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CallPilot

Meridian Mail to CallPilot Migration Utility Guide

Product release 3.0 Standard 1.0 November 2004

NORTEL NETWORKS™

CallPilot

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November 2004	Standard 1.0 of the *Meridian Mail to CallPilot Migration Utility Guide* for CallPilot 3.0 is released for general availability.

Contents

Chapter 1

Understanding the migration process

In this chapter

Overview

About this guide

This guide provides guidelines and detailed information for the migration of a Meridian Mail system to a CallPilot system. You must have a good knowledge of the Meridian Mail and CallPilot systems to be able to perform a migration. For a comparison of Meridian Mail and CallPilot, refer to Appendix A.

Introduction to the migration process

A migration from Meridian Mail to CallPilot consists of two major steps:

- collection of Meridian Mail data on tape
- transfer of the collected data from tape to CallPilot

The number of tapes necessary for a migration depends on the size of the Meridian Mail system.

During a migration from Meridian Mail to CallPilot, both systems must be out of service for a variable period of time. The length of this period depends on the system size, data volume and number of users that must be migrated.

The Meridian Mail system still accepts calls and messages after the data collection.

Meridian Mail data

Two types of Meridian Mail data can be migrated to CallPilot:

- system data
  - user data (including voice greetings)
  - system profiles
  - networking data
  - voice services—voice menus, voice services, and announcements
- message data—voice messages (the Symposium Call Center Server prompts are also considered to be message data)

The CallPilot migration utility allows you to migrate all the Meridian Mail information to CallPilot or to perform a selective migration. In a selective migration, you can migrate each of the following data sets individually:

- messages
- messages and Symposium Call Center Server prompts
- Symposium Call Center Server prompts only
- system data
  - system and customer profiles
  - networking data
  - restriction/permission lists (RPL)
  - classes of service (COS)
- users
- voice services (Application Builder applications on CallPilot)
  - voice menus
  - voice services
  - announcements

  Note: Meridian Mail Thru-Dial services cannot be migrated to CallPilot.
- system distribution lists (SDL)
- personal distribution lists (PDL)

Migration rules

Follow these general migration rules to minimize system down time:

- Perform the data collection during one or more off-hour periods.
- Do the following after collecting Meridian Mail data on tape:
  - freeze Meridian Mail configuration changes
  - freeze changes to users, RPLs, COSs, networking data, voice menus, voice announcements, and any data that has to be migrated
  - warn users to stop making changes to mailboxes

  Note: Changes made after collecting the Meridian Mail data are not migrated to CallPilot.
- Verify that the data has been migrated to CallPilot.
- Perform the switchover to CallPilot so that CallPilot accepts calls and new messages, and inform users that they must check the CallPilot mailboxes for messages. Before switching the service to CallPilot, take into consideration the following issues:
  - After the switchover, Meridian Mail no longer answers calls and takes new messages.
  - The messages stored on the Meridian Mail system are available only after the completion of the migration to CallPilot.
  - Users can retrieve messages from Meridian Mail if you run both systems in parallel for a limited time.

Migration task flow

The following table summarizes the migration task flow.

Step	Task	Check
1	Ensure that you have the most recent version of the Meridian Mail to CallPilot migration tape.	❒
2	Complete the Meridian Mail preparation checklist.	❒
3	Courtesy down the Meridian Mail system. **CAUTION** **Risk of reduced system performance** Do not run the data collection utility while the Meridian Mail system is online.	❒
4	Install the data collection utility from tape on Meridian Mail and then restart the Meridian Mail system.	❒
5	Determine the data collection method: full data collection or selective data collection.	❒
6	Launch the data collection utility.	❒
7	Collect Meridian Mail system data on one or more tapes.	❒
8	Collect Meridian Mail voice messages, as well as and Symposium Call Center Server voice prompts and voice segments on one or more tapes.	❒
9	Review the Meridian Mail data collection log to find any data collection errors.	❒

Step	Task	Check
10	Install an external tape drive and the tape drive driver on the CallPilot server (if necessary). **Note:** The CallPilot tower and rackmount servers are supplied with an internal tape drive installed.	❒
11	Complete the CallPilot migration preparation checklist.	❒
12	Transfer the Meridian Mail data to CallPilot.	❒
13	Transfer the voice messages and the Symposium Call Center Server voice prompts and segments to CallPilot.	❒
14	Review the following logs on the CallPilot system: ■ the migration transaction log (located in the \nortel\MPCX\Migration folder) ■ the event log (view the event log by using the CallPilot Event Browser or the Windows 2003 Event Viewer) If the logs indicate that data was not migrated: ■ add the missing information to CallPilot manually or ■ fix the problem on Meridian Mail and perform the migration again Use the method that is easiest for you.	❒ ❒
15	If you created test messages on Meridian Mail, verify that they were successfully migrated. Log in to the mailbox and review the messages.	❒

Step	Task	Check
16	Validate the migrated data and perform additional tasks, as required, to make the CallPilot configuration consistent with the Meridian Mail configuration. **Note:** Some information is not migrated. Other information is changed to default values.	❒
17	Create the voice service applications in CallPilot Application Builder.	❒
18	Make the required configuration changes on the Symposium Call Center Server if you migrated Symposium Call Center Server prompts to CallPilot.	❒
19	Ensure that CallPilot and, if applicable, Symposium Call Center Server operate as expected.	❒
20	Disconnect the external tape drive from the CallPilot server if you installed one in Step 10.	❒
21	If you intend to use CallPilot with a Meridian 1 or Succession 1000 switch, you must replace the MGate card in the switch with an NTRB18CA MGate card.	❒
22	Put CallPilot into operation.	❒
23	Re-enable event throttling if you disabled it while performing the tasks in the CallPilot migration utility check list.	❒

Migration limitations

System limitations

Consider the following limitations before starting a migration:

- You cannot cancel the creation of a Meridian Mail data collection tape.
- You can perform a selective migration only for the following reasons:
  - The Meridian Mail system to be migrated has more than 7000 users.
  - The Meridian Mail system is an MSM.
  - The customer requested a selective migration.
- Ensure that the CallPilot system is operational before performing the migration. The migration utility does not verify the CallPilot system sanity and hardware/software configuration.

Symposium Call Center Server prompt migration limitations

File names

When Symposium Call Center Server prompts are migrated to CallPilot, the CallPilot migration utility creates an Application Builder application for each prompt file. The name assigned to the application is the Meridian Mail prompt file name.

If Symposium Call Center Server prompts exist in more than one mailbox on Meridian Mail, the data collection utility appends the mailbox number to the file name. In this case, you must do one of the following:

- Use Application Builder to rename the application in CallPilot.
- Update the script if the file name is hard-coded or upgrade the variable if the voice segment is specified in a variable on the Symposium Call Center Server.

If the prompt file name and mailbox combinations result in file names that are not unique, the Meridian Mail data collection utility does not collect the prompts in the files with duplicate names.

Segment titles and descriptions

The CallPilot Application Builder segment titles and descriptions are shorter than the Meridian Mail segment titles and descriptions. When an application is created during the migration, the following changes occur:

- segment titles are truncated to 30 characters (from a maximum of 56)
- segment descriptions and scripts are truncated to 255 characters (from a maximum of 2048)

Reference documents

CallPilot Customer Documentation Map

NTP Number 555-7101-(nnn)

- **Fundamentals**
  - CallPilot Fundamentals (-010)
- **Planning and Engineering**
  - Planning and Engineering Guide (-101)
  - Network Planning Guide (-102)
  - Data Networking for Voice over IP (553-3001-160)
- **Installation and Configuration**
  - Installation and Configuration Task List (-210)
  - **Server Installation Guides**
    - 201i Server Hardware Installation (-220)
    - 703t Server Hardware Installation (-226)
    - 1002rp Server Hardware Installation (-205)
  - **Configuration and Testing Guides**
    - Meridian 1 and CallPilot Server Configuration (-222)
    - Succession 1000 System and CallPilot Server Configuration (-510)
  - **Unified Messaging Software Installation**
    - Desktop Messaging and MyCallPilot Installation Guide (-505)
- **Administration**
  - Administrator's Guide (-301)
  - Software Administration and Maintenance Guide (-202)
  - Desktop Messaging and MyCallPilot Administration Guide (-503)
  - Meridian Mail to CallPilot Migration Guide (-801)
  - Application Builder Guide (-325)
  - Reporter Guide (-310)
- **Maintenance**
  - Troubleshooting Guide (-501)
  - **Server Maintenance and Diagnostics**
    - 201i Server Maintenance and Diagnostics (-119)
    - 703t Server Maintenance and Diagnostics (-227)
    - 1002rp Server Maintenance and Diagnostics (-206)
- **End User Information**

End User Cards	End User Guides
Unified Messaging Quick Reference Card	Multimedia Messaging User Guide
Unified Messaging Wallet Card	Speech Activated Messaging User Guide
Command Comparison Card A-Style	Desktop Messaging User Guide for Microsoft Outlook
Command Comparison S-Style	Desktop Messaging User Guide for Lotus Notes
Menu Interface Quick Reference Card	Desktop Messaging User Guide for Novell Groupwise
Alternate Command Interface Quick Reference Card	Desktop Messaging User Guide for Internet Clients
	MyCallPilot User Guide

Chapter 2

Planning a Meridian Mail data collection

In this chapter

Meridian Mail releases and platforms that can be migrated

You can migrate data from Meridian Mail systems running Release 11 and later to CallPilot.

To migrate data from Meridian Mail systems running releases 8, 9, and 10, you must upgrade the systems to Meridian Mail Release 11 or later before performing the migration to CallPilot. For information on comprehensive upgrades, refer to the most recent release of the *Meridian Mail System Installation and Modification Guide*.

The following table summarizes the Meridian Mail platforms and releases that can be migrated to CallPilot.

Meridian Mail platform	**Meridian Mail releases**			
	11	**12**	**13**	**13.14**
Card Option	Yes	Yes	No	Yes
Enhanced card option	No	Yes	Yes	Yes
Option EC 11	Yes	Yes	Yes	Yes
Compact Option	Yes	Yes	Yes	Yes
Modular Option	Yes	Yes	Yes	Yes
Modular Option EC	Yes	Yes	Yes	Yes
Modular Option GP	Yes	Yes	Yes	Yes
MSM	Yes	Yes	N/A	N/A

Data that can or cannot be migrated

The following table details the system data that can and cannot be migrated from Meridian Mail to CallPilot.

System data

Can be migrated	Cannot be migrated
■ system and customer profiles ■ system name and greetings ■ restriction/permission lists ■ networking data ■ classes of service (COS) ■ messaging settings	■ language structure conversion ■ Hacker Monitor/Alarm Monitor ■ SEER re-map data ■ hospitality ■ backup schedules ■ voice forms ■ voice menu structure (voice link information) ■ VMUIF systems ■ family sub-mailboxes ■ VSDN table and any other voice service information ■ hardware information (such as channel allocation table, SMDI link information, and T1/E1 link information) ■ multicustomers (see note 1) ■ some Meridian Mail 13 outcalling remote notification defaults (see note 2)

System data

Can be migrated	Cannot be migrated
■ local voice users ■ personal greetings (internal, external and temporary) ■ personal distribution lists (PDL) ■ user core and mailbox properties ■ user voice messages ■ networking sites and locations (local and remote) if the networking feature is included in the CallPilot keycode ■ networking/AMIS configurations and network dialing defaults ■ Enterprise networking delivery parameters ■ area and exchange codes ■ delivery to telephone (DTT) parameters ■ delivery to fax (DTF) parameters	■ user mailboxes that are less than three digits in length ■ user mailboxes that contain punctuation marks in the last name ■ RN schedules ■ personal COSs—on Meridian Mail, change the personal COS to a dummy COS for migration to CallPilot ■ duplicate DNs—Meridian Mail users with duplicate primary and secondary DN entries ■ users with personal COSs ■ sites with duplicated names ■ switch locations with duplicated names ■ translation tables
■ system distribution lists (SDL) ■ remote voice users ■ directory entry users ■ personal verification recording	■ SDLs with names that contain punctuation marks ■ SDLs that are less than three digits in length

System data

Can be migrated	Cannot be migrated
■ voice segments in menus ■ announcements ■ fax segments	■ menu structure ■ Thru-Dial services

Note 1: CallPilot currently supports only one customer. Mailboxes with the same numbers that exist in different customer groups are not migrated.

Note 2: CallPilot does not support the remote notification COS feature.

The following table details the message data that can and cannot be migrated from Meridian Mail to CallPilot.

Message data

Can be migrated	Cannot be migrated
voice messages that are present in each user's mailbox	■ non-delivery notifications ■ system messages
Symposium Call Center Server prompts that are present in each user's mailbox	Not applicable

Meridian Mail system size

This section provides guidelines only for common migration situations. You can ensure a smooth transition if you evaluate and plan the migration carefully.

General

When planning a data collection, evaluate your Meridian Mail system and determine its size. The Meridian Mail systems can be classified into the following four categories:

- small systems
- large systems
- very large systems
- systems with many voice services or fax services (or both), or essential services (such as product support voice menus)

  Note: On Meridian Mail, voice services are called “voice segments.” On CallPilot, voice services are called “applications.”

Determining the Meridian Mail system size

To determine the size of your Meridian Mail system, you must know the number of hours of storage in use on the system. You can find this information in the system status information section of the maintenance screen. Refer to your Meridian Mail documentation for more details.

The following table summarizes the Meridian Mail system categories and provides information on the type of CallPilot system to which data can be transferred:

Size	Storage hours	CallPilot server	Migration time
Small	up to 200	any model	24–48 hours
Large	more than 200	■ 201i server (350 hours) ■ 703t server (1200 hours) ■ 1002rp server (2400 hours)	Several days
Very large	more than 2400	A Meridian Mail system with more than 96 ports and 2400 hours of storage is too large for a single CallPilot system. Contact your distributor or Nortel Networks for information on the appropriate migration strategy.	

Systems with many voice segments or fax items

If a small system has many voice or fax segments, consider performing the migration in multiple sessions.

The voice segments or fax items of a Meridian Mail system must be converted to CallPilot Application Builder applications. The migration utility migrates the Meridian Mail voice segments and fax items to CallPilot, but it does not create CallPilot applications. You must create or rebuild CallPilot applications using Application Builder.

Types of data collection

This guide refers to system data and voice message data. System data includes all data groups except voice messages and Symposium Call Center Server prompts.

Full data collection

A full data collection collects all system data at one time and then all voice messages and Symposium Call Center Server prompts at one time, on one or more message tapes.

Selective data collection

Selective data collection allows you to gather information from the following groups individually:

- system data—system and customer profiles, restriction/permission lists (RPL), and classes of service (COS)
- network data
  - You can collect system data and network data on one tape.
  - For multicustomer Meridian Mail systems, collect networking data only from the customers with a full set of networking data.
- user data (includes system data and network data)
- personal distribution lists (PDL)
- system distribution lists (SDL)

  Note: You can collect both PDLs and SDLs on one tape.
- voice segments (voice menus, voice services and announcements) and fax item data

ATTENTION

You must select and collect the data groups in the sequence indicated in the preceding list.

Use selective data collection if one of the following conditions applies:

- The Meridian Mail system has more than 3000 users and more than 200 hours of messages stored.
- The Meridian Mail platform is an MSM.
- The customer requested a selective data collection.

IF you are performing	THEN
a large system migration	■ collect the system data on one or more tapes. ■ collect the voice messages and Symposium Call Center Server prompts on one or more tapes.
a large-volume selective migration	■ collect system data on tapes. ■ collect voice messages and Symposium Call Center Server prompts by volume, COS or department using one tape for each group.

Time estimates

The following table shows the estimated times for data and message collection based on the number of users.

Migration activity	500 users	3500 users
One-time migration for each customer group		
Data collection	20 minutes	90 minutes
Message and Symposium Call Center Server prompt collection	2 minutes for each hour of voice storage	
Selective migration for each customer group		
Data collection	15 minutes	80 minutes
Message and Symposium Call Center Server prompt collection	2 minutes for each hour of voice storage	

Schedule the migration for one ore more maintenance periods. A maintenance period is the time during which the Meridian Mail system can be taken out of service.

IF the total migration time is estimated to take	THEN
less than a maintenance period	you can perform the migration in one session.
more than a maintenance period	you have to perform the migration in several sessions.

Ensure that a schedule of the migration process is announced to the users.

Collecting data in a single session

Introduction

This section provides recommendations for collecting data for small and large systems in one session.

Collecting data for a small system

Small systems are migrated by volume using full data collection on two tapes.

Tape number	Data
1	■ system data—includes system and customer profiles, networking data, RPLs and COSs ■ user data ■ personal distribution lists ■ system distribution lists ■ voice segments and fax items
2	voice messages and Symposium Call Center Server prompts for each volume

Collecting data for a large system

When migrating a large Meridian Mail system in a single session, perform a selective data collection on three or more tapes.:

Tape number	Data
1	system data—includes system and customer profiles, networking data, RPLs and COSs
2	voice segments (voice services, menus or announcements) and fax items
3	■ user data ■ voice messages and Symposium Call Center Server prompts for each collected volume

ATTENTION

Collect the SDLs and PDLs on the last tape to ensure that they are migrated last to CallPilot. If you migrate the SDLs and PDLs to CallPilot before all users are migrated, this can cause the SDLs and PDLs to contain invalid addresses on CallPilot.

Collecting data in multiple sessions

Introduction

A large system cannot be always migrated in a single maintenance period. To minimize the migration impact, carefully plan and schedule the migration over several sessions.

ATTENTION

A Meridian Mail system with more than 96 ports and 2400 hours of storage is too large to be migrated to a single CallPilot system. Contact your distributor or Nortel Networks for information on the appropriate migration strategy.

When migrating a Meridian Mail system in multiple sessions, perform a selective data collection by one of the following criteria:

- department
- mailbox
- class of service

You need three tapes for the first data collection session and two tapes for each subsequent session.

Add new users carefully to the Meridian Mail system so that their mailboxes and voice messages are captured at some stage during the data collection.

The total message capacity can exceed 2.5 Gbytes if all the messages on the system are collected in one session. Nortel Networks recommends that you collect voice messages and Symposium Call Center Server prompts in stages; for example, based on volume or department. Each volume or department must fit on a single tape.

Migrating a large system by department

To migrate a system by department, complete the department field in the data collection utility on Meridian Mail and perform the migration in multiple sessions.

Data collection: session 1

Tape number	Data
1	■ system data (includes system and customer profiles, networking data, RPLs, and COSs) ■ voice segments and fax item data
2	user data for the departments collected in session 1
3	voice messages and Symposium Call Center Server prompts for the departments collected in session 1 **Note:** Depending on department size and usage, store data from multiple departments on the same tape during the same collection session.

Data collection: session 2

Tape number	Data
4	user data for the departments collected in session 2
5	■ voice messages and Symposium Call Center Server prompts for the departments collected in session 2 ■ system distribution lists (SDL) ■ personal distribution lists (PDL)

ATTENTION

Collect SDLs and PDLs in the last session to ensure that they are migrated last to CallPilot. If you migrate the SDLs and PDLs to CallPilot before all users are migrated, this can cause the SDLs and PDLs to contain invalid addresses on CallPilot.

Subsequent data collection sessions (if required)

For each additional session that is required, use two tapes for each department:

- one tape for user data
- one tape for the corresponding voice messages and Symposium Call Center Server prompts.

Migrating a large system by COS or mailbox range

Use one of the following methods to migrate a system by mailbox range:

- Specify one or more mailbox ranges by using the plus sign (+) or underscore (_) as wildcard characters in the data collection utility.
- Assign mailboxes to a specific COS.

  Note: Assign groups of users to a COS using the Assign To COS function available in the Find local voice users screen.

Guidelines for assigning a range of mailboxes to a COS

If you change a user's COS for migration purposes, the new COS overrides the original COS information, which has to be reconstructed on the CallPilot system.

A user is assigned to a COS in about five seconds. When you move many users to a new COS, the directory can become unbalanced and affect system performance. Perform a DR audit to rebalance the directory at the end of each session.

The number of users (DNs) that you can assign to a COS depends on the length of the available maintenance period.

To calculate the number of users that you can assign to a COS (x), use the following formula:

$$x = \frac{\text{users}}{\text{hours}} \times 200 \text{ hours}$$

where

- "users" is the total number of users on the system
- "hours" is the actual number of storage hours used on the system

For example, in a system with 10 000 users and 1000 hours used you can assign 2000 users to a COS. It takes about three hours to create a COS and to assign users to it. You must also consider the time required to transfer the actual data.

These guidelines assume that each group of users assigned to a COS has an average voice storage usage. If you find that a group of users significantly exceeds the average voice storage usage, consider breaking that group into two or more COSs.

Data collection: session 1

Tape number	Data
1	■ system data—includes system and customer profiles, networking data, RPLs and COSs ■ voice segments (voice services, menus, or announcements) and fax items
2	user data for the COSs or mailboxes collected in session 1
3	voice messages and Symposium Call Center Server prompts for the COSs or mailboxes collected in session 1

Data collection: session 2

Tape number	Must contain the following data
4	user data for the COSs or mailboxes collected in session 2
5	■ voice messages and Symposium Call Center Server prompts for the COSs or mailboxes collected in session 2 ■ SDLs ■ PDLs

ATTENTION

Collect the SDLs and PDLs in the last session to ensure that they are migrated last to CallPilot. If you migrate the SDLs and PDLs to CallPilot before all users are migrated, this can cause the SDLs and PDLs to contain invalid addresses on CallPilot.

Subsequent data collection sessions (if required)

For each additional session that is required, use two tapes for each COS or mailbox range:

- one tape for user data
- one tape for the corresponding voice messages and Symposium Call Center Server prompts.

Meridian Mail data collection check list

Complete the following tasks before you begin the Meridian Mail data collection.

Item	Check
Review the system event and error reports (SEER) to ■ ensure that the data you want to collect is clean and consistent ■ verify that no reported problems affect the system or the files The SEERs of classes 11, 31, and 66 indicate format errors or disk corruption. If these SEER classes have been reported, communicate the errors to the Nortel Networks support personnel group to verify that the migration can take place.	❒
Review user mailboxes and ensure that ■ the length of each mailbox number is of three or more digits ■ each mailbox has a unique DN	❒
Verify that the Remote Notification Pin Terminator field does not contain a digit. CallPilot supports only the "#" sign or a space as a pin terminator.	❒
Review the RPL names and ensure that each RPL name is unique.	❒
Review the SDL names and ensure that ■ the SDL names do not contain punctuation. ■ each SDL name is unique.	❒

Item	Check
Ensure that last names are defined in the Meridian Mail Directory Entry Users. The last name field is mandatory in CallPilot. A migrated user whose last name field was empty in Meridian Mail cannot be selected in CallPilot Manager. **Note:** The data collection utility collects empty first name fields and identifies them in CallPilot as FN0000, FN0001, and so on.	❒
Review the SDL numbers and ensure that the length of each SDL number is of three or more digits.	❒
Review COS names and ensure that each COS name is unique.	❒
If you want to migrate Meridian Mail users with personal COS ■ create a new dummy COS and then reassign users to the new COS ■ reassign the users to another existing COS For instructions on adding a COS and on reassigning users to the new COS, refer to the *Meridian Mail System Administration Guide*.	❒
Review the DN entries for the following errors: ■ typographical errors on secondary DNs ■ duplicate primary and secondary DNs ■ obsolete entries that can conflict with current entries Correct all the errors that you find in the DN entries.	❒

Item	Check
Ensure that the Symposium Call Center Server prompt file names are unique. If Symposium Call Center Server prompts exist in more than one mailbox on Meridian Mail, the data collection utility appends the mailbox number to the file name. If the prompt file name and mailbox number combination results in file names that are not unique, the prompts in the duplicate files are not collected by the Meridian Mail data collection utility.	❒
Ensure that the network site names and switch location names are unique.	❒
Create a test mailbox on the Meridian Mail system and leave some messages in it. After the migration, check the mailbox on CallPilot to determine if the migration was successful.	❒
Determine the method that you want to use for data collection: ■ full data collection ■ selective data collection	❒
Ensure that you have enough blank tapes available to store the Meridian Mail data. The number of tapes that you need is based on the size of the Meridian Mail system.	❒
Ensure that the tape drive is installed and operational on the Meridian Mail system.	❒
Ensure that you have the most recent Meridian Mail to CallPilot migration tape. The Nortel Networks migration package contains the most recent migration tape.	❒

Item	Check
CAUTION **Risk of reduced system performance** Courtesy down the Meridian Mail system before you prepare it for data collection. Do not run the data collection utility while the Meridian Mail system is online.	❒

Chapter 3

Collecting Meridian Mail data

In this chapter

Installing the data collection utility

Tape drive requirements

Depending on the software release and type of hardware platform, the Meridian Mail system uses one of the following tape drives and tapes:

Tape drive	Tape	Migration use
Archive Viper	250 Mbyte	No
Tandberg SLR4 tape drive (TDC4220)	2.5 Gbyte	Yes

CAUTION

Risk of migration failure

The CallPilot server uses a tape drive that cannot read data from 250 MByte tapes and tapes created with the Archive Viper tape drive.

You must use a Tandberg SLR4 (or later) tape drive and 2.5 Gbyte tapes to create the Meridian Mail migration tapes.

ATTENTION

If the Meridian Mail system to be migrated uses an Archive Viper tape drive or 250 Mbyte tapes, ensure that you take to the customer site a Tandberg SLR4 (TDC4220) tape drive and a supply of 2.5 Gbyte tapes.

Migration utility version

The Meridian Mail to CallPilot migration package supplied by Nortel Networks contains the most recent migration utility tape. However, before starting the installation procedure, ensure that you have the newest version of the migration utility.

To install the Meridian Mail data migration utility

ATTENTION

Ensure that you know what Meridian Mail release is installed on your system before you begin the procedure.

1 In the System Status and Maintenance menu, select the System Status screen and courtesy down your Meridian Mail system.

ATTENTION

On Card Option systems, disable the application module link (AML) before you turn off the power to Meridian Mail.

2 Depending on the type of Meridian Mail system, proceed as follows:

IF the Meridian Mail system is	THEN
a Card Option with external tape drive	■ turn on the tape drive ■ insert the migration tape
running Meridian Mail Release 11 or later	insert the migration tape into the tape drive

3 Power down Meridian Mail or, if your system has an MMP40 card, press the reset button on this card.

Tip: Reset node 1 first, and then reset nodes 2 through 5 in sequence, if applicable.

4 Wait 10 seconds and then power up the Meridian Mail system.

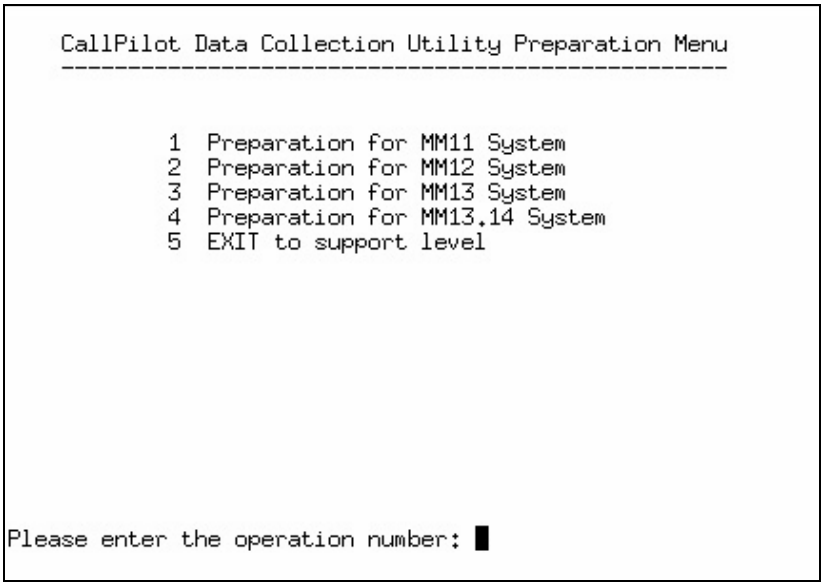
ATTENTION

If your Meridian Mail system is a Card Option systems, re-enable the AML after turning on the power.

Result: Meridian Mail displays diagnostic routines and then pauses for approximately five minutes while the tape is automatically retensioned.

Tip: The tape retensioning takes about five minutes. The data preparation software is loaded from the tape in about one minute. Monitor the status of the retensioning process by using your watch to check the time and by listening to the tape drive.

When the data preparation software is loaded, the CallPilot Data Collection Utility Preparation Menu appears.



5 Enter the number of the option that matches the release of your Meridian Mail system and then press **Enter**.

Result: A confirmation prompt appears.

Example: If your system is Meridian Mail 13, the following confirmation prompt appears:

```
You have chosen to Prepare for data migration of this
MM13 system.
Do you want to continue?
```

6 Select Yes and then press **Enter**.

Result: The system begins to copy the files and displays the following message:

```
Starting RW100 server and copy file utility files from
the Tape to the Meridian Mail hard disk.
```

When the data collection utility files are copied, the following message appears:

```
Please remove CallPilot Data Collection Preparation
tape and reboot system into full service and continue
data migration by logging into tools level.
```

7 Remove the data collection utility tape and restart the Meridian Mail system.

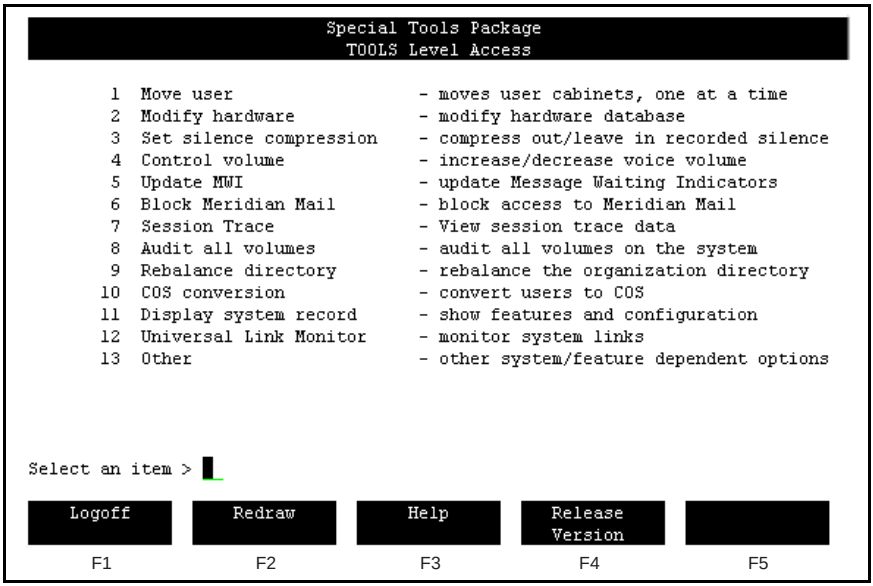
8 Perform a sanity check of the system; for example, call a mailbox and leave a message.

IF the sanity test	THEN
passed without problems	continue with “To launch the data collection utility” on page 47.
failed because a problem occurred, such as no ring	return to step 1.

Soft keys

During the collection of Meridian Mail data, you are instructed to select soft keys. The soft keys are the black buttons at the bottom of the screens of the migration utility. The functions of the soft keys that appear on a specific screen depend on the information displayed on that screen.

To select a soft key, you must press a function key on your keyboard. The soft keys are associated, from the left to the right of the screen, with the **F1** through **F5** keys. The following illustration shows the relationship between the soft keys and the function keys.



Launching the data collection utility

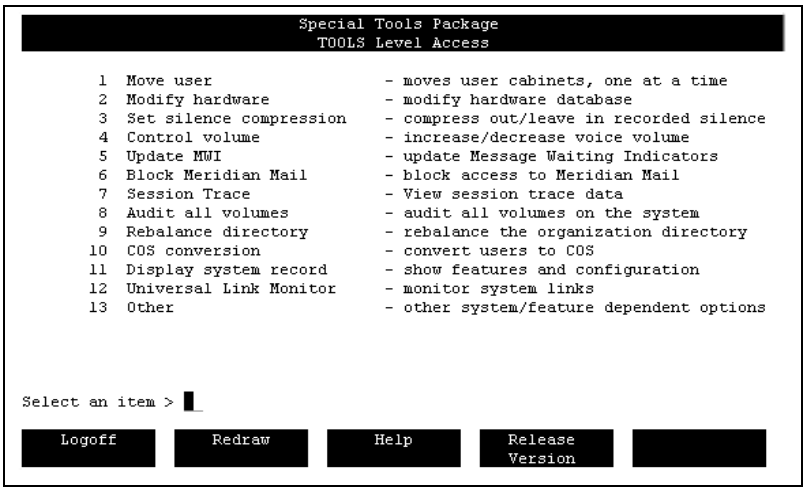
The screens on your Meridian Mail system can differ from those shown in this guide, depending on the Meridian Mail release number and the type and number of features installed.

To launch the data collection utility

1 Log in to the Tools menu on the Meridian Mail administration terminal using the Admin level password.

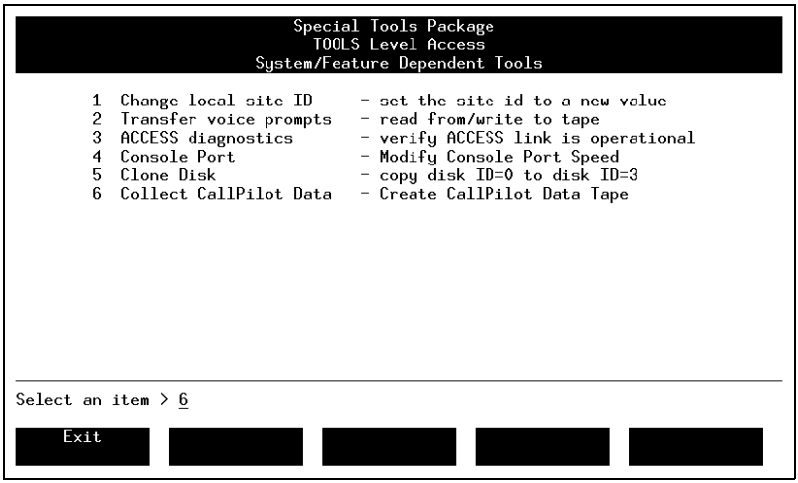
Note: On a Meridian Mail 13 system, use the Tools user ID and the Tools level password.

Result: The following menu appears:



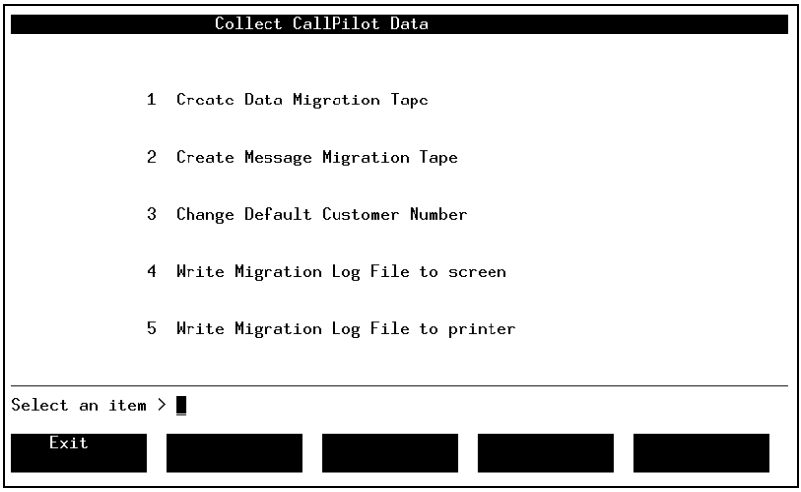
2 Select the Other menu option as follows: enter the option number (13) at the Select an item prompt and then press **Enter.**

Result: The Other menu appears.



3 Select the Collect CallPilot Data option as follows: enter the option number (6) at the Select an item prompt and then press **Enter**.

Result: The Collect CallPilot Data menu appears.



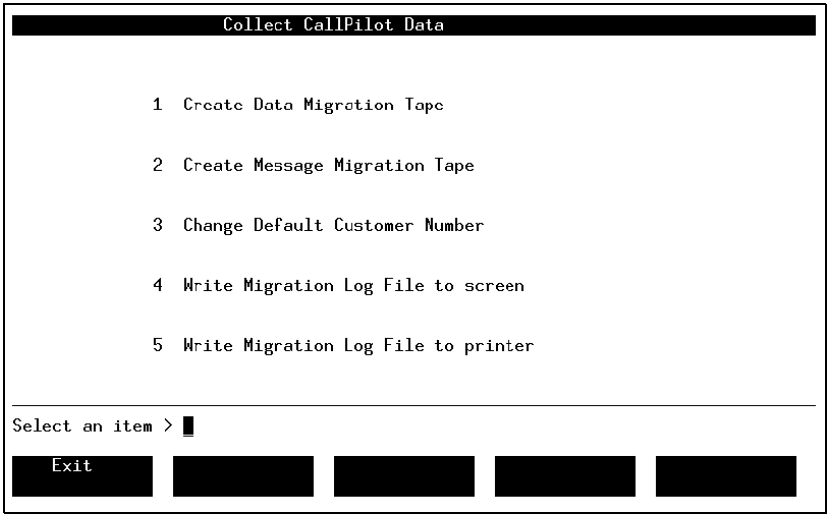
4 Continue with one of the following tasks, as required:

- “Collecting Meridian Mail data” on page 50
- “Collecting Symposium Call Center Server data” on page 57
- “Reviewing the Meridian Mail migration log” on page 64

Collecting Meridian Mail data

Preliminary

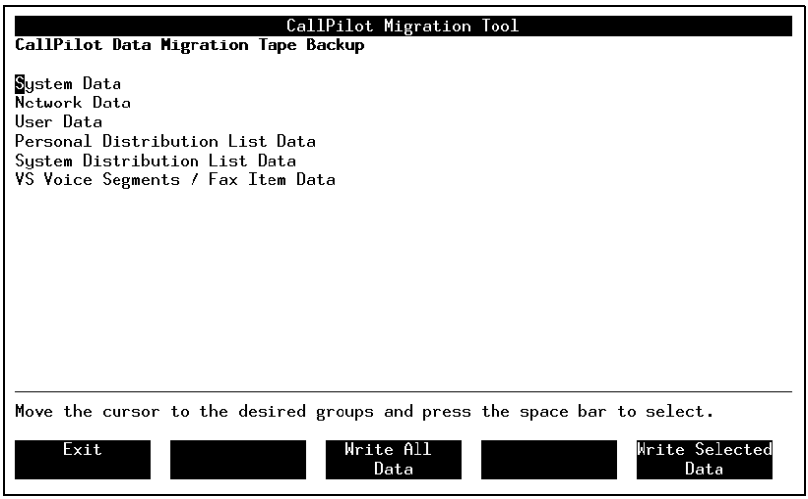
The procedure provided in this section starts after the data collection utility has been launched as indicated in “Launching the data collection utility” on page 47 and when the following screen is displayed:



To collect Meridian Mail data

1 Select the Create Data Migration Tape option on the Collect CallPilot Data screen as follows: enter the option number (1) at the Select an item prompt and then press **Enter**.

Result: The following screen appears:



2 Select one or more data collection options depending on the system size and the migration strategy that you chose.

Tip: Use the up and down arrow keys to move the cursor to the desired option and then press spacebar to select the option.

The following table details the data that each option collects.

Option	Data
System Data	■ system profiles ■ customer profiles ■ security profiles ■ outdialling defaults ■ dialing translations defaults

Option	Data
Network Data	■ network locations ■ network sites ■ network delivery profiles
User Data	■ system data ■ network data ■ restriction/permissions lists ■ COSs ■ user mailboxes
Personal Distribution List Data	personal distribution lists
System Distribution List Data	system distribution lists
VS Voice Segments / Fax Item Data	■ voice menus ■ voice services ■ announcements ■ fax items

If you perform a selective data collection, collect the data in the sequence shown on the screen, from top to bottom.

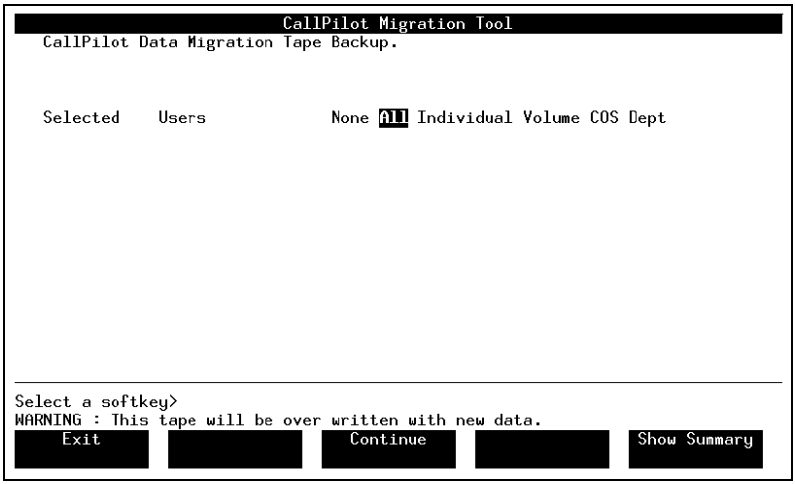
3 Select the Write All Data soft key by pressing the **F3** key.

Result: The Selected Users or the Enter Tape Label screen appears.

4 Depending on the screen that appeared, proceed as follows.

IF the screen is	THEN
Selected Users	go to step 5.
Enter Tape Label	go to step 10.

5 Select a data collection option on the Selected Users screen by using the right or left arrow key.



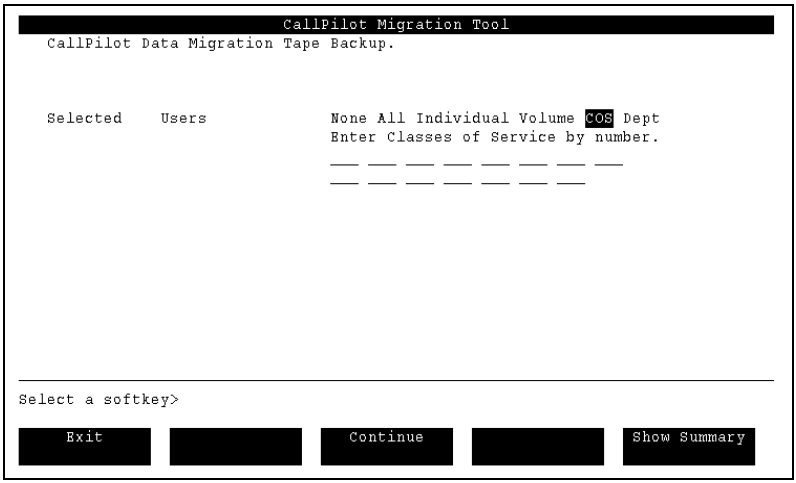
This screen allows you to collect data for one of the following options.

Option	Collected data
All	All users in the system
Individual	Individual mailboxes by mailbox number
Volume	All mailboxes in the selected volume
COS	All mailboxes in the selected COS
Dept	All mailboxes in the selected department

Note: No data is collected if the None option is selected.

6 Press **Enter** or the down arrow key.

Result: A list of fields for the selected option appears on the screen. For example, if you chose the COS option, the following screen appears.



7 Move the cursor to the grid lines by pressing the down arrow key and then enter the required values for the selected option.

Tip: If you want to select one or more ranges of mailbox numbers, you can use the following wildcard characters: plus sign (+) and underscore (_).

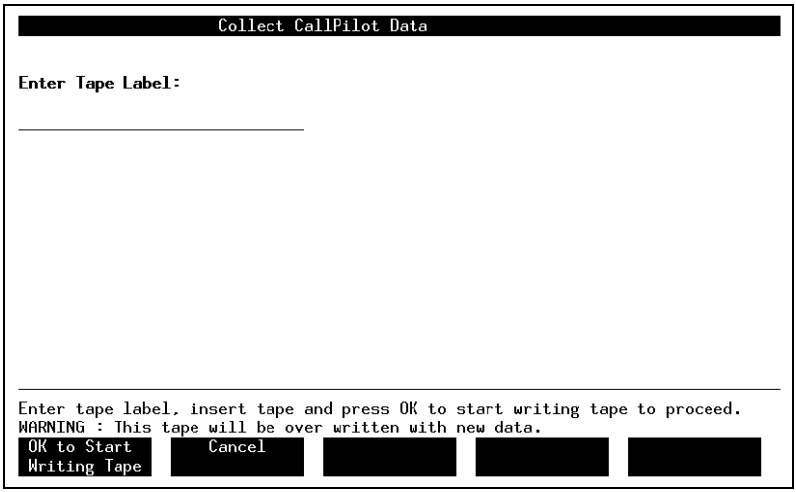
- The plus sign (+) matches 0 or more characters or digits. For example, if you type 776+, mailboxes 776, 7761, 7762, 776123, and so on are selected.
- The underscore (_) matches 1 character or digit. For example, if you type 776_, then mailboxes 7761, 7762, and so on are collected. The mailbox numbers 776 and 77612 do not match the entered value and are not collected.

8 Select the Show Summary soft key by pressing **F5** to view a summary of the data items that are collected.

Result: A message indicating the total number of mailboxes selected appears at the bottom of the screen.

9 Select the Continue soft key by pressing **F3**.

Result: The Enter Tape Label screen appears.



10 Type a name for the data collection tape.

Tip: The maximum length of the tape name is 27 characters.

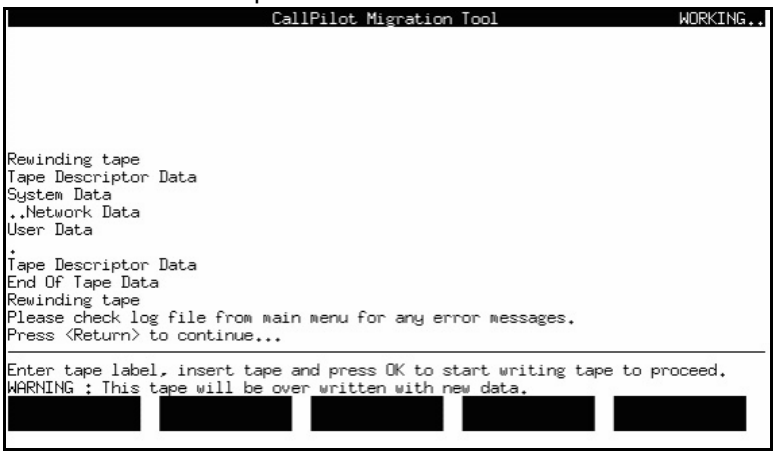
11 Insert a blank tape in the tape drive.

12 Select the OK to Start Writing Tape soft key by pressing **F1**.

Result: The data collection starts. The data collection progress is displayed on the screen.

Tip: The data tapes for a Meridian Mail system with 700 mailboxes are created in approximately 30 minutes.

The following illustration is an example of screen that appears when the data collection is complete.



13 Press **Enter**.

Result: The CallPilot Data Migration Tape Backup screen appears.

14 Select the Exit soft key by pressing **F1**.

Result: The Collect CallPilot Data screen appears.

15 Remove the tape from the tape drive and then write on the label what the tape contains.

16 Continue with one of the following tasks, as required:

IF	THEN refer to
you need to collect Symposium Call Center Server data	“Collecting Symposium Call Center Server data” on page 57
you completed the data collection process	“Reviewing the Meridian Mail migration log” on page 64.

Collecting Symposium Call Center Server data

Introduction

Unless you plan to recreate the voice prompts in CallPilot, you must migrate the Meridian Mail voice prompts and voice segments (announcements and menus) to CallPilot.

If you want to migrate only Symposium Call Center Server prompts to CallPilot, you do not need to create the data migration tape.

Migrating Symposium Call Center services

The voice services implemented on your existing Meridian Mail system determine the data that has to be collected for migration. You have to decide if you want to maintain the same services on CallPilot.

Voice service	Collection data	Remarks
GIVE IVR	voice prompts (menus and announcements)	Identify the voice prompts in the Meridian Mail VSDN table.
ACCESS	Symposium Call Center Server prompts	The prompts are stored in specific mailboxes. In Meridian Mail, only one mailbox can be used at a time.
GIVE IVR and ACCESS	■ voice prompts (menus and announcements) ■ Symposium Call Center Server prompts	Collect the voice prompts (menus and announcements) first, and then collect the active Meridian Mail mailboxes containing the voice files for ACCESS.

Note: If Meridian Mail is also used as a front-end IVR subsystem, the migration must be treated as a whole voice-processing engine migration.

Outline of the Symposium Voice Service Center data collection

The procedure of collecting Symposium Voice Service Center data consists of the following main tasks:

1. collecting the voice segment data

   If you migrate data for GIVE IVR voice services, which consist of menu and announcement segments, collect the voice segments.

2. collecting the user data

   The collection of the ACCESS mailboxes that contain voice prompts requires an additional tape.

Meridian Mail screens

The screens on Meridian Mail systems can be different from the screens used to illustrated the following procedures depending on:

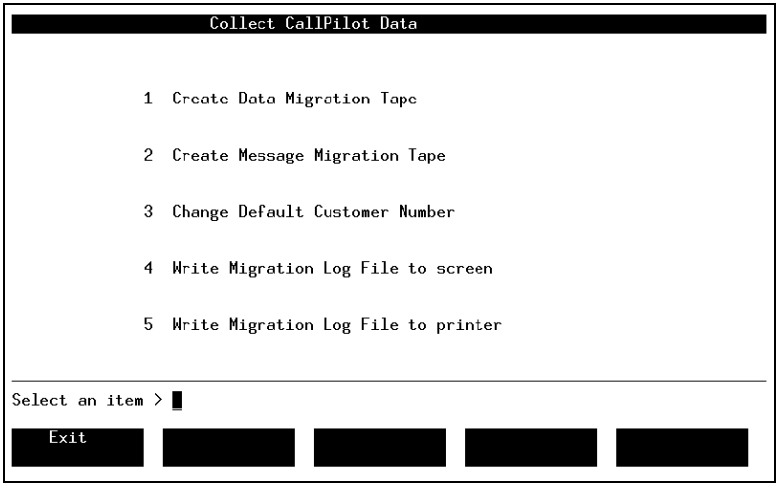
- the release number of the Meridian Mail system
- type and number of features installed

Conventions

In the procedures provided in this section, voice segments refer to IVR voice items and voice prompts refer to voice items.

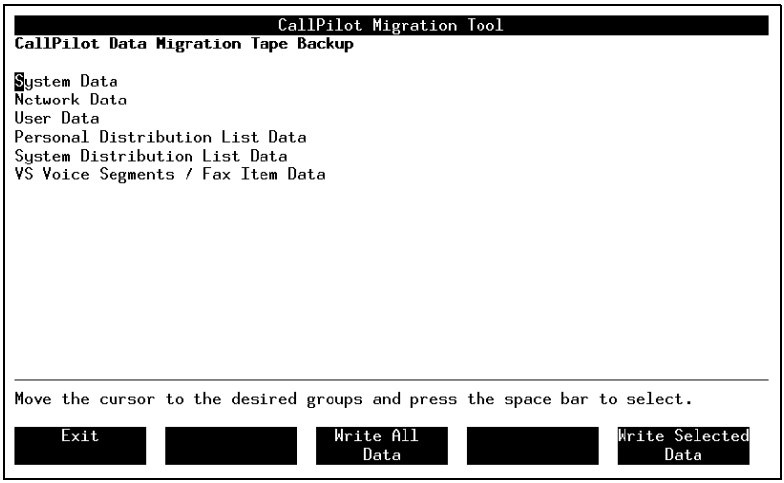
To perform collect voice segments

This procedure starts after the data collection utility has been launched and when the following screen is displayed:



1 Select the Create Data Migration Tape option on the Collect CallPilot Data screen as follows: enter the option number (1) at the Select an item prompt and then press **Enter**.

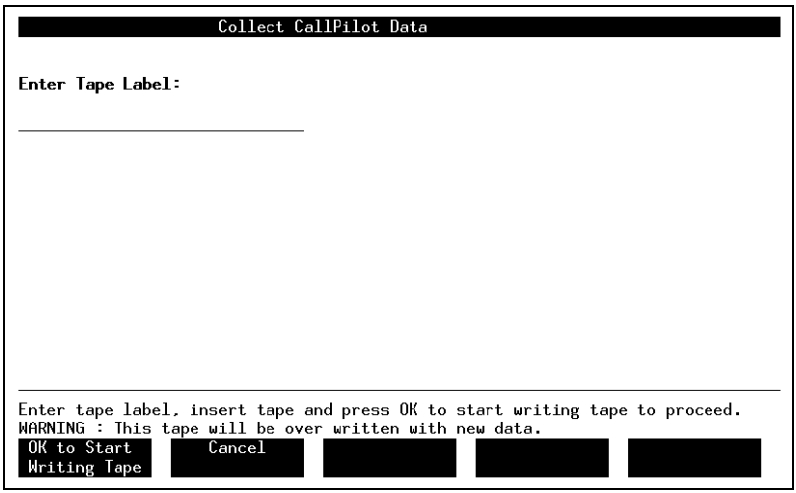
Result: The following screen appears:



2 Select the VS Voice Segments / Fax Item Data option as follows: press the down arrow key to move the cursor to the option line and then press spacebar to highlight the option.

3 Select the Write Selected Data soft key by pressing **F5**.

Result: The Enter Tape Label screen appears.



4 Type the following name for the blank tape that you are using: CallPilot Voice Segments (announcements and menus).

Tip: The maximum length of the tape name is 27 characters.

5 Insert a blank tape in the tape drive.

6 Select the OK to Start Writing Tape soft key by pressing **F1**.

Result: The system receives tape descriptor data, then rewinds the tape and writes the segment data to the tape. When the data collection is complete, the following message appears:

```
Please check log file from main menu for any error
messages
Press <Return> to continue...
```

7 Press **Enter**.

Result: The CallPilot Data Migration Tape Backup screen appears.

8 Select the Exit soft key by pressing **F1**.

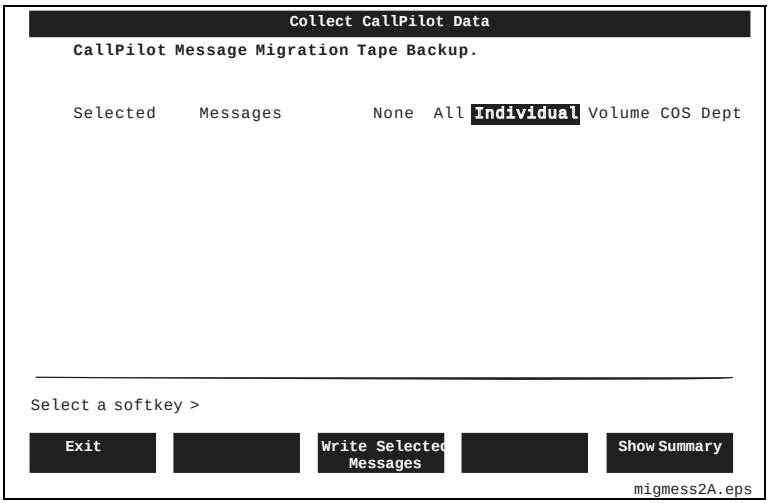
Result: The Collect CallPilot Data screen appears.

9 Remove the tape from the tape drive and write on the label what the tape contains.

To collect voice prompts

1 Select the Create Message Migration Tape option on the Collect CallPilot Data screen by entering the option number (2) at the Select an item prompt and by pressing **Enter**.

Result: The CallPilot Message Migration Tape Backup screen appears.



2 Use the left or right arrow key or spacebar to move the cursor over the Individual option. This option collects message and prompt data for the mailbox.

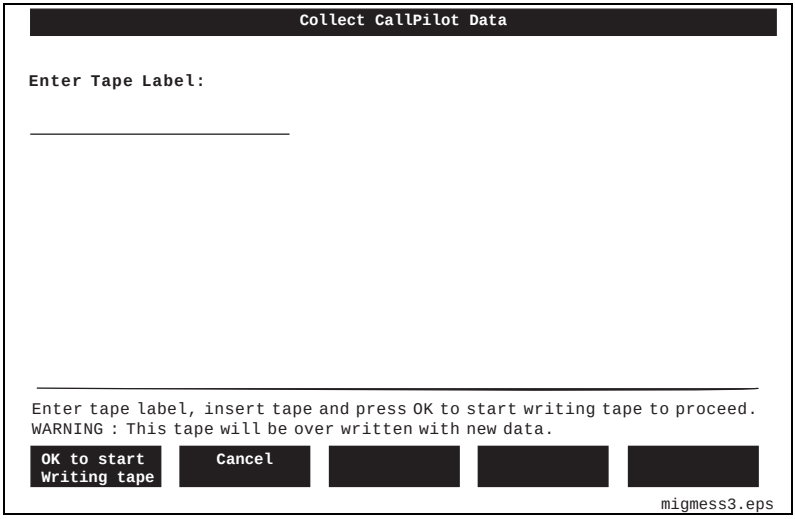
3 Press **Enter**.

Result: The following screen appears:

4 Move the cursor to the grid lines by pressing the down arrow key, and then enter the ACCESS mailbox number. This is the mailbox number used to log in to the CallPilot Voice Prompt Editor.

5 Select the Write Selected Messages soft key by pressing **F3**.

Result: The Enter Tape Label screen appears.



6 Type the following name for the blank tape that you are using: CallPilot Voice Prompts.

7 Insert a blank tape into the Meridian Mail tape drive.

8 Select the OK to Start Writing Tape soft key by pressing **F1**.

Result: The system receives tape descriptor data, then rewinds the tape and writes the prompt data to the tape. When the data collection is complete, the following message appears:

```
Please check log file from main menu for any error
messages
Press <Return> to continue...
```

9 Press **Enter** to continue.

Result: The CallPilot Message Migration Tape Backup screen appears.

10 Select the Exit soft key by pressing **F1**.

Result: The Collect CallPilot Data screen appears.

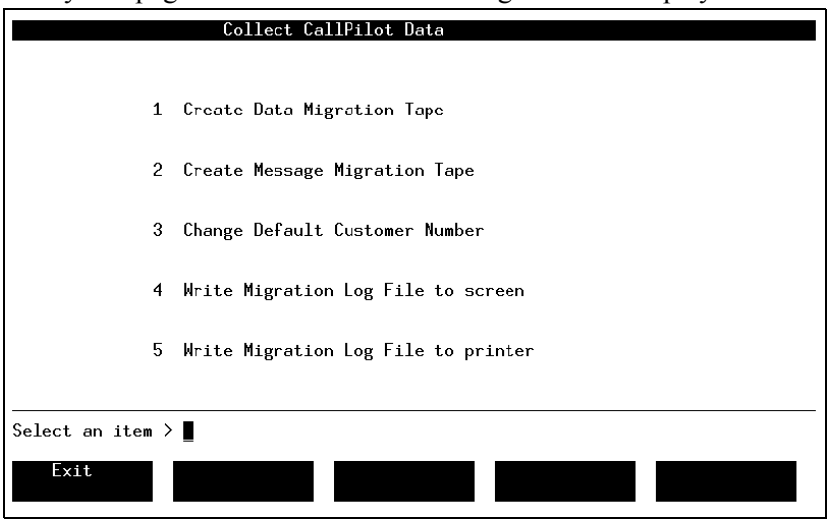
Reviewing the Meridian Mail migration log

Introduction

This section describes the methods of reviewing the Meridian Mail migration log:

- displaying the migration log on the screen
- printing the migration log to a printer

The procedures provided in this section start after that the data collection utility has been launched as indicated in “Launching the data collection utility” on page 47 and when the following screen is displayed:



To write the migration log file to the screen

1. Select the Write Migration Log File to screen option as follows:
   - enter the option number (4) at the Select an item prompt
   - press **Enter**

   Result: The Meridian Mail Migration log is displayed on the screen from the oldest operation to the most recent operation.

2. Identify the log corresponding to your specific data collection by checking the tape label and the data collection start day and time. The following illustration shows a partial example of a migration log:

```
 Meridian Mail Migration logs
------------------------
Version CallPilot1.0 - 21/Oct/98 13:00 -  MM12
Tape Label - 7371
Version CallPilot1.0 - 21/Oct/98 13:00 -  MM12
Data Collection for CallPilot begins: 23/10/98  15:20:49
MenuFlags Bitmap = 0
Total Blocks Written =  5780
Total Loc Users           =                              1
Total Dir Users           =                              0
Total Perm Remote Users   =                              0
Total Temp Remote Users   =                              0
Total Spns                =                              0
Total Rpls                =                              0
Total Cos                 =                              0
Total Voice Services      =                              0
Total Group Data          =                             44
Press <Return> to continue...
```

To print the migration log file to the printer

1. Ensure that an operational printer is connected to your system.
2. Select the Write Migration Log File to printer option as follows:
   - enter the option number (5) at the Select an item prompt
   - press **Enter**

   Result: The data collection log file is printed to your printer.

Log errors

Check the log for any specific errors and information on the total number of voice services (such as voice segments and voice prompts).

If you are satisfied with the content of the migration log file, proceed with the data migration to CallPilot.

Chapter 4

Migrating Meridian Mail data to CallPilot

In this chapter

Hardware, software, media, and networking requirements

Introduction

Ensure that all the required hardware and software are installed on the CallPilot system before migrating the Meridian Mail data from tape.

Safety warnings

DANGER

Risk of electrical shock

Ensure that the tower or rackmount server is powered down before you attempt any installation or removal of components.

CAUTION

Risk of equipment damage due to electrostatic discharge

Use an ESD wristband and attach it as follows:

- to the server chassis when performing any work inside the tower or rackmount server
- to the switch when working with the IPE server

Tower or rackmount server tape drive

The tower or rackmount server must be equipped with a Tandberg SLR50 internal tape drive. The appropriate tape drive driver must be installed on the server.

The Tandberg SLR50 tape drive can read only 2.5-Gbyte tapes and cannot read tapes that were created on Meridian Mail using the Archive Viper tape drive.

ATTENTION

Ensure that the tapes containing the Meridian Mail information are 2.5 Gbyte tapes recorded on a Tandberg SLR4 (TDC4220) or later tape drive.

IPE server tape drive

An external tape drive must be connected to the IPE server, which has a built-in SCSI connector on the faceplate. The appropriate tape drive driver must be installed on the server.

The IPE server supports the Tandberg SLR5 (NTRH9038) tape drive. This tape drive can read the 2.5 Gbyte tapes that are created on a Meridian Mail system using the Tandberg SLR4 (TDC4220) tape drive.

ATTENTION

If a Tandberg SLR5 tape drive is not available, you can temporarily connect the Tandberg SLR4 tape drive used by the Meridian Mail Card Option system to the CallPilot server for performing the migration. You must disconnect the tape drive when the migration to CallPilot has been completed.

Networking requirements

If you configured the CallPilot network and assigned site and location names before performing the migration, the migration utility does not update the CallPilot sites and locations with the Meridian Mail data.

To ensure that the migration utility updates your network with the Meridian Mail site and location information, change the names of all CallPilot sites and locations to Untitled before starting the migration.

Staging area

Introduction

The CallPilot migration utility offers you the option to copy the collected Meridian Mail files to the CallPilot server before starting the migration. The folder to which the files are copied is referred to as the staging area.

The \nortel\MPCX\Migration\MigrationFiles folder is the staging area.

Nortel Networks recommends that you always transfer the collected files to the staging area established on the CallPilot server to reduce the migration time.

Copying files to the CallPilot server

The following table contains information on copying data from tapes to the CallPilot server.

Data set option	Can be migrated from	
	Tape	Staging area
All system data	yes (data tape)	yes
Messages and Symposium Call Center Server voice prompts	yes (message tape)	no
Messages only	yes (message tape)	no
Symposium Call Center Server voice prompts only	yes (message tape)	no

Data set option	Can be migrated from	
	Tape	Staging area
System data (system and customer profiles, networking data, restriction/permission lists and Classes of Service)	yes (data tape)	yes
User data	yes (data tape)	yes
Application Builder services (voice menus, voice services, and announcements)	yes (data tape)	yes
Shared distribution lists	yes (data tape)	yes
Personal distribution lists	yes (data tape)	yes

Deleting files from the staging area

The migration utility offers you the option to delete the files from the CallPilot staging area when the migration is finished.

Nortel Networks recommends that you do not select the option to delete the staging files until you are certain that the migration was completed successfully. This saves time if you determine that you must rerun the migration.

Stopping the migration

To halt a migration process

To halt a migration process, use one of the following key combinations:

- **Ctrl+C**
- **Ctrl+Break**

To resume a system data migration that has been halted

IF you halted	THEN to resume the process
a data or message migration process	■ type **migrate -c -d** at the command line prompt ■ press **Enter**
a transfer to staging area (data migration only)	■ type **migrate -x -c -d** at the command line prompt ■ press **Enter**

To rerun a message migration that has been halted

ATTENTION

If you rerun the message migration, the messages already migrated are duplicated in the CallPilot mailboxes. Delete the already copied messages on CallPilot before you rerun the migration.

To restart a message migration, type **migrate -msg** at the command line prompt, and then press **Enter**.

CallPilot migration check list

Complete the following check list before you start the data migration to CallPilot.

Item	Check
Ensure that the CallPilot system is installed.	❒
Ensure that the switch is configured for CallPilot operation.	❒
Ensure that the CallPilot system is configured and operational. All installed CallPilot services must be running properly. Dial the Voice Messaging Service DN to ensure that calls can be placed and received.	❒
Ensure that no users have been added to the CallPilot system.	❒
Ensure that all CallPilot restriction/permission list (RPL) names are unique and different than the Meridian Mail RPL names.	❒
Ensure that all existing CallPilot mailbox classes are renamed. If a duplicate class of service (COS) is found during the migration, the Meridian Mail COS is renamed to <*COS name*>_MMail<*COS ID*> and then migrated to CallPilot. As a result, migrated users can be assigned to the wrong mailbox class.	❒
Ensure that Application Builder is installed and operational on CallPilot if you want to migrate voice segments (voice menus, voice services and announcements), Symposium Call Center Server prompts, or both.	❒

Item	Check
Ensure that the 201i CallPilot server is connected to an external tape drive or that an external tape drive is available. Ensure that the tower or rackmount server is equipped with an internal tape drive.	❒
Change the names of all CallPilot sites and locations to Untitled if you already configured the CallPilot network and want to migrate the Meridian Mail networking data.	❒
Disable event throttling on CallPilot if throttling has been enabled.	❒
Ensure that no client applications (including CallPilot Manager and any other software) are running on CallPilot while the migration is in progress.	❒

Migration sequence

Transfer to CallPilot the system data and the voice messages from tapes in the sequence in which you created the tapes on the Meridian Mail system. Always transfer the system data first.

IF you are performing	THEN
a large system migration	■ transfer the system data from one or more tapes. ■ transfer the voice messages and Symposium Call Center Server prompts from one or more tapes. **Note:** If you collected all messages on one tape, then transfer them in a single session.
a large volume selective migration	■ transfer the system data from tapes. ■ define the Meridian Mail users in CallPilot before migrating voice messages. ■ transfer the voice messages and the Symposium Call Center Server prompts from the tapes, taking into consideration that data was collected by volume or department using one tape for each group.

Time estimates

The following table shows the estimated time for data and message migration calculated on the basis of the number of users. The time estimates vary depending on the CallPilot server model that is used.

Migration task	500 users	3500 users
One-time migration for each customer group		
Data migration	30–60 minutes for each tape	
Message and Symposium Call Center Server prompt migration	1.5–2.0 minutes for each hour of voice storage	
Selective migration for each customer group		
Data migration	30–60 minutes for each tape	
Message and Symposium Call Center Server prompt migration	1.5–2.0 minutes for each hour of voice storage	

Migrating a system with many voice segments or fax items

If a system contains more voice segments or fax items than you can migrate during a maintenance period, perform the migration in multiple sessions. Migrate all voice segments and fax items to CallPilot and then create the Application Builder applications before you migrate the remaining data.

Session 1: transfer the system data, voice segments, and fax items

Transfer system data (system and customer profiles, networking data, RPLs, and COSs), voice segments, and fax items to CallPilot.

Session 2: create the CallPilot applications

Create the necessary CallPilot Application Builder applications using the migrated voice segments and fax items.

Session 3: transfer the remaining data to CallPilot

Based on the size of your system (that is, on the number of hours of messages), multiple sessions can be required to migrate all users, voice messages and Symposium Call Center Server prompts. Messages and Symposium Call Center Server prompts on large systems require at least two migration sessions.

ATTENTION

Ensure that the SDLs and PDLs (collected on the same tape) are migrated last to CallPilot. If you migrate the SDLs and PDLs before all users are migrated, the SDLs and PDLs can contain invalid addresses on CallPilot.

Migrating Meridian Mail data

Migration utility location

The migration utility is located on the CallPilot server hard drive in the \nortel\MPCX\Migration folder. You must run the CallPilot migration utility from this folder only. Do not start the migration utility from another folder.

ATTENTION

Do not remove the tape from the tape drive during the migration.

To migrate Meridian Mail data to CallPilot

1. Launch Windows Explorer and navigate to the \nortel\MPCX\Migration folder.
2. Double-click the migrate.exe file.

   Result: An MS-DOS window opens.
3. Insert the appropriate data tape into the tape drive.

   ATTENTION

   Ensure that you use the tapes in the order in which they were created.
4. Type **readtapelabel** at the CI> prompt and then press **Enter**.

   Result: The migration utility displays the tape label as you entered it during the data collection. Verify that this is the tape from which you want to transfer data to CallPilot.

5 Type **migrate** at the CI> prompt in the MS-DOS window and then press **Enter**.

Result: The following prompt appears and displays the first data migration option:

```
Enter Data set to migrate:AllSystemData
```

Tip: Use the arrow down and up keys to view the other migration options that are available:

- Messages_&_SCCSPrompts
- Messages
- SCCSPromptsOnly
- SystemProfiles
- Users
- ApplServices
- SDL
- PDL

6 Select the migration option according to your migration strategy. The option that is visible on the screen is considered selected.

Note: Nortel Networks recommends that you migrate the SDLs and PDLs last, after all the mailboxes have been migrated. This strategy reduces the number of invalid addresses that can occur in SDLs and PDLs when mailboxes are migrated in more than one session.

7 Press **Enter**.

Result: The following message and prompt appear.

```
If you are executing the utility for the first time,
you must copy the data from the MMail tapes to
Windows NT format staging area on the CallPilot
server.

Do you wish to copy the Meridian Mail data
files now? Yes
```

Note: Nortel Networks recommends that you always transfer the collected files to the CallPilot staging area to reduce the migration time.

8 Select the file transfer option (Yes or No) as follows:

IF	THEN select
the files from this tape are copied for the first time to the CallPilot server or the files copied from this tape during a previous migration attempt were deleted	Yes
you are rerunning the migration	No

9 Press **Enter**.

Result: The following message appears:

```
Do you wish to delete the staging files after
migration is complete? Yes
```

Note: Nortel Networks recommends that you do not delete the staging files until you are certain that the migration completed successfully.

10 Press the arrow down key to display No, and then press **Enter**.

Result: The following message appears:

```
During migration, some duplicate users may be found.
Duplicate users are those with matching mailbox
number, location, DN, first name, and last name. What
do you wish to do with the duplicate users?
Delete_them
```

Tip: In addition to the option to delete the duplicate users, the option to leave the duplicate users unchanged (`Skip_them`) is also available. You can display this option by pressing the down arrow key.

11 Select the `Delete_them` or `Skip_them` option according to your migration strategy. The option that is visible on the screen is considered selected.

12 Press **Enter**.

Result: The following message appears:

```
Please insert the Meridian Mail data tape in the tape
drive and press Enter.
```

13 Press **Enter** (you already inserted the data tape into the tape drive).

Result: The migration utility performs the following tasks:

- cleans up the staging area
- starts transferring files from tape to CallPilot

If the migration data set that you selected contains voice items (such as announcements and menus) that have to be converted to Application Builder applications after the migration, the migration utility launches the pre-check application. The pre-check application checks the integrity of the existing CallPilot applications created in Application Builder and detects corrupt applications. The following message is displayed on the screen:

```
Pre-migration system check...
Analyzing System...
```

If the pre-check is successful, the migration utility performs the following tasks:

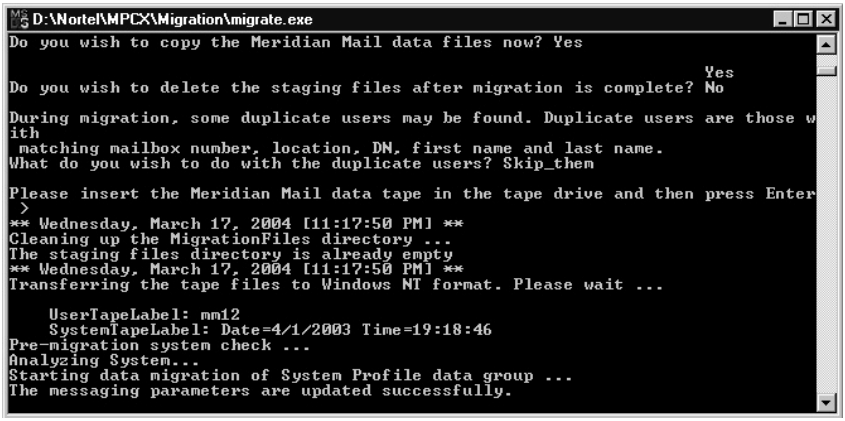
- resumes the file transfer
- displays the migration progress (refer to “Example of data migration summary” on page 91)
- displays a message and the CI> prompt when the migration is finished

If the pre-check is not successful, the migration is stopped and the following message appears:

```
Found inconsistencies! Follow Manual Recovery
Procedure.
Unable to continue migration.
```

Tip: You must repair the corrupt Application Builder applications on CallPilot before attempting another migration. Refer to “Correcting pre-check inconsistencies” on page 144.

The following illustration is an example of screen that shows the pre-check (pre-migration system check) message.



Tip: If errors occur during the migration process, repeat all or part of the migration. For example, if an “end of tape” error occurs for a tape containing a volume of voice, you need to run the migration for that data set. In such a case, repeat the collection of Meridian Mail data. Divide the volume users into two sets (by department or COS), and use multiple tapes.

14 Type **quit** at the CI> prompt and then press **Enter**.

Result: A migration transaction log file is created and saved in the \nortel\MPCX\Migration folder.

ATTENTION

If you close the MS-DOS window without typing **quit**, the migration transaction log is not created.

Migrating Symposium Call Center Server data

General

Perform the tasks associated to the migration of Symposium Call Center Server data as indicated in the following outline.

Step	Task
1	Migrate the voice segments.
2	Create the CallPilot applications for GIVE IVR voice services.
3	Migrate the user data; this task includes the migration of the ACCESS mailboxes that contain voice prompts.
4	Validate the migrated data and perform any additional tasks required to make the CallPilot configuration consistent with the Meridian Mail configuration

Transfer the messages and the Symposium Call Center Server prompt information to CallPilot as follows:

IF you collected	THEN transfer
all messages and Symposium Call Center Server prompts on one tape	all messages and Symposium Call Center Server prompts on the tape to CallPilot in a single session
messages and Symposium Call Center Server prompts on multiple tapes (selective message migration)	the messages and Symposium Call Center Server prompts to CallPilot in multiple sessions using one tape in each session, in the order in which the tapes were created

Useful information

The migration utility allows you to select the data set that you want to migrate to CallPilot in a particular migration session.

Before transferring Symposium Call Center Server data to the CallPilot server, consider the following migration aspects:

- All users of the voice messages that are to be migrated must be already defined on or migrated to the CallPilot system.
- Voice messages collected from the Meridian Mail system can exceed the available free space on the CallPilot MMFS volume. When less than 5 percent of the MMFS volume is free, no more messages can be migrated. The migration utility generates logs for this event.
- After the messages are migrated on CallPilot, the messages sent by AMIS users are treated as messages from an unknown source.
- The migration log file shows the details and number of messages, any attachments that are migrated and migration errors.

Handling data that cannot be migrated

For GIVE IVR voice services, the information stored in the Meridian Mail VSDN table and the voice menu structure is critical. As this data cannot be automatically migrated, you must use Application Builder to

- recreate or rebuild the menu or announcement structure extracted from the VSDN table.
- manage the applications and the control blocks (save and complete them)
- publish the applications in the CallPilot Service DN table

To migrate Symposium Call Center Server voice segments and voice prompts to CallPilot

If you performed a selective data collection from Meridian Mail, you must perform a selective data migration to CallPilot.

ATTENTION

Do not remove the tape from the tape drive during the migration.

1. Launch Windows Explorer and navigate to the \nortel\MPCX\Migration folder.
2. Double-click the migrate.exe file.

   Result: An MS-DOS window opens.
3. Insert the appropriate data tape in the tape drive.
4. Type **readtapelabel** at the CI> prompt and then press **Enter**.

   Result: The migration utility displays the tape label as you entered it during the data collection procedure. Verify that this is the tape from which you want to transfer data to CallPilot.
5. Type **migrate** at the CI> prompt and then press **Enter**.

   Result: The following prompt appears:

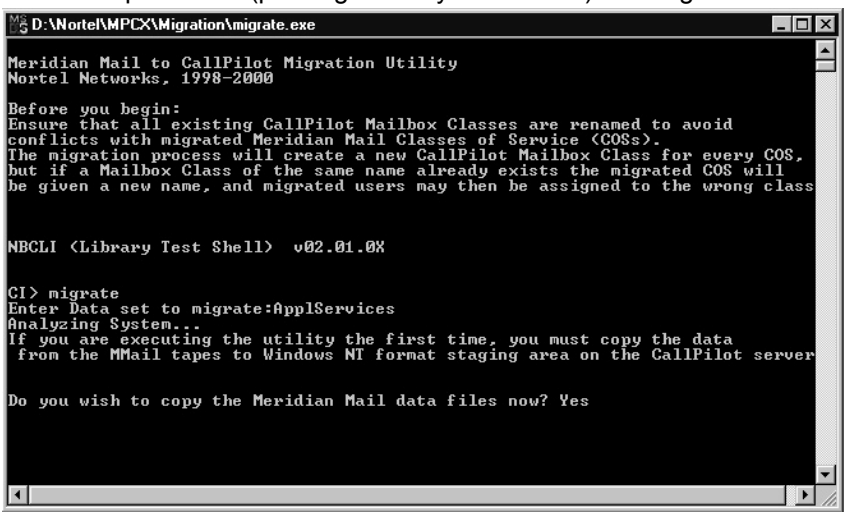
   ```
   Enter Data Set to migrate:AllSystemData
   ```

6 Use the up and down arrow keys to display and select the data set that you want to migrate:

IF you want to migrate	THEN select
voice segments	ApplServices
voice prompts	SCCSPromptsOnly

7 Press **Enter**.

Result: The pre-check utility checks the integrity of the existing CallPilot applications created in Application Builder and detects corrupt applications. The following illustration is an example of screen that shows the pre-check (pre-migration system check) message.



Depending on the result of the pre-check, a message appears.

a. successful pre-check—proceed to Step 8

```
Analyzing System...
If you are executing the utility for the first
time, you must copy the data from the MMail tapes to
Windows NT format staging area on the CallPilot
server.

Do you wish to copy the Meridian Mail data files
now? Yes
```

b. unsuccessful pre-check—the migration cannot be completed; proceed to "Correcting pre-check inconsistencies" on page 144

```
Analyzing System...
Found inconsistencies! Follow Manual Recovery
Procedure
Unable to continue migration
```

8 Press **Enter** to select Yes.

Note: Nortel Networks recommends that you always transfer the collected files to the CallPilot server to reduce the migration time.

Result: The following message appears on the screen:

```
Do you wish to delete the staging files after
migration is complete? Yes
```

9 Use the down or up arrow key to display the No option and press **Enter**.

Note: Nortel Networks recommends that you do not delete the staging files until you are certain that the migration completed successfully.

Result: The system prompts you to insert the data tape.

10 Press **Enter** (you already inserted the data tape into the tape drive).

Result: The migration utility reads the tape and starts transferring the data to the staging area. The migration progress is displayed on the screen. When the migration is finished the systems displays a message and the CI> prompt.

11 Type **quit** at the CI> prompt and then press **Enter**.

Result: A migration transaction log file (MigTransaction.log) is created and saved in the \nortel\MPCX\Migration folder.

ATTENTION

If you close the MS-DOS window without typing **quit**, the migration transaction log is not created.

12 Check the MigTransaction.log file.

Note: Pay particular attention to the Total Number of Services created or updated successfully.

13 If you created any test messages on Meridian Mail, verify that they were successfully migrated. Log in to the CallPilot mailbox and review the messages.

Reviewing the migration log and summary

Migration transaction log

The log file name follows the following convention: MigTransaction<*yymmddhhmmss*>.log, where *yymmdd* represents the date and *hhmmss* represents the time in the 24-hour format. The date and time in the file name allow you to

- retain logs from previous migration sessions for future consultation
- distinguish the current migration log from previous migration logs

The log file provides a summary of the data migrated from the given group, file or field to the specified field in the CallPilot database.

The transaction log indicates the state of the data after migration. It contains the following information:

- a detailed progress report of the migration
- warning messages
- error messages
- a migration status summary

If you run the migration utility more than once in the same MS-DOS session, the migration transaction log shows cumulative results. Nortel Networks recommends that you clear the migration summary counters in the transaction log and type **quit** to end the MS-DOS session before running the migration utility again.

Review the migration summary and the migration transaction log as follows:

IF you want to review the	THEN
migration summary	type **summary** at the CI> prompt and then press **Enter**. The migration summary appears on the screen.
migration transaction log	■ double-click the MigTransaction<*yymmddhhmmss*>.log file in the migration folder. or ■ open the MigTransaction<*yymmddhhmmss*>.log file using a text editor, such as Notepad.

Example of data migration summary

The following example (edited for length) shows the summary of a system data migration.

```
** Wednesday, November 28, 2001 [11:48:51 AM]
**Transferring the tape files to Windows NT format.
Please wait ...
    UserTapeLabel: MM Tech Trial Data Oct.24
    SystemTapeLabel: Date=10/24/2001 Time=19:22:25
Pre-migration system check ...

Starting data migration of System Profile data
group ...
The messaging parameters are updated successfully.

The parameters for SECURITYPROF are updated
successfully.
```

```
Updating RPL information [79]
Migrating the Site and Location information:
Site [   0] Location [   1]
Migrating the Site and Location information:
Site [   1] Location [   1]
Migrating the Site and Location information:
Site [   2] Location [   1]
Migrating the Site and Location information:
Site [   3] Location [   1]
Migrating the Site and Location information:
Site [   4] Location [   1]
.
.
.
ServerConnection migration : [31]
The parameters for DIALINGTRANDFLT are updated
successfully.

The parameters for NETWDELIVPROFILE are updated
successfully.

The parameters for NETWDELIVPROFILE are updated
successfully.

The parameters for OUTCALLING are updated
successfully.

COS data migration : COS #[11]

User data migration : User #[700]
SDL data migration : SDL #[36]
User PDL data migration: User # [700]
Menu, Announcement and Fax data segment migration:
The service ID file name
[_F1\cust\cust1\nm_abd\nm_mig\MS14020]
The service ID file name
[_F1\cust\cust1\nm_abd\nm_mig\MS1760001]
```

```
The service ID file name
[_F1\cust\cust1\nm_abd\nm_mig\AS1540401]
The service ID file name
[_F1\cust\cust1\nm_abd\nm_mig\AS1540402]
.
.
.
** Monday, February 18, 2002 [05:12:21 PM] **

************| Summary of Data Migration
|************
System and Customer Profile Data Migration:
-------------------------------------------
System Record: <Update not required>
Customer Record: <Update not required>
Tenant Record: <Update not required>
Messaging Parameters: <Updated Successfully>
Security Parameters: <Update not required>
-------------------------------------------------
---Restriction and Permissions Lists:
---------------------------------
Total Number of RPLs attempted: <80>
Total Number of RPLs created/updated successfully:
<0>
Total Number of RPLs skipped: <80>
Total Number of RPLs in Error: <0>
-------------------------------------------------
---Network Database:
-----------------
Total Number of Servers attempted: <32>
Total Number of Servers created/updated
successfully: <31>
Total Number of Server updates skipped: <1>
Total Number of Server updates in Error: <0>
Total Number of Locations attempted: <33>
Total Number of Locations created/updated
successfully: <31>
```

```
Total Number of Location updates skipped: <2>
Total Number of Location updates in Error: <1>
Total Server Connection Lists attempted: <31>
Total Server Connection Lists created/updated
successfully: <31>
Total Server Connection List updates in Error: <0>
Customers General Delivery Parameters: <Update not
required>
Customers AMIS Delivery Parameters: <Update not
required>
Customers Enterprise Networking Parameters: <Update
not required>
Customers Fax Delivery Parameters: <Update not
required>
Customers DTT Delivery Parameters: <Update not
required>
Customers DTT/DTF Prefixes: <Update not required>
Customers Default Dialing Parameters: <Update not
required>
-------------------------------------------------
---Class of Services:
------------------
Total Number of COSs attempted: <12>
Total Number of COSs created/updated successfully:
<0>
Total Number of COSs skipped: <12>
Total Number of COSs in Error: <0>
-------------------------------------------------
---User Profile:
-------------
Total Number of Local Users attempted: <168>
Total Number of Local Users created/updated
successfully: <64>
Total Number of Local Users skipped: <104>
Total Number of Local Users in Error: <60>
Total Number of Spoken name verifications data
attempted: <322>
```

```
Total Number of Spoken name verifications data
created/updated successfully: <322>
Total Number of Spoken name verifications data in
Error: <0>
Total Number of User Greetings data attempted: <81>
Total Number of User Greetings data created/updated
successfully: <81>
Total Number of User Greetings data in Error: <0>
Total Number of Remote Users attempted: <483>
Total Number of Remote Users created/updated
successfully: <482>
Total Number of Remote Users in Error: <1>
Total Number of Directory Entry Users attempted:
<50>
Total Number of Directory Entry Users created/
updated successfully: <48>
Total Number of Directory Entry Users in Error: <2>
-------------------------------------------------
---System Distribution Lists:
-------------------------
Total Number of SDLs attempted: <37>
Total Number of SDLs created/updated successfully:
<29>
Total Number of SDLs skipped: <8>
Total Number of SDLs in Error: <0>
-------------------------------------------------
---Personal Distribution Lists:
---------------------------
Total Number of User PDL updates attempted: <97>
Total Number of PDLs created/updated successfully:
<89>
Total Number of PDLs skipped: <8>
Total Number of PDLs in Error: <0>

-------------------------------------------------
---Menu, Announcements, Fax Items:
-------------------------------
```

```
Total Number of Services attempted: <109>
Total Number of Services created/updated
successfully: <109>
Total Number of Services in Error: <0>
-------------------------------------------------
---Other Errors encountered during the migration:
<4>

*****************| End of Summary
|******************

Please check the log file (MigTransaction.log) for
details.

CI>
```

Example of a message and Symposium Call Center Server prompt migration summary

The following example (edited for length) shows the summary of a migration of messages and Symposium Call Center Server prompts.

```
Cleaning up the MigrationFiles directory ...

Total of [232] files deleted from the staging
directory
[D:\Nortel\MPCX\Migration\MigrationFiles]
    UserTapeLabel: SCCS
    SystemTapeLabel: Date=11/20/2001 Time=13:42:47

Start user #[1]
Migrating the voice messages for user [ q]
mbox#[8051]

Start user #[2]
Migrating the voice messages for user [ q]
mbox#[8052]
.
.
No more user messages to migrate.

** Wednesday, November 28, 2001 [11:37:13 AM] **

*****| Summary of Message Migration|*****

User Voice Messages:
--------------------
Total Number of Messages attempted: <3>
Total Number of Messages created successfully: <3>
Total Number of Messages in Error: <0>
-----------------------------------------------
--
Message Attachments:
```

```
--------------------
Total Number of Attachments attempted: <0>
Total Number of Attachments created successfully:
<0>
Total Number of Attachments in Error: <0>
------------------------------------------------
--
Other Errors encountered during message migration:
<1>
***************| End of Summary |***************

Please check the log file (MigTransaction.log) for
details.
```

Reviewing the CallPilot event log

It is good practice to review the CallPilot event log for errors after a migration. You can view the event log by using one of the following methods:

- In CallPilot Manager: click System → Event Browser.
  For more information, refer to the CallPilot Manager online Help.
- In Windows 2003: click Start → Programs → Administrative Tools, and then double-click Event Viewer.
  Review the System and Application Logs.

Ignore MTA events 54101 and 54103, as well as event 55500 (Mutex and semaphores).

If an error occurs during the migration, an error message indicating the nature of the error is recorded in the log file. For a list of error messages, see Chapter 6, “Troubleshooting,” on page 141.

Rerunning the migration

If you need to rerun the migration or if certain information already exists on CallPilot because it was configured before the migration, you must be aware of the data that is overwritten or not during the migration.

What is overwritten on CallPilot

The migration utility overwrites the existing CallPilot system data, voice segments and users with the collected Meridian Mail data.

What is not overwritten on CallPilot

If the migration utility finds duplicate users during the migration, you are informed and prompted to delete or skip them. If you choose to delete the users, they are removed from CallPilot and then added from the migration tape. If you choose to skip the users, the migration continues without updating the users on the CallPilot system.

If a COS or RPL on the CallPilot system has the same name, the migration utility does not overwrite it with the collected Meridian Mail data. The following events occur when the migration utility finds duplicate names during the migration to CallPilot:

- The Meridian Mail RPL is not migrated. The CallPilot RPL remains in effect.
- The Meridian Mail COS is renamed to <*COS name*>_MMail<*COS ID*> and then migrated to CallPilot. As a result, migrated users can be assigned to the wrong mailbox class.

  If you are migrating users to CallPilot in multiple sessions, then rename all existing CallPilot mailbox classes before you begin each migration session to CallPilot.

Voice messages are always created in the mailbox, even if the same messages were previously migrated to the mailbox. If you perform the message migration using the same message tape again, messages are duplicated in the mailbox. For example, if a user has two messages in the mailbox and the same tape is used to rerun the migration, the user will have four messages in the mailbox.

If a network site or switch location is already defined on CallPilot with the same name as in Meridian Mail, the migration utility does not overwrite it with Meridian Mail data. This ensures that any changes that you made to the network database on CallPilot after the first migration attempt are not lost.

Conversion issues

CallPilot does not support the DN expansion. This issue can affect mailbox numbering patterns on SL-100 systems.

The messages stored in the user mailbox on the Meridian Mail system and not sent before the migration are not addressed correctly to recipients. To send these messages, users must forward them.

Using Application Builder to complete the migration of voice services

This section provides information on using Application Builder to complete the migration of voice services. The person who performs this task must have a good knowledge of Application Builder and of the migrated Meridian Mail voice services.

VSDN table information

ATTENTION

Print the Meridian Mail VSDN table information in advance to facilitate the recreation and rebuilding tasks in CallPilot Application Builder.

The information in the Meridian Mail VSDN table and the Meridian Mail voice menu structure are critical. As this information cannot be migrated automatically, you must use CallPilot Application Builder to

- recreate or rebuild the menu or announcement structure extracted from the Meridian Mail VSDN table.
- manage, save and complete the applications and control blocks.
- publish the applications in the CallPilot Service Directory Number (SDN) table.

Migrated voice services

You can migrate the following Meridian Mail voice services to CallPilot:

- menus
- announcements
- fax items

Each voice service (for example, a menu) migrated from Meridian Mail is represented as an Application Builder application on CallPilot. This application contains voice or fax items, or both, that were associated with the migrated voice service on Meridian Mail.

The logic of the voice services is not migrated to CallPilot. Only a default application is created in Application Builder. You must complete the application manually so that you can put it into service in CallPilot.

Identifying migrated voice items

Items migrated to CallPilot are identified by the type and ID of the migrated voice services.

Prompts

A migrated prompt has a prefix of file11, followed by underscore and the mailbox number from Symposium Call Center Server. For example, a prompt from mailbox 8053 appears as file11_8053 in Application Builder. The description of the application is as follows: “Migrated SCCS Prompts from mbx 8053.”

Fax services

A migrated fax service has the prefix FS1, followed by the service ID from the Meridian Mail VSDN table. For example, a fax service with an ID of 30000 appears as FS130000 in Application Builder. The description of the application is as follows: “Migrated from Fax Service FS130000.”

Menus

A migrated menu has a prefix of MS1, followed by the service ID from the Meridian Mail VSDN table. For example, a Voice Services menu with an ID of 1035 appears as MS11035 in Application Builder. The description of the application is as follows: “Migrated from Menu Service MS11035.”

Announcements

A migrated announcement has the prefix AS1, followed by the service ID from the Meridian Mail VSDN table. For example, a Voice Services announcement with an ID of 1004 appears as AS11004 in Application Builder. The description of the application is as follows: “Migrated from Announcement Service 11004.”

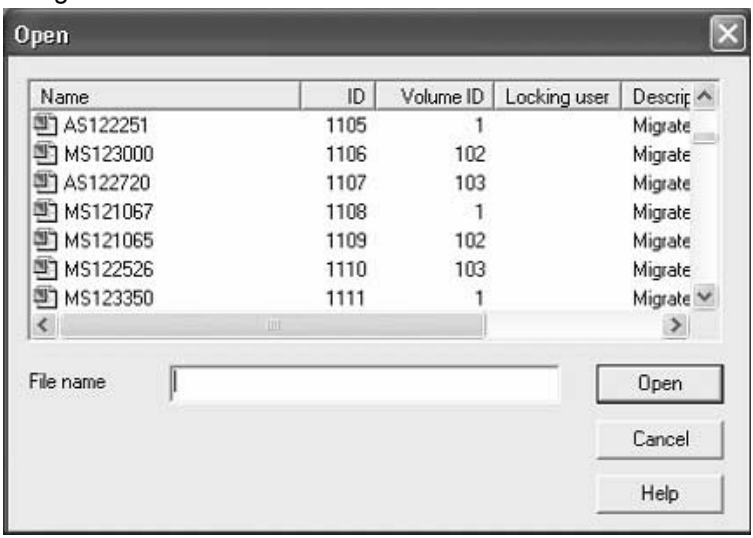
To complete migrated voice services in Application Builder

The following procedure explains how to complete the migration of Meridian Mail voice services in Application Builder so that you can use them as CallPilot applications. You must have a good knowledge of Application Builder and of the migrated Meridian Mail voice services to be able to complete the procedure. Refer to the administrator of the Meridian Mail system for information on the structure of the migrated voice services.

1 Open Application Builder and connect to the CallPilot server.

2 Click File → Open.

Result: The list of migrated voice services is displayed in the Open dialog box.

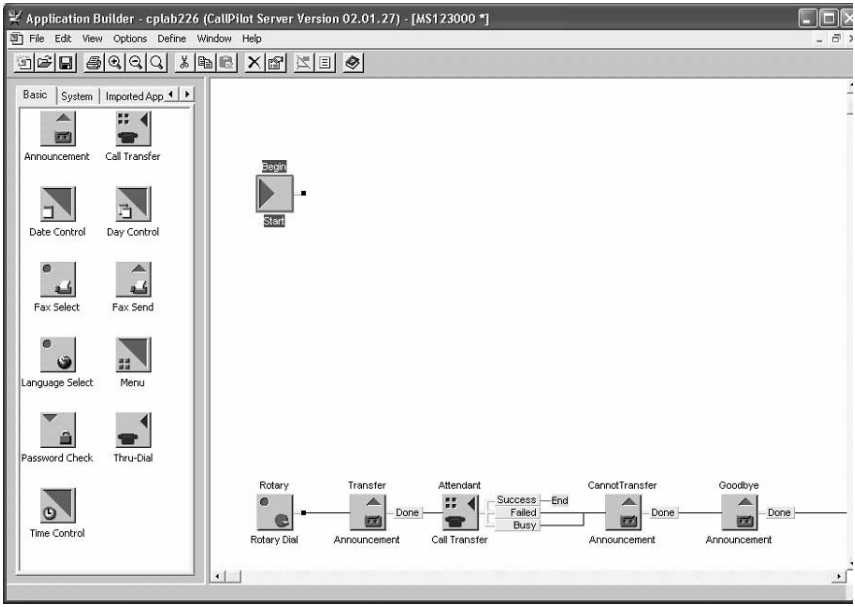


3 Click a migrated voice service and then click Open.

For illustration purposes, a menu (MS123000) was selected. The service ID of this menu is 23000 in the Meridian Mail VSDN table. Based on your knowledge of the Meridian Mail system, determine the VSDN IDs of the services that this application includes. For this example, the MS123000 menu contains the following services:

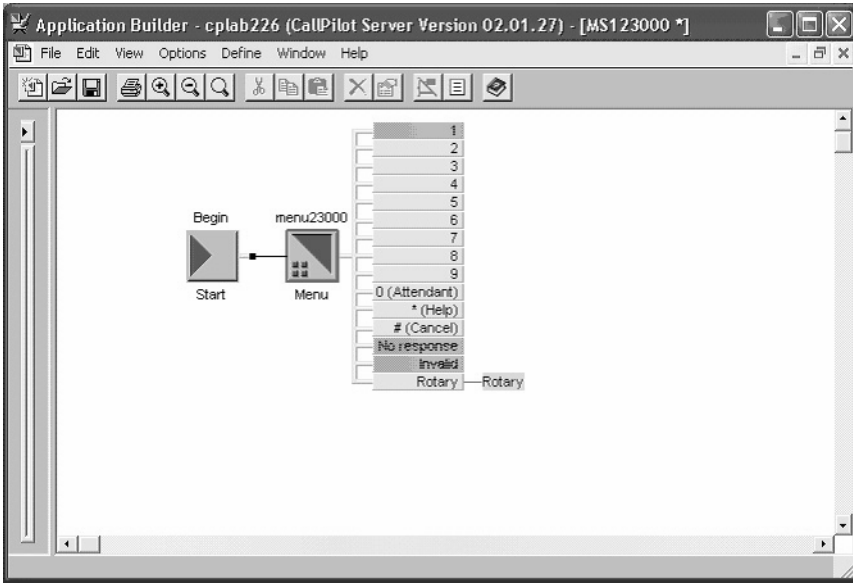
Application	File name	Meridian Mail VSDN ID
submenu	MS123100	23100
fax service	FS130000	30000
announcement (2)	AS123004 AS123005	23004 23005

Result: The selected voice service opens as a default application in Application Builder. The application is empty (like a new application) and contains a Begin block at the left and other blocks (such as Rotary, Transfer, Goodbye and End) at the bottom of the screen.



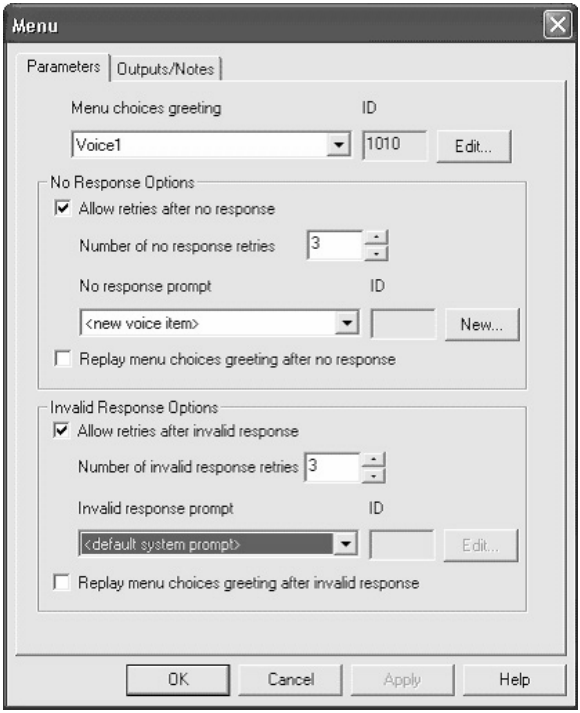
4 Select a menu block in the Application Builder palette and drag the block to the application panel.

Tip: The block must match the type of voice service that you opened (in this example, a menu).



5 Right-click the menu block and then click Properties on the shortcut menu.

Result: The block dialog box opens. The following illustration shows the properties of a menu block.



6 Configure the block according to the requirements of your application, as the voice service was configured in Meridian Mail.

7 Click OK to close the Properties dialog box.

8 Perform the following tasks for each service that must be included in the main menu application (for example, for the submenu, the fax item and the announcements):

   a. Click File → Open, select a migrated service and open it.

   b. In the Application Builder palette, select a block that corresponds to the type of migrated service and drag the block to the application that you opened in the preceding step.

   c. Right-click the block, click Properties on the shortcut menu, and configure the block.

   d. Click File → Save.

   e. Click File → Export.

   Note: The component application block must be exported so that the main application can use it.

   Tip: The submenus (such as the MS123100 menu) can include options and announcements. You must configure the submenus before saving and exporting them. If your specific main application includes submenus, use this procedure to complete them.

9 Switch to the main application in Application Builder.

   Tip: This is the application that you opened in step 3 (the MS123000 menu in this example).

10 Click File → Import.

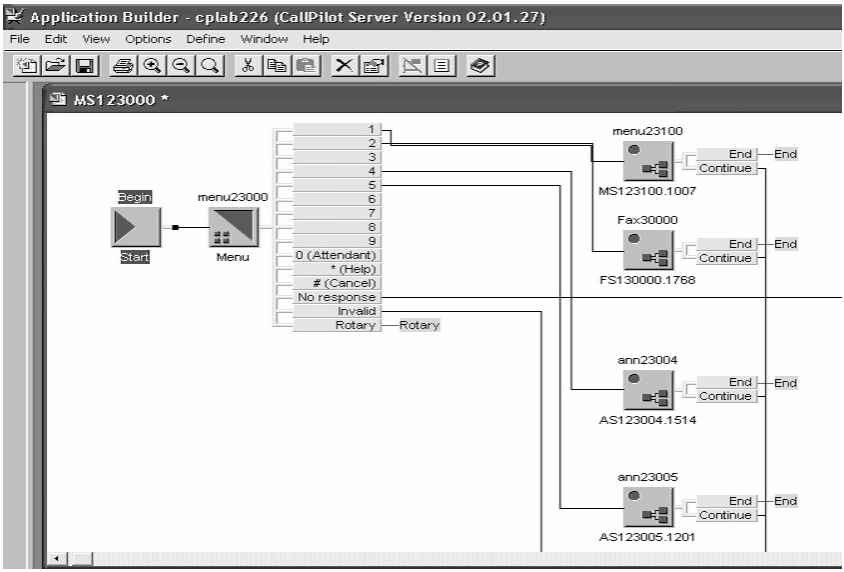
   Result: A dialog box listing all the applications that can be imported opens. These are the applications that you configured, saved and exported in step 8.

11 Select the applications that you want to import (for example, MS123100, FS130000, AS123004 and AS123005) and click OK.

12 Click the Imported Applications tab in the Application Builder left panel.

13 Drag the imported application blocks to the main application panel.

14 Connect the menu keys to the imported application according to your configuration requirements and to the structure of the service migrated from Meridian Mail; for example, connect key 1 to the MS123100 block.



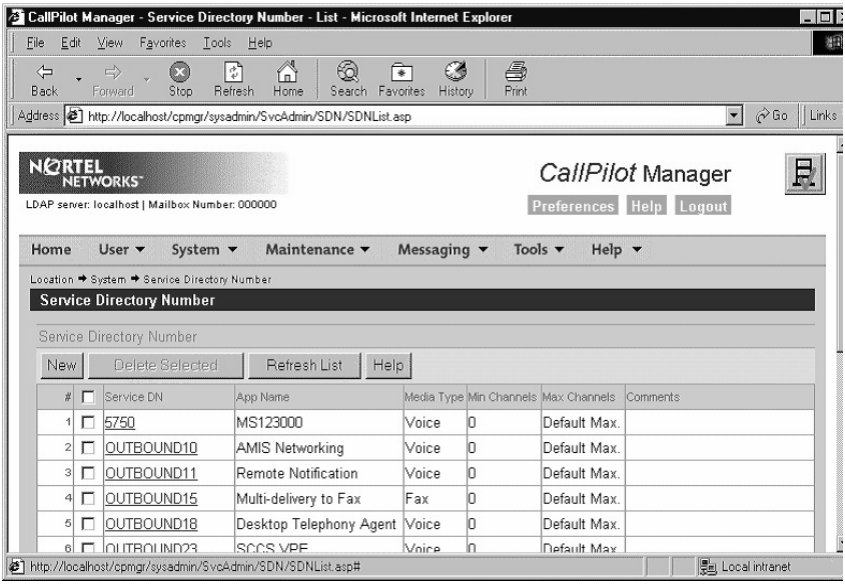
15 Save the completed application.

To publish the application in the CallPilot SDN table

1 Open CallPilot Manager.

2 Click System → Service Directory Number.

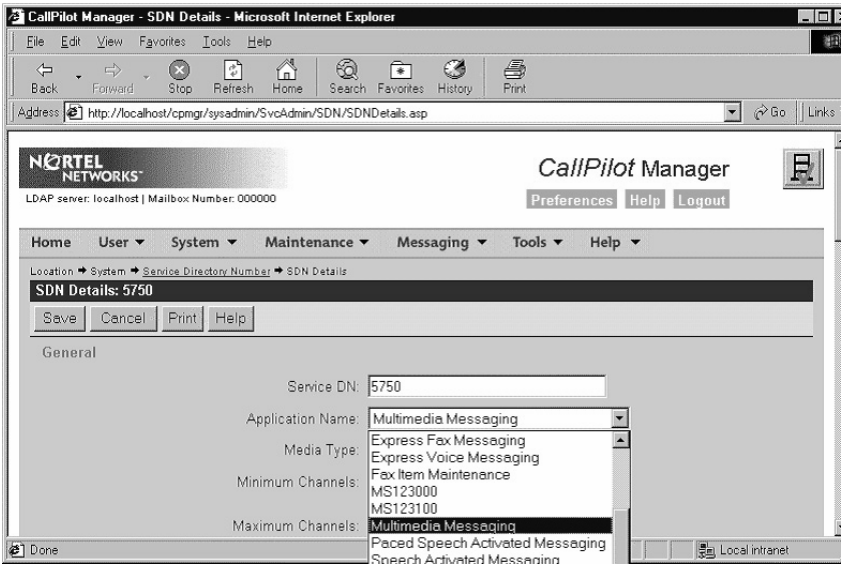
Result: The following page appears on the screen.



3 Click the Service DN of the application that you want to put into service.

Tip: In this example, click the 5750 Service DN, which corresponds to the MS123000 application.

Result: The following page appears on the screen.



4 Select the name of the application that you want to put into service from the Application Name drop-down list box.

5 Click Save.

Result: The migrated Meridian Mail application can now be used in CallPilot.

6 Test the application before using it and ensure that each key is associated with the correct menu option.

Note: When calling the application SDN, the correct menu must play (for example, MS123000).

Moving Application Builder data

The Application Builder Move Application utility allows you to move an Application Builder application from one volume to another.

When the application is moved, new files in NTFS and MMFS formats, as well as a new database entry for the new application, are created on the new volume.

Format of migrated voice items

Announcements and prompts are considered to be different in Meridian Mail voice services. You can use announcements in multiple services, but you can use a voice prompt only in one service. However, both announcements and voice prompts are classified as voice items in Application Builder.

On the CallPilot server, you can access the migrated announcements and the voice prompts of menus in the same way you access voice items.

Voice items are compatible with all applications. For example, you can use the same voice item in multiple applications just as you used an announcement in multiple services. As a result, you can use the existing voice prompts in multiple applications.

Chapter 5

Performing postmigration tasks

In this section

Disconnecting the tape drive

If you used an external tape drive to perform the migration, you must disconnect it at the end of the migration process. Do not disconnect the tape drive until you are certain that the migration was successful.

ATTENTION

If the server has an internal tape drive, do not remove it.

To disconnect the tape drive

Power down the CallPilot server and then unplug and disconnect the tape drive.

Verifying CallPilot system configuration

Introduction

During the migration to CallPilot, some fields are converted to default values because the information cannot be migrated from Meridian Mail to CallPilot or the information did not exist in Meridian Mail. Refer to “Data that can or cannot be migrated” on page 21.

After the migration to CallPilot, you must review the CallPilot configuration and, if necessary, revise it. This section identifies the areas that you must review after the migration is completed.

Use CallPilot Manager to review the system configuration.

Migration transaction log

To help you determine the information that needs to be verified or changed after the migration is completed, review the migration transaction log file.

Review the migration summary first. Then, if necessary, review the details in the migration log.

You can use the following keywords to search for information in the migration transaction log:

- ClassofService (for COS)
- error
- netw (for network sites and locations)
- PDL (for personal distribution list)
- restriction or permission (for RPLs)
- shared (for SDLs)
- user
- warning

Verifying mailboxes and mailbox owners

CallPilot mailboxes must be three or more digits in length. If a Meridian Mail user's mailbox number is less than three digits in length, the mailbox is not migrated. Warning messages are generated in the transaction log file and displayed on screen.

Invalid addresses in a Meridian Mail user's PDL are not migrated. Invalid addresses are reported as skipped in the transaction log file. Some of the user mailboxes associated with the address do not yet exist on CallPilot, but they are migrated later in the process. You and the CallPilot system administrator are responsible for determining whether reported invalid addresses are in fact invalid.

If the PDLs contain many invalid addresses, try collecting the PDL data again from Meridian Mail and then migrating it to CallPilot.

To reduce the number of invalid addresses in PDLs when mailboxes are migrated in more than one session, Nortel Networks recommends that you migrate PDLs last, after all mailboxes have been migrated.

The remote notification and fax capability for all users are disabled by default.

Mailboxes are created uniformly on all volumes based on the available free space on each volume.

Verifying restriction/permission lists and mailbox classes

The following considerations apply to the verification of the restriction/permission lists (RPLs) migrated to CallPilot.

- All 80 RPLs are migrated to CallPilot.
- Some RPLs do not contain relevant codes.
- The RPL entries used by mailbox class entries cannot be deleted (in the case where a migration is re-run) due to a database integrity check. These RPLs are retained.

- If you migrated RPLs and COSs in multiple sessions and renamed the RPLs and mailbox classes that already existed on CallPilot, review the RPLs and mailbox classes and make the appropriate changes.
- In case of errors, not all data can be migrated during the first migration attempt. After the problem has been resolved, rerun the migration utility with the same Meridian Mail data to migrate the incomplete data components.
- If a data migration is not completed because of an error, then resolve the error before rerunning the migration.

Verifying system distribution lists

The Meridian Mail system distribution lists are known in CallPilot as shared distribution lists (SDL).

A Meridian Mail system distribution list whose number is less than three digits in length is not migrated to CallPilot.

Invalid DNs in an SDL are removed before migration. The transaction log file lists all the invalid entries.

CallPilot and Symposium Call Center Server integration

If you use CallPilot to provide messaging services in a Symposium Call Center Server environment, run the CallPilot Configuration Wizard and ensure that the following items are configured:

- Symposium Call Center Server ELAN address (on the Switch Information page)
- voice ports dedicated to ACCESS or IVR services (on the Channel Detail Information page)
- ACCESS and IVR DNs (on the CDN Information page)

For more information on the CallPilot and Symposium Call Center Server integration, refer to

- the *Part 3: <Server name> and CallPilot Configuration* document that applies to your server model
- Configuration Wizard online Help

Configuring items that are not migrated

You must also configure the following items that cannot be migrated from Meridian Mail to CallPilot:

- Hacker Monitor and Alarm Monitor settings
- backup schedules
- Service Directory Numbers (if they have not already been configured in CallPilot Configuration Wizard)
- Remote Notification schedules
- CallPilot server area and exchange codes, as well as translation tables

Verifying CallPilot network database

Introduction

After migration, the CallPilot system administrator must

- review the network database
- add any missing information
- enable the networking service for each remote site

Ensure that the network data from Meridian Mail is collected and migrated only once. If the migration is rerun, the migration utility does not update the network database again. This ensures that any changes that were made after the first migration attempt are not lost.

If you intend to run both Meridian Mail and CallPilot at the same time, then review "Running Meridian Mail and CallPilot at the same time" on page 127 before verifying the network database configuration.

Data that is not migrated

If the CallPilot system is not keycoded for networking, then the Meridian Mail remote site information is not entirely migrated. In this case, an appropriate warning appears while the migration is in progress. You are also notified of potential mappings on the system in the migration transaction log.

The network scheduling parameters (such as stale time) are not migrated from Meridian Mail. The default CallPilot values are used instead. When the migration is complete, you must re-enter these values to match the Meridian Mail values; otherwise, network scheduling does not function.

Making configuration changes in CallPilot

When making configuration changes to a site or location in the network database, all required fields must be completed before the changes can be saved. Since message transmission is disabled for all sites after performing the migration, you must configure each screen individually.

Local server and prime location

The local server and prime location entries are defined by default on the CallPilot system. The migration utility updates these entries with data that is specific only to Meridian Mail on the first migration attempt.

You must verify the local server and local prime location configurations to ensure that they are correct.

Networking protocols

Networking protocols are available only if the networking feature was purchased. If the networking feature was purchased on the CallPilot keycode, all networking solutions are enabled automatically.

The following table shows how the networking protocol for each site is redefined during migration if the Meridian Mail protocol does not exist in CallPilot

Meridian Mail protocol	CallPilot protocol
Meridian	Enterprise
AMIS	AMIS
Enterprise	Enterprise

If the protocol for a site is changed, it is possible that the information for the protocol is incorrect:

- the connection DN for the remote site can be incorrect or missing
- some of the related fields can be set to use default values or can be left blank

  Note: The transaction log files capture the protocol changes.

Network sites

Ensure that all the sites present in the Meridian Mail network database were migrated. If any sites or switch locations are missing, you must add them manually in CallPilot.

If there were any duplicated site names on Meridian Mail, only the site or location associated with the first occurrence of the name is migrated to CallPilot. Subsequent occurrences are not migrated. The same rule applies to switch location names that are duplicated within a particular site.

The server type value for each remote site is always defined as CallPilot, regardless of the type of remote server. Meridian Mail does not have a server type field and, therefore, cannot provide this information for migration.

Switch location dialing plan information

The electronic switched network (ESN) and coordinated dialing plan (CDP) configurations must be validated for all local and remote locations, including both prime and satellite locations.

If more ESN prefixes were required than the number of prefixes that Meridian Mail allowed, additional ESN prefixes were configured as CDP steering codes. After the migration, you must manually convert the ESN prefixes that were configured as CDP steering codes to ESN prefixes; that is, enter the ESN prefixes and delete the CDP steering codes.

In CallPilot, you can configure up to 30 ESN location codes for each switch location.

Remote users

Each site defined in the Meridian Mail network database can be associated with remote user entries in the directory and with remote user entries in PDLs and SDLs. The remote user data for a particular site is not migrated if the site networking protocol was changed during the migration; for example, from Meridian networking to Enterprise networking.

The SDLs and PDLs that contain remote users and addresses for users located at deleted remote sites are still in the list. However, warning messages indicate the invalid addresses.

Summary: CallPilot networking values after migration

The CallPilot administration software enforces the population of certain fields. If the information is not available in Meridian Mail, the field is left blank during the migration. For example, the voice profile for Internet mail (VPIM) networking protocol requires that at least one prefix be defined for local and remote locations where VPIM is used.

Nortel Networks recommends that you verify the items listed in the following table after you completed the migration to CallPilot.

Item	Value after migration to CallPilot
Server type	CallPilot **Note:** Meridian Mail does not have a server type field.
CallPilot server name	Site name from Meridian Mail
Site ID	The Meridian Mail site ID becomes the CallPilot site ID.
Protocol	Enterprise or AMIS
Connections DN1, DN2, and DN3	These fields can be blank if the networking protocol was changed during the migration.

Item	Value after migration to CallPilot
Enterprise networking initiating password	This field can be blank if the networking protocol was changed during the migration.
Enterprise networking responding password	This field can be blank if the networking protocol was changed during the migration.
Message transfer between the local server and each remote site	This option can be disabled if the networking protocol was changed during the migration.
Exchange of remote user information between the local server and each remote site: ■ Add/Update Remote Users (on the local server) ■ Send local user information (on each remote site in the network database)	These options can be disabled if the networking protocol was changed during the migration.
Exchange of text data between the local server and each remote site: ■ Receive Message Text Information (on the local server) ■ Send Message Text Information (on each remote server in the network database)	These options can be disabled if the networking protocol was changed during the migration.

Item	Value after migration to CallPilot
Exchange of network broadcast messages between the local server and each remote site	This option can be disabled if the networking protocol was changed during the migration.
ESN prefixes (ESN access and location codes) configured in Meridian Mail as CDP steering codes	CDP steering codes After the migration, you must manually convert the ESN prefixes that were configured as CDP steering codes to ESN; that is, enter the ESN prefixes and delete the CDP steering codes.
VPIM network shortcut	None The VPIM network shortcuts are not available in Meridian Mail.
Network scheduling parameters in Message Delivery Configuration: ■ Open AMIS delivery schedules ■ economy delivery schedules ■ stale times	Default

Replacing Meridian Mail with CallPilot

Introduction

Once data has been successfully migrated, CallPilot can replace Meridian Mail as the messaging system on the switch. For details on configuring the switch for CallPilot, refer to the section on switch programming in the *Part 3: <Server name> and CallPilot Configuration* document that applies to your server model.

MGate card

If you intend to connect the CallPilot system to a Meridian 1 or Succession 1000 switch, you must replace the MGate card in the switch with an NTRB18CA MGate card.

Removing VMBA from the X11 database on the switch

If you do a complete changeover from Meridian Mail to CallPilot, any voice mailbox administrator (VMBA) data becomes meaningless because the Meridian 1 switch has no longer a link with the voice mail service. You can leave the VMBA data unchanged or remove it.

Some customers prefer to do a phased cutover to CallPilot. In this case, a single Meridian 1 switch supports both Meridian Mail and CallPilot for a specified time. Nortel Networks recommends that these customers delete the VMBA data in the X11 database for phone sets of users who were migrated to CallPilot.

Using MAT when upgrading from Meridian Mail

If Meridian Mail is still present on the Meridian 1 switch and VMBA data is programmed in the Meridian Administration Tools (MAT) for a set that is to be migrated to CallPilot, delete the VMBA information through MAT on a per set basis. Since the VMBA data cannot be modified globally, this task must be done one set at a time. If the VMBA data is completely removed by using the MAT and the set changes are synchronized with the Meridian 1 database, the VMBA data for the deleted sets is removed in the X11 database.

If CallPilot is installed and Meridian Mail is removed entirely, the VMBA data is meaningless in both the X11 database and the MAT. The VMBA data can be removed or remain in the database(s) at the discretion of the system administrator. In either case, the data has no meaning without a Meridian Mail system due to the absence of a link for creating or deleting Meridian Mail voice mailboxes.

CallPilot and Symposium Call Center Server integration

If you are integrating CallPilot and Symposium Call Center Server, ensure that you have configured the Symposium Call Center Server accordingly before putting both systems into operation.

Running Meridian Mail and CallPilot at the same time

Introduction

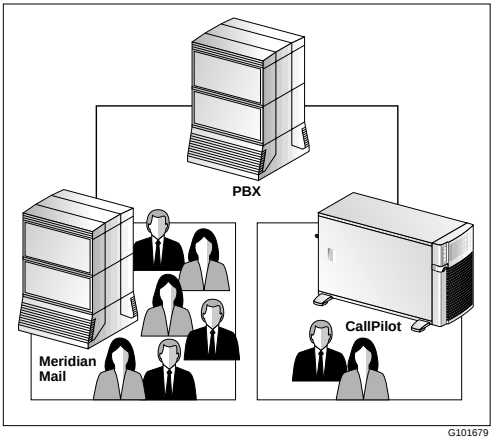
This section provides the configuration guidelines for running Meridian Mail and CallPilot in parallel, with both systems connected to the same switch. If you want to run both systems in parallel, Nortel Networks recommends that you review and understand this section before making changes to the messaging network configuration.

ATTENTION

You must have a good understanding of the CallPilot networking solutions and configurations.

Sample network setup

If you plan to migrate all your Meridian Mail users to CallPilot, ensure first that CallPilot works as expected and implement the CallPilot system with a limited number of users. The CallPilot system is set up to reside together with the Meridian Mail system, as illustrated below.



You can choose to operate CallPilot and Meridian Mail in parallel on the same switch for an indefinite period.

Assumptions

The following assumptions apply to the guidelines provided in this section:

- CallPilot is added to a Meridian 1 switch that is already connected to Meridian Mail.
- The mailboxes are migrated from Meridian Mail to CallPilot in stages. Initially, only a small percentage of users are on CallPilot.

  Note: Users at remote sites are addressing messages to both systems.
- Since most of the users initially remain on Meridian Mail, Meridian Mail keeps the private numbering plan for addressing messages.

Site configuration

You must allow users on the Meridian Mail and CallPilot systems to address messages to each other. Therefore, you must define each system as a remote site in the other system network database so that

- the Meridian Mail system is a remote site in the CallPilot network database.
- the CallPilot system is a remote site in the Meridian Mail network database.

Define both systems as remote sites in the network database at each site in the messaging network only if the following conditions apply:

- The migration of users from Meridian Mail to CallPilot is completed over an extended period of time.
- Users at remote sites need to address messages to users on each system during the migration period.

Both systems must have unique site IDs. Configure the networking protocol, dialing plans and users as described in this section.

Networking protocols

You can use either Enterprise networking or VPIM networking between the Meridian Mail and CallPilot systems. If VPIM networking is used, then the Meridian Mail Net Gateway (MMNG) must be connected to the Meridian Mail system and act as the front end to the Meridian Mail system.

Nortel Networks recommends that you use Enterprise networking between the two systems. Enterprise networking is the easiest protocol to set up and provides more ports to handle networking traffic than the MMNG.

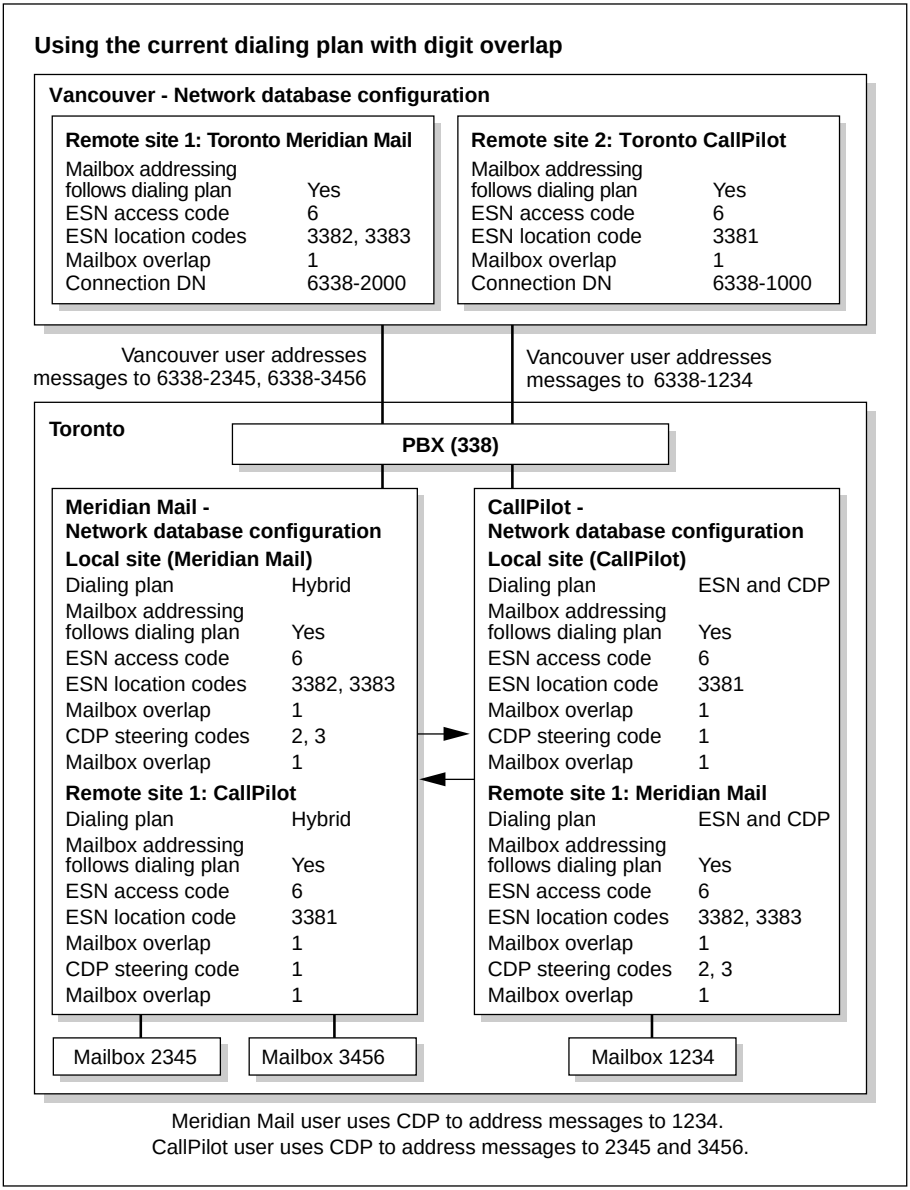
Dialing plans

To accommodate both Meridian Mail and CallPilot systems, as well as to minimize the switch configuration effort, Nortel Networks recommends that you use one of the following options:

- Option 1: change the current dialing plan to use digit overlap.
- Option 2: use the existing dialing plan on one system and create a “none” dialing plan on the other system.

Option 1: change the current dialing plan to use digit overlap

The following diagram shows an example of this configuration. The diagram assumes that the Enterprise networking protocol is used between all systems.


Using the current dialing plan with digit overlap
Vancouver - Network database configuration
Remote site 1: Toronto Meridian Mail
Mailbox addressing follows dialing plan Yes
ESN access code 6
ESN location codes 3382, 3383
Mailbox overlap 1
Connection DN 6338-2000
Remote site 2: Toronto CallPilot
Mailbox addressing follows dialing plan Yes
ESN access code 6
ESN location code 3381
Mailbox overlap 1
Connection DN 6338-1000
Vancouver user addresses messages to 6338-2345, 6338-3456
Vancouver user addresses messages to 6338-1234
Toronto
PBX (338)
Meridian Mail - Network database configuration
Local site (Meridian Mail)
Dialing plan Hybrid
Mailbox addressing follows dialing plan Yes
ESN access code 6
ESN location codes 3382, 3383
Mailbox overlap 1
CDP steering codes 2, 3
Mailbox overlap 1
Remote site 1: CallPilot
Dialing plan Hybrid
Mailbox addressing follows dialing plan Yes
ESN access code 6
ESN location code 3381
Mailbox overlap 1
CDP steering code 1
Mailbox overlap 1
CallPilot - Network database configuration
Local site (CallPilot)
Dialing plan ESN and CDP
Mailbox addressing follows dialing plan Yes
ESN access code 6
ESN location code 3381
Mailbox overlap 1
CDP steering code 1
Mailbox overlap 1
Remote site 1: Meridian Mail
Dialing plan ESN and CDP
Mailbox addressing follows dialing plan Yes
ESN access code 6
ESN location codes 3382, 3383
Mailbox overlap 1
CDP steering codes 2, 3
Mailbox overlap 1
Mailbox 2345
Mailbox 3456
Mailbox 1234
Meridian Mail user uses CDP to address messages to 1234.
CallPilot user uses CDP to address messages to 2345 and 3456.
G101754

Execute the following procedure to change the current dialing plan to use digit overlap:

1. Modify the existing dialing plan for the local site configuration in the Meridian Mail network database as follows:

   a. Create a new ESN prefix (ESN access code and ESN location code) and a new CDP steering code to correspond to each range of extension numbers that are left on Meridian Mail.

   b. Specify a one-digit overlap for each code.

   c. Delete the original ESN prefix and CDP steering code.

   Example: If the ESN location code is 338 and mailboxes 1000–3999 exist on Meridian Mail, create new ESN location codes with a 1-digit overlap on Meridian Mail for 338**1**, 338**2**, and 338**3**. Create CDP steering codes with a 1-digit overlap for **1**, **2** and **3**. The bold digits represent the 1-digit overlap with the mailbox numbers.

2. Migrate users from Meridian Mail to CallPilot on the basis of the user extensions.

   Example: Collect and migrate users with extensions 1000–1999.

3. Delete the migrated mailboxes from Meridian Mail.

   Note: Retain the migrated mailboxes on Meridian Mail only if you want users to receive and send messages from both Meridian Mail and CallPilot mailboxes.

4. Create an ESN prefix (ESN access code and ESN location code) and a CDP steering code for the local site configuration in the CallPilot network database to correspond with each range of extension numbers that you migrated from Meridian Mail. Specify a 1-digit overlap for each code.

   Example: If you migrated extensions 1000–1999 to CallPilot, create an ESN location code with a 1-digit overlap on CallPilot for 338**1**. Create a CDP steering code with a 1-digit overlap for **1**. The bold digits represent the 1-digit overlap with mailbox numbers.

5. Delete the ESN prefixes and CDP steering codes that you just created on CallPilot (for example, 338**1** and **1**) from the local site configuration in the Meridian Mail network database.

6 Add the CallPilot system as a remote site to the Meridian Mail network database.

Note: Specify the dialing plan as configured on the CallPilot system (see the configuration diagram on page 130 and step 4).

Tip: If the CallPilot site is an NMS site, define the satellite locations in a similar manner.

7 Add the Meridian Mail system as a remote site to the CallPilot network database.

Note: Specify the dialing plan as configured on the CallPilot system (see the configuration diagram on page 130 and step 4).

Tip: If the CallPilot site is an NMS site, define the satellite locations in a similar manner.

8 Ensure that the Meridian Mail and CallPilot systems are defined as remote sites in the network database at each remote site if both systems need to be addressable by other sites in the messaging network.

a. Modify the dialing plan for the Meridian Mail remote site in the network database at each remote site. Configure the ESN prefixes or CDP steering codes to use the overlap as described in this procedure.

b. Add the CallPilot system as a new remote site to the network database at each remote site. Specify the dialing plan as described in the previous steps.

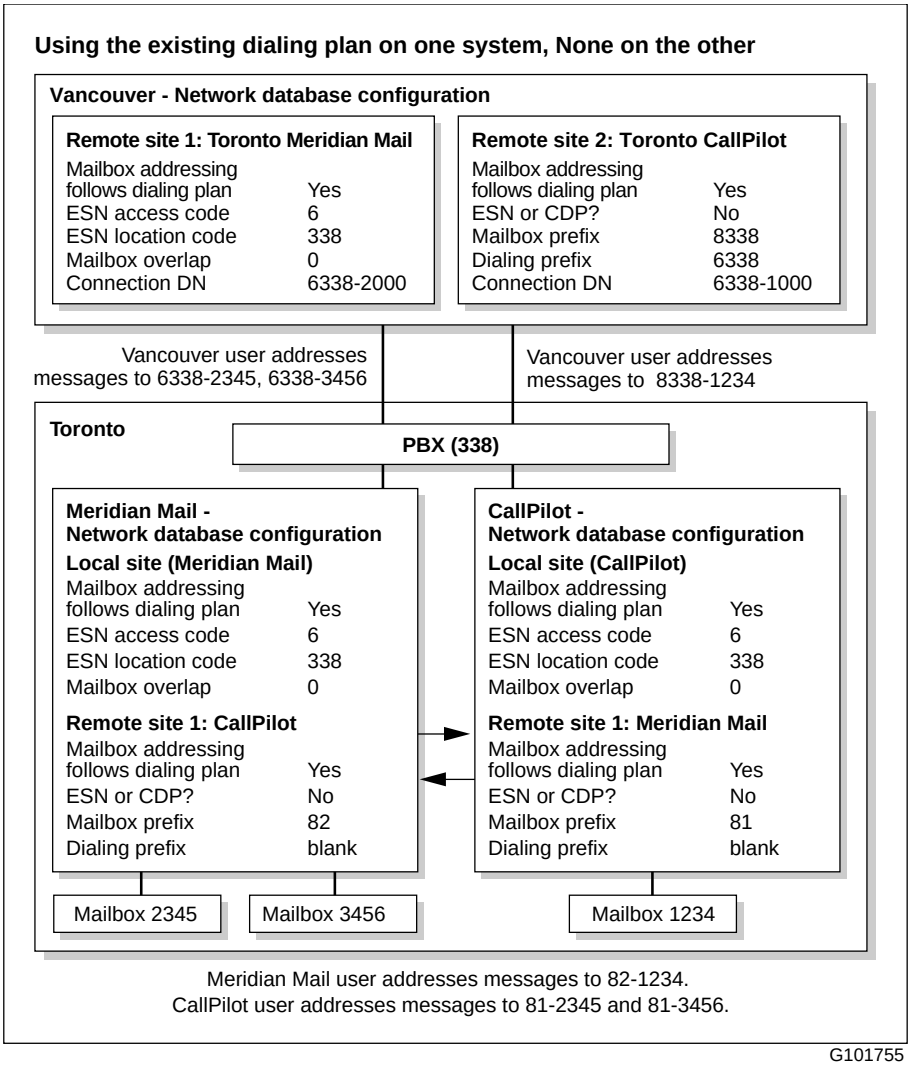
9 Repeat steps 2–5 until all users have been migrated from Meridian Mail to CallPilot.

10 Modify the dialing plan information for the Meridian Mail and CallPilot sites in the network database at each remote site.

11 Delete the ESN prefixes or CDP steering codes from the Meridian Mail site configuration, and add them to the CallPilot site configuration.

Option 2: use the existing dialing plan on one system and create a "none" dialing plan on the other system

The following diagram shows an example of this configuration. The diagram assumes that the Enterprise networking protocol is used between all systems.



The dialing plan specified for each remote site is based on the number of users residing on the Meridian Mail and CallPilot systems. For example, if most of the mailbox owners reside on the Meridian Mail system, configure the Meridian Mail remote site to use the existing dialing plan and the CallPilot remote site to use the "none" dialing plan (as shown in the diagram on page 133). When you have migrated the rest of the users to CallPilot, revise the dialing plan information accordingly.

Execute the following procedure to configure the Meridian Mail and the CallPilot systems for option 2—using the existing dialing plan on one system, and creating a "none" dialing plan on the other system.

1 Configure the local site using the current dialing plan in the CallPilot network database.

Note: Specify that the mailbox addressing follows the dialing plan.

2 Configure the Meridian Mail system as a remote site using a "none" dialing plan (that is, do not configure the ESN prefix or the CDP code).

a. Assign a unique mailbox prefix to Meridian Mail (for example, 81).

This mailbox prefix is not visible to the rest of the network and is used to facilitate addressing between the Meridian Mail and CallPilot systems.

b. Leave the dialing prefix field blank.

If the Meridian Mail site is an NMS site, define satellite locations in a similar manner. Assign a unique mailbox prefix to each location.

3 Configure the CallPilot system as a remote site using a "none" dialing plan in the Meridian Mail network database; that is, do not configure the ESN prefix or the CDP code.

a. Assign a unique mailbox prefix to CallPilot; for example, 82.

This mailbox prefix is not visible to the rest of the network. It is used to facilitate addressing between the Meridian Mail and CallPilot systems.

b. Leave the dialing prefix blank.

If the Meridian Mail site is an NMS site, satellite locations defined in a similar manner. Assigned a unique mailbox prefix to each location.

4 Ensure that the Meridian Mail and CallPilot systems are defined as remote sites in the network database at each remote site that needs to communicate with both systems if both systems need to be addressable by other sites in the messaging network. Define Meridian Mail and CallPilot systems as follows:

- One remote site uses the existing dialing plan.
- The other remote site uses the “none” dialing plan.

Note: If you want to change the Meridian Mail dialing plan to “none” now, (for example, from ESN to None), you must change the Meridian Mail remote site configuration in the network database at each remote site before you add the CallPilot system as a remote site.

The system using the “none” dialing plan needs a mailbox prefix and a dialing prefix.

- The mailbox prefix distinguishes the CallPilot system from the Meridian Mail system.
- The dialing prefix is required by the Call Sender feature and remote users. Only one dialing prefix can be specified.

If multiple dialing prefixes are required (for example, multiple ESN codes or multiple CDP steering codes with no overlap), specify in the remote site configuration that mailbox addressing does not follow the dialing plan. When mailbox addressing does not follow the dialing plan, you cannot specify a dialing prefix.

5 Create remote user entries as described in “Remote user entries on remote systems” on page 137 to allow the Call Sender and Reply feature to function properly.

VPIM network shortcuts

Configure VPIM network shortcuts for each system if MMNG or desktop messaging is used. For instructions on configuring the VPIM network shortcuts, refer to the CallPilot Manager online Help.

Note: On Meridian Mail and MMNG, VPIM network shortcuts are referred to as VPIM prefixes.

Users

Call Answering and message waiting indicator

Users can have mailboxes on CallPilot, Meridian Mail, or both. However, only one system can accept Call Answering messages for each user. Configure the user's phone set to forward messages in busy or no answer situations to the system that is designated as the Call Answering system (for example, CallPilot) for that user.

Both systems can activate the message waiting indicator (MWI) on the user's phone set by specifying the MWI DN in the user's mailbox configuration on each system. However, the users are not able to determine on which system the new messages arrived. Nortel Networks recommends that you do the following if a user has mailboxes on both Meridian Mail and CallPilot:

- Configure the remote notification feature on the user's Meridian Mail mailbox to send a message to the user's CallPilot mailbox when a message is received in the Meridian Mail mailbox. Do not specify the MWI DN in the user's mailbox.
- Specify the user's extension number as the MWI DN in the user's mailbox on CallPilot. When a message is received in the CallPilot mailbox, the MWI on the user's phoneset is activated.

Remote user entries on the Meridian Mail and CallPilot systems

Calls that are routed between the Meridian Mail and CallPilot systems appear to both systems as local extension numbers. When a message is composed and sent between the Meridian Mail and CallPilot systems, a user hears a message envelope prompt indicating that the message was received from a phone number instead of a mailbox number. If the user replies to the message, the reply is delivered to the phone number using Delivery to Telephone (DTT).

To ensure that the reply is delivered to the sender's mailbox, you must define a remote user on the system on which the sender does not have a mailbox. You do not need to include a prefix in the extension DN. You must, however, include a prefix in the mailbox number. The prefix identifies the system on which the mailbox resides.

As mailboxes are moved between systems, add or delete remote user entries as required.

Remote user entries on remote systems

When creating remote user entries on remote systems for Meridian Mail or CallPilot users, specify the remote user's mailbox number and extension DNs according to the dialing plan used between the remote system and the Meridian Mail or CallPilot system.

For example, if you selected Option 2: use the existing dialing plan on one system and create a "none" dialing plan on the other system, then the mailbox numbers for users that belong to the system with the "none" dialing plan must include the mailbox prefix. The remote user entry for the CallPilot user must be configured on the remote system as mailbox 8338 1234, with extension DN 6 338 1234.

If remote user entries are not defined in this manner, then the remote system assumes that the caller has a mailbox on the system that matches the caller's private dialing plan prefix, and replies can be processed incorrectly. For example, if the CallPilot user was defined as a remote user with mailbox number 6 338 1234, the remote system can match the 6338 prefix as belonging to Meridian Mail. The reply is sent to the wrong system.

Remote user entries can be added automatically with the Names Across the Network feature in either Enterprise or VPIM networking on CallPilot. However, if multiple dialing prefixes are required for the system using the "none" dialing plan, you must add the remote user entries associated with that system manually to ensure that the correct phone number is specified.

Networking limitations

When configuration of both systems on the same network is complete, the following limitations remain:

- If you selected Option 2: use the existing dialing plan on one system and create a “none” dialing plan on the other system, then local users who want to address network messages between the CallPilot and Meridian Mail systems must use the appropriate prefixes.

  For example, Meridian Mail users must dial 81 1234 to address a message to mailbox 1234 on CallPilot. Messages cannot be addressed between the Meridian Mail and CallPilot systems using only extension numbers.

- Remote users must address network messages to users on Meridian Mail and CallPilot according to the dialing plan used by each system. For example, if you selected Option 2: use the existing dialing plan on one system and create a “none” dialing plan on the other system, then remote users can use ESN to address messages to users on the Meridian Mail system, but must use the mailbox prefix to address messages to users on the CallPilot system.

  You must communicate the addressing requirements for each system to all remote sites in the network. If a remote user addresses a message incorrectly, the message is sent to the wrong system, and a non-delivery notification message is generated and returned to the sender.

- You can configure the Meridian Mail system as a backup to CallPilot so that calls can still be directed if CallPilot is down for any reason. However, networking messages from remote sites are not routed automatically to Meridian Mail under these conditions.

Broadcast messages

You must send broadcast messages individually on both Meridian Mail and CallPilot. Alternatively, you can set up distribution lists on each system containing only the users on that system.

You can address messages to the local and remote lists. When a message is sent to a remote list, it is distributed to all members of the list with mailboxes on that remote system.

Symposium Call Center Server integration

The Symposium Call Center Server supports only one link for each system. If you integrate CallPilot with the Symposium Call Center Server, you must move any channels that are dedicated to the link from Meridian Mail to CallPilot. You cannot run simultaneously Symposium Call Center Server with Meridian Mail and Symposium Call Center Server with CallPilot; this configuration requires more than one link.

Chapter 6

Troubleshooting

In this chapter

Migration problems

Reasons for errors

Most of the errors in a migration occur due to the following reasons:

- The differences between Meridian Mail and CallPilot; for example, the fact that CallPilot requires three or more digits for mailbox numbers.
- The data on the Meridian Mail system is inconsistent or corrupted.
- The data collected on the tape is corrupted.
- There was too much data for the tape.
- Some of the CallPilot components are not installed properly.
- Some of the data on the tapes is not accessible, and default values are substituted.

  Note: This event can sometimes cause errors in the data migration of other components that depend on the true values. In such cases, appropriate warning messages appear.

Correcting errors

Generally, you can use one of the following methods to correct errors:

- Correct pre-check inconsistencies and rerun the CallPilot migration utility.
- Change the values on Meridian Mail, recollect the data, and then perform the migration again.

If these methods do not correct the errors, contact your Nortel Networks Technical Support representative.

To revert to the Meridian Mail system

It can be necessary to revert to the Meridian Mail system if you are not able to resolve a migration failure. Before you retry the migration, you must do the following on the CallPilot system:

1. Delete network data such as sites, locations, dialing plan information, and so on.
2. Delete the users.
3. Delete the classes of service (COS).
4. Delete the restriction/permission lists (RPL).
5. Delete the shared distribution lists (SDL).
6. Turn off the message waiting indicator (MWI).

Correcting pre-check inconsistencies

Introduction

The pre-check application runs automatically when the migrate.exe utility attempts to migrate Meridian Mail data according to the selected option. If the pre-check finds inconsistencies in the existing Application Builder applications, the migrate.exe utility stops and displays the following message:

```
Analyzing system...
Found inconsistencies! Follow Manual Recovery Procedure
Unable to continue migration
```

The recovery procedures allow you to resolve the inconsistencies. You must determine which applications are inconsistent, then follow the first, second and third level recovery procedures (in that order) to attempt to resolve the inconsistency.

After each level of recovery is performed, you must rerun the migration utility to determine if the recovery procedure was successful (in this case, the pre-check application does not find any inconsistencies) and if you can complete the migration.

If the recovery procedures do not solve the inconsistencies, contact the Nortel Networks Technical Support group for assistance.

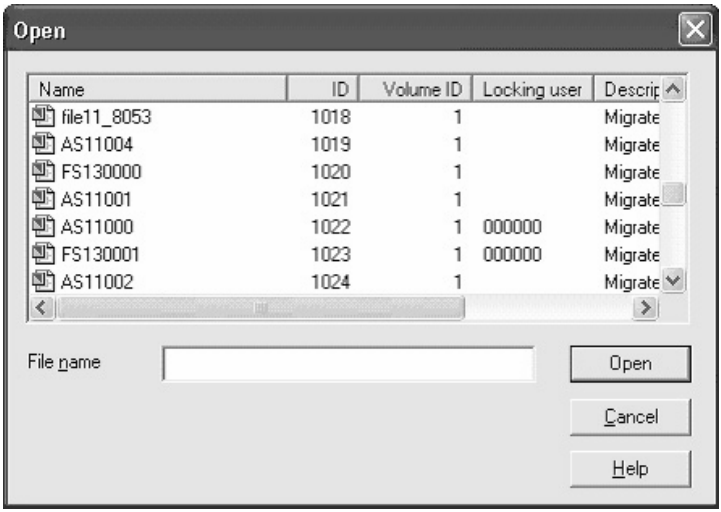
To perform a first level manual recovery procedure

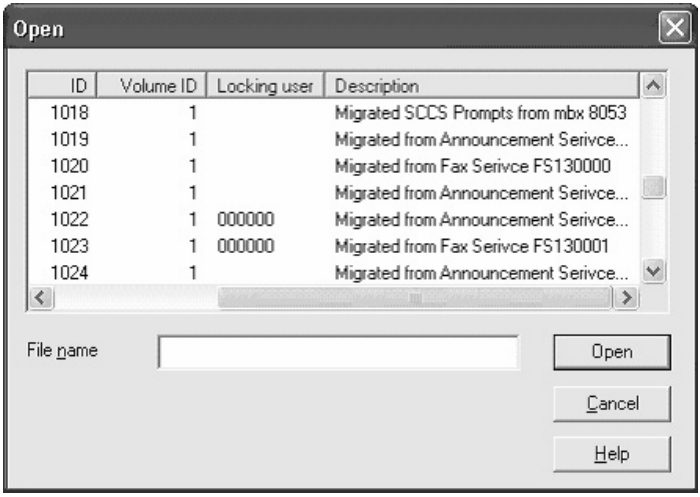
1. Open the ServerDataRepairLog.txt log file in the \nortel\temp\ folder.
2. Search for inconsistent applications, which are identified in the ServerDataRepairLog file as follows:

```
***Found Inconsistent Application!***
Application ID = <nnnn>
```

3. Open the file associated to each inconsistent application in Application Builder.

   Note: When attempting to open an application file in Application Builder, record the application name associated with the application ID (<*nnnn*>). The application name is required if the application is later found to be linked in SDN; refer to “Performing a third level manual recovery procedure” on page 148.





4 Save the file in Application Builder.

5 Repeat the procedure “To migrate Meridian Mail data to CallPilot” on page 79 or “To migrate Symposium Call Center Server voice segments and voice prompts to CallPilot” on page 86.

Note: If the pre-check application finds inconsistencies in the same files, perform a second level manual recovery procedure.

To perform a second level manual recovery procedure

Perform this procedure if the first level manual recovery procedure was performed, but the pre-check function continued to find inconsistencies when the migration utility was rerun. The second level manual recovery procedure uses the appdelete tool to delete the corrupt applications.

If any of the following messages appears when executing the Application Builder Data Integrity Check and Deletion Tool, refer to the appropriate section in the section "Performing a third level manual recovery procedure" on page 148 or refer the trouble to Nortel Networks Technical Support for corrective action:

Appdelete dialog message	Reference section
Application <*nnnn*> needs to be decoupled from the SDN in CallPilot Manager before this tool can delete it	"Inconsistent application is still linked in SDN" on page 149
Manual Action Required: Due to the type of corruption, you need to run the nmvutl support tool with the repopulate command after you are done running this tool	"Inconsistent application has multiple versions" on page 150
Application <*nnnn*> is either imported or exported. Are you sure you want to delete it without investigating further? YES /NO	N/A (see note)
Unknown exception - Manual intervention required	N/A (see note)
Note: Refer the trouble to Nortel Networks Technical Support for corrective action.	

Perform a second level recovery procedure as follows:

1. Open the ServerDataRepairLog.txt log file in the \nortel\temp\ folder.
2. Search for inconsistent applications, which are identified in the ServerDataRepairLog file as follows:

```
***Found Inconsistent Application!***
Application ID = <nnnn>
```

3 Log in to the Support Tools with Distributor or higher-level access and start the appdelete tool.

Result: The Application Builder Data Integrity Check and Deletion Tool dialog box appears.

4 Click Start.

Result: The appdelete.exe utility runs its own pre-check function and displays the inconsistent applications at the bottom of the screen.

5 Highlight the inconsistent application, and then click Delete Selected.

Result: A dialog box with the following message appears:

```
This will delete the <n> selected applications. Do you
wish to continue (Yes/No)
```

6 Click Yes.

Result: The highlighted application is deleted.

7 Repeat steps 5 and 6 for each inconsistent application identified in the \nortel\temp\ServerDataRepairLog.txt log file.

8 Repeat the procedure “To migrate Meridian Mail data to CallPilot” on page 79 or “To migrate Symposium Call Center Server voice segments and voice prompts to CallPilot” on page 86.

Note: If the pre-check application continues to find inconsistencies, refer the trouble to Nortel Technical Support.

Performing a third level manual recovery procedure

Perform the appropriate procedure if the second level manual recovery procedure was executed, but the pre-check function still found inconsistencies when the migration utility was rerun.

The procedures provided in this section assume that the Application Builder Data Integrity Check and Deletion Tool dialog box is open on the screen.

Inconsistent application is still linked in SDN

1 Highlight the inconsistent application and then click the Delete Selected button.

Result: The following message appears:

```
Application <nnnn> needs to be decoupled from the SDN
in CallPilot Manager before this tool can delete it.
```

2 Log in to CallPilot Manager.

Result: The CallPilot Manager home page appears.

3 Click System → Service Directory Number.

Result: The Service Directory Number - List window appears.

4 Scroll down in the Service DN column and click the Service DN number associated with the inconsistent application name as identified in Step 1.

Result: The SDN Details window appears.

5 Decouple the associated SDN by selecting any other application name except the name associated with the inconsistent application ID.

6 Return to the Application Builder Data Integrity Check and Deletion Tool and delete the inconsistent application as indicated in “To perform a second level manual recovery procedure,” on page 146.

7 Repeat Steps 1 through 6 for each inconsistent application that requires to be decoupled from an associated SDN.

8 Repeat the procedure “To migrate Meridian Mail data to CallPilot” on page 79 or “To migrate Symposium Call Center Server voice segments and voice prompts to CallPilot” on page 86.

Note: If the pre-check application continues to find inconsistencies, refer the trouble to Nortel Networks Technical Support.

Inconsistent application has multiple versions

1 Highlight the inconsistent application then click the Delete Selected button.

Result: The following message appears:

```
Manual Action Required: Due to the type of corruption,
You need to run the nmvutl support tool with the
repopulate command after you are done running this
tool.
```

Result: The appdelete.exe tool deletes the inconsistent application and prompts you to run the nmvutl support tool.

2 Repeat Step 1 for each inconsistent application with multiple versions.

3 Access the Support Tools and run the AppBuilder Version Manager utility (nmvutl) as follows

a. select AppBuilder tools from the main menu

b. select AppBuilder Version Manager (nmvutl) from the next menu

c. type **repopulate** at the command line and press **Enter**.

Result: The nmvutl utility repopulates the applications.

4 Repeat the procedure “To migrate Meridian Mail data to CallPilot” on page 79 or “To migrate Symposium Call Center Server voice segments and voice prompts to CallPilot” on page 86.

Note: If the pre-check application continues to find inconsistencies, refer the trouble to Nortel Networks Technical Support.

Troubleshooting tools

Use the troubleshooting tools to determine why a migration failed. These tools provide you with detailed logs that can help you determine the causes of a failed migration.

Debug tool

Use the debug tool to create a trace file that contains detailed information on the migrated data and its attributes. You can then identify migration errors in the debug trace file. To turn on the debug tool, launch the migration utility, type **debug** at the CI> prompt, and press **Enter**. After you launched the debug tool, proceed with the migration.

The debug tool creates the MigrationTrace.txt file that you can find in the D:\nortel\MPCX\Migration folder. The MigrationTrace.txt can be so large that you are not able to open it. Use the debug tool only as needed; do not use it when performing a migration for the first time.

LDAP trace tool

The Lightweight Directory Access Protocol (LDAP) trace tool creates a migration log that identifies the location of the LDAP errors registered during the migration and provides the LDAP error messages.

Before launching the LDAP trace, you must obtain the migration process ID.

1. Launch the migration utility.
2. Type **nmldptrconfig** at the CI> prompt and press **Enter**.
   The migration utility displays the ID of the running process.

To turn on the LDAP trace tool, type the following string at the CI> prompt: **nmldptrconfig** *<process ID> <debug level> <console log> <file log> <unified trace>*

The following list details the parameters used in conjunction with the **nmldptrconfig** command:

- <*process ID*>—a number designating the process that uses LDAP
- <*debug level*>—a digit from 0 through 3 (level 3 provides the most detailed trace)
- <*console log*>—yes or no; since the migration utility does not use this option, enter no
- <*file log*>—yes or no; enter yes to generate the LDAP trace log
- <*unified trace*>—yes or no (the migration utility does not use this option; enter no)

The following is an example of string entered at the CI> prompt: **nmldptrcconfig 146 2 no yes no**.

After you launched the LDAP trace tool, proceed with the Meridian mail data migration to CallPilot.

When the migration is completed, open the log file generated by the LDAP trace tool. You can find the log in the D:\nortel\logs folder. This is an example of ldap trace file name: migrate_142_20040115.txt, where 142 is the process ID that you entered at the prompt and 20040115 is the file creation date in the format *yyyymmdd*.

Meridian Mail data collection error messages

Error code	Message
cMMer001 = 1	Could not retrieve Mail Box Data for given Mailbox
cMMer002 = 2	Could not rewind tape
cMMer003 = 3	Could not write tape descriptor file
cMMer004 = 4	Could not write org profile data
cMMer005 = 5	Could not write COS data
cMMer006 = 6	Could not write RPL data
cMMer007 = 7	Could not write system greeting data
cMMer008 = 8	Could not group data for org profile group
cMMer009 = 9	Could not write SDL data
cMMer010 = 10	Could not write Group data for SDL
cMMer011 = 11	Could not write directory user data
cMMer012 = 12	Could not write directory user group data
CMMer013 = 13	Could not write local user data
cMMer014 = 14	Could not write local user group data
cMMer015 = 15	Failed to retrieve networking information
CMMer016 = 16	Could not write voice services data
cMMer017 = 17	Could not write voice services group data

Error code	Message
cMMer019 = 18	Could not write end tape descriptor file
cMMer018 = 19	Could not write end of file marker
cMMer020 = 20	Error unloading tape
cMMer021 = 21	Failed to create MPCX Cabinet
cMMer022 = 22	Personal class of user messages not migrated
cMMer023 = 23	Error reading message header
cMMer024 = 24	Message not migrated. RC gives message type as defined in mt_types
cMMer025 = 25	Empty message not migrated
cMMer026 = 26	***unused****
cMMer027 = 27	***unused****
cMMer028 = 28	Error opening Mailbox for cabinet for Message dumping
cMMer029 = 29	Error finding messages in MailBox
cMMer030 = 30	Error opening an individual message or not a message file
cMMer031 = 31	Error writing messages to tape
cMMer032 = 32	Empty outcalling AD record
cMMer033 = 33	Empty AMIS AD record
cMMer034 = 34	Empty FAX AD record
cMMer035 = 35	Unable to retrieve network site information
cMMer036 = 36	Unable to retrieve default translation information

Error code	Message
cMMer037 = 37	Unable to retrieve network configuration information

CallPilot migration error messages

Error code	Message
GENERAL error messages 000–099	
000	File open error
001	The Utility is not aware of the specified data type
002	The API call failed
003	Retrieving MMail data failed
004	Unknown Exception encountered
005	Error in connecting to LDAP client
006	NMobj_Init() function call failed
007	Error disconnecting from LDAP client
008	The NMobj_Shutdown() function call failed
009	The Extract() function call failed
010	The structure read from database using API failed
011	Invalid Object handle passed
012	Error while deleting the contents using the API
013	Only one row (record) is expected in the database table
014	Unknown MMail data type found
015	Object creation failed due to internal system error
016	The field value is not found in the staging file

Error code	Message
017	MMINVALID data type returned by the extract() function
018	MMUNKNOWN data type returned by the extract() function
019	There was an error while data transfer from the tape; Please try again
020	The handling of treatment type USEDEFAULTCD is not yet implemented
021	The handling of treatment type ENUMERATEDCD is not yet implemented
022	There was an error in file pathname creation, Could not delete the files; Aborting
023	Invalid error code (value out of range)
024	Could not obtain the current working directory path name
025	Could not obtain the MMFS volume list on this server
026	Could not obtain the MMFS volume information
027	The available voice block limit has been reached, only 5% free space now available on the volume
028	The available text block limit has been reached, only 5% free space now available on the volume
029	Pre-migration system check failed
030	LDAP client Search failed

Error code	Message
031	LDAP client Update failed
032	LDAP client Add failed
033	LDAP client Delete failed
MAPFILE error messages 100–199	
100	Map directory creation error
101	No record was found in the Map file for the element
102	Map line index does not match with the C structure element ID
103	Unknown Treatment code
104	Map record formatting error
105	Invalid token encountered
106	The class name must not be left blank
107	The attribute name must not be left blank
108	The Data Type must not be left blank
109	MM Data Type must be specified
110	The Key field must have valid treatment code
111	The Special code must be specified
112	Default value must be specified
113	Unexpected number of tokens found in a map record

Error code	Message
114	All the MMail Ids (Group, File & Field) must be specified
115	If the MMail Ids are specified then Treatment code must be defined
116	The value obtained from MMail data file is out of range
117	The string length obtained from MMail data file is out of range
118	The MMail field data type returned from Extract() is different
119	The Map record line length exceeds the maximum line length
120	If the Treatment code is specified then MMail Ids must be defined
121	Cannot obtain the key field value
122	The value obtained from MMail data file is out of range

MMINPUT error messages 200–299

Debug messages: 200–209	200 — TapeRead Debug 201 — FileCreate Debug 202 — FileOpen Debug 203 — FileRead Debug 204 — FileWrite Debug 205 — Extract Debug

Error code	Message
Debug messages: 200–209 (continued)	206 — GetToken Debug 207 — FileDump Debug
Tape IO messages: 210–219	210 — TapeOpen Function 211 — TapeLoad Function 212 — TapeRead Function
File IO messages: 220–229	220 — SetPath Function 221 — FileCreate Function 222 — FileWrite Function 223 — FileRead Function 224 — FileOpen Function 225 — DeleteFile Function 226 — ReadFile Function
Other messages: 230–239	230 — GetFile Function 231 — GetToken Function 232 — GetTapeDescriptor Function 233 — InitTape Function 234 — Extract Function 235 — GetVoiceFile Function 236 — GetX and GetVoiceX Function

SYSMOD error messages 300–399

300	The MM RPLID value obtained from staging file is zero; using default value.
301	The RPLID mapping failed

Error code	Message
302	Invalid value obtained for Alarm Filter from the MMail data; using default value
303	The Customer greetings FID creation error
304	Invalid FID; Cannot migrate the Customer greetings
305	MMFS file open error; skipping the customers greeting data migration
306	No voice data file for the System greetings
307	MMFS file load error; Retaining the previous Customer greetings voice data
308	The RP list is currently in use (DB integrity check failure); Retaining the RPL
309	The RPL header could not be removed due to internal error; Retaining the RPL
310	No RPL codes found in the mail data
311	The data value for throttling feature could not be obtained
312	The data value for throttling interval parameters could not be obtained

Error code	Message
USERMOD error messages 400–499	
401	Error obtaining the User List from the NGen database
402	COSID mapping failed, unable to find a match
403	The address could not be validated due to an internal error
404	Invalid address
405	NMadd_DestroyAddressList call failed
406	The entry of MMail COS Number already exists in the COSMAP list
407	Error obtaining the DN list for the user
408	Invalid COSNumber obtained from MMail data
409	Personal COS migration is not supported
410	Invalid FID; Cannot migrate the spoken name data
411	MMFS file open error; skipping the spoken name data migration
412	No voice data in the file for spoken name
413	MMFS File load error; skipping the spoken name data migration
414	Invalid FID; Can not migrate the greetings data
415	Invalid recID provided for the greetings FID, skipping greetings migration

Error code	Message
416	MMFS file open error; skipping the Greetings data migration for the user
417	No voice data file for the User greetings
418	MMFS file load error; skipping the migration of the greetings voice data file
419	Error in creating the List of the Users to be migrated
420	More than one record found in the database for the given search criteria; only one record is expected
421	Unknown User type obtained from MM data
422	The user for whom the PDL is being updated does not exist in the database
423	The PDL list could not be obtained
424	Unknown Address type obtained from MMail
425	The MM mail PDL record data can be corrupted
426	This Address type must not be specified in a PDL record
427	The DN list is empty
428	The User COS Number field value could not be obtained
429	The System COS number field value could not be obtained
430	No SDL codes found in the mail data

Error code	Message
431	The number of digits in the Mailbox is less than 3 digits long which makes it an invalid mailbox on CallPilot
432	Could not search the specified user in the database
433	Could not resolve the user since found more than one entries in database for a given search criteria
434	Invalid User type obtained from MMail
435	Cannot add any more Mailboxes/Users, The mailbox limit is reached
436	There is no available MMFS volume, aborting User data migration
437	Less than 5% free space on this Volume, this volume will not be available for data migration
438	Voice storage limit of the COS was out of range
439	The first name field was empty. It is a mandatory field for CallPilot
440	The last name field was empty. It is a mandatory field for CallPilot
441	The user Type field value could not be obtained
442	More than one entry found in database
MSGMOD error messages 500–599	
500	The Voice data file is empty
501	The “From” address list could not be obtained

Error code	Message
502	The user name could not be obtained
503	The user surname could not be obtained
504	The user mailbox number could not be obtained
505	The user site and location IDs could not be obtained
506	The user primary DN could not be obtained
507	There was an error obtaining the user information, skipping this User messages migration
508	Error reading the User entry
509	The User mailbox does not exist on the system
510	Could not resolve the user since found more than one entries in database for a given search criteria
511	There was an error in obtaining the voice message data
512	There was an error while creating the “To” and “From” address lists
513	Could not delete the message file, Please remove the message manually later
514	Could not obtain the voice data block, can not continue further
515	There was an error obtaining the Message Attachment information
516	Error in message attachment creation
517	Could not obtain the voice data block, can not continue further

Error code	Message
518	Could not obtain the Message tag value
519	The volume ID could not be obtained for this user
520	The free space on MMFS volume is now less than 5%
521	The senders address data record is not of Text type, can not obtain the From address information
522	You have reached the storage limit of the user mbox in MMFS volume
NETMOD error messages 600–699	
601	The Location code array could not be obtained from MM data files
602	The location Overlap code array could not be obtained from MM data files
603	Invalid code type obtained from MM data
604	The database contains an invalid server entry which must be removed manually later
605	The Network prefix array is empty
606	The Network codes array is empty
607	The Meridian Networking is not supported on CallPilot; Using the Enterprise Networking protocol instead
608	The Meridian Networking is not supported on CallPilot; Using the AMIS Networking protocol instead

Error code	Message
609	The Meridian Networking is not supported on CallPilot; Using the VPIM Digital Networking protocol instead
610	No network protocols are supported on this server
611	The AMIS protocol is not supported on this server; Using the Enterprise Networking protocol instead
612	The AMIS protocol is not supported on this server; Using the VPIM Digital Networking protocol instead
613	The Enterprise Networking protocol is not supported on this server; Using the AMIS Networking protocol instead
614	The Enterprise Networking protocol is not supported on this server; Using the VPIM Digital Networking protocol instead
615	Invalid value obtained for the MM server connection protocol field
616	The Server ID mapping failed
617	The Location ID mapping failed
618	There are currently no server records defined on the system
619	Location code array could not be obtained
620	Location overlap array could not be obtained
621	Location code type array could not be obtained
622	The source and destination Ids in the list are same

Error code	Message
623	The existing server record could not be updated
624	Since the protocol is changed, Administrator must review the contents of Server and Connection records
625	The location Overlap code array could not be obtained from MM data files
626	Invalid value obtained for the MM Server Status field
627	Invalid value obtained for the MM location Dialing plan field
628	Invalid value obtained for the MM dialing CLID field
629	The Maximum Server limit reached, skipping further Server updates
630	The Maximum Locations limit reached, skipping further Location updates
631	The Maximum Server limit reached, skipping further Server Connection updates
632	There was error while updating the network cache; the data migration does not work properly
APPBMOD error messages 700–799	
700	Error in opening a MMFS File Cabinet
701	Error in closing the MMFS File Cabinet
702	Error in creation of a MMFS File Cabinet

Error code	Message
703	Unknown error while opening the File cabinet
704	Could not obtain the Service Type for the Service
705	Could not obtain the Service ID for this Service
706	Error in creation of a MMFS File
707	Error in adding the MMFS File into file cabinet
708	Unknown error while opening the MMFS File
709	Error in closing the MMFS File
710	Unknown Service Type
711	Error in removing the MMFS File from a cabinet
712	Error in migrating the segments into a MMFS file
713	Error in obtaining the Segment Data File name
714	Error in obtaining the The Record Type and ID for the Segment
715	Error in creation of a record in a MMFS File
716	Error in record search in a MMFS File
717	Error in data loading into the record of a MMFS File
718	Error in MMFS File data Flush
719	Unknown record type encountered
720	Error creating App Builder application
721	Error adding segment to SCCS prompt file

Error code	Message
722	Error updating voice file for App Builder application
USRAPI error messages where NMusr_eOFFSET = 99	
(NMusr_eOFFSET + 01)	Function was unsuccessful
(NMusr_eOFFSET + 02)	Programming Error, NMobj_ResetHandle needs to be called
(NMusr_eOFFSET + 04)	The specified record was not found
(NMusr_eOFFSET + 05)	Input object handle is invalid
(NMusr_eOFFSET + 06)	Memory Allocation failed
(NMusr_eOFFSET + 12)	The record modification number has changed, update is disallowed
(NMusr_eOFFSET + 13)	Exception occurred inside user module
(NMusr_eOFFSET + 14)	There is already a COS having the specified properties in this customer group
(NMusr_eOFFSET + 15)	Input COS name is not unique with in the customer group
(NMusr_eOFFSET + 16)	The COS to be deleted is still referenced by a user. So it cannot be deleted
(NMusr_eOFFSET + 17)	The mailbox number is invalid, (custid+Location+MboxNum not unique)
(NMusr_eOFFSET + 18)	The user DN is not unique
(NMusr_eOFFSET + 19)	Modification number error
(NMusr_eOFFSET + 22)	Invalid input USER PREFFERRED LANG ID

Error code	Message
(NMusr_eOFFSET + 23)	Invalid input COS ID
(NMusr_eOFFSET + 24)	Invalid input LOCATION ID
(NMusr_eOFFSET + 25)	Invalid input EXT CALL SENDER RPL
(NMusr_eOFFSET + 26)	Invalid input EXT DIALING RPL
(NMusr_eOFFSET + 27)	Invalid input CUSTOM REVERT RPL
(NMusr_eOFFSET + 28)	Invalid input DNU RPL
(NMusr_eOFFSET + 29)	Invalid input AMIS RPL
(NMusr_eOFFSET + 30)	Invalid input RN RPL
(NMusr_eOFFSET + 31)	Invalid input FAX PRINTING RPL
(NMusr_eOFFSET + 32)	Invalid input DESKTOP RPL
(NMusr_eOFFSET + 33)	SDL NAME NOT UNIQUE
(NMusr_eOFFSET + 34)	Input consists of consecutive digits only
(NMusr_eOFFSET + 35)	Input consists of identical digit only
(NMusr_eOFFSET + 36)	Invalid input
(NMusr_eOFFSET + 37)	Mailbox is a alarm mailbox
(NMusr_eOFFSET + 38)	Mailbox is a general delivery mailbox

Appendix A

Meridian Mail and CallPilot comparison

In this appendix

Overview

Introduction

This chapter presents a high-level overview of the differences between call routing in CallPilot and Meridian Mail.

The most important difference is that CallPilot uses the Controlled Directory Number (CDN) queue, which is similar to the Automatic Call Distribution (ACD) queue in Meridian Mail. Calls in the CDN queue are managed by the CallPilot system, while calls in the ACD queue are managed by the Meridian 1 switch.

Setup and call routing comparison

The following table compares the setup and call routing elements for CallPilot and Meridian Mail.

Comparison issue	Meridian Mail	CallPilot
Customer	Single customer or multiple customers (corresponding to Meridian 1 tenants)	Single customer only
Application Module Link (AML) connection	RS-232 serial cable attached to the backplane	Embedded LAN (ELAN)
Call routing from switch	ACD DN	CDN
Channels and ports	Interface to virtual agents programmed as SL-1 phone sets on the switch	Interface to multimedia agents programmed as 2008 Digital (Aries) phone sets on the switch

Comparison issue	Meridian Mail	CallPilot
Queuing	Controlled by an ACD DN managed by the switch	Controlled by a CDN managed by CallPilot
ACD-DN overflow	The switch provides ACD DN overflow from one ACD queue to another ACD queue.	The switch does not permit the ACD DN to overflow to a CDN. Therefore, the ACD DN overflow is not possible with CallPilot, which uses a CDN model for call management and control. If ACD-DN overflow is desired, then use either Symposium Express or Symposium Call Center Server integrated with CallPilot as a viable alternative that provides enhanced call routing capabilities

Comparison issue	Meridian Mail	CallPilot
Meridian 1 voice connectivity	ENET card in the Network module on Meridian 1 (EC or larger system)	■ 201i server: DS0 channels on the IPE shelf backplane ■ tower or rackmount servers: DS0 channels on an MGate card connected to an MPB16-4 (NTRH20BA) card
Routing a call to a service	■ phantom DNs DCFW to a Meridian Mail ACD DN ■ dummy ACD queues NCFW to a Meridian Mail ACD DN	■ phantom DNs DCFW to a CallPilot CDN ■ dummy ACD queues NCFW to a CallPilot CDN

CallPilot system setup

Introduction

The CallPilot setup is different from the Meridian Mail setup. A CallPilot system has three layers:

- the server hardware/software layer
- the Windows 2003 layer
- the CallPilot application layer

All three layers are required for CallPilot to take calls. You must set up and configure each layer individually.

Required documentation

Refer to the CallPilot documents listed in Chapter 1, “Understanding the migration process”, for information on completing a CallPilot installation.

Also refer to the most recent version of the *CallPilot General Release Bulletin* (GRB). To obtain the most recent GRB, refer to the Nortel Networks Partner Information Center (PIC) at http://my.nortelnetworks.com. To access the PIC, you must be a registered Nortel Networks distributor.

Sample hardware setup

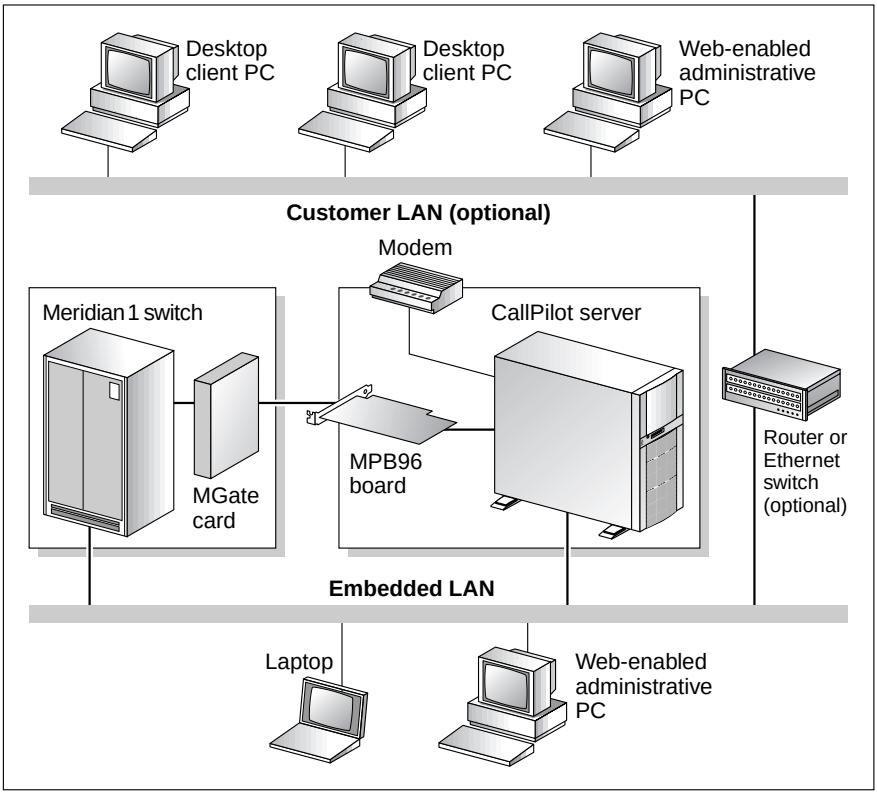
The diagrams on pages 178–181 show the CallPilot network setup for the Meridian 1 and Succession 1000 systems.

A web browser must be installed on a PC that has IP connectivity to the CallPilot server. Use the web browser to connect to the CallPilot Manager web server and then to log in to the CallPilot server and administer it.

The CallPilot server is shipped from the factory with the CallPilot Manager web server already installed. If you want to install the CallPilot Manager web server on a stand-alone server, refer to the *Part 4*: *Software Installation and maintenance* document that applies to your CallPilot server model.

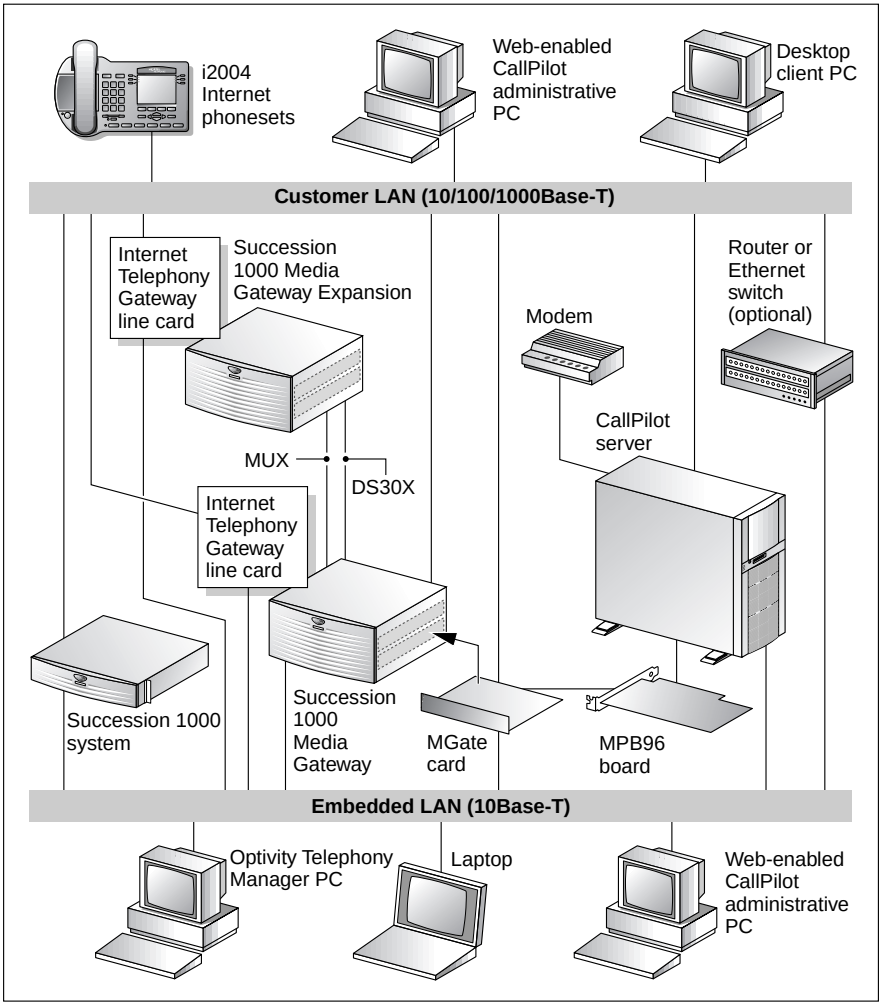
Sample network setup: tower or rackmount server with Meridian 1

The following diagram shows a network setup with a tower server and a Meridian 1 switch. The same network setup applies when the CallPilot server is a rackmount server.



Sample network setup: tower or rackmount server with Succession 1000

The following diagram shows a network setup with a tower server and a Succession 1000 system. The same network setup applies when the CallPilot server is a rackmount server.



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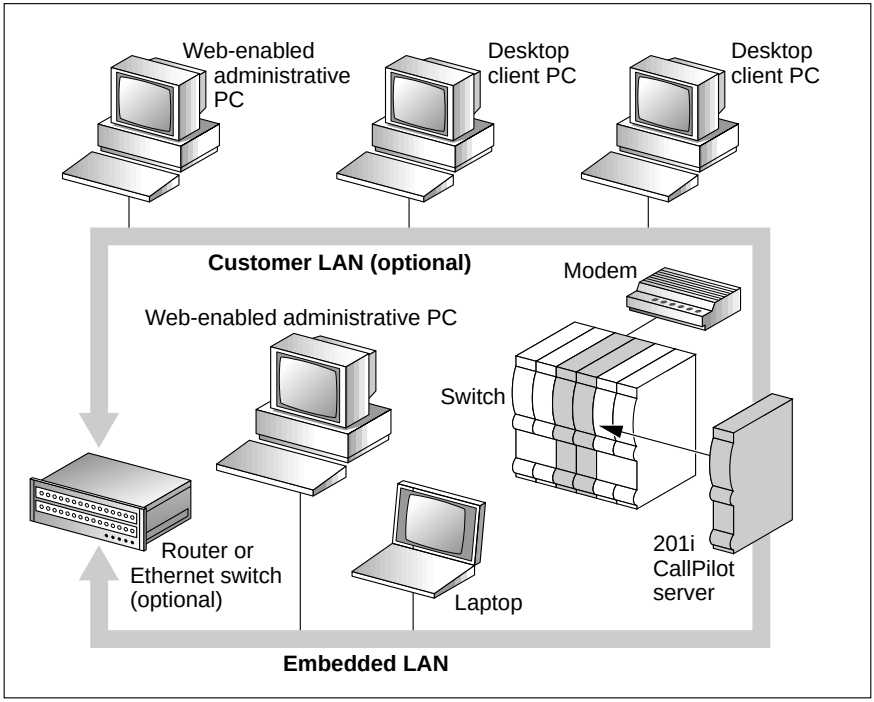
Sample network setup: 201i server with Meridian 1

The following diagram shows a network setup with a 201i server and a Meridian 1 switch.



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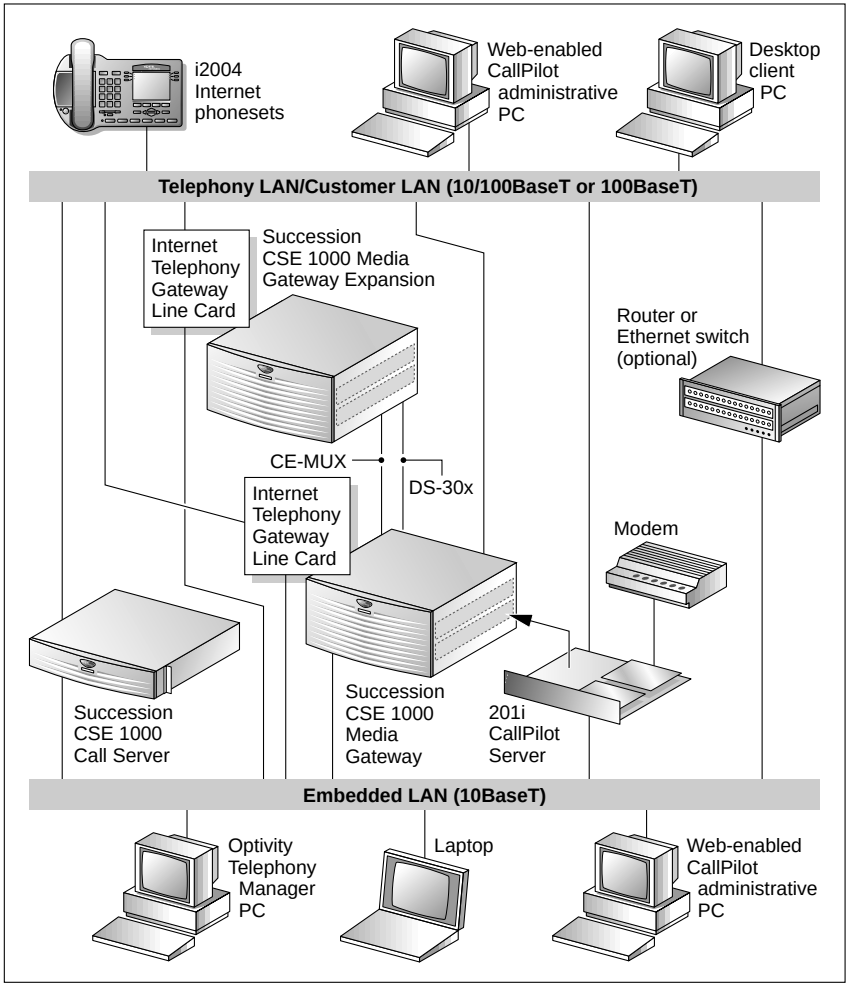
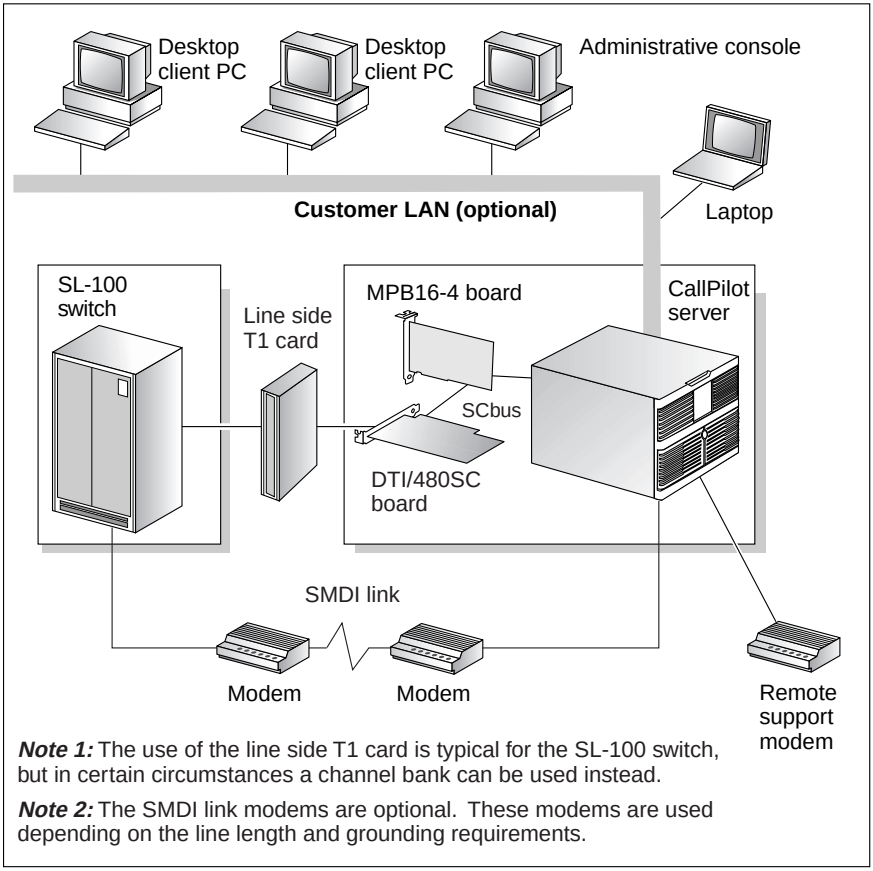
Sample network setup: 201i server with Succession 1000

The following diagram shows a network setup with a 201i server and a Succession 1000 system.



Sample network setup: rackmount server with SL-100

The following diagram shows a network setup with a rackmount server and an SL-100 switch.



Note 1: The use of the line side T1 card is typical for the SL-100 switch, but in certain circumstances a channel bank can be used instead.

Note 2: The SMDI link modems are optional. These modems are used depending on the line length and grounding requirements.

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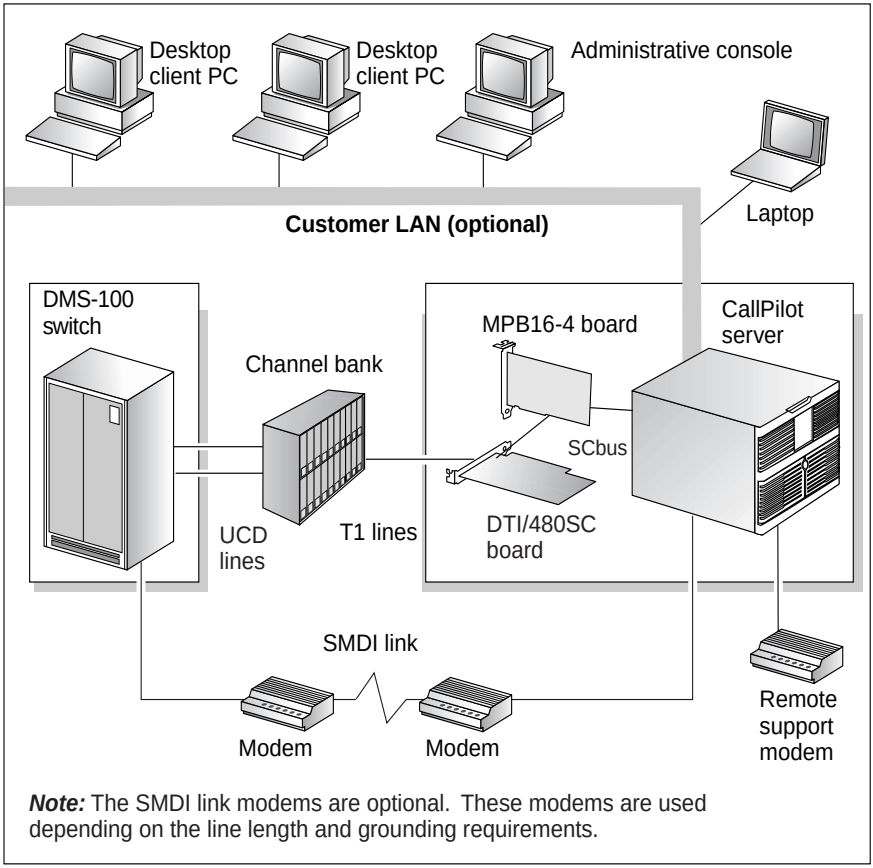
Sample network setup: rackmount server with DMS-100

The following diagram shows a network setup with a rackmount server and a DMS-100 switch.



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Comparing switch and server configuration

Introduction

This section defines key concepts for CallPilot configuration and then highlights switch and server configurations in CallPilot and Meridian Mail.

CDN queue

For CallPilot, configure one Controlled Directory Number (CDN) on the switch as follows:

- a primary CDN for Voice Messaging
- a secondary CDN for Multimedia Messaging (including fax capability)

CallPilot manages calls in the CDN queue, while the Meridian 1 switch manages calls in an ACD queue.

Calls are routed to the CDN queue directly or by way of a phantom DN or a dummy ACD queue, which is then forwarded to the CDN.

How CallPilot uses CDNs

Normally, a CDN operates in control mode. In control mode, the CallPilot server controls call treatment and call routing. The switch simply provides routing to CallPilot. The server specifies the type of default treatment to be given to waiting calls. It processes the calls on a first-come, first-serve basis and determines the DS0 channel to which the call is routed. DS0 channels are configured as agents of an ACD queue.

A CDN can also operate in default mode—that is, CallPilot is offline or the Application Module Link (AML) is down. In default mode, the switch takes over call routing control. Incoming calls receive default treatment provided by the default ACD DN associated with the CDN.

Use the Configuration Wizard to configure the CDNs on CallPilot. Refer to the *Part 3: <Switch name> and CallPilot Server Configuration* document that applies to your server model.

Phantom DN

Instead of using phone sets or dummy ACD queues to route calls, CallPilot can use "virtual phone sets" that exist only in software and have no associated hardware. The directory number (DN) associated with one of these virtual phone sets is called a phantom DN.

Services that must use phantom DNs

Nortel Networks recommends that you use a phantom DN for each service that callers dial directly, such as the following:

- any service created with Application Builder
- Speech Activated Messaging
- Custom Commands
- Voice Item Maintenance
- Fax Item Maintenance
- Express Voice Messaging
- Express Fax Messaging

Creating a phantom DN

To create a phantom DN, first create a phantom loop. Then define a terminal number (TN) within that loop. Each phantom TN is assigned a DN (the phantom DN). This DN becomes the number that can be dialed for a service when you enter the DN in the Service Directory Number Table.

For instructions on creating the phantom DN, refer to the *Part 3: <Switch name> and CallPilot Server Configuration* document that applies to your server model.

Service Directory Number table

In the Service Directory Number (SDN) table, associate the CallPilot services with the CDNs and phantom DNs that you configured on the switch.

What the SDN table controls

The SDN Table specifies which service must be activated when a number is dialed. In addition, the SDN configuration controls

- the type of channel that the service acquires (voice, fax, or speech recognition)
- the number of channels allocated to the service (the minimum number of channels guaranteed to a service for simultaneous use and the maximum number of channels that you can use at one time)
- the definition of session behavior for certain services, such as those created with Application Builder

When a call arrives at a CDN queue either directly or indirectly from a phantom DN, the switch gives the caller ringback treatment. While this happens, CallPilot looks up the dialed DN in the SDN table.

Types of SDNs

The SDNs are classified into two categories:

- inbound SDNs, which require DNs on the switch

  Services that callers dial directly require inbound SDNs. An inbound SDN corresponds to either a CDN or a phantom DN on the switch.

- outbound SDNs, which do not require DNs on the switch

  Callers do not dial outbound SDNs. The system uses outbound SDNs to place outbound calls for services such as Outcalling and Networking. Since outbound SDNs do not accept incoming calls, a corresponding phantom DN or CDN is unnecessary on the switch.

  Note: If you are integrating Symposium Call Center Server with CallPilot, ensure that the outbound SDNs are also configured on CallPilot for the channels that are dedicated to ACCESS and IVR.

ACD multimedia agents

Automatic Call Distribution (ACD) is a feature on the Meridian 1 switch that allows a number of phone sets connected to the switch, known as agents, to share equally in the answering of incoming calls. In CallPilot, the call queuing capability of ACD is not used (the CallPilot CDN manages the queuing), but the call handling capability of ACD agents is used.

How CallPilot uses ACD virtual agents

All ACD agents that service CallPilot are put into a single ACD agent grouping. These agents correspond to DS0 channels on the CallPilot server. Agents are programmed in Overlay 11 as 2008 Digital (Aries) sets with a Multimedia Messaging Allowed (MMA) class of service. However, the agents are not physical phone sets, but Terminal Numbers (TNs) that are programmed to look like real digital sets to the switch.

CallPilot and Symposium Call Center Server integration

If you are integrating CallPilot and Symposium Call Center Server, you must create two ACD queues: one for ACCESS Voice and the other for Interactive Voice Response (IVR) service.

Multimedia processing units

Calls that come to CallPilot services need processing power that converts data back and forth between voice, fax, or speech-recognition data and digital signals.

The DS0 channels establish the connection between the switch and the server. However, the DS0 channels do not have any signal-processing capability. The DS0 channels terminate on multimedia processing units (MPUs) that perform the necessary signal processing.

The MPUs provide the following types of signal processing:

- voice playback and recording
- tone detection (DTMF, call progress, fax CNG, modem)
- tone generation
- speech recognition

Eight MPUs are provided on the 201i server. Sixteen MPUs are provided on the MPB16-4 board (NTRH20BA) on the tower and rackmount servers. Additional MPUs reside on the MPC-8 cards, which are optionally installed.

Multimedia channels

A multimedia channel comprises a DS0 channel plus one or more MPUs. The DS0 channel provides the connection between the switch and the server and the MPUs provide the processing power.

Types of multimedia channels

Different services process different types of media and certain types of media need more channel resources to process the services. To handle the resource requirements, three types of multimedia channels handle the various types of CallPilot services.

Each type of multimedia channel terminates on a different number of MPUs, based on the volume of processing power that is required. For example, integrated voice and fax services require twice as much processing power as voice-only media. A multimedia channel, therefore, terminates on two MPUs.

Channel type	Description	Number of MPUs required
Voice	One-to-one correspondence between channels and MPUs.	1
Fax	Integrated fax and voice data need twice as much processing power as voice-only media. Fax channels support both fax and voice media.	2
Speech recognition (ASR)	Speech-recognition data needs four times as much processing power as voice media.	4

Summary of switch and server configuration

Meridian Mail	CallPilot	CallPilot reference
On Meridian 1	**On Meridian 1**	
Create one or more ACD queues for call handling.	Create one ACD agent queue to hold all agents that service CallPilot.	*Part 3: <Switch name> and CallPilot Server Configuration*: ■ Configuring the ACD agent queue ■ Configuring server channels as ACD agents ■ Defining the default ACD DN **Note:** If you are integrating CallPilot and Symposium Call Center Server, you must create two ACD queues: one for ACCESS Voice, and the other for IVR service.
Define the ACD agents.	Define the ACD agents.	*Part 3: <Switch name> and CallPilot Server Configuration*: ■ Configuring the ACD agent queue ■ Configuring server channels as ACD agents ■ Defining the default ACD DN
Not applicable	Create two CDN queues: a primary CDN for Voice Messaging and a secondary CDN for Multimedia Messaging.	*Part 3: <Switch name> and CallPilot Server Configuration* ■ Configuring CDN queues for messaging services

Meridian Mail	CallPilot	CallPilot reference
On Meridian 1	**On Meridian 1**	
Create a dummy ACD DN for each Meridian Mail service that callers must dial directly.	Create a phantom DN for each service that callers must dial directly.	*Part 3: <Switch name> and CallPilot Server Configuration* ■ Configuring phantom DNs
In Meridian Mail	**On the CallPilot server**	
Enter the ACD DNs and agent TNs into the Channel Allocation Table.	Enter the CDNs and agent TNs that are configured on the switch in the Configuration Wizard.	Refer to the following topics in the Configuration Wizard online Help: ■ Entering Meridian 1 or Succession 1000 switch and channel information ■ Entering CDN information
Add each ACD queue DN that is configured on the switch to the VSDN table.	Add the CDNs and phantom DNs that are configured on the switch to the Service Directory Number table.	CallPilot Manager online Help ■ Configuring CallPilot services *CallPilot Administrator's Guide*

Comparing call routing

Introduction

This section describes the differences between call routing in Meridian Mail and CallPilot.

Call routing overview

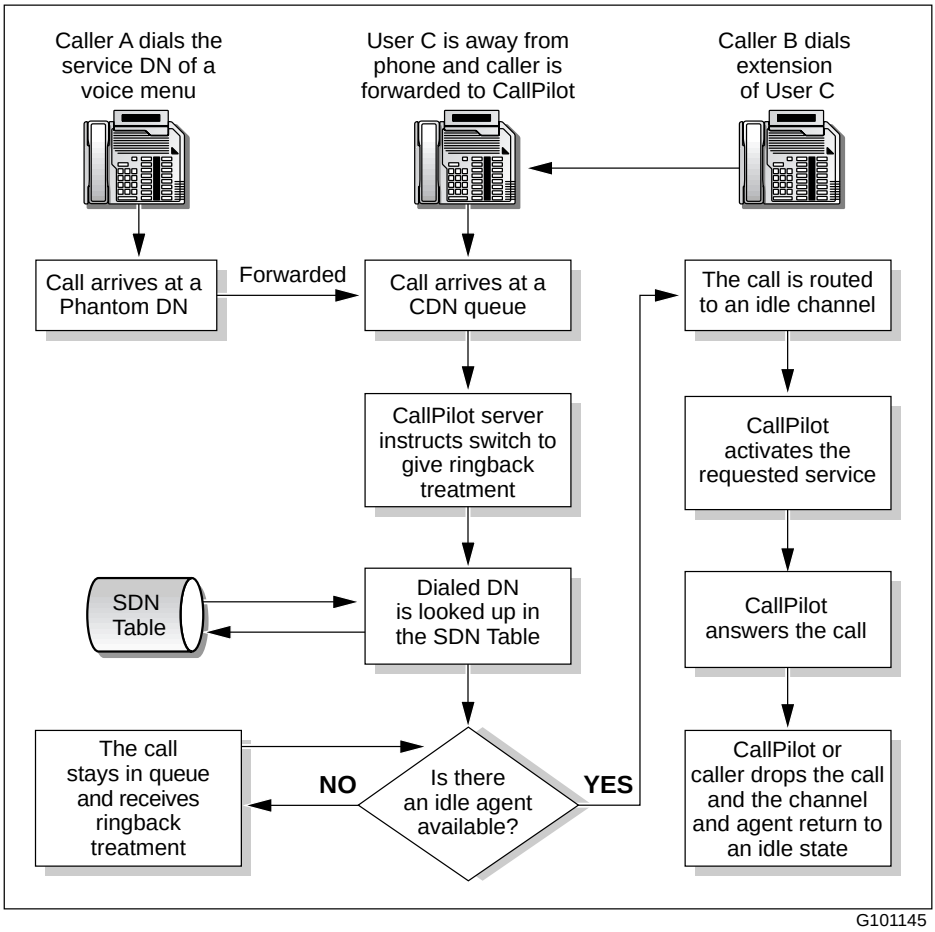
In Meridian Mail, the switch handles call routing. The switch accepts the incoming call and places it in an ACD queue to await the first available ACD virtual agent (the first free Meridian Mail port).

CallPilot uses a CDN to handle call routing. When a caller dials a number to access a service, the switch accepts the incoming call and routes the call to the CallPilot CDN. CallPilot queues the call and directs the call to the first available free channel.

See the following examples:

Examples	CallPilot	Meridian Mail
Call flow diagram	page 193	page 196
Call setup diagram	page 194	page 197
Call flow description	Page 195	page 197

Sample call flow in CallPilot



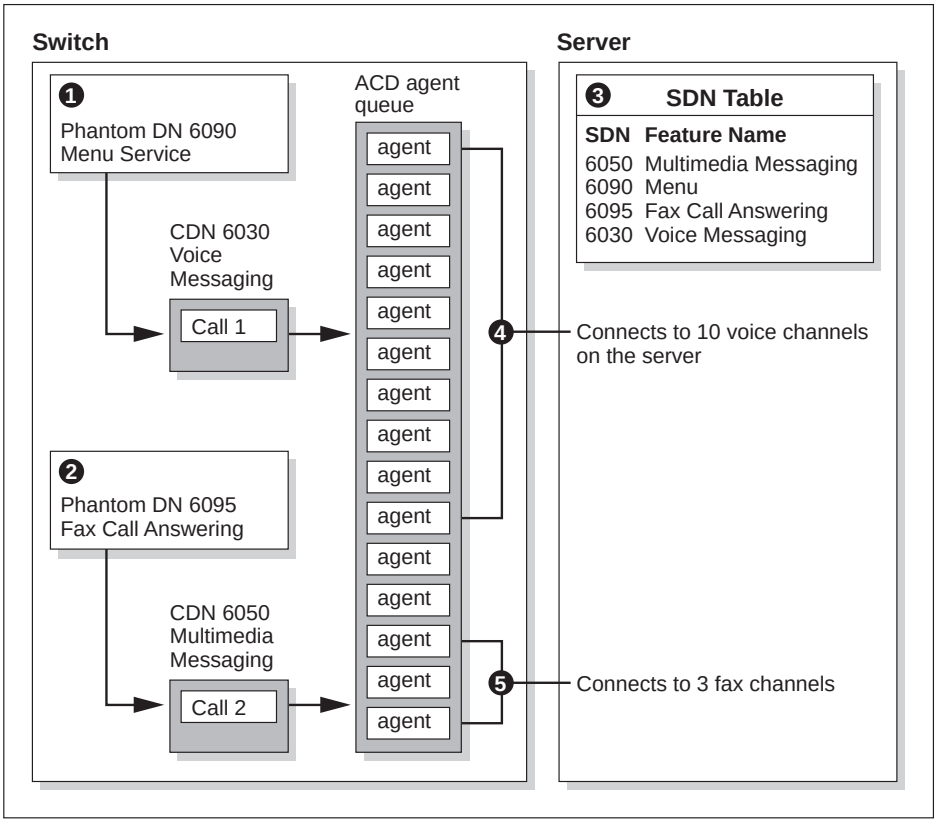
CallPilot setup

In this example, two CDN queues have been configured:

- Voice Messaging (6030)
- Multimedia Messaging (6050)

Two phantom DNs have been configured:

- 6090 is the DN for a menu service (without fax items)
- 6095 is the DN for Fax Call Answering

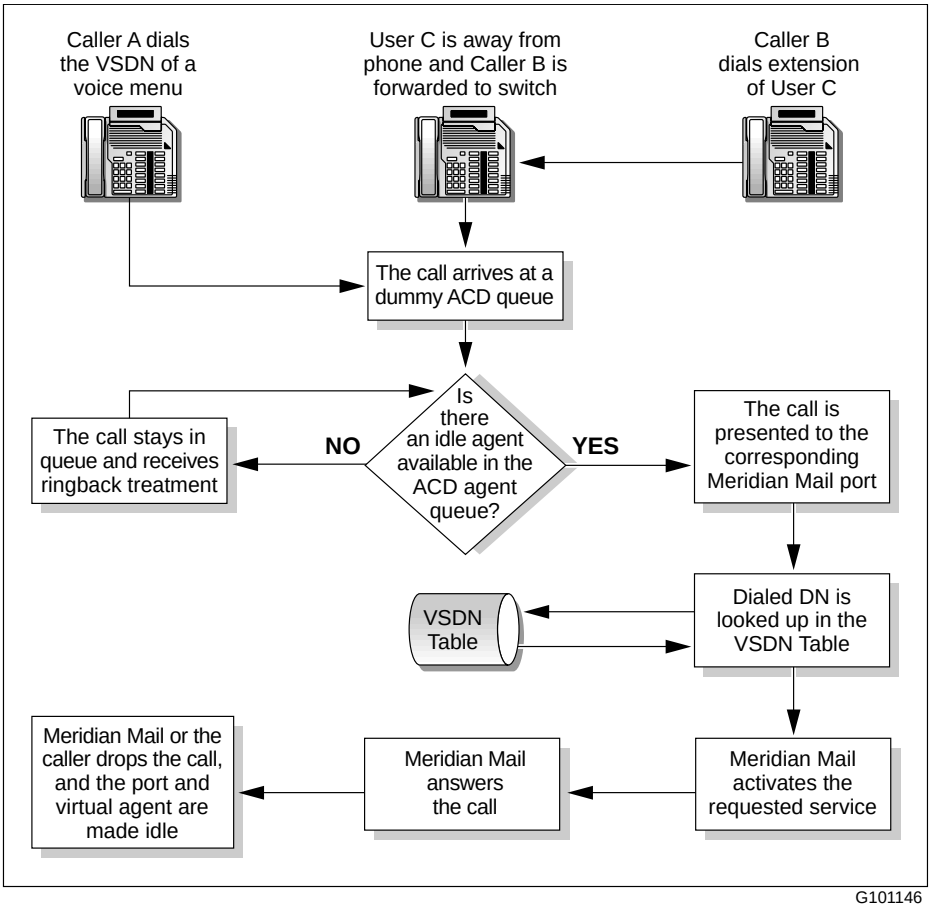


What happens when a caller dials a CallPilot service

Refer to the CallPilot setup diagram on page 194.

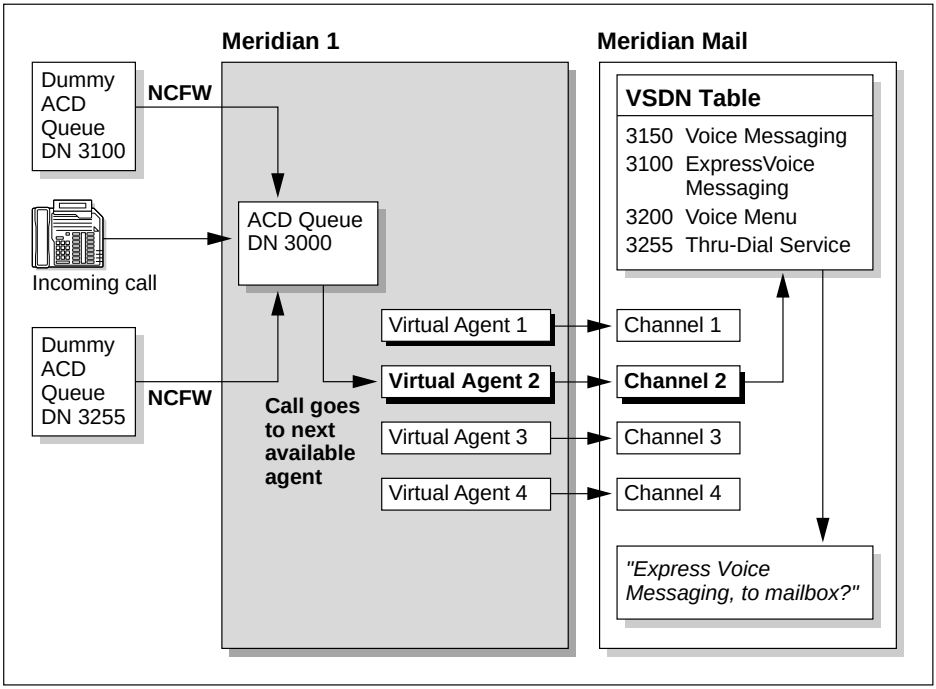
1. A caller dials 6090 to access a menu service. This phantom DN forwards the call to CDN 6030 because the menu contains no fax or speech recognition capability.
2. Another caller dials 6095 to access the Fax Call Answering service. The call is forwarded to CDN 6050.
3. CallPilot looks up the DNs in the SDN table to determine which service is requested, the media type required, and the channel allocations for each service.
4. Call 1 (to the menu service that contains only voice functions), is routed to an ACD agent that is available to handle voice.
5. Call 2 (to the Fax Call Answering service) is routed to an ACD agent that is available to handle fax services.

Sample call flow in Meridian Mail



Meridian Mail setup

In this example, one ACD queue (3000) has been configured:



What happens when a caller dials a Meridian Mail service

Refer to the Meridian Mail diagram on page 196.

1. A caller dials 3100.
2. The call is forwarded to ACD queue 3000.
3. The call is directed to the first available ACD agent and is connected to a Meridian Mail channel (port).
4. Meridian Mail looks up the DN that was dialed (3100) in the VSDN Table to see which service is associated with it. Meridian Mail then starts Express Voice Messaging, answers the call, and plays the appropriate prompts.

Comparing networking solutions

All networking solutions are automatically enabled on CallPilot if the networking feature was purchased.

The following table compares the networking solutions provided by Meridian Mail and CallPilot.

Networking solution	Site protocol name	Supported on Meridian Mail	Supported on CallPilot
Meridian networking (with modems)	Meridian	yes	no
Enterprise networking	Enterprise	yes	yes
AMIS networking (for both integrated and open AMIS sites)	AMIS	yes	yes
VPIM networking	VPIM	no	yes

Comparing Symposium Call Center Server voice services

Introduction

The CallPilot migration utility supports the migration of Symposium Call Center Server prompts from Meridian Mail to CallPilot. After migration, you can integrate CallPilot into the Symposium Call Center Server environment. This section identifies the differences between Meridian Mail and CallPilot voice services in a Symposium Call Center Server environment.

Comparison of CallPilot and Meridian Mail voice services

Feature	Meridian Mail	CallPilot
Call processing control	Meridian Mail uses the serial X.25 AML link.	CallPilot uses the TCP/IP and MLS protocols on the CLAN.
Voice services control	Meridian Mail uses the serial ACCESS link.	CallPilot uses the TCP/IP and ACCESS protocols over the ELAN.
Voice segment storage	Voice segments are stored in a mailbox. Access is controlled with a password.	Voice segments are stored in a folder. Access is controlled by Application Builder logon.
Voice segment length	Voice segments cannot exceed 2 minutes.	Voice segments cannot exceed 10 minutes.

Feature	Meridian Mail	CallPilot
Managing voice prompts	You use the Voice Prompt Editor in the Symposium Call Center Server administration client to administer and edit voice prompts.	You use CallPilot Application Builder to record and play voice prompts. To edit segment length, you must use a third-party application. **Note:** Application Builder is shipped with CallPilot. However, you must install it separately; refer to the *CallPilot Application Builder Guide*
Voice segment update	The voice segment is updated for the next call in which the segment is played.	The voice segment is updated for the next time the segment prompt is played.
Voice segment deletion	When a segment is deleted, the IDs of all subsequent segments are renumbered consecutively.	Segment IDs do not change when segments are deleted.
Voice prompt migration	Not applicable	When you migrate voice segments from Meridian Mail to CallPilot, the segment name is preserved. The title is concatenated to the segment script (for example, <*title*>script). **Note:** A duplicated file name is flagged if prompts are migrated from different mailboxes on Meridian Mail.

Feature	Meridian Mail	CallPilot
Front-end IVR robustness	Meridian Mail ACD-DN night call forward (NCFW) to the Symposium Call Center Server CDN.	CallPilot default ACD-DN NCFW to Symposium Call Center Server CDN.
Maximum capacity	Meridian Mail supports 96 ports.	CallPilot supports 96 ports.

Comparing Meridian Mail and CallPilot terminology

Overview

The following table compares the Meridian Mail and CallPilot feature names.

Meridian Mail feature name	CallPilot feature name
Interface	
Meridian Mail Voice Messaging	CallPilot Voice Messaging
Fax Messaging Fax Call Answering	CallPilot Multimedia Messaging
Meridian Mail User Interface (MMUIF)	Multimedia messaging user interface (MMUI)
not applicable	Speech Activated User Interface
Service name	
Meridian Mail Call Answering	Call Answering
Meridian Mail Express Messaging	Express Voice Messaging
not applicable	Fax Call Answering
not applicable	Express Fax Messaging
not applicable	Speech Activated Messaging

Meridian Mail feature name	CallPilot feature name
Symposium Messenger	Desktop Messaging
Meridian Mail Outcalling	Outcalling
Meridian Mail Voice Services Administration	Application Builder
Meridian Mail Voice Forms	Not applicable
Meridian Mail Voice Forms Transcription Service	Not applicable
Maintenance services	
Fax Item Maintenance	Fax Item Maintenance
Voice Prompt Maintenance	Voice Item Maintenance
Remote Activation	Remote Application Activation
Networking and network services	
AMIS Networking	AMIS Networking
AMIS Virtual Node Networking	Integrated AMIS Networking
Enterprise Networking	Enterprise Networking
Meridian Mail Net Gateway	VPIM Networking
NMS Networking	NMS Networking
Remote User Propagation or Names Across the Network	Names Across the Network
Outcalling services	
Meridian Mail Remote Notification	Remote Notification

Meridian Mail feature name	CallPilot feature name
Delivery to Non User (DNU)	Delivery to Telephone
Fax Call Back	Delivery to Fax
Desktop messaging clients	
Nortel Messenger Client	Not applicable
Not applicable	Desktop Messaging for Microsoft Exchange
Not applicable	Desktop Messaging for Microsoft Outlook
Not applicable	Desktop Messaging for Lotus Notes
Not applicable	Desktop Messaging for GroupWise
Mailbox management	
Class of Service (COS)	Mailbox Class
Personal Distribution List	Personal Distribution List
System management	
MMI	CallPilot Manager
Meridian Mail Reporter	Reporter
Hacker Monitor	Hacker Monitor
AutoAdmin	AutoAdd
Restriction/Permission List	Restriction/Permission List
System Distribution List (SDL)	Shared Distribution List (SDL)
SEER Reports/Codes	Alarms & Events

Meridian Mail feature name	CallPilot feature name
Meridian Mail Multi-Customer	Multi-Tenant
Multi-Customer	Not applicable
Local Voice User	Local User
Remote User	Remote User
Directory Entry User	Local Directory Entry
Application Builder blocks	
Meridian Mail Voice Menu	Menu
Meridian Mail Announcement	Announcement
Meridian Mail Thru-Dial Service	Thru-Dial
Meridian Mail Time-of-Day Controller	■ Time Control ■ Day Control ■ Date Control
Meridian Mail Fax on Demand	■ Fax Select ■ Fax Send
performed by voice menu	Password Check
performed by voice menu	Call Transfer
performed by voice menu	Rotary Dial
performed by voice menu	Language Select
not applicable	Imported Application
not applicable	Attendant Block

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CallPilot

Meridian Mail to CallPilot Migration Utility Guide

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