt that appears after NCFW.
4. Enter **END** at the next REQ prompt.

Overlay 23—ACD queue parameters (for shared channels)

Prompts	Responses	Description
REQ	NEW	
TYPE	ACD	ACD data block.
CUST		Meridian 1 customer number.
ACDN		Enter the DN of the voice service.
MWC	NO	This is not a message center.
MAXP	1	Maximum number of positions.
NCFW		Enter the main ACD DN (one with channels assigned) to which this queue is forwarded.

Adding an ACD queue (for dedicated channels)

1. Load Overlay 23 at the Meridian 1 administration terminal.
2. Respond to the prompts as shown in the table that follows.
3. Press the Return key for each prompt that appears after NCFW.
4. Enter **END** at the next REQ prompt.

**Overlay 23—ACD
queue parameters (for
dedicated channels)**

Prompts	Responses	Description
REQ	NEW	
TYPE	ACD	ACD data block.
CUST		Meridian 1 customer number.
ACDN		Enter the ACD DN you want to assign to this queue.
MWC	YES	This is a Message Center DN.
IMS	YES	This is an Integrated Messaging Service.
MS	YES	Use the AML Applications Protocol.
IMA	YES	Enable IMS attendant.
IVMS	YES	Integrated Voice Messaging.
VSID		Enter the VAS ID (0-15).
MAXP		Maximum number of ACD agents. This should be equal to or greater than the number of voice channels in the installed voice processor cards.
ALOG	YES	Provide automatic logon for the ACD agents associated with this group.
NCFW		Attendant DN (from OVL 15).

Adding new ACD agents

One Meridian Mail channel must be available for each new agent. For ease of maintenance, assign sequentially numbered agent IDs.

Note: It is useful to have the ESDI disabled when adding agents. If you leave it enabled, the service changes will take much longer to perform. Use the DIS ESDI command in Overlay 48, then use ENL ESDI to enable the ESDI once the changes are complete.

1. Load Overlay 11 at the Meridian 1 administration terminal.
2. Respond to the prompts (as shown in Table 5-3) for the first agent.
3. If you are re-adding agents that you removed from another queue, use the original agent position (KEY 0) and SCN DN (KEY 1) values.
4. Repeat step 2 for each ACD agent.
5. When all agents have been added, enter **END** at the REQ prompt.

Overlay 11—ACD agents

Prompts	Responses	Description
REQ	NEW	
TYPE	SL1	
TN	ll s cc u	Enter an ACD agent TN. Range: Single Density Double Density Loop = 0- 159 0- 159 Shelf = 0- 3 0- 1 Card = 1- 10 1- 10 Unit = 0- 3 0- 7
CDEN	ss/dd/4d	ACD agents may be on a single-, double-, or quad-density line card. Enter the customer number.
CUST		Enter the customer number.

CLS	MA	Enter class of service: voice messaging allowed. Use the default for all other Class of Service options.
KEY	0 ACD xxxxxxx	Define key 0 as an ACD agent key. DN xxxxxxx is the Meridian ACCESS-based application DN. ID yyyyyy is any unused DN in the numbering plan and is used to identify the agent position. This DN is not dialed by users.
KEY	1 SCN zzzzzzz	Define key 1 as a single call DN, non-ringing. DN zzzzzzz is an unused DN.
KEY	2 MSB	Define key 2 as a Make Set Busy key.
KEY	3 NRD	Define key 3 as a Not Read key.
KEY	6 TRN	Define key 6 as a Transfer key.
KEY	7 AO3	Define key 7 as a Conference key.
KEY	9 RLS	Define key 9 as a Release key.

Removing existing agents from the Meridian Mail queue

1. Load Overlay 11 at the Meridian 1 administration terminal.
2. Respond to the prompts (as shown in Table 5-4) for the first agent to be removed.
3. Repeat step 2 for each ACD agent to be removed.
4. When the agents have been removed, enter **END** at the REQ prompt.

Overlay 11— Removing ACD agents

Prompts	Responses	Description
REQ	OUT	
TYPE	SL1	
TN	ii s cc u	Enter the TN of the ACD agent.

PBX procedures

**Updating the Meridian
Mail queue to reflect
fewer agents**

1. Load Overlay 23 at the Meridian 1 administration terminal.
2. Respond to the prompts as shown in the table that follows. Press Return for each prompt not shown.
3. Enter **END** at the next REQ prompt.

**Overlay 23—Updating
Meridian Mail queue to
reflect fewer agents**

Prompts	Responses	Description
REQ	CHG	
TYPE	ACD	ACD data block.
CUST		Meridian 1 customer number.
ACDN		Enter the Meridian mail DN.
MAXP		Change the maximum number of ACD agents to the new number of agent positions assigned to the Meridian Mail queue.

Meridian Mail procedures

Introduction

The following procedures outline how to disable Meridian Mail channels so they can be modified and how to modify the channel allocation table (CAT).

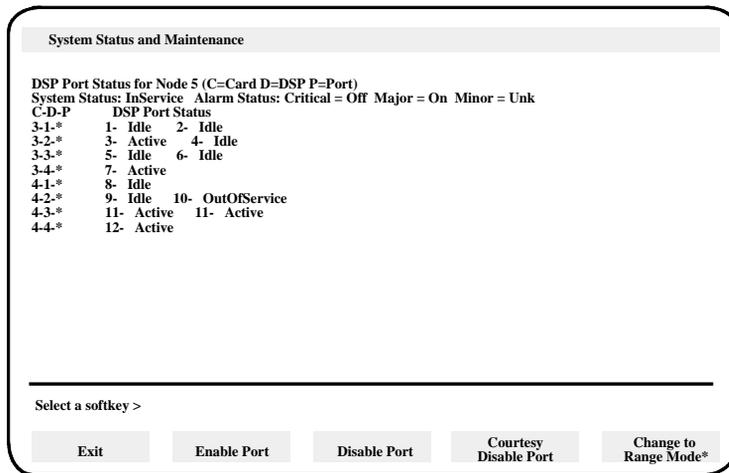
Disabling a Meridian Mail port

1. Access the DSP Port Status screen shown below: Main Menu → System Status and Maintenance → DSP Port Status.

Note: You may be prompted to enter the node number for the DSP Port Status.
2. Press the Courtesy Disable Port softkey to disable the port.
3. Enter the required number followed by Return.

 The port status changes to Pending, and then to OutofService.
4. Press the Exit softkey to return to the Main Menu.

DSP Port Status screen



* This softkey is a toggle. When in Range Mode, the softkey is [Change to Single Mode].

Modifying the Channel Allocation Table

Note: Before you can modify anything in the channel allocation table (CAT), you must disable the port that you want to modify. See “Disabling a Meridian Mail port” on page 6-11.

1. Access the channel allocation table (shown below) through the following menu hierarchy:
Main Menu —>System Status and Maintenance—>Channel Allocation Table.
2. Press the Tab key or the up or down arrow keys to move between fields.
3. Change the ACD DN field for each channel to be dedicated to incoming calls.
 - a. Backspace over the existing value.
 - b. Type the application’s ACD DN.

Note: You must change an ACD DN when you create another queue for a particular service. Since you must move ports to the queue, you must change the ACD DN to match the channels on the switch side.

4. Change the Outbound field for each channel to be dedicated to outgoing calls. Refer to the table that follows for channel allocation rules.
 - a. Backspace over the existing value.
 - b. Type ACC.
 - c. Press the Tab key.
 - d. Type the application class number.

Restrictions on configured channels

Configuration of channel in CAT	Restrictions on the configured channel
ACCESS class # * (for example, ACCESS class 100)	ACCESS 100 applications are specifically designated to, and can use only, this channel. Neither ACCESS applications of another class nor other services can use this channel.
ACCESS any	Any ACCESS class # applications not specifically designated to another channel can use this channel.

all	ACCESS class # applications not specifically designated to another channel and other services can use this channel. If an "ACCESS-any" channel exists, then ACCESS class # applications cannot use an "all" channel.
<p>* Note: To differentiate between types of ACCESS applications, each application has a class number represented by #.</p>	

5. Change the Capability field to Basic Voice Channel.
 - a. Use the Tab key to move to the Capability field.
 - b. Use the arrow keys to toggle between Full and Basic.

Note: ACCESS applications use Basic Voice channels. Fax on Demand and Voice Messaging services use Full Voice channels. If all Basic Voice channels are being used, you may use a Full Voice channel for ACCESS applications. If you decide to use a Full Voice channel, then you should arrange your heavy ACCESS applications on the Basic Voice channel and less heavy, outgoing applications on the Full Voice channel.

6. Press the Save softkey.

Channel Allocation Table screen

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 HM Hospitality Messaging ACC Meridian Access
 NW Meridian Networking CO Post Checkout Mailbox PM Prompt Maintenance
 RA Remote Activation TS Thru-Dial Service TD Time-of-Day Controls
 TR Transcription Service VF Voice Forms Service MS Voice Menu Service
 VM Voice Messaging VS Voice Softkey FOC Fax Outcalling
 OC Outcalling
 Limit: MaxVoice MinMulti; MaxFull; - - - - - Allocated - - - - -
 12 8 2 8 V: 8 M: 2 F: 8 B: 2
 # C-D-P TN ACD DN SCN Type Capability Outbound
 1 5-1-1 008-0-02-00 12345678 12345671 Voice Full Basic ACC Class:
 2 5-1-2 008-0-02-01 12345678 12345672 Voice Full Basic ACC Class:
 3 5-2-1 008-0-02-02 12345678 12345673 Multi Full Basic FOC
 008-0-02-03 blocked for Multimedia port 5-2-1.
 4 6-1-1 008-0-02-04 87654321 12345674 Multi Full Basic FOC
 008-0-02-05 blocked for Multimedia port 6-1-1.

MORE BELOW

Select a softkey >

Save

Cancel

Hide Choice of Services

* The list of services displayed in this figure show all possible services for illustration purposes. Only those features that are installed on your system will be displayed on your terminal.

Enabling a port

1. Access the Port Status screen through the following menu hierarchy: Main Menu → System Status and Maintenance → DSP Port Status.
2. Press the Enable Port softkey.
3. Enter the required number followed by Return.

Note: The system may take some time enabling the port; the message `Enabling Port n` will be displayed. The port status changes to Loading during this interval. Enabling is complete when the port goes idle.

4. Press the Exit softkey to return to the Main Menu.

Adding a new Meridian ACCESS service to the VSDN table (without multi-customer)

1. Go to the VSDN table shown on page 5-14. The table is reached through the following menu hierarchy: Main Menu → Voice Administration → Voice Services Administration → Voice Services-DN Table.
2. Press the Add softkey.
3. Press the Tab key to move the cursor to each field, and enter the required information.
4. Press the Save softkey.

Voice Service-DN Table screen

ABC Company Voice Services Administration			
Voice Services-DN Table			
Customer #	DN	Service	Comment
100	100	ACC	ACCESS
100	115	EM	Express Messaging
100	123	PM	Prompt Maintenance
100	129	AN	AMIS Networking
100	1459	AS 1090	Announcement
100	147	TS 3015	Thru-Dialer
100	153	MS 4001	Voice Menu
100	1590	VM	Voice Messaging
100	169	RA	Remote Activation
100	2	TS 3004	Thru-Dial
100	310	EM	Express Messaging
101	311	GS	Greetings Service

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

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

Adding a new Meridian ACCESS service to the VSDN table (with multi-customer)

1. Go to the VSDN table (see Voice Service-DN Table screen above). Main Menu —> Customer Administration (select valid customer with the View/Modify softkey) —> Voice Administration —> Voice Services Administration —>Voice Services —>DN Table.
2. Press the Add softkey.
3. Press the Tab key to move the cursor to each field and enter the required information.
4. Press the Save softkey.

The ADD DN Information screen

ABC Company Voice Services Administration

Add DN Information

*Choice of Services:

AN AMIS Networking	AS Announcement Service	EM Express Messaging
FI Fax Information Service	FIM Fax Item Maintenance Service	HM Hospitality Messaging
ACC Meridian Access	NW Meridian Networking	CO Post Checkout Mailbox
PM Prompt Maintenance	RA Remote Activation	TS Thru-Dial Service
TD Time-of-Day Controls	TR Transcription Service	VF Voice Forms Service
MS Voice Menu Service	VM Voice Messaging	

Access DN:
 Service: ACC **Class:
 **Revert DN:
 Comment: _____

Select a Softkey >

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

* All possible services are listed in this screen for illustration purposes.
 ** These fields are only displayed if the Service is set ACC.

DSP Port Status screen

System Status and Maintenance

DSP Port Status for Node 5 (C=Card D=DSP P=Port)
 System Status: InService Alarm Status: Critical = Off Major = On Minor = Unk
 C-D-P DSP Port Status

3-1-*	1- Idle	2- Idle
3-2-*	3- Active	4- Idle
3-3-*	5- Idle	6- Idle
3-4-*	7- Active	
4-1-*	8- Idle	
4-2-*	9- Idle	10- OutOfService
4-3-*	11- Active	11- Active
4-4-*	12- Active	

Select a softkey >

Exit	Enable Port	Disable Port	Courtesy Disable Port	Change to Range Mode*
------	-------------	--------------	--------------------------	--------------------------

* This softkey is a toggle. When in Range Mode, the softkey is [Change to Single Mode].

Chapter 7

SMDI systems

In this chapter

Overview	7-2
Planning	7-4
Configuration examples	7-6
Configuration procedures	7-10
PBX/DMS procedures	7-13
Meridian Mail procedures	7-19

Overview

Introduction

This chapter describes how to administer Meridian Mail systems that connect to a switch through a Simplified Message Desk Interface (SMDI). Meridian Mail platforms that use SMDI are the Modular Option GP and the Message Services Module (MSM) platform.

For Modular Option GP systems, the Nortel Networks switches that Meridian Mail can be connected to using SMDI include:

- DMS-10 or DMS-100
- SL-100
- ROLM, AT&T, and NEC PBXs
- AT&T #5 ESS
- AT&T #1 AESS

For MSM, the Nortel Networks switches that Meridian Mail can be connected to using SMDI include:

- DMS-100
- SL-100
- Meridian 1, ROLM, and AT&T PBXs
- AT&T #5 ESS
- AT&T #1 AESS

For detailed information on Meridian Mail systems connected to these switches, refer to the NTPs listed in the table NTPs that cover Meridian Mail connection to various switches on page 7-2.

NTPs that cover Meridian Mail connection to various switches

For Meridian Mail connected to	Refer to
AT&T switch	<i>VoiceBridge Installation Procedures for AT&T Switches</i> (NTP 555-7001-216)
ROLM PBX switch	<i>VoiceBridge Installation Procedures for ROLM Switches</i> (NTP 555-7001-217)

Overview

NEC PBX switch	<i>VoiceBridge Installation Procedures for NEC Switches (NTP 555-7001-218)</i>
Meridian 1 switch	<i>VoiceBridge Installation Procedures for Meridian 1 Switches (NTP 555-7001-219)</i>
DMS-10, DMS-100, or SL-100 switch	<i>DMS Family/SL-100 Meridian Mail System Administration Guide (NTP 555-7001-307)</i>

Planning

Introduction

The information presented in Chapter 2, “Meridian ACCESS overview,” Chapter 3, “Configuration examples,” and Chapter 4, “Plan your application” of this NTP still applies to a Meridian ACCESS-based application in an SMDI-based environment. The primary difference is the configuration of the switch, which will vary from that of the Meridian 1.

Note: The concepts presented in call distribution and processing still apply, except where the term automatic call distribution (ACD) is used. This term should be replaced with uniform call distribution (UCD), as this is the term that describes the queueing and distribution of incoming calls for SMDI systems.

Planning your application

When you plan the capacity of your Meridian ACCESS system, determine the system size required. System size includes both the number of ports required as well as the number of SMDI links. Refer to the *Meridian Mail Modular Option GP Site and Installation Planning Guide* (NTP 555-7001-210) for information on how to determine the system size for Modular Option GP systems.

For information on how to determine the system size for Message Services Module (MSM) systems, refer to the *Meridian Mail MSM Planning and Engineering Guide* (NTP 557-7001-100).

Voice ports (channels)

To determine the appropriate number of channels for the system, estimate the traffic requirements for each application. If you are using other Meridian Mail features, you must also take into account the traffic requirements for those. For more information on determining system size, refer to *Meridian Mail Site and Installation Planning* (NTP 555-70x1-200).

Determine the number of SMDI links

You need multiple SMDI links if you have multiple PBX, DMS, or non-Meridian PBX systems attached to your Meridian Mail system. For multi-customer systems, you may also decide to

have one customer per link. The maximum recommended number of links is 12 for a 5-node system.

Configuration examples

Introduction

All configuration examples that were provided in Chapter 3 for the Meridian 1-based switch can also be implemented in the SMDI-based configuration. The primary difference is that a Meridian ACCESS-based application cannot block calls from arriving on a voice port using the dedicated incoming call model as can be done in the Meridian 1 configuration. In the SMDI configuration, calls are presented immediately to the Meridian ACCESS-based application, so the IVR application must be ready to answer the call at any point if a port is acquired.

The configuration summaries for the following examples are provided to show how they would work in an SMDI-based environment:

- simple incoming call application using shared channels
- two applications: one using dedicated incoming channels and the other using shared channels
- an application using dedicated channels for outgoing calls
- multi-function applications

Note: For the following configurations, you may refer to the same examples in Chapter 3, “Configuration Examples,” for more information.

Simple incoming call application using shared channels

Assuming that Meridian Mail has been installed, configured, and tested (so that voice messaging and Express Messaging function correctly using all available UCD agents), the following configuration procedure must be performed to set up this application.

Configuring a simple incoming call application using shared channels

1. Define a line DN 4000 (forwarded to the primary UCD queue DN3000) on the PBX/DMS.
2. Define DN 4000 as ACCESS-based application 1 in the VSDN table on Meridian Mail.
3. Ensure that no Basic voice channels are configured in the channel allocation table.

System with two applications: one using dedicated incoming channels, one using shared channels

After Meridian Mail has been installed, configured, and tested (so that voice messaging and services function correctly using eight UCD agents), the following configuration procedure must be performed.

1. Define UCD DN 5000 (as a message center DN with two agents) on the PBX/DMS.
2. Move two UCD agents assigned to DN 3000 to UCD DN 5000 (the voice messaging DN) on the PBX/DMS.
3. Define a line DN 4000 (forwarded to the primary UCD queue DN 3000) on the PBX/DMS.
4. Define DN 4000 as ACCESS-based application "1" and DN 5000 as ACCESS-based application 2 in the VSDN table on Meridian Mail.
5. Modify the Primary DN field in the channel allocation table for the two UCD agents assigned to DN 5000. Also modify the Service field so that two channels are dedicated to ACCESS, class 2, and the Capability field is defined as Full. If there are any Basic ports, application 1 will not be able to acquire a port.

System using dedicated channels for outgoing calls

Assuming that the channel allocation table is configured for six channels shared by all services and two channels dedicated to Networking, the following configuration procedure must be performed to set up this application.

Configuring a system using dedicated channels for outgoing calls

Modify the channel allocation table entries so that two channels are dedicated to the Meridian ACCESS service, class 1, and the "Capability" field is defined as Basic.

Multi-function applications

Assuming that Meridian Mail has been installed, configured, and tested (so that voice messaging and Express Messaging function correctly using all available UCD agents), the following configuration procedures must be performed to set up this application.

Configuring multi-function applications

1. Define line DNs 4000, 4001, and 4002 (forwarded to the primary UCD queue DN 3000) on the PBX/DMS.
2. Define DNs 4000, 4001, and 4002 as ACCESS-based application 1 in the VSDN table on Meridian Mail (use a

different revert DN for each language so that callers can receive appropriate help).

3. Define a line DN 4000 (forwarded to the primary UCD queue DN3000) on the PBX/DMS.
4. Ensure that no Basic voice channels are configured in the channel allocation table.

Incoming and outgoing call applications

To configure applications that provide both functions, simply combine the configuration information shown in the examples.

Shared channels (both incoming and outgoing calls)

This is the simplest, and probably most popular, scenario. Setup involves creating new UCD DNs (on the PBX/DMS) that forward to the main queue and then add an entry for each new UCD DN in the VSDN Table on Meridian Mail.

Shared incoming channels, dedicated outgoing channels

Setup involves creating new UCD DNs (on the PBX/DMS) that forward to the main queue and then add an entry for each new UCD DN in the VSDN Table on Meridian Mail.

You must also update the channel allocation table to dedicate particular channels to Meridian ACCESS-based applications with the appropriate class number.

Dedicated incoming channels, shared outgoing channels

Setup involves creating new UCD DNs (on the PBX/DMS) with the appropriate number of agents assigned to them (either new agents or agents removed from the main Meridian Mail queue).

You must make a new entry in the VSDN Table on Meridian Mail for each UCD DN. You must also update the channel allocation table to dedicate particular channels to Meridian ACCESS-based applications with the appropriate class number.

Dedicated channels (both incoming and outgoing calls)

On the PBX/DMS, setup involves creating new UCD DNs with the appropriate number of agents assigned to them (either new agents or agents removed from the main Meridian Mail queue).

On Meridian Mail, you must make a new entry in the VSDN Table for each UCD DN. You must also update the channel allocation table to dedicate particular channels to Meridian ACCESS-based applications with the appropriate class number.

Configuration procedures

Introduction

This section contains all of the procedures involved in configuring a Meridian ACCESS-based application in an SMDI-based environment. Not all of these procedures apply to every application. The General procedure outlined below will help you to determine which procedures you must perform.

Because the exact manner in which you configure voice services is switch-dependent, refer to the following documents for appropriate configuration of your AT&T or ROLM PBX:

- *VoiceBridge Installation Procedures for AT&T Switches* (NTP 555-7001-216)
- *VoiceBridge Installation Procedure for ROLM Switches* (NTP 555-7001-217)
- *DMS Family/SL-100 Meridian Mail System Administration Guide* (NTP 555-7001-307). This NTP also contains configuration information for AT&T and ROLM PBXs.

Note: The procedures described in this section cover only the initial configuration of an application. For modification procedures, refer to either the *System Administration Guide* (NTP 555-7001-307) or the *System Administration Guide for Multi-Customer Systems* (NTP 555-7001-308).

General procedures

Configuring an application

The following procedure outlines the major steps in configuring an application. If a step does not apply, simply proceed to the next step.

1. Draw a flowchart of your application that includes all of the necessary configuration information. Specify the following information in your flowchart:
 - every dialed DN (UCD DN)
 - whether each UCD DN has channels assigned to it or is forwarded to another UCD DN (that has channels assigned)

- appropriate revert DN for each dialed DN.

Note: Drawing a flowchart is described in chapter 4 “Plan your application”. Flowchart examples are shown in Chapter 3, “Configuration Examples”.

2. Add a line DN that is forwarded to the primary queue for applications that will share an existing UCD queue.

Note: Refer to “Configuring a line DN at the MAP terminal (DMS/SL-100)” on page 7-13 and “Forwarding a line DN” on page 7-14.

3. For applications that require dedicated incoming channels, create any UCD queues that may be needed (see “Create UCD queues”).

If you are adding new UCD agents to the new application’s queue (and have purchased additional Meridian Mail channels), add the agents to the new UCD queue.

See “Adding new UCD agents” on page 7-16 if you are adding agents to the new UCD queue. If you are reassigning UCD agents from the Meridian Mail queue to the new applications queue, see “Moving UCD agents” on page 7-17.

4. Update the channel allocation table if you are using the dedicated channel method for incoming or outgoing calls.
 - a. Disable any channels that are going to be modified (if they are not already disabled). See “Disabling a Meridian Mail channel” on page 7-19.
 - b. Modify the Primary DN and Outbound fields for incoming calls on dedicated channels. Modify the Outbound field for outgoing calls on dedicated channels. See “Modifying the Channel Allocation Table” on page 7-20.
 - c. Enable any disabled channels. See “Enabling a channel” on page 7-22.
5. Update the VSDN Table to reflect all new DNs and their respective services, class numbers, and revert DNs.

See “Moving UCD agents” on page 7-17 if you are updating the VSDN Table for a single customer site. If you are updating the VSDN Table for a multi-customer site, see “Adding a new Meridian ACCESS service to the VSDN table (without multi-customer)” on page 7-23.

6. Add voice mailboxes as necessary.
7. Ensure that the Storage space field contains an appropriate value.

PBX/DMS procedures

Introduction

The following procedures explain how to add a line DN that is forwarded to the primary queue for applications that will share an existing queue.

Configuring a line DN at the MAP terminal (DMS/SL-100)

1. Enter **so** followed by Return.
2. Respond to the prompts as indicated in “Defining a DN for a voice service” on page 7-13.

Note: Use either the Call Forward Fixed (CFF) option or the Call Forward Universal (CFU) option to forward the DN to the voice messaging queue. CFF is recommended, since it is much easier to implement. The CFFDN or CFUDN must be set to the UCD DN of the UCD queue to which the line DN is being forwarded.

3. Choose either CFF or CFU.

Note: If you are using CFU, additional configuration is necessary. Go to “Forwarding a line DN” on page 7-14.

Defining a DN for a voice service

Prompts	Input	Comments
SO	NEW	
SONUMBER:	_____ \$	Current date and time
DN*	_____	Directory Number of the line. (This is the DN you will enter in the VSDN table in Meridian Mail.)
LCC:	IBN	Line class code of service
GROUP	_____	Name of the IBN customer group to which the line belongs
SUBGRP:	_____	Subgroup number
NCOS:	_____	Network class of service
SNPA:	_____	Serving NPA of the DN

Prompts	Input	Comments
LEN:	_____	Line equipment number of the line
CFBCNTL:	N	(Normal assignment for CFB.)
CFDDN	xxxxxxx	The Primary UCD DN
CFBCNTL:	N	(Normal assignment for CFB.)
CFDDN	xxxxxxx	The Primary UCD DN
OPTION:	CFF**	Call Forward Fixed
CFFDN:	xxxxxxx	The Primary UCD DN
OPTION	CFU**	Call Forward Universal
OPTION	\$	

Note: This procedure must be carried out for every line that forwards to the primary UCD queue.

Forwarding a line DN

1. At the MAP terminal, type **table cfx** to define the CFU DN.
2. This is the UCD DN of the primary UCD queue to which the voice service DN will forward. Respond to the prompts as indicated in the table
“Defining the CFU DN” on page 7-14.

Defining the CFU DN

Prompts	Input	Comments
TABLE:CFX	posxxx) (for example, pos 4 19 16 0)	Where xxx is the Line Equipment Number (LEN) of the line for the service you defined (enter a 0 at the end of the LEN)

Prompts	Input	Comments
	cha	To indicate that you want to change the DN to which CFU forwards
CFUIFDN	xxxxxxx	Enter the UCD DN of the primary UCD queue

1. Connect a telephone set to the line.
2. Go off hook.
3. Call forward the line to the primary UCD DN.
 - a. Dial the call forward activation code followed by the UCD DN.
For example: *80 2326050
 - b. If you do not know what the code is, look it up in Table IBNXL A first. Check the entry for CFW. If there is no entry, configure a code. This table is described in the *Installation and Maintenance Guide* (NTP 555-70x1-250.)
 - c. Listen for the confirmation tone. This indicates that the line has been forwarded.

Note: If the DMS/SL-100 is rebooted, steps 1 to 4 will have to be repeated for each service that CFUs to the primary UCD queue.

Creating UCD queues

1. At the MAP terminal (DMS/SL-100), enter **table ucdgrp** followed by <Return> to configure a UCD queue. Respond to the prompts as indicated in the *Installation and Maintenance Guide* (NTP 555-70x1-250). For the MAXPOS prompt, indicate the number of agents that will be added to this queue.
2. Type **table dnroute** (BCS 32 and up) or **table wrdn** (BCS 31 and earlier) to define the directory number (DN) of the voice messaging UCD queue. Respond to the prompts as indicated in the *Installation and Maintenance Guide* (NTP 555-70x1-250).

Adding UCD agents

1. At the MAP terminal (DMS-100/SL-100) Check the UCDGRP table for the queue(s) to which you will be adding new agents. Specifically, check the MAXPOS (the maximum number of UCD agents that can be active). If, when you add the new agents to the existing agents, the number of agents exceeds the MAXPOS value, you will have to increase it to support the new agents.
2. Enter **so** followed by <Return>. For each new UCD agent, respond to the prompts as indicated in the " Adding new UCD agents" table on page 7-16. If you do not want to add all of the new agents to the new service queue, add the remainder to the voice messaging queue.

Adding new UCD agents

Prompts	Input	Comments
SO:	NEW	
SONUMBER:	_____	Current date and time
DN:	_____	Directory Number of the UCD agent
LCC:	IBN	Line class code of service
GROUP:	_____	Name of the IBN customer group to which the line belongs
SUBGRP:	_____	Subgroup number
NCOS:	_____	Network class of service
SNPA:	_____	Serving NPA of the DN
LEN:	_____	Line equipment number of the line
OPTION:	COD	Cut-off on Disconnect
OPTION:	UCD	Uniform Call Distribution
OPTION:	DGT	Digitone
OPTION:	CNF CO6	Six-party conferencing
OPTION:	SMDI	Simplified Message Desk Interface

Prompts	Input	Comments
LINE_NO:	_____	Line number position in the UCD SMDI group. This corresponds to the Agent ID (AI) in Meridian Mail, which must match the number configured here. The AI is configured in Hardware Modification at the Tools level.
UCDGRP:	_____	Name of the UCD queue to which the agent belongs (UCDNAME from table UCDGRP)
AUTOLOG:	Y	Autologon capability required
OPTION	\$	

- You are now ready to configure Meridian Mail. See the following section.

Moving UCD agents

Enter **so** followed by <Return> to move UCD agents from the primary UCD queue to the new UCD queue. Make sure you move agents from a queue that is serviced by the type of port that is appropriate to the service to which you are dedicating ports. Respond to the prompts as indicated in Table A-5.

Moving a UCD agent

Prompts	Input	Comments
SONUMBER	_____	Current date and time
DN_OR_LEN	_____	DN or Line equipment number of the UCD agent
OPTION	SMDI	Simplified Message Desk Interface

Prompts	Input	Comments
LINE_NO	_____	Line number position in the UCD SMDI group. This corresponds to the Agent ID (AI) in Meridian Mail, which must match the number configured here. The AI is configured in Hardware Modification at the Tools level.
UCD GRP	_____	Name of the new UCD service queue to which the agent belongs (UCD-NAME from table UCDGRP)
AUTOLOG	Y	Autologon capability required
OPTION	\$	
OPTION	UCD	Uniform Call Distribution
OPTION	DGT	Digitone
OPTION	F CO6	Six-party conferencing

Meridian Mail procedures

Disabling a Meridian Mail channel

1. Go to the Channel Status screen.

The Channel Status screen is reached through the following menu hierarchy: Main Menu —> System Status and Maintenance. Follow step A or B, depending on your system type.

- a. Select DSP Port Status for non-MSM systems. You may be prompted to enter the node number for the DSP Port Status. See page 7-20 for an example of the Channel Status screen for non-MSM systems.
 - b. Select T1 Channel Status for MSM systems. See page 7-20 for an example of the Channel Status screen for MSM systems.
2. Press the [Courtesy Disable Channel] softkey to disable the channel.

You are prompted for the number of an inservice channel.

3. Enter the channel number followed by <Return>.

The system may take some time to disable the channel since it waits for the channel to become idle; the message "WORKING..." will be displayed during this interval. The channel status changes to "Pending," and then to "OutOfService."

4. Press the [Exit] softkey to return to the Main Menu.

DSP Port Status screen (non-MSM systems)

System Status and Maintenance

DSP Port Status for Node 5 (C=Card D=DSP P=Port)
 System Status: InService Alarm Status: Critical = Off Major = On Minor = Unk
 C-D-P DSP Port Status

3-1-*	1- Idle	2- Idle
3-2-*	3- Active	4- Idle
3-3-*	5- Idle	6- Idle
3-4-*	7- Active	
4-1-*	8- Idle	
4-2-*	9- Idle	10- OutOfService
4-3-*	11- Active	11- Active
4-4-*	12- Active	

Select a softkey >

Exit	Enable Port	Disable Port	Courtesy Disable Port	Change to Range Mode*
------	-------------	--------------	--------------------------	--------------------------

* This softkey is a toggle. When in Range Mode, the softkey is [Change to Single Mode].

T1Channel Status screen (MSM systems)

System Status and Maintenance

T1 Channel Status
 System Status: InService Alarm Status: Critical = Off Major = On Minor = Unk
 Channels

Link 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

A L L
 a = Active/in use . = idle O = out of service R = no Resource
 F = Faulty p = Pending space = unequipped L = Loading
 C = Courtesy Down M = MakeBusy

Select a softkey >

Exit	Enable Channel	Disable Channel	Courtesy Disable Chan	Change to Range Mode*
------	----------------	-----------------	--------------------------	--------------------------

* This softkey is a toggle. When in Range Mode, the softkey is [Change to Single Mode].

Modifying the Channel Allocation Table

1. Go to the channel allocation table (see page 7-21 for a examples of the CAT for non-MSM systems and page 7-22 for MSM systems).

The Channel Allocation Table is reached through the following menu hierarchy: Main Menu → System Status and Maintenance → Channel Allocation Table. For non-MSM systems, you may be prompted for the node number for the DSP port status. For MSM systems, you may be prompted to select the T1 link.

2. Press the <Tab> key or the up or down arrow keys to move between fields.
3. Change the Primary DN field for each channel to be dedicated to incoming calls by backspacing over the existing value and entering in the application's UCD DN.
4. Change the Outbound field for each channel to be dedicated to outgoing calls by:
 - a. backspacing over the existing value and typing ACC
 - b. pressing the <Tab> key (the Class field appears)
 - c. typing the application Class number
5. Change the Capability field to Basic Voice Channel by
 - a. pressing the <Tab> key to move to the Capability field
 - b. pressing the arrow keys to toggle the value between Full and Basic
6. Press the [Save] softkey.

The changes are saved and you are returned to the Voice System Configuration screen.

7. Reboot Meridian Mail for the changes made to the CAT to take effect.

Channel Allocation Table screen (non-MSM systems)

System Status and Maintenance

Channel Allocation Table for Node 2 (C=Card D=DSP P=Port)
 Limit: MaxVoice MinMulti; MaxFull: - - - - Allocated - - - -
 64 64 0 64 M/F: 0 V/F: 60 V/B: 0

#	C-D-P	Rout.Addr	PrimaryDN	ChannelDN	Type	Capability	Outbound
1	5-1-2	50-1	6020	6401	Voice	Full Basic	ALL
2	5-1-2	50-2	6020	6402	Voice	Full Basic	ALL
3	5-2-1	50-3	6020	6403	Voice	Full Basic	ALL
4	5-2-2	50-4	6020	6404	Voice	Full Basic	ALL
5	6-1-1	50-5	6020	6405	Voice	Full Basic	ALL
6	6-1-2	50-6	6020	6406	Voice	Full Basic	ALL
7	6-2-1	50-7	6020	6407	Voice	Full Basic	ALL
8	6-2-2	50-8	6020	6408	Voice	Full Basic	ALL
9	7-1-1	50-9	6020	6409	Voice	Full Basic	ALL
10	7-1-2	50-10	6020	6410	Voice	Full Basic	ALL
11	7-2-1	50-11	6020	6411	Voice	Full Basic	ALL
12	7-2-2	50-12	6020	6412	Voice	Full Basic	ALL

Select a softkey >

Save
Cancel

Display Choice of Services

Channel Allocation Table screen (MSM systems)

System Status and Maintenance

Channel Allocation Table: PrimaryConn. nn-n-n Secondary Conn. nn-n-n
 *Choice of Services:
 ALL All Services AN AMIS Networking AS Announcement Service
 EM Express Messaging FOC Fax Outcalling GS Greeting Service
 HM Hospitality Messaging ACC Meridian ACCESS NW Meridian Networking
 CO Post Checkout Mailbox PM Prompt Maintenance RA Remote Access
 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 -----
 187 192 0 192 M/F: 0 V/F: 192 V/B: 0

Chan#	Rout.Add	PrimaryDN	ChannelDN	Type	Capability	Outbound
1	10-1	12345678	12345671	VoiceMulti	Full Basic	ACC Class:
2	10-2	12345678	12345672	VoiceMulti	Full Basic	ACC Class:
3	10-3	12345679	12345673	Voice(Multi)	(Full) Basic	FOC
4	10-4	12345680	12345674	(Voice)Multi	Full (Basic)	ALL

MORE BELOW

Select a softkey >

* The list of services displayed in this figure show all possible services for illustration purposes. Only those features that are installed on your system will be displayed on your terminal.

Enabling a channel

1. Go to the Channel Status screen (see page 7-20).

The Channel Status screen is reached through the following menu hierarchy: Main Menu → System Status and Maintenance. Follow step A or B, depending on your system type.

- a. Select DSP Port Status for non-MSM systems. You may be prompted to enter the node number for the DSP Port Status. See page 7-20 for an example of the Channel Status screen for non-MSM systems.
 - b. Select T1 Channel Status for MSM systems. You may be prompted to select the T1 Link if you have a multi-T1 Link system. See page 7-20 for an example of the Channel Status screen for MSM systems.
2. Press the [Enable Channel] softkey.
You are prompted for the number of an out-of-service channel.
 3. Enter the channel number followed by <Return>.
The system may take some time to enable the channel; the message "WORKING..." will be displayed and the channel status changes to "Loading" during this interval.
 4. Press the [Exit] softkey to return to the Main Menu.

Adding a new Meridian ACCESS service to the VSDN table (without multi-customer)

1. Go to the VSDN table (see the Voice Service-DN Table screen on page 7-23).

The VSDN table is reached through the following menu hierarchy: Main Menu —> Voice Administration —> Voice Services Administration —> Voice Service-DN Table.

2. Press the [Add] softkey.

The ADD DN information screen appears (see page 7-24).

3. Press the <Tab> key to move the cursor to each field, and enter the required information.

The Class and Revert DN fields appear when you enter ACC in the Service field.

4. Press the [Save] softkey.

The changes are saved and you are returned to the Voice Service-DN screen.

Voice Service-DN Table screen

ABC Company Voice Services Administration		
Voice Services-DN Table		
Customer #	DN	Service Comment
100	100	ACC ACCESS
100	115	EM Express Messaging
100	123	PM Prompt Maintenance
100	129	AN AMIS Networking
100	1459	AS 1090 Announcement
100	147	TS 3015 Thru-Dialer
100	153	MS 4001 Voice Menu
100	1590	VM Voice Messaging
100	169	RA Remote Activation
100	2	TS 3004 Thru-Dial
100	310	EM Express Messaging
101	311	GS Greetings Service

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

Exit Add View/Modify Delete Find

Adding a new Meridian ACCESS service to the VSDN table (with multi-customer)

1. Go to the VSDN table (see the Voice Service-DN Table screen on page 7-23).

The VSDN table is reached through the following menu hierarchy: Main Menu —> Customer Administration (select valid customer with the [View/Modify] softkey —> Voice Administration —> Voice Services Administration —>Voice Service-DN Table.

Index

A

ACCESS

- description, 1-3
- transactional messaging applications, 2-3

accounts See mailboxes, 2-8

ACD

- call forwarded to, 2-6
- directory number See ACD DN, 2-4
- DN
 - incoming calls to, 2-4
 - primary, 2-5
 - with other voice services, 2-5
- for Meridian 1 systems, 2-4

adding agents

- using a service order, 7-16

administrative applications

- description, 2-3

agent positions

- description, 2-4

Alternate User Interface, 5-3

application

- incoming call
 - using shared channels, 7-6
- outgoing call
 - using shared and dedicated channels, 3-8
- types
 - administrative, 2-3
 - inbound, 2-3
 - multifunction, 3-10
 - outbound, 2-3

applications

- IVR, 1-3

automatic call distribution See ACD, 2-4

B

basic voice channels, 2-7

C

call processing

- description, 2-6

CAT

- channel
 - enable, 6-14, 7-22
- description, 2-6
- modifying, 6-12
- screen
 - sample, 6-13, 7-21

channel allocation table See CAT, 2-6

channels

- CAT
 - enable, 6-14, 7-22
- combining shared and dedicated, 2-5
- Meridian Mail
 - basic voice channels, 2-7
 - disabling, 6-11
 - full voice channels, 2-7
 - multimedia channels, 2-7
- shared
 - adding ACD queue, 6-5
 - shared vs dedicated, 2-5

channels See channels, 2-7

channels See voice ports, 1-4

components

- list of, 1-3

configuration
 examples, 3-2
 procedures
 general, 7-10
 Meridian Mail, 6-11, 6-16, 7-19
 PBX, 6-5, 7-13

D

dedicated channels
 combined with shared channels, 2-5
 configuration, 2-5
 vs shared channels, 2-5
DMS configuration
 adding agents
 using a service order, 7-16

E

external phone
 description, 2-3

F

full voice channels, 2-7
full voice ports
 constraints, 2-7

I

ICL, 2-2
ICL link speeds, 1-5
ICL traffic, 2-5
inbound applications
 call handling, 2-5
 description, 2-3
incoming call applications
 using shared channels
 illustration, 3-3
incoming call applications See inbound applica-
 tions, 2-3
Integrated Communication Link, 2-2
Integrated Communications Link, 5-3
Interactive Voice Response See IVR, 1-3

internal phone
 description, 2-3
IVR
 description, 1-3

M

mailboxes
 customization, 2-8
 description, 2-8
 sharing, 2-8
Meridian 1 systems
 using ACD, 2-4
Meridian ACCESS Integrated Communication
 Link window, 5-4
Meridian ACCESS link speeds
 preconfiguration requirements, 1-5
Meridian ACCESS link speeds See PBX, 1-5
Meridian ACCESS PC Applications, 5-3
Meridian Mail
 call processing, 2-6
 channels
 basic voice channels, 2-7
 constraints, 2-7
 full voice channels, 2-7
 multimedia, 2-7
 configuration
 procedures, 6-11, 6-16, 7-19
 description, 2-5
 preconfiguration requirements, 1-4
 queue
 updating agents, 6-9
Meridian Mail Reporter, 5-3
messaging applications, 2-3
multifunction applications
 description, 3-10
multimedia channels, 2-7
multimedia ports
 constraints, 2-7

O

- outbound applications
 - description, 2-3
- outbound discussion
 - description, 2-7
- outgoing call applications See outbound applications, 2-3

P

- PBX
 - configuration
 - procedures, 6-5, 7-13
 - description, 2-4
- PBX procedures
 - Configuration procedures, 6-5
- PC, 1-7
- preconfiguration requirements
 - considerations, 4-3
 - Meridian ACCESS link speeds, 1-5
 - Meridian Mail, 1-4
 - UNIX workstation, 1-7
- preconfiguration requirements considerations
 - disk space, 4-3
 - voice port channels, 4-3, 7-4

R

- requirements
 - before configuring ACCESS, 1-4
 - Meridian Integrated Communication Link speeds, 1-5
 - Meridian Mail, 1-4
 - PC workstation, 1-7
 - UNIX workstation, 1-7

S

- service order
 - adding agents with, 7-16
- shared channels
 - combined with dedicated channels, 2-5
 - configuration, 2-5
 - vs dedicated channels, 2-5

- silence compression
 - settings, 1-5
- SL100 configuration
 - adding agents
 - using a service order, 7-16

T

- table
 - CAT, 2-6
 - VSDN, 2-6

U

- UNIX workstation
 - preconfiguration requirements, 1-7

V

- voice port channels
 - preconfiguration requirements, 4-3, 7-4
- voice ports See channels, 1-4
- Voice ServiceDN table See VSDN table, 2-6
- VSDN table
 - adding new ACCESS service
 - multicustomer, 6-15, 7-23
 - singlecustomer, 6-14, 7-23
 - components, 2-6
 - description, 2-6



How the world shares ideas.

Reader Response Form

Meridian ACCESS Configuration Guide
555-7001-315

Tell us about yourself:

Name: _____
Company: _____
Address: _____ _____
Occupation: _____ Phone: _____

1. What is your level of experience with this product?
 New user Intermediate Experienced Programmer
2. How do you use this book?
 Learning Procedural Reference Problem solving
3. Did this book meet your needs?
 Yes No

If you answered No to this question, please answer the following questions.

4. What chapters, sections, or procedures did you find hard to understand?

5. What information (if any) was missing from this book?

6. How could we improve this book?

*Please return your comments by fax to (416) 597-7104, or mail your comments to:
Toronto Information Products, Nortel Networks, 522 University Avenue, 14th Floor, Toronto, ON,
M5G 1W7, Canada*



How the world shares ideas.

Reader Response Form

Meridian ACCESS

Configuration Guide

Toronto Information Products
Nortel Networks
522 University Avenue, 14th Floor
Toronto, Ontario M5G 1W7
Canada

Copyright © 1999 Nortel Networks, All Rights Reserved.

Information is subject to change without notice.

Nortel Networks reserves the right to make changes in design or components as progress in engineering and manufacturing may warrant.

MERIDIAN, MERIDIAN 1, MERIDIAN MAIL, SL-1, SL-100, DMS-100, ACCESS, ICL, SUPERNODE, NORTEL NETWORKS, and NORTEL NETWORKS HOW THE WORLD SHARES IDEAS are trademarks of Nortel Networks. TANDBERG is a trademark of Tandberg O/S. VIPER is a trademark of Archive Corporation. SEAGATE is a trademark of Seagate Technology Inc.U.S. ROBOTICS and US ROBOTICS are trademarks of 3Com. RACAL is a trademark of Racal Electronics Plc. HAYES is a trademark of Hayes Microcomputer Products Inc. UDS is a trademark of Universal Data Systems, Inc. MAXTOR is a trademark of Maxtor Corp. DEC is a trademark of Digital Equipment Corp. HEWLETT-PACKARD is a trademark of Hewlett-Packard Company.

Publication number: 555-7001-315
Product release: 13
Document release: Standard 1.0
Date: November 1999

Printed in the United States of America

NORTEL
NETWORKS™

How the world shares ideas.