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CallPilot

Installation and Configuration

Part 4: Software Installation and Maintenance

Product release 2.02 Standard 1.0 October 2003

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CallPilot

Installation and Configuration
Part 4: Software Installation and Maintenance

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Chapter 1

About this guide

Introduction

This guide provides information and instructions for expanding, upgrading, updating, installing, or reinstalling CallPilot software.

Who should read this guide

This guide is for administrators, technicians, and engineers who are responsible for installing, upgrading, or maintaining a CallPilot server. This guide assumes that you

- have basic computing skills
- are maintaining an existing CallPilot server

Upgrading CallPilot software

You can upgrade your CallPilot server using one of the following scenarios:

- Upgrade the server from a previous release.
- Upgrade the server from a previous release before performing an expansion.
- Upgrade the server from a previous release at the same time as performing an expansion.

You cannot downgrade to a previous version of CallPilot software.

For more information about performing an upgrade, refer to the *CallPilot 2.02 Upgrade Guide*.

Installing Performance Enhancement Packages

When Nortel Networks makes changes to the CallPilot software, the changes are distributed to you as Service Updates (SUs). SUs must be installed:

- when they are released by Nortel Networks, to enable you to implement new enhancements
- each time you perform an upgrade from a previous release
- when you need to rebuild your system

For more information, see “Installing Performance Enhancement Packages” on page 29.

Installing, reinstalling, or uninstalling CallPilot server software

Installing CallPilot server software

The server ships with CallPilot software already installed. Therefore, you only need to install CallPilot server software if you are rebuilding your CallPilot system to recover from a system failure.

For more information, see “Installing CallPilot server software” on page 43.

Reinstalling CallPilot server software

If CallPilot is not functioning, you can reinstall either the CallPilot languages, the CallPilot server software, or both. A reinstallation may correct the problem.

The reinstallation procedure copies CallPilot program files from the CallPilot Server Software CD-ROM to a CallPilot system running the same version of CallPilot software. This process does not affect system or user data. It recovers most CallPilot program files, but it does not recover the operating system or service pack.

For more information, see “Reinstalling CallPilot server software” on page 51.

ATTENTION

If you encounter problems when reinstalling the CallPilot software, languages, or both, or if the reinstallation does not correct the problem, contact your Nortel Networks technical support representative.

Uninstalling CallPilot server software

When you want to remove CallPilot completely from your system, you must uninstall the software. When you uninstall the CallPilot software, the uninstall process removes the following items:

- CallPilot entries in the Windows NT Registry
- the CallPilot server database
- CallPilot files
- user data, mailboxes, and messages

For more information, see “Uninstalling CallPilot server software” on page 57.

Performing a platform migration

You perform a platform migration when you want to migrate from one CallPilot server to another CallPilot server without losing any existing CallPilot information. The migration path must be from an existing CallPilot platform to another equivalent or larger CallPilot platform.

You cannot

- downgrade the CallPilot system during a cross-platform migration
- downgrade the CallPilot voice, fax, and speech recognition channels to zero

  For example, you can reduce fax channels from two to one. You cannot reduce fax channels from two to zero.

- reduce the number of CallPilot voice, fax, speech activated messaging, or desktop messaging users (seats), and so on, when migrating from the current platform to the target platform

For more information, see Chapter 3, “Performing a platform migration.”

Expanding CallPilot features

You must acquire a new keycode before you can perform a feature expansion. Once you have the keycode, you can expand the following types of CallPilot features:

- channels
- number of MPUs
- features such as AppBuilderFax and Networking

Note: CallPilot does not support feature reduction except for the number of channels that have been previously allocated. You cannot reduce the number of channels to 0.

For more information, see Chapter 4, “Expanding CallPilot features.”

Installing CallPilot Manager software

The CallPilot Manager software is a web-based administration application. It is installed on the CallPilot server at the factory. You can also install CallPilot Manager on a stand-alone web server.

For more information, see Chapter 5, “Installing CallPilot administrative software on a stand-alone web server.”

Installing desktop messaging software

If you want mailbox owners to use their PCs to send, receive, and manage their voice messages, you must install the following components:

- desktop messaging

  Desktop messaging is a unified messaging application that works with an e-mail client to provide a single graphical interface for managing CallPilot voice, fax, and text messages, as well as e-mail messages.

- My CallPilot

  My CallPilot is a web-based portal that provides access to CallPilot messages and mailbox configuration over the Internet. My CallPilot includes the following components:

  - Web Messaging—Send, receive, and manage CallPilot messages and e-mail messages.
  - Mailbox Manager—Set mailbox and messaging options, previously configurable from the telephone only.
  - Useful Information—View online guides for CallPilot applications.

For more information, see Chapter 6, “Installing desktop messaging and My CallPilot.”

Recovering from a system failure

If the CallPilot system fails due to a software or hard drive problem, then you must recover the system. How you recover the system depends on the circumstances in which the failure occurred.

For more information, see Chapter 7, “Recovering from system failures.”

Note: You must contact your distributor for assistance.

Chapter 2

Upgrading or installing CallPilot server software

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Overview

Introduction

This section describes how to upgrade, install, reinstall, or uninstall CallPilot server software.

Upgrading server software

You can upgrade your server from CallPilot 1.07.09 to CallPilot 2.02. If your server is running a version earlier than 1.07.09, you must upgrade to 1.07.09 before you can upgrade to CallPilot 2.02.

Installing Performance Enhancement Packages

Performance Enhancement Packages (PEPs) are software fixes, updates that enhance CallPilot features, or both. For an initial installation of CallPilot, PEPs are provided on the CallPilot 2.02 PEP CD-ROM. Additional PEPs, when they become available, are provided in the form of Service Updates (SUs) that you can download from the Nortel Networks Meridian PEP Library.

Installing server software

The CallPilot server ships from the factory with software already installed. However, if necessary, you can install CallPilot server and CallPilot Manager software. Install the software only when you need to perform a system recovery (system rebuild).

Note: When you install CallPilot server software, CallPilot Manager software is automatically installed as well.

Reinstalling server software

If CallPilot is not functioning, you can reinstall the CallPilot server software. This may correct the problem. If it does not correct the problem, then contact your Nortel Networks technical support representative for assistance.

The reinstallation procedure copies CallPilot program files from the CallPilot Server Software CD-ROM to a CallPilot system running the same version of CallPilot software. This process does not affect system or user data. It recovers most CallPilot program files, but it does not recover the operating system or service pack.

If only the language prompts are not functioning (for example, no prompts are played when you log on), then you can reinstall languages to try to fix the problem. Languages are reinstalled by running the Configuration Wizard.

ATTENTION

If you encounter problems when reinstalling the CallPilot software, languages, or both, or if the reinstallation does not correct the problem, contact your Nortel Networks technical support representative.

Uninstalling CallPilot server software

Uninstallation of CallPilot software removes the following items:

- CallPilot entries in the Windows NT Registry
- the CallPilot server database
- CallPilot files and linguistic information
- user data, mailboxes, and messages

Viewing installation and configuration log files

Introduction

If your CallPilot server is experiencing operational problems after installation or upgrade, you can review log files to determine if the problem is related to installation errors, configuration errors, or both.

Installation or upgrade event log file

The installation logs for CallPilot server software and CallPilot Manager software track the activities associated with any install, reinstall, upgrade, or uninstall operation. The logs also track any fatal errors that interrupt these operations.

To review the installation log files, use any text editor, such as Notepad. The files are located on the server as follows:

Log file	Location
CallPilot server software installation log	c:\CallPilot\CallPilot20.log
CallPilot Manager software installation log	c:\CallPilot\CPManager.log
CallPilot operating system installation log	c:\OSSetup.log or d:\OSSetup.log (if the operating system is on drive D:\)

Configuration Wizard log file

When an error occurs during configuration, an event or return code is recorded in the Configuration Wizard log file. To view the Configuration Wizard log file, use any text editor, such as Notepad. The file is located on the server in d:\Nortel\bin\Configwizard.log.

If you can log on to the CallPilot server with CallPilot Manager, you can refer to the Event Code online Help in CallPilot Manager for an interpretation of the event and return codes. If you are not able to log on to the CallPilot server with CallPilot Manager, contact your Nortel Networks technical support representative.

Section A: Upgrading the CallPilot server

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Upgrade overview

Upgrade process

The process of upgrading a CallPilot 1.07 server to CallPilot 2.02 consists of the following stages:

1. Ensure that the CallPilot server is ready for the upgrade by completing the tasks on the Upgrade Readiness Checklist.
2. Update the Windows NT operating system with the components that are required by CallPilot 2.02.

   Note: After you update Windows NT, you can optionally install antivirus software that has been approved by Nortel Networks for use with CallPilot. You must supply your own antivirus software. For information about the antivirus software packages that have been approved by Nortel Networks, refer to *Product Bulletin 2003-0151-Global: CallPilot Support for AntiVirus Applications*.
3. Upgrade the CallPilot server and administration software.
4. If necessary, install PEPs.
5. Perform hardware changes, as required, to ensure that
   - the CallPilot server hardware has the capacity required to run CallPilot 2.02
   - the MPB16-4 boards are correctly installed in the CallPilot server
6. Perform the following tasks to put the upgraded system into operation:
   - Log on to the server with CallPilot Manager and run the Configuration Wizard.
   - Configure and start the SNMP service, if required.
   - Test the upgraded system.
   - If the upgrade was successful, and the CallPilot server is equipped with a RAID controller, resynchronize the hard drives.

More information

For instructions on how to upgrade the CallPilot server to Release 2.02, refer to the *CallPilot 2.02 Upgrade Guide*.

Section B: Installing Performance Enhancement Packages

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About Performance Enhancement Packages

Introduction

Performance Enhancement Packages (PEPs) are software fixes, updates that enhance CallPilot features, or both.

How to acquire new PEPs

CallPilot PEPs are provided on the CallPilot 2.02 PEP CD-ROM. Additional PEPs, when they become available, are provided in the form of Service Updates (SUs), or as downloadable files from the Nortel Networks web site, as follows:

PEP availability format	How to acquire it
SU CD-ROM kit (NTZE60AC)	You can order the SU CD-ROM kit from Nortel Networks. There is no charge for the kit.
Downloadable SU or PEP files from Nortel Networks	Access the Nortel Networks Meridian PEP Library (MPL) at one of the following URLs: ■ North America: https://www43.nortelnetworks.com/MPL ■ Europe, Middle East, and Africa: https://www21.nortelnetworks.com/MPL and then navigate to the “Multimedia PEP Tools” section.

PEP availability format	How to acquire it
Downloadable SU or PEP files from Nortel Networks (continued)	**Notes:** ■ If you cannot access the Meridian PEP Library, or if you cannot find the SUs, then contact your Nortel Networks representative. ■ The Meridian PEP Library is a secure web site and requires a user name and a password to log on. If you do not currently have an account, you must apply for one. It can take up to 72 hours to process your account request.

About Service Updates

A Service Update (SU) is a consolidation of all of the PEPs that have been released since CallPilot 2.02 became available. A particular SU may contain product improvement PEPs, software fix PEPs, or both.

Each time you install an SU, the previous SU is automatically uninstalled. The current SU includes all of the PEPs that were released in previous SUs.

If you download an SU, run it to extract all folders and files into the Temp folder on the server's hard drive.

Identifying Service Updates and PEPs

Service Updates and PEPs on the PEP CD-ROM are labeled in the following format: CPxxxxxxxyyz or CMxxxxxxxyyz, where

CP	CallPilot
CM	CallPilot Manager
xxxxxxx	is the release level (for example, 20123SU)

yy	is the PEP number for the release, which can range from 001 to 999
z	identifies the component to which the PEP applies: A: administration software update D: desktop messaging software update L: language update S: server software update W: web messaging software update

Readme files

Readme files are provided in the following locations on the SU CD-ROM or in the PEP, as follows:

- in the root directory on the SU CD-ROM

  This readme file provides a general description of the PEP packages and general install and uninstall instructions.

- in each PEP package folder

  These readme files provide a list of all the PEPs in that package, and specific install and uninstall instructions.

- in each PEP folder

  These readme files describe the purpose of the PEP and may provide some installation instructions.

Installing Performance Enhancement Packages

Before you begin



CAUTION

Risk of system problems

For specific SU or PEP installation instructions, refer to the readme files that are provided with the SU or PEP. In many cases, you must uninstall and install PEPs in a specific order. The readme files provide these instructions. When the readme files instruct you to uninstall or install PEPs, refer to the procedures in this section.

ATTENTION

If your CallPilot system is up and running, Nortel Networks recommends that you do the following:

1 Perform a system backup.
For instructions on performing a system backup, refer to the *CallPilot Administrator's Guide* (NTP 555-7101-301).

2 Take CallPilot out of service by disabling all call channels.
For instructions, refer to "Stopping and starting channels" in Part 1 of the *CallPilot Installation and Configuration* binder.

To install a PEP

1. Ensure that you are logged on to the server where you want to begin PEP installation.

   Use a logon account that has administrative privileges (for example, Administrator).

2. Insert the CallPilot 2.02 PEP CD-ROM or the Service Update CD-ROM into the CD-ROM drive.

3. Click Start → Run.

   Result: The Run dialog box opens.

4. Click Browse.

   Result: The Browse dialog box opens.

5. Navigate to the CD-ROM drive (Z:).

6. Open and review the readme files that are in the root directory and in the folder for each PEP package for specific uninstallation instructions, installation instructions, or both.

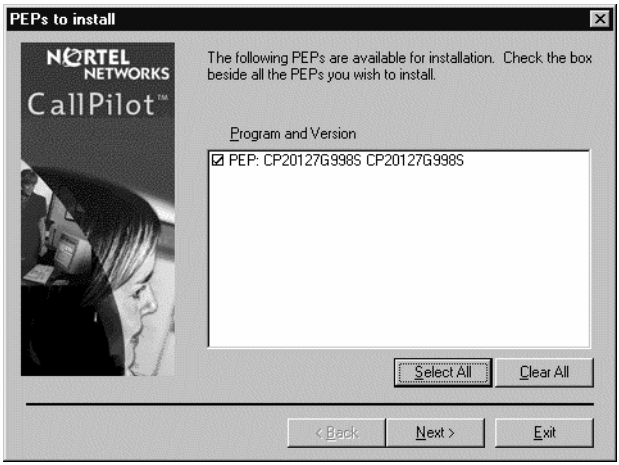
7. Double-click the runme.exe file, and then click OK.

   Result: Setup examines the system, and the PEPs to install window appears.

ATTENTION

It can take 5 to 20 minutes for the PEPs to install window to appear, depending on the number of PEPs and the system configuration. In the meantime, a gray box may appear while the window is loading. Do not use the mouse or keyboard during this time.

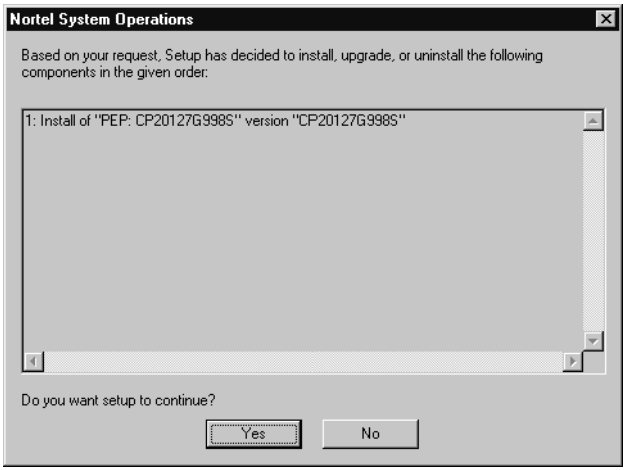
Note: The following example is for illustration purposes only, and may not reflect what appears on your system:



8 Select the PEPs to install, and then click Next.

If you are uncertain about which PEPs to install, refer to the readme file located in the root directory of the CD-ROM.

Result: The Nortel System Operations window appears and lists all components in the order in which they will be installed.



9 Click Yes to continue.

Result: The selected PEPs check the system to determine if any tools are open. If tools are open, you receive the following warning:

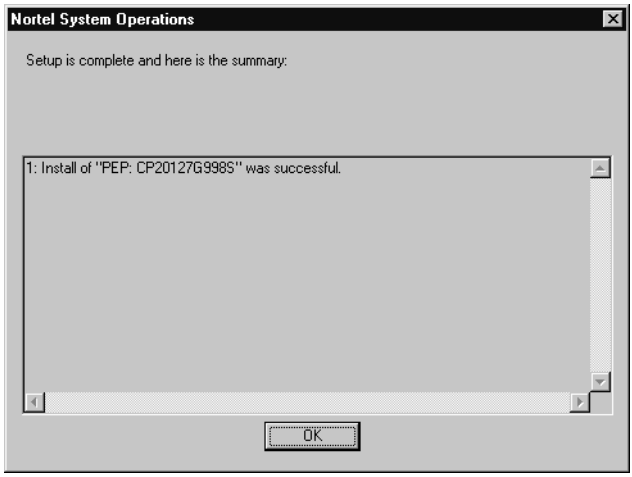


Close the tools, and then click Retry.

The system automatically shuts down all services, and the PEPs are installed. The time it takes to shut down the services and install the PEPs is based on what is contained in the PEPs. This can be a minimum of 10 to 15 minutes.

Note: CallPilot automatically removes obsolete PEPs when you install new PEPs.

When PEP installation is finished, a summary of the installation appears, showing the success or failure of each PEP operation. The PEPs displayed may be different for your server.



10 Click OK.

11 Repeat this procedure for other PEP packages.

12 You may or may not be prompted to restart the server.

To determine if a restart is required after PEP installation, refer to the PEP's readme.txt file.

Uninstalling Performance Enhancement Packages

Introduction

This section describes how to remove PEPs from the CallPilot system.

To uninstall a PEP

CallPilot automatically removes obsolete PEPs when you install new PEPs. However, there can be times when you want to uninstall a PEP yourself.

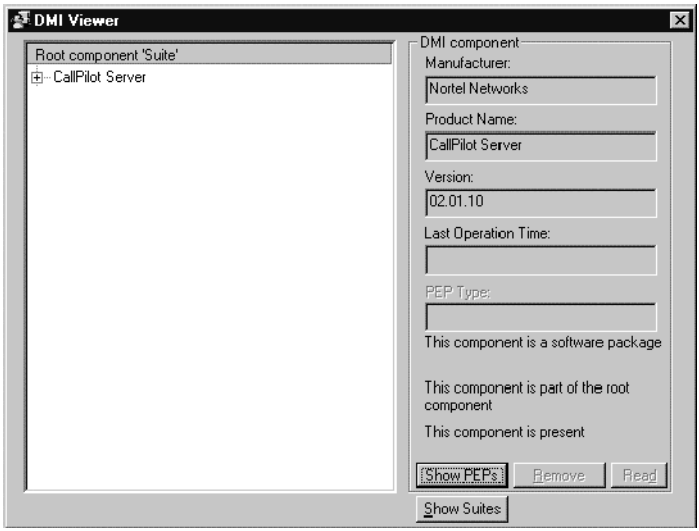
1 Log on to the server where you want to begin the PEP uninstall.

Use a logon account that has administrative privileges (for example, Administrator).

2 Click Start → Programs → CallPilot → System Utilities → PEP Maintenance Utility.

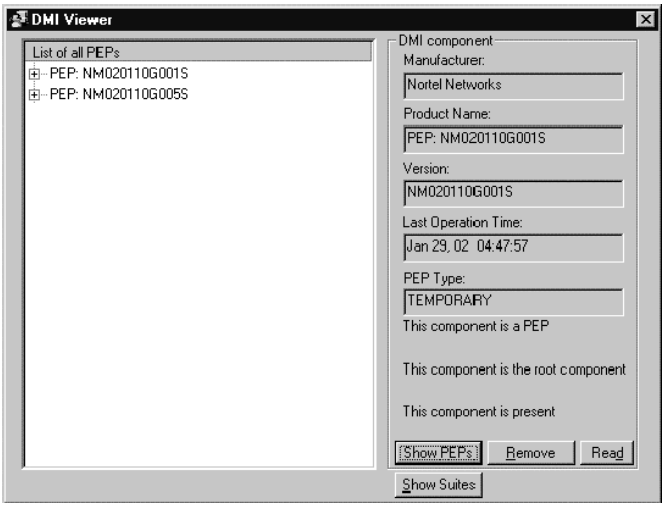
Result: The DMI Viewer window appears.

Note: The following example may not reflect exactly what appears on your system:



3 To view a list of all PEPs, click Show PEPs.

Result: A list of all PEPs appears.

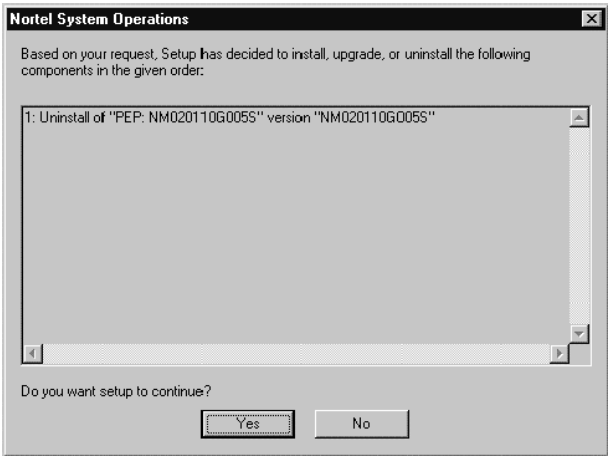


4 Select the PEP you want to uninstall.

You can use Ctrl+click to select multiple PEPs to uninstall in one operation.

5 Click Remove.

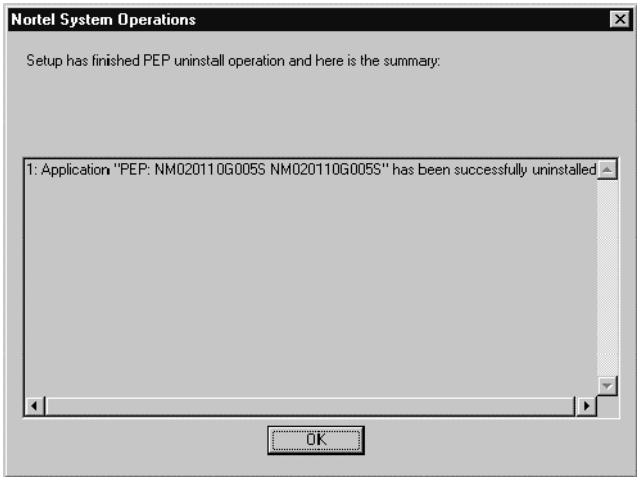
Result: The system prompts you to confirm this choice.



6 Click Yes.

Result: The system automatically shuts down all services and uninstalls the selected PEPs. The time it takes to shut down the services and uninstall the PEPs is based on what is contained in the PEPs. Usually, this is a minimum of 10 to 15 minutes.

When the uninstall is finished, a summary similar to the following appears:



7 Click OK.

Result: The system automatically restarts all services, and you are returned to the DMI Viewer window.

Note: You may be prompted to restart the server.

What's next?

Continue with the next step that is identified in the Service Update or PEP readme file.

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Installing the CallPilot server software

Introduction

This section explains how to install the following software on the server:

- CallPilot server software
- CallPilot Manager web-based administration software

Use this procedure when you need to install (or reinstall) the CallPilot software as part of a system recovery.

Internet Information Server

The CallPilot Manager web-based software requires Internet Information Server (IIS) version 4 or 5. If you are performing a system rebuild, IIS is installed automatically when you reinstall Windows NT.



CAUTION

Risk of system interruption or malfunction

Do not download and install any IIS security patches from the Microsoft web site unless they have been approved for CallPilot by Nortel Networks. Installation of unapproved security patches may result in incorrect operation of your CallPilot system.

To determine which patches have been approved by Nortel Networks, refer to the latest issue of the *CallPilot General Release Bulletin*.

Materials you need

To install the CallPilot server software on your server, you need the following items:

- CallPilot 2.02 Server Software CD-ROM
- CallPilot 2.02 PEP CD-ROM
- CallPilot 2.02 Language CD-ROMs (set of 3)
- current password for the Administrator, NGenSys, or NGenDist account

Time required for installation

It takes about 15 to 20 minutes to install both the CallPilot server software and the CallPilot Manager software on the server.

To install the CallPilot server software

1. Insert the CallPilot 2.02 Server Software CD-ROM into the CD-ROM drive.
2. Click Start → Run.

   Result: The Run dialog box opens.
3. Click Browse.

   Result: The Browse dialog box opens.
4. Navigate to the CD-ROM drive (Z:).
5. Double-click the setup.exe file that is located in the root folder.
6. Click OK.

   Result: The Application Installer asks you to confirm the installation or reinstallation.

7 Click OK.

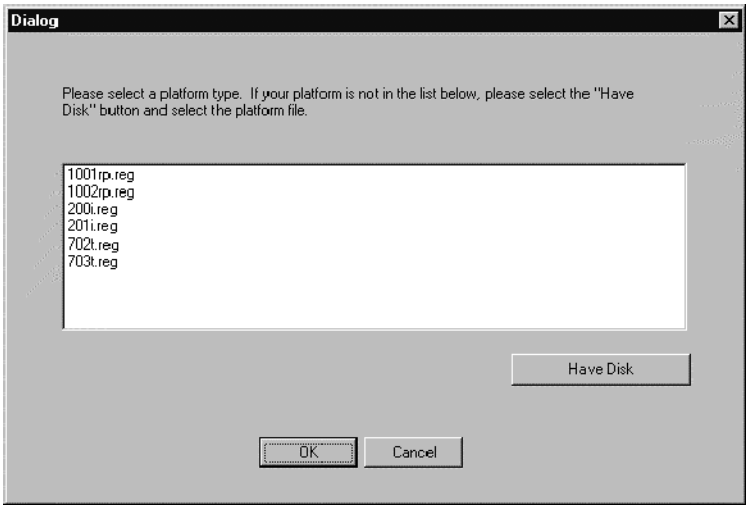
The following screen appears:



The installation continues. During the installation, the Application Installer

- displays a progress bar that indicates the percentage that is completed
- highlights each item on the splash screen as it is processed

When the “Setting the platform” item begins, the following dialog box appears:

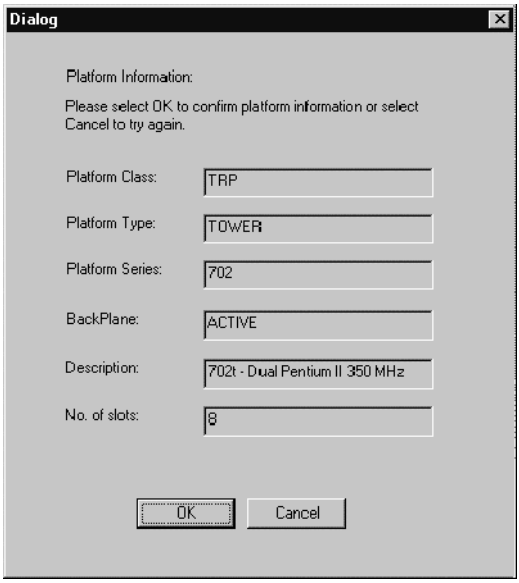


8 Do the following:

IF your server model	THEN
appears in the list	click the model, and then click OK. **Result:** CallPilot updates the Windows NT registry with the model that you selected.
does not appear in the list	the server model you are using was introduced by Nortel Networks after this guide was released. Do the following: **a.** Click Have Disk. **Result:** The Open dialog box appears. **b.** Insert the floppy disk that was provided with your server into the floppy disk drive on the server.

IF your server model	THEN
does not appear in the list (continued)	**c.** Locate and select the platform file you want to use, and then click Open. **Result:** CallPilot updates the Windows NT registry with the model that you selected.

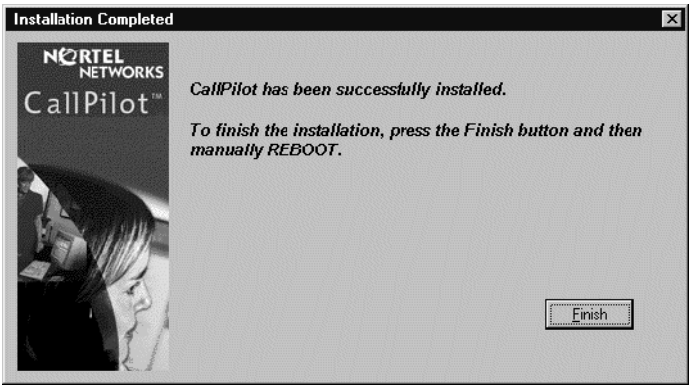
Result: A dialog box similar to the following example appears to confirm your platform selection:



9 Click OK.

Result: Installation continues. When it is finished, the Application Installer automatically begins installing the CallPilot Manager software.

When the CallPilot Manager software installation is finished, the following dialog box appears:



10 Remove the CD-ROM from the CD-ROM drive.

11 Click Finish.

12 Restart the server.

What's next?

Run the Configuration Wizard to configure the server. For instructions, refer to "Configuring the CallPilot server software" in Part 3 of the *CallPilot Installation and Configuration* binder.

Section D: Reinstalling CallPilot server software

In this section

Overview 52
Reinstalling languages 53
Reinstalling the server software 55

Overview

Introduction

This section describes how to recover from system malfunction by doing one of the following:

- Reinstall languages.
- Reinstall the CallPilot server software.

Recovering from a software malfunction

If the hard drive is functioning but the CallPilot software is not working correctly, you can reinstall the software. This may correct the problem. If it does not correct the problem, then you may need to rebuild the system (see “Recovering from system failures” on page 161).

The reinstallation procedure copies CallPilot program files from the CallPilot Server Software CD-ROM to a CallPilot system running the same version of CallPilot software. This process does not affect system or user data. It recovers most CallPilot program files, but it does not recover the operating system or service pack.

Reinstalling languages

If only the language prompts are not functioning (for example, no prompts are played when you log on), then you can reinstall languages to try to fix the problem.

Note: Language reinstallation does not affect custom prompts.

Reinstalling languages

Introduction

If only the language prompts are not functioning (for example, no prompts are played when you log on), then you can reinstall languages to try to fix the problem.

ATTENTION

If you encounter problems when reinstalling the language prompts, contact your Nortel Networks customer support representative.

Impact of language reinstallation on custom prompts

Language reinstallation does not affect custom prompts. The custom prompts are automatically backed up and restored by the language reinstallation process.

Requirements

To reinstall languages, you need the CallPilot 2.02 Language CD-ROMs (3).

To reinstall languages

1. Log on to the CallPilot server with CallPilot Manager.

   For instructions, see “Logging on to the CallPilot server with CallPilot Manager” on page 108.

2. On the main CallPilot Manager page, click Configuration Wizard.

   a. Click Next on each Configuration Wizard page to keep the current values.

b. When you reach the Language Source Directory page, insert the CallPilot 2.02 Language CD-ROM into the CD-ROM drive, and then install the languages.

c. Click Next through the remaining Configuration Wizard pages.

d. On the last page, choose Apply the Current Configuration, and then click Finish.

Result: The system applies the configuration changes to the server. When completed, the system prompts you to restart the server.

Note: The configuration changes can take up to 1 hour to apply.

e. Restart the server.

3 Test the system to ensure it operates as expected.

For instructions, refer to “Testing the CallPilot installation” in Part 3 of the *CallPilot Installation and Configuration* binder.

Reinstalling the server software

Introduction

If the hard drive is functioning but the CallPilot server software is not working correctly, you can reinstall the CallPilot server software. This may correct the problem. If it does not correct the problem, then you may need to rebuild the system (see “Recovering from system failures” on page 161).

What reinstallation does

The reinstallation procedure copies CallPilot program files from the CallPilot Server Software CD-ROM to a CallPilot system running the same version of CallPilot software. This process does not affect system or user data. It recovers most CallPilot program files, but it does not recover the operating system or service pack.

ATTENTION

If you encounter problems when reinstalling the CallPilot software, contact your Nortel Networks customer support representative.

Requirements

To recover from corrupted software, you need the following items:

- the CallPilot 2.02 Server Software CD-ROM that has the same release that is running on the CallPilot server
- the CallPilot 2.02 PEP CD-ROM
- the CallPilot 2.02 Language CD-ROMs (3)

To reinstall the CallPilot server software

1. Install the CallPilot server software.

   For instructions, see “Installing the CallPilot server software” on page 44.

2. When you are prompted, insert the CallPilot 2.02 PEP CD-ROM into the CD-ROM drive, and then reinstall the PEPs.

   For instructions, see “Installing Performance Enhancement Packages” on page 29.

3. After all PEPs are reinstalled, restart the server.

4. Log on to the server with CallPilot Manager.

5. On the main CallPilot Manager page, click Configuration Wizard.

   a. Click Next on each Configuration Wizard page to keep the current values.

   b. When you reach the Language Source Directory page, insert the CallPilot 2.02 Language CD-ROM into the CD-ROM drive, and then install the languages.

   c. Click Next through the remaining Configuration Wizard pages.

   d. On the last page, choose Apply the Current Configuration, and then click Finish.

      Result: The configuration changes are applied to the server. When completed, you are prompted to restart the server.

      Note: The configuration changes take up to 1 hour to apply.

   e. Restart the server.

6. Test CallPilot.

   For instructions, refer to “Testing the CallPilot installation” in Part 3 of the *CallPilot Installation and Configuration* binder.

Section E: Uninstalling CallPilot server software

In this section

Overview 58

Uninstalling CallPilot server software 59

Overview

Introduction

If you want to remove the CallPilot software from your server, you must uninstall it.

ATTENTION

Once you start the uninstallation process, you cannot restore CallPilot if you decide to cancel the process. You must perform a new installation to load CallPilot onto the server.

Note: You cannot uninstall a specific language that has been installed.

What is removed during CallPilot uninstallation

Uninstallation of CallPilot software removes the following items:

- CallPilot entries in the Windows NT Registry
- all CallPilot entries in the server database
- CallPilot files and linguistic information

Before you begin

Obtain the current password for the Administrator, NGenSys, or NGenDist account.

Uninstalling CallPilot server software

Introduction

This section describes how to uninstall the CallPilot server software. Uninstallation removes the following items:

- CallPilot entries in the Windows NT Registry
- the CallPilot server database
- CallPilot files and linguistic information
- user data, mailboxes, and messages

Note: This procedure is valid for freshly installed, upgraded, or converted systems.

To uninstall CallPilot server software

1. Click Start → Programs → CallPilot → Uninstall.

   Result: You are prompted to confirm the uninstallation.

2. Click Yes to uninstall CallPilot.

   Result: The uninstall process runs automatically.

3. When the CallPilot uninstall is complete, you are prompted to restart the server.

4. Click Yes.

   Result: You are asked to confirm the restart.

5. Click OK to restart the server.

Section F: Uninstalling and installing pcAnywhere

In this section

Overview 62

To uninstall from Add/Remove Programs in the Control Panel 63

To install pcAnywhere on a CallPilot Server 63

Overview

One licensed copy of the pcAnywhere host is installed on the CallPilot server at the factory.

Administrators can use pcAnywhere over a dial-up, direct cable, or network connection to

- query server event logs
- shut down and restart the server
- perform limited file transfers between the personal computer and the CallPilot server
- start CallPilot Manager and use it to monitor the system and perform administration tasks
- use local Windows System Tools to maintain the CallPilot server

For more information about pcAnywhere, see the sections on configuring pcAnywhere in the *CallPilot Administrator's Guide* and changing pcAnywhere Passwords in *Part 3* of the *CallPilot Installation and Configuration* guides.

To uninstall from Add/Remove Programs in the Control Panel

1. Exit all open applications and stop the pcAnywhere host service.
2. Click Start, point to Settings, then click Control Panel.
3. Double-click the Add/Remove Programs icon.
4. Select pcAnywhere.
5. Click the Add/Remove button.
6. In the Symantec pcAnywhere Setup window, select Next.
7. Click on Remove, then Next.
8. Select Remove.
9. Select Finish.
10. On the pop-up window select YES to Restart the CallPilot Server.

To install pcAnywhere on a CallPilot Server

1. Insert the OS Recovery or Upgrade CD into the CD-ROM Drive.
2. Go to the PCAW10 folder.
3. Double click pcawcp2.EXE
4. In Symantec pcAnywhere Setup window, select “I accept the terms in the license agreement,” then select Next.
5. Select Finish.
6. On the pop-up window, select YES to Restart the CallPilot Server.

Chapter 3

Performing a platform migration

In this chapter

Platform migration requirements 66

Platform migration overview 71

Performing a platform migration 78

Platform migration requirements

Introduction

You perform a platform migration when you want to migrate from one CallPilot server to another CallPilot server without losing any existing CallPilot information. The migration path must be from an existing CallPilot platform to another equivalent or larger CallPilot platform.

You cannot

- downgrade the CallPilot system during a cross-platform migration
- reduce the CallPilot voice, fax, and speech recognition channels to zero

  For example, you can reduce fax channels from four to two. You cannot reduce fax channels from two to zero.
- reduce the number of CallPilot voice, fax, speech activated messaging, or desktop messaging users (seats), and so on, when migrating from the current platform to the target platform

Supported platform migration paths

The following list identifies the supported migration paths for a server that is connected to a Meridian 1 or Succession 1000 system:

Original server	Target server
200i	201i, 703t, or 1002rp
201i	201i, 703t, or 1002rp
702t	703t or 1002rp
703t	703t

Original server	Target server
1001rp	1002rp
1002rp	1002rp

Notes:

- For more information about the CallPilot software requirements, see "Software requirements" below.
- You perform a migration to the same platform when the server hardware must be replaced due to a hardware failure.

Software requirements

The following section describes the CallPilot server software requirements:

Software version

The original server must run CallPilot 2.02 or later before performing the platform migration.

If the original server is running CallPilot 1.07 or earlier, you must upgrade the server to CallPilot 2.02 before performing the migration. For instructions on upgrading from CallPilot 1.07 to CallPilot 2.02, refer to the *CallPilot 2.02 Upgrade Guide*.

For instructions on upgrading from a previous release to CallPilot 1.07, refer to your CallPilot 1.07 documentation.

Performance Enhancement Packages

Both platforms must run the same release of software (including Performance Enhancement Packages [PEPs]).

IF the target server	THEN
contains *newer* software, PEPs, or both	you must do the following, as applicable: ■ Upgrade the original server so that the software release matches the target server. ■ Update the original server (that is, install PEPs) so that the service update version matches the target server.
contains *older* software, PEPs, or both	you must reinstall the operating system, CallPilot server software, and PEPs on the target server, so that the target server matches the original server. For instructions on reinstalling the operating system, see Chapter 8, “Installing the operating system on the CallPilot server.” For instructions on installing the CallPilot server software and PEPs, see Chapter 2, “Upgrading or installing CallPilot server software.”

PEPs are provided on the CallPilot 2.02 PEP CD-ROM. You can also obtain new individual PEPs, as well as PEP packages, from the Nortel Networks Meridian PEP Library (MPL) at one of the following URLs:

- North America: https://www43.nortelnetworks.com/MPL
- Europe, Middle East, and Africa: https://www21.nortelnetworks.com/MPL

CallPilot PEPs are listed in the “Multimedia PEP Tools” section.

Note: The Meridian PEP Library is a secure web site and requires a user name and a password to log on. If you do not currently have an account, you must apply for one. It can take up to 72 hours to process your account request.

Platform migration and feature expansion

If you purchased a feature expansion that requires a platform migration, you must perform the platform migration before the feature expansion. In this situation, you receive two keycodes—one for the platform migration and one for the feature expansion.

Hardware requirements

If the backup is done on a tape, then both the original and target servers must have compatible tape drives. If you are working with a 200i or 201i server, refer to the following documents for instructions on connecting the tape drive:

- 200i server: Part 2 of your *CallPilot 1.07 Installation and Configuration* binder
- 201i server: “Peripheral connectivity” in Part 2 of the *CallPilot 2.02 Installation and Configuration* binder

Required materials

CallPilot server information

You need the following information when setting up the target server:

- target server’s serial number and keycode
- TCP/IP information for the ELAN and CLAN network interface cards

If the target server will not reuse the IP addresses of the original server, then the network administrator must provide this information.

Software media

You need the following items to perform the migration:

- CallPilot 2.02 OS Recovery or OS Upgrade CD-ROM
- CallPilot 2.02 Server Software CD-ROM
- CallPilot 2.02 PEP CD-ROM
- CallPilot 2.02 Language CD-ROMs (3)
- CallPilot 2.02 keycode

Documentation

You must have the following documentation:

- the latest issue of the *CallPilot General Release Bulletin* (GRB)
- *CallPilot Administrator's Guide* (NTP 555-7101-301)
- *CallPilot Support Tools Guide for Support Personnel*

You can obtain CallPilot documentation and documentation updates from the Nortel Networks Partner Information Center (PIC) at http://my.nortelnetworks.com.

If you do not have a PIC account, click New Account to register for an account. It can take up to 72 hours to process your account request.

Note: If you cannot access the Partner Information Center, or if you cannot find the item you need, then contact your Nortel Networks technical support representative.

Platform migration overview

Introduction

This section summarizes the major steps and estimated time for a platform migration. If you need more information, more descriptive information is provided in “Performing a platform migration” on page 78.

The server is out of service for approximately 8 to 13 hours. (The time is based on the platform configuration and the steps that are required to complete your platform migration.) You can calculate the exact time it takes for your server from the steps outlined in this section.

ATTENTION

Do not connect the target server to the network while the original server is still connected to the network, as this can result in network conflicts.

Stage 1: Ensure that both servers are running identical software versions

Both platforms must run the same release of software (including the Service Update version).

Steps		Time required
1	Compare the software versions on both servers. For more information, see “Software requirements” on page 67.	approximately 5 minutes

Steps		Time required
2	Upgrade the CallPilot software on the original server, if required. If the original server is running 1.07.09 or later, refer to the *CallPilot 2.02 Upgrade Guide*. If the original server is running a version earlier than 1.07.09, refer to your CallPilot 1.07 documentation.	approximately 20 minutes
3	Install the latest Service Update or PEPs on the original server, if required. For more information, see “Installing Performance Enhancement Packages” on page 29.	15 minutes
4	When the updates are finished, restart the original server.	10 minutes
Total time		up to 50 minutes

Stage 2: Verify that the correct SCSI device and tape drive drivers are installed

Steps		Time required
5	If the original server is a 200i server, verify that the correct SCSI driver is installed. If the version is not current, a blue screen error occurs. For more information, see step 5 on page 79.	■ 5 minutes, if the version is current ■ approximately 5 minutes if you must install the new version, plus 10 minutes to restart the server

Steps		Time required
6	Verify that the tape drive driver is installed on both servers. If the original server was upgraded to CallPilot 2.02, it is possible that the tape drive driver is not installed. For more information, see step 6 on page 80.	■ 10 minutes, if the version is current on both servers ■ approximately 5 minutes for each server, if you must install the new version, plus 10 minutes to restart each server
Total time		up to 45 minutes

Stage 3: Back up the original server

Steps		Time required
7	Perform a full system backup on the original server. For more information, see step 7 on page 81.	See “Calculating the time to fully back up a CallPilot system to tape” below.

Calculating the time to fully back up a CallPilot system to tape

The following table identifies how long it takes to fully back up a CallPilot system to tape under light traffic conditions. The times include tape retension time of 6 minutes.

Under moderate or heavy traffic conditions, expect the backup to take an additional 5 to 15 minutes.

Platform	Attached tape drive	Tape type	Hours of storage	Estimated maximum time for full backup
200i	SLR5	SLR5	200	1 hour, 58 minutes
201i	SLR5	SLR5	350	2 hours, 55 minutes

Platform	Attached tape drive	Tape type	Hours of storage	Estimated maximum time for full backup
702t 1001rp	SLR32	SLR32	1000	1 hour, 56 minutes
702t 1001rp	SLR50	SLR32	1000	1 hour, 56 minutes
702t 1001rp	SLR50	SLR50	1000	1 hour, 28 minutes
703t	SLR60	SLR60	1200	25 minutes
1002rp	SLR50	SLR50	2400	1 hour, 42 minutes

The estimated backup to tape times apply only when

- the backup runs using the specified tape drives
- the tape drives connect directly to the CallPilot server
- the backup runs after business hours when there is very little traffic on the CallPilot system

Backup times increase considerably when

- you use a slower tape drive (for example, a 2.5 Gbyte Tandberg), or if the backup device (for example, tape drive or file server) is on the customer LAN
- there is high traffic on the CallPilot system

Stage 4: Prepare the target server

Based on the results of the software comparison that you performed in "Stage 1: Ensure that both servers are running identical software versions," do one of the following options:

- Proceed to "Stage 5: Restore and configure the target server."
- Perform the following steps, as required:

Steps		Time required
8	Reinstall Windows NT, if required. For more information, see "Installing the operating system on the CallPilot server" on page 171.	approximately 2 hours
9	Install the CallPilot software on the target server, if required, and then restart the server. For more information, see "Installing CallPilot server software" on page 43.	20 minutes
10	Install the PEPs on the target server, if required. For more information, see "Installing Performance Enhancement Packages" on page 29.	15 minutes
11	Restart the server. For more information, refer to "Restarting the server" in Part 1 of the *CallPilot Installation and Configuration* binder.	10 minutes
Total time		about 2.5 hours

Stage 5: Restore and configure the target server

Steps		Time required
12	Restore the backup of the original server onto the target server. For more information, see step 12 on page 83.	90 minutes for each volume
13	Set the platform type. For more information, see step 13 on page 84.	5 minutes
14	Run the Configuration Wizard. For more information, see step 14 on page 85.	up to 1 hour
15	When the Configuration Wizard has finished applying the changes, shut down the target server. For instructions, refer to “Powering down the server” in Part 1 of the *CallPilot Installation and Configuration* binder.	2 minutes
Total time		2.5–5.5 hours

Stage 6: Bring the target server into service

Steps		Time required
16	Shut down the original server and disconnect it from the network. For instructions, refer to “Powering down the server” in Part 1 of the *CallPilot Installation and Configuration* binder.	5 minutes

Steps		Time required
17	Connect the target server to the network and the switch. For more information, see step 17 on page 86.	5 minutes
18	Start the target server. For instructions, refer to “Powering up the server” in Part 1 of the *CallPilot Installation and Configuration* binder.	10 minutes
19	Reconfigure SDNs, if required. For more information, see step 19 on page 87.	10 minutes
Total time		30 minutes

Performing a platform migration

Introduction

This section provides detailed instructions for performing a platform migration.

ATTENTION

Follow all the steps in this section very carefully. Ensure that you read all of the instructions before attempting to perform a platform migration. Only technicians who are familiar with CallPilot should attempt this procedure.

ATTENTION

Do not connect the target server to the network while the original server is still connected to the network, as this can result in network conflicts.

Stage 1: Ensure that both servers are running identical software versions

1. Compare the software versions on both servers.

   For more details, see “Software requirements” on page 67.

2. Upgrade the CallPilot software on the original server, if required.

   For instructions, refer to the *CallPilot 2.02 Upgrade Guide*.

3. Install the latest Service Update or PEPs on the original server, if required.

4. When the updates are finished, restart the original server.

Stage 2: Verify device driver versions

5 If the original server is a 200i server, verify that the correct SCSI driver is installed.

If the correct SCSI driver is not installed on the 200i server, you may encounter a blue screen error during the migration.

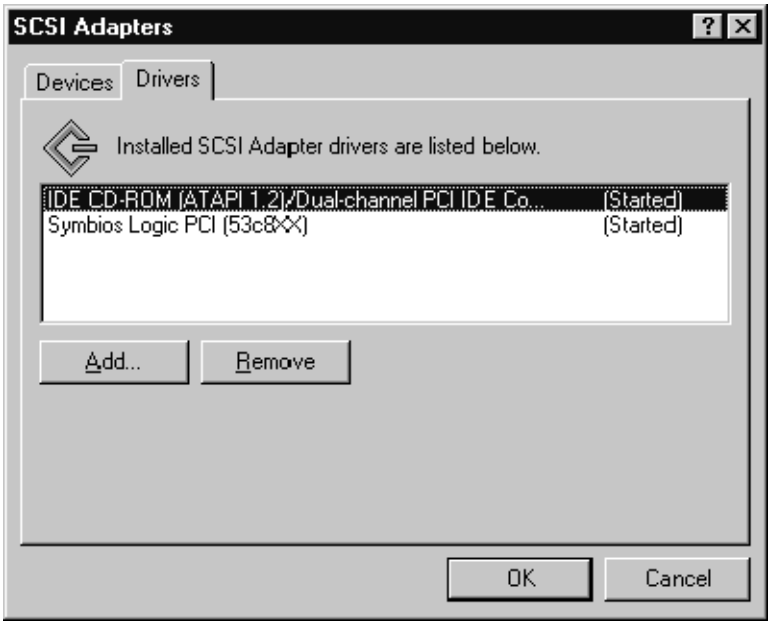
a. Click Start → Settings → Control Panel.

b. Double-click the SCSI Adapters icon.

Result: The SCSI Adapters window appears.

c. Click the Drivers tab.

d. Ensure that the Symbios Logic PCI (53c8XX) driver is listed, as shown in the following example:



e. If this driver is not listed, then install it.

For instructions, refer to the “Installing the updated SCSI driver” section in Part 5 of your *CallPilot 1.07 Installation and Configuration* binder.

Note: You can acquire the driver from the ...\drivers\misc\SCSI folder on your CallPilot 2.02 OS Upgrade or CallPilot 2.02 OS Recovery CD-ROM.

f. Restart the server.

6 Verify that the tape drive driver is installed on both servers.

If the original server was upgraded to CallPilot 2.02, it is possible that the tape drive driver is not installed.

Note: If the tape drive driver is not installed on either server, then you cannot use the tape drive to perform a backup of the original server, or a restore on the target server.

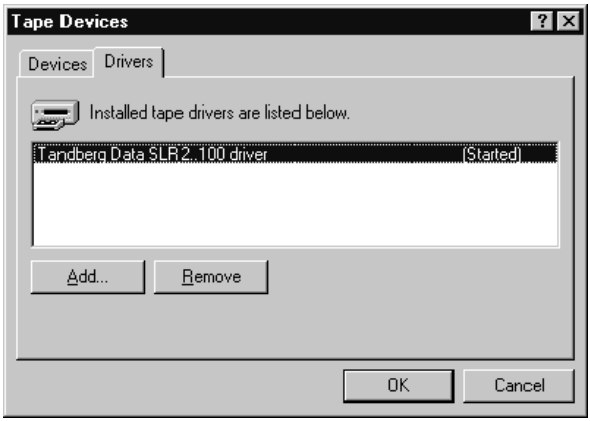
a. Click Start → Settings → Control Panel.

b. Double-click the Tape Devices icon.

Result: The Tape Devices window opens, showing installed tape device drivers, if any.

c. Click the Drivers tab.

Result: The list of installed tape drive drivers appears, as shown in the following example:



d. If a tape drive driver is not installed, then click Add.

Result: The list of available tape drive device drivers appears.

e. Click Have Disk.

f. Insert the CallPilot 2.02 OS Recovery or OS Upgrade CD-ROM into the CD-ROM drive.

g. Type **z:\drivers\misc\tape** as the path, and then click OK.

Result: The system prompts you to select a device driver from the list.

h. Choose the driver for your tape drive, and then click OK.

Result: The system prompts you for the path to the OEM Tape Device files.

i. Type **z:\drivers\misc\tape** as the path, and then click Continue.

Result: The driver files are copied to the server.

j. Click OK twice to exit.

Result: The system prompts you to restart the server.

k. Restart the server.

Stage 3: Back up the original server

7 Perform a full system backup on the original server.

Use the predefined “SystemBackup” definition.

IF	THEN
you are performing a backup to tape	the original server and the target server must have compatible tape drives.
you are performing a backup to a remote disk	you must do the backup on a file server that is accessible to both the original and target servers.

For more information, refer to “Backing up and restoring CallPilot information” in the *CallPilot Administrator’s Guide* (NTP 555-7101-301).

See also “Calculating the time to fully back up a CallPilot system to tape” on page 73.

Stage 4: Prepare the target server

Both servers must be identical in the following areas:

- software version
- Windows NT service pack installed
- installed PEPs

Refer to the latest version of the *CallPilot General Release Bulletin,* if required.

IF all of the above-listed components are	THEN
identical	go to “Stage 5: Restore and configure the target server.”
not identical	perform steps 8–11, as required.

8 Reinstall Windows NT, if required.

For instructions, see Chapter 8, “Installing the operating system on the CallPilot server.”

9 Install the CallPilot software on the target server, if required, and then restart the server.

For instructions, see “Installing CallPilot server software” on page 43.

10 Install the PEPs on the target server, if required.

Result: For instructions, see “Installing Performance Enhancement Packages” on page 29.

Ensure that after the installation, the installed PEPs match the PEPs that are installed on the original server.

11 Restart the server.

Stage 5: Restore and configure the target server

The restore procedure requires access to a utility that is not available to customers. Only distributors can perform the restore from tape. For instructions, refer to the *Support Tools Guide for CallPilot Distributors*.

12 Restore the backup of the original server onto the target server.

Note: You can perform the restore from tape or from a remote disk on the LAN. If you want to perform the restore from a remote disk on the LAN, do the following:

a. Ensure the target server can connect with the remote disk on the LAN.

For instructions on verifying the network connection, refer to “Backing up and restoring CallPilot information” in the *CallPilot Administrator's Guide* (NTP 555-7101-301).

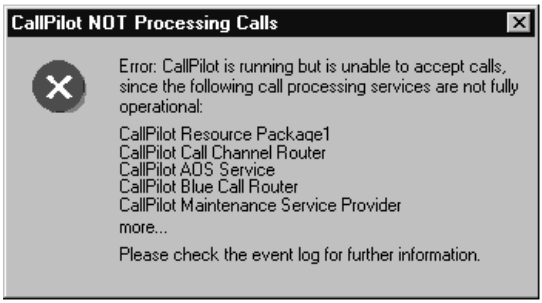
b. Shut down the original server.

c. Remove the original server from the network.

d. Connect the target server to the network, and then perform the restore from the remote disk.

After the restore is completed, the following warnings appear:





These warnings appear because the CallPilot server is looking at the configuration of the original server, which you have just restored to the target server. Ignore and close the warnings. They will be resolved by running the Configuration Wizard (see step 14).

13 Set the platform type.

Note: If you are migrating to the same platform type, go to step 14.

a. Insert the CallPilot Server Software CD-ROM in the CD-ROM drive.

b. Navigate to the CD-ROM drive.

c. Locate and double-click the *.reg file for the target server model in the root folder.

Result: The system updates the Windows NT registry. The following dialog box shows an example of the confirmation message that appears:



d. Restart the server.

14 Run the Configuration Wizard.

Do the following (for more information, refer to “Configuring the CallPilot server software” in Part 3 of the *CallPilot Installation and Configuration* binder):

a. Enter the target server’s keycode and serial number.

b. On the Media Allocation page, verify the channel allocations to DSPs.

c. On the Switch Information page, do the following:

- Change the switch’s IP address, if required.
- Change the settings for TN, Key0, and Key1, if required.
- Configure the channels on each link.
  Note: Configure the channels only if you are performing a platform migration from a 702t server with two MPB16-4 boards to a 703t server. (You do not need to configure the channels if the 702t server had only one MPB16-4 board installed.)

When you click Next, the following message may appear:

```
Board 1 with device ID <number> is removed from the
system but exists in the database. Press OK to keep
the board information in the database or press
Cancel to remove it.
```

This message appears because the configuration for two boards was combined into the configuration for one board. Click Cancel to remove the board from the database.

d. On the CDN Information page, change the CDNs, if required.

e. On the Language Source Directory page, reinstall the languages.

f. On the CallPilot Local Area Network Interface page, assign the network adapter cards to the ELAN and CLAN.

Result: When you are done, the Ready to Configure page appears. Click Finish, and then click OK to apply the changes. The system applies the changes. This can take between 15 minutes and 1 hour, depending on the server model and the number of languages that are installed.

15 When the Configuration Wizard has finished applying the changes, shut down the target server.

Result: For instructions, refer to Powering down the server" in Part 1 of the *CallPilot Installation and Configuration* binder.

Stage 6: Bring the target server into service

16 Shut down the original server and disconnect it from the network.

a. Shut down the server as described in "Powering down the server" in Part 1 of the *CallPilot Installation and Configuration* binder.

b. Disconnect it from the network.

17 Connect the target server to the network and the switch.

For instructions, see the following table:

IF the target server is a	THEN refer to
201i server	Part 2 of the *CallPilot Installation and Configuration* binder.
tower or rackmount server	"Connecting the CallPilot server to the Meridian 1 switch" or "Connecting the CallPilot server to the Succession 1000 system" in Part 3 of the *CallPilot Installation and Configuration* binder.

18 Start the target server.

For instructions, refer to “Powering up the server” in Part 1 of the *CallPilot Installation and Configuration* binder.

19 Reconfigure SDNs, if required.

If the target server does not use the same Service Directory Numbers (SDNs) as the original server, you must modify the SDN table as follows:

a. Log on to the new server with CallPilot Manager.

For instructions, see “Logging on to the CallPilot server with CallPilot Manager” on page 108.

b. Click System → Service Directory Number.

c. Click the SDN you want to edit.

d. After you finish configuring the SDN, click Save.

What’s next?

1. Continue with “Testing the CallPilot installation” in Part 3 of the *CallPilot Installation and Configuration* binder.
2. Create or update the Windows NT emergency repair disk.

   For instructions, see “Creating or updating the emergency repair disk” on page 276.

Chapter 4

Expanding CallPilot features

In this chapter

Expanding features 90

Expanding features

Introduction

This chapter summarizes how you add features or configure additional channels. CallPilot does not support feature reduction, except for the number of channels that have been previously allocated. You cannot reduce the number of channels to 0.

Types of expansions

You can expand or add the following types of CallPilot features:

- channels
- number of MPUs
- features such as AppBuilderFax and Networking

When you purchase additional features or system capacity, you receive a new keycode.

Platform migration and feature expansion

If the feature expansion requires a migration from your current server to a server that provides more capacity, you must perform the platform migration before you can perform the feature expansion. In this situation, you receive two keycodes—one for the platform migration and one for the feature expansion.

For instructions on performing the platform migration, see Chapter 3, “Performing a platform migration.”

To perform the feature expansion

1 Verify the information on the keycode with the CallPilot system's configuration, as follows:

- Ensure that the serial number on the keycode label (Sec. Dev. ID) matches the CallPilot serial number that appears on the CallPilot System Information page in CallPilot Manager.

  If these two items do not match, your Nortel Networks customer support representative must generate a new keycode so you can perform the feature expansion.

- Ensure that the feature limits displayed on the keycode label are greater than or equal to the feature limits displayed on the CallPilot System Information page in CallPilot Manager.

  You cannot reduce features. For example, if three voice prompt languages are currently installed on the server, you cannot reduce the number of languages to two.

  You can reduce the number of channels, but not to zero.

2 If you are increasing system capacity, do one of the following:

- Install any additional hardware that was shipped to you (for example, additional cards or boards).
  For instructions on installing the new hardware, refer to Part 5 of the *CallPilot Installation and Configuration* binder.

- Migrate your server to the new platform.
  For instructions, see Chapter 3, "Performing a platform migration."

3 Run the CallPilot Configuration Wizard.

For instructions, refer to "Configuring the CallPilot server software" in Part 3 of the *CallPilot Installation and Configuration* binder, and the CallPilot Manager online Help.

In the Configuration Wizard, ensure that you do the following:

a. Enter the new keycode and serial number.

b. Allocate new channels (if you have added channels).

ATTENTION

New channels are not automatically allocated. They must be manually allocated using the Configuration Wizard.

c. Configure the new channels.

d. Install the new languages.

4 Configure additional channels on the switch.

5 Restart the server.

6 Test the system to ensure that it works as expected.

For instructions, refer to “Testing the CallPilot software and channels” in Part 3 of the *CallPilot Installation and Configuration* binder.

Chapter 5

Installing CallPilot administrative software on a stand-alone web server

In this chapter

CallPilot Manager requirements 94

CallPilot Reporter requirements 99

Installing CallPilot Manager and CallPilot Reporter on a stand-alone web server 102

Logging on to the CallPilot server with CallPilot Manager 108

CallPilot Manager requirements

Introduction

IF you	THEN CallPilot Manager
purchased your CallPilot server as CallPilot 2.02	is already installed on the CallPilot server when it ships from the factory.
upgraded your CallPilot server to CallPilot 2.02	is automatically installed during the upgrade.

In CallPilot 2.02, CallPilot Manager replaces the Administration Client that was used in previous CallPilot releases. CallPilot Manager is always installed on a CallPilot 2.02 server. However, you can choose to install it on a stand-alone web server. This section describes what must be installed on the stand-alone web server before you install CallPilot Manager.

Notes:

- These software requirements are already in place on the CallPilot server. No action is required on the CallPilot server.
- The Nortel Networks technical support personnel use pcAnywhere as a remote support tool. If you require remote support on the stand-alone web server from Nortel Networks, you must install and configure pcAnywhere 8.0 or later on the stand-alone web server and provide remote access connectivity to the server. Remote access can be via either a modem connected to the server's COM port or other RAS equivalent.

When to install CallPilot Manager on a stand-alone server

Install CallPilot Manager on a stand-alone server when you

- want to use CallPilot Reporter

You cannot install CallPilot Reporter on the CallPilot server.

- expect a large amount of web-based administration traffic and you want to off-load the work from the CallPilot server

Stand-alone web server requirements

The CallPilot Manager and CallPilot Reporter web-based software run on an Internet Information Server (IIS) version 4 or 5. To support encrypted logon and password change dialog boxes, you require IIS support for secure sockets layer (SSL).

You can use the same server for end user web applications, such as Web Messaging and My CallPilot.

The web server must be running one of the operating systems and components described on the next page. If you are working with an existing web server, some of the components may already be installed. If components are missing, or you are installing a web server for the first time, you must supply your own web server software.

Windows NT 4.0 Server or Workstation

- Windows NT Option Pack, including
  - Internet Information Server (IIS) 4
  - Internet Service Manager
  - World Wide Web Server
  - MDAC 1.5
  - Microsoft Management Console

    Note: Do not install Microsoft Index Server.
  - NT Option Pack Common Files
  - Transaction Server
  - Windows Scripting Host
- Windows Script 5.5 (required by CallPilot Manager *.asp pages)

- MDAC 2.5 (required by the CallPilot Manager Bulk User Add feature)
- Service Pack 6a

  Note: Internet Explorer 5.5 requires the 128-bit version.
- Internet Explorer 5.5
- pcAnywhere 8.0 or later
- Remote Access Service (RAS) (required for downloading operational measurements via the web browser)

Note: Do not use the CallPilot 2.02 OS Recovery CD-ROM or CallPilot 2.02 OS Upgrade CD-ROM to install the Windows NT operating system on the stand-alone web server. The Windows NT operating system on those CD-ROMs is designed, configured, and licensed for use on the CallPilot server only.

Windows 2000 Server

- Internet Information Server (IIS) 5
  - Internet Service Manager
  - World Wide Web Server
- Windows Script 5.5 (required by CallPilot Manager *.asp pages)
- MDAC 2.5 (required by the CallPilot Manager Bulk User Add feature)
- Service Packs 1 and 2
- Internet Explorer 5.5
- pcAnywhere 8.0 or later
- Remote Access Service (RAS) (required for downloading operational measurements via the web browser)

Filtering software requirements



CAUTION

Risk of incorrect operation

Use caution when installing and configuring e-mail or file filtering software on the CallPilot Manager web server. The .exe file extension must be allowed for HTTP downloads so that the CallPilot Player installer can be downloaded. If you are installing CallPilot Manager and My CallPilot on the same web server, the filtering software must also allow IMAP and HTTP uploads and downloads of the MIME types allowed by the external e-mail servers that you make accessible to My CallPilot.

Client computer requirements

You can use CallPilot Manager on PCs that are running the following operating systems and web browsers. The web browser must have the Adobe Acrobat Reader 5.0 plug-in so that you can view the online documents:

Operating system	Internet Explorer 5 or later	Netscape Communicator 6.2 or later
Windows 95B (Retail and OSR2)	yes	yes
Windows 98 SE	yes	yes
Windows NT 4.0 Server	yes	yes
Windows NT 4.0 Workstation	yes	yes

Operating system	Internet Explorer 5 or later	Netscape Communicator 6.2 or later
Windows 2000 Professional	yes	yes

Note: You can use other operating systems and web browsers. However, the CallPilot Player may not work correctly.

CallPilot Reporter requirements

Introduction

CallPilot Reporter is a web-based application that helps you analyze and manage your CallPilot system. CallPilot Reporter converts raw statistics from your server into easy-to-read reports, which you can then

- view on the screen
- print on a daily, weekly, or monthly basis
- export to a variety of file formats
- customize for easier reading

CallPilot Reporter is an optional component of CallPilot Manager. If you choose to install CallPilot Reporter, you must install it on the same stand-alone web server as CallPilot Manager. You cannot install CallPilot Reporter by itself. You cannot install CallPilot Reporter on the CallPilot server.

Web server requirements

Since CallPilot Reporter must be installed on the same web server as CallPilot Manager, the web server requirements are the same as for CallPilot Manager. For more details, see “Stand-alone web server requirements” on page 95.

During installation, Crystal Reports and a Sybase database are installed on the web server.

Compatibility with other CallPilot releases

CallPilot Reporter works only with CallPilot 2.0 or later servers. CallPilot Reporter is not backwards-compatible with CallPilot 1.07 or earlier servers.

Printing reports

If you want to print reports on a network printer from the web server (rather than from a client computer's web browser), you must change the CallPilot Reporter service credentials to a user account with network access privileges. (The CallPilot Reporter service credentials are set by default to LocalSystem.)

Disk space requirements

You need disk space on the web server to store operational measurement data collected by CallPilot. The amount of space depends on the amount of CallPilot traffic and the length of time you want to keep the data. To keep one month of data, allow

- a minimum of 200 Mbytes of space for a smaller system
- up to 1 Gbyte of space for a 96-channel system

Note: On a 96-channel system at full load, 1 hour of usage data consumes about 2 Mbytes on the web server.

Uninstalling CallPilot Reporter

If you uninstall Reporter, you must replace the global.asa file with the original CallPilot Manager version from the Server Software CD-ROM.

Client computer requirements

You can use CallPilot Manager on PCs that are running the following operating systems. The web browser must have the Adobe Acrobat Reader 5.0 plug-in so that you can view the online documents:

- Windows 95B
- Windows 98 SE
- Windows 2000 Professional
- Windows XP
- Windows NT 4.0

You can use one of the following web browsers to access CallPilot Reporter:

- Internet Explorer 5 or later
- Netscape Communicator 6.2 or later

Installing CallPilot Manager and CallPilot Reporter on a stand-alone web server

Introduction

Before attempting to install CallPilot Manager and CallPilot Reporter on a stand-alone web server, install the prerequisite components. For more details, see “Stand-alone web server requirements” on page 95.

Required materials

To install the CallPilot Manager and CallPilot Reporter applications on a stand-alone web server, you need one of the following:

- CallPilot 2.02 Server Software CD-ROM
- CallPilot 2.02 PEP CD-ROM

  Note: The PEP CD-ROM may contain an updated version of the CallPilot Manager installation software if fixes were made to the software after the Server Software CD-ROM was released. In this case, the updated software is provided in the \CallPilotManagerInstall folder on the PEP CD-ROM.

To install the CallPilot Manager and CallPilot Reporter software

ATTENTION

This procedure applies only if you are installing CallPilot Manager and CallPilot Reporter on a stand-alone web server. No action is required on the CallPilot server.

1. Insert the CallPilot 2.02 Server Software CD-ROM or the PEP CD-ROM into the CD-ROM drive.
2. Click Start → Run.

   Result: The Run dialog box opens.
3. Click Browse.

   Result: The Browse dialog box opens.
4. Do one of the following:

IF you are using the	THEN
Server Software CD-ROM	navigate to the root folder on the CD-ROM drive (Z:).
PEP CD-ROM	navigate to the CallPilotManagerInstall folder on the CD-ROM drive (Z:).

5 Double-click the cpmgrsetup.exe file that is located in the root folder, and then click OK.

Note: If file name extensions are not visible, click View → Details to make them visible.

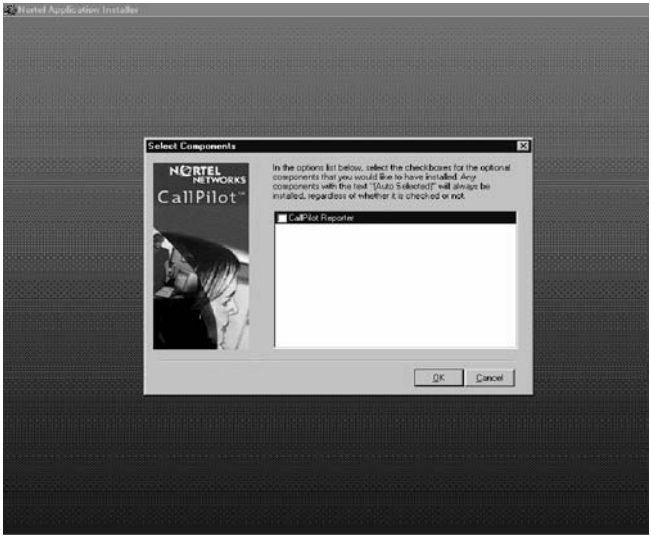
ATTENTION

Do not confuse the cpmgrsetup.exe file with the cpmgr.exe file, which also resides in the root folder on the Server Software CD-ROM.

If you execute the cpmgr.exe file, the program terminates immediately without installing anything. You receive an error message that cpmgr.exe cannot be executed without the appropriate data file.

The cpmgr.exe file is executed automatically by the cpmgrsetup.exe file. It cannot be run on its own.

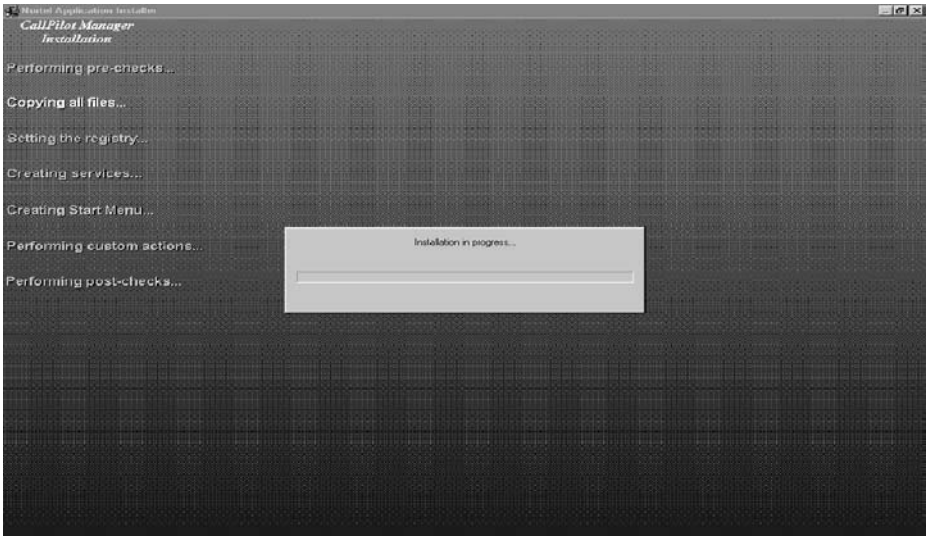
Result: You are asked to select the options to install. CallPilot Reporter is the only option listed.



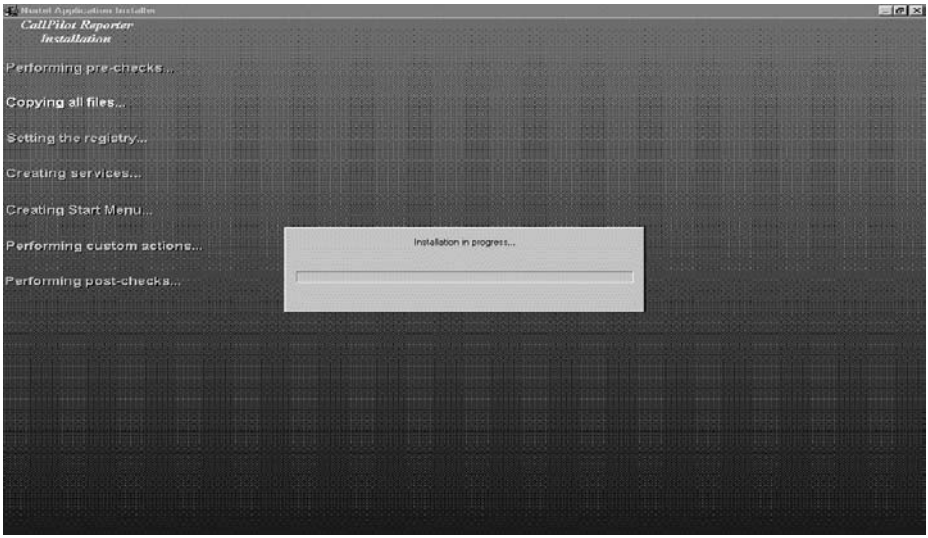
6 If you want to install CallPilot Reporter, choose its check box, and then click OK.

Result: CallPilot Manager installation begins. During the installation, the Application Installer:

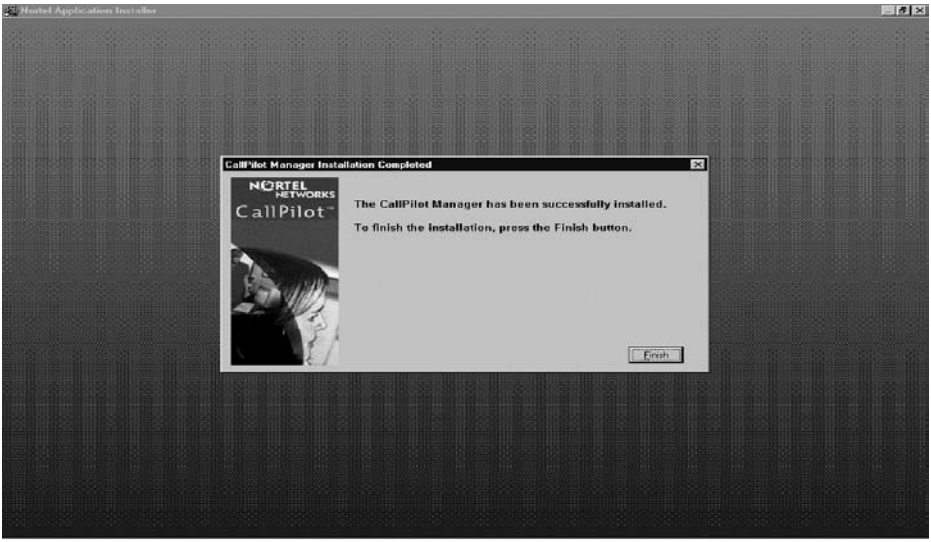
- displays a progress bar that indicates the percentage that is completed
- highlights each item on the splash screen as it is processed



When CallPilot Manager installation is finished, the Application Installer automatically begins to install the CallPilot Reporter software, if you chose to install it. (The screen title changes to reflect this.)



When the CallPilot Reporter software installation is finished, the following dialog box appears:



7 Click Finish.

Result: The Application Installer closes.

What's next?

Test connectivity to the CallPilot server by logging on to the CallPilot server. For instructions, see "Logging on to the CallPilot server with CallPilot Manager" on page 108.

Logging on to the CallPilot server with CallPilot Manager

Introduction

You must use a web browser to log on to and administer a CallPilot server that is running Release 2.0 or later.

The logon process is completed in two stages:

1. Launch the web browser (on the CallPilot server, or on any PC that has network access to the CallPilot server).

   The web browser on the CallPilot server is configured to automatically connect to the CallPilot Manager web server. If you launch the web browser on a PC, you must specify the URL for the CallPilot Manager web server.

   The URL syntax is http://<web server host name or IP address>/cpmgr/.

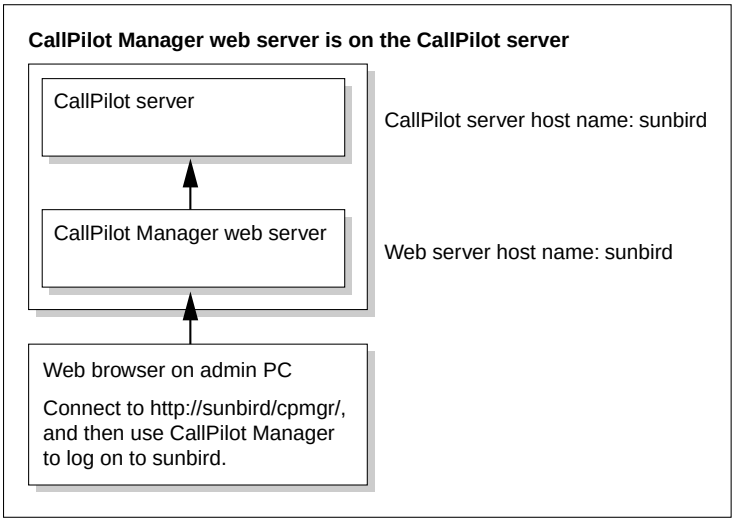
2. Log on to the CallPilot server with an administrator's mailbox number and password.

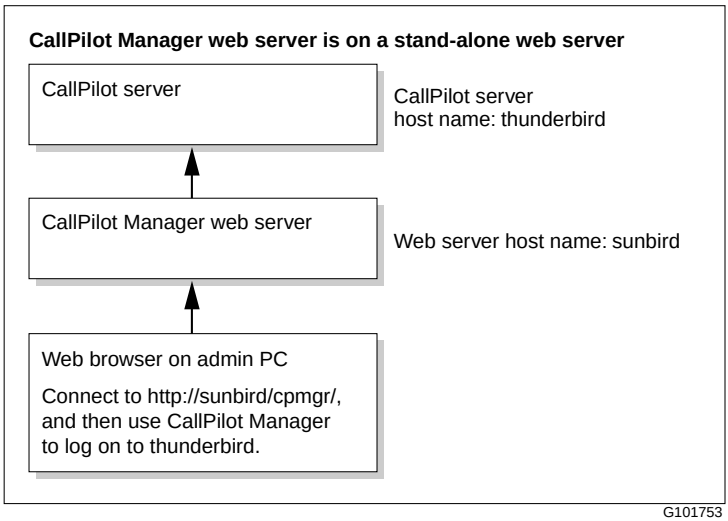
Relationship of the CallPilot Manager web server to the CallPilot server

You can install the CallPilot Manager web server software on the CallPilot server or on a stand-alone server. If you install the CallPilot Manager web server software on a stand-alone server, you must know the CallPilot Manager server's host name or IP address, as well as the CallPilot server's host name or IP address.

See the diagrams that follow.

Note: For instructions on how to install CallPilot Manager on a stand-alone web server, see “Installing CallPilot Manager and CallPilot Reporter on a stand-alone web server” on page 102.



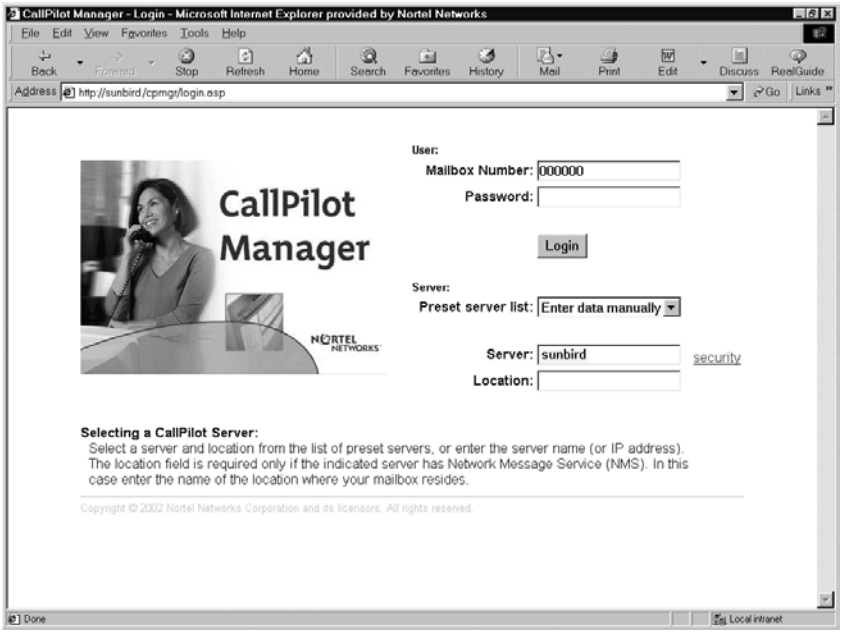


To log on to the CallPilot server

1 Launch the web browser on a PC or on the CallPilot server.

ATTENTION If the server was recently restarted, wait until the IIS Web Server has started. If this service is not started, you will receive a “Page Not Found” error when you perform this step.

IF you are launching the web browser on	THEN
the CallPilot server	the CallPilot Manager login page appears automatically.
your PC	type the CallPilot Manager web server’s URL in the Address or Location box of your web browser, and then press Enter. **Example:** http://sunbird/cpmgr/ When the connection is established, the CallPilot Manager - Login page appears.



2 Type the administrator mailbox number and password.

The administrator mailbox number is **000000**. The default password is **124578**.

3 Do one of the following:

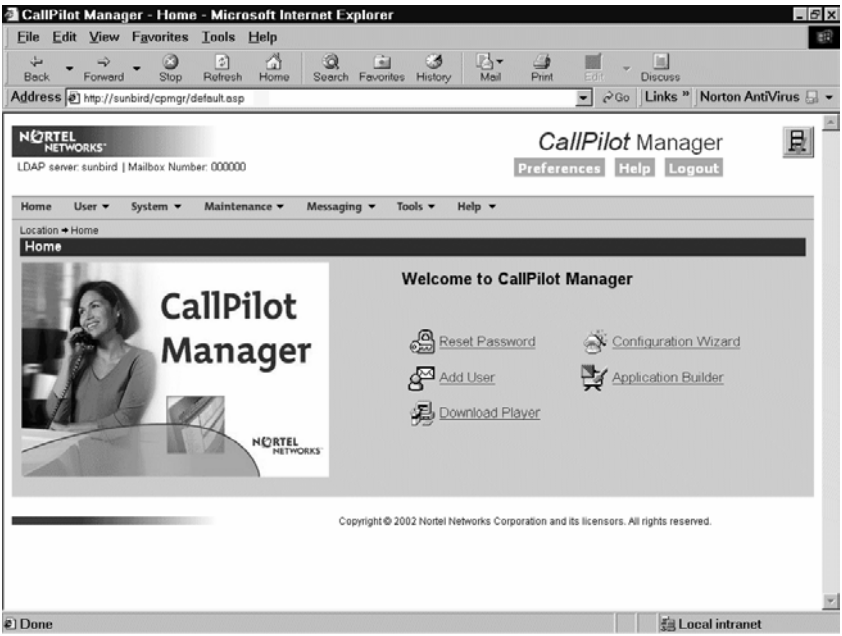
- Choose a server or location from the list of preconfigured servers or locations in the Preset server list box, or choose the Last Server Accessed item.
- Type the CallPilot server's host name or IP address in the Server box.

  Note: If you are logging on to the CallPilot server from a PC, type the actual CallPilot server name or IP address in the Server box. If you type *local host* instead of the CallPilot server name or IP address, you cannot establish an Application Builder connection to the CallPilot server from CallPilot Manager or make calls to the phoneset to play or record greetings.

- If the CallPilot server that you are connecting to has Network Message Service (NMS) installed, type the CallPilot server's host name or IP address in the Server box, and then type the name of the switch location on which the administration mailbox resides in the Location box.

4 Click Login.

Result: The main CallPilot Manager page appears.



Chapter 6

Installing desktop messaging and My CallPilot

In this chapter

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Installation overview 118

Desktop messaging and My CallPilot pre-installation checklist 119

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Defining the CallPilot server FQDN 122

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Controlling access to desktop messaging features 151

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Section A: Getting started

In this section

Product overview 116
Installation overview 118
Desktop messaging and My CallPilot pre-installation checklist 119

Product overview

Introduction

This chapter describes how to install desktop messaging and My CallPilot.

Desktop messaging

Desktop messaging is a unified messaging application that works with an e-mail client to provide a single graphical interface for managing CallPilot voice, fax, and text messages, as well as e-mail messages.

My CallPilot

My CallPilot is a web-based portal that provides access to CallPilot messages and mailbox configuration over the Internet. My CallPilot includes the following components:

- CallPilot Messages: Send, receive, and manage CallPilot messages and e-mail messages.
- CallPilot Features: Set mailbox and messaging options.
- Useful Information: View mailbox status, dialing numbers, support contact information, and online user guides for CallPilot.

Providing access to user documentation

All CallPilot user guides are in Adobe PDF format only. When you install My CallPilot, mailbox owners can access the user guides from the Useful Information section of My CallPilot.

If you do not install My CallPilot, copy the user documentation from the CallPilot Documentation CD-ROM to a location in your network that is accessible to all CallPilot mailbox owners.

More information

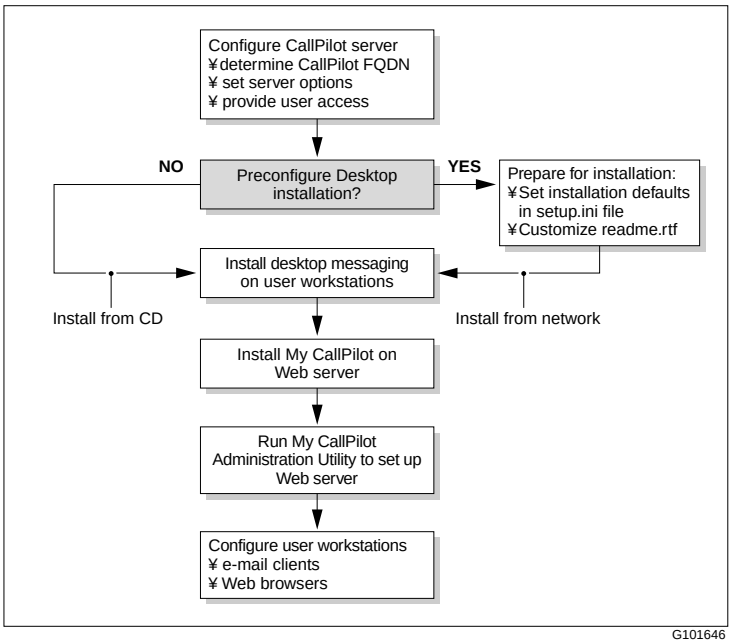
For additional information about desktop messaging and My CallPilot, refer to the following CallPilot documentation:

For information about	Refer to the following sources:
■ configuring client software ■ configuring servers after installation ■ troubleshooting desktop messaging and My CallPilot problems	*Desktop Messaging and My CallPilot Administration Guide* (NTP 555-7101-503)
learning how to use desktop messaging and My CallPilot	■ user documentation on the CallPilot documentation CD-ROM ■ desktop messaging online Help ■ My CallPilot online Help

Installation overview

Installation process

Use the following diagram with the desktop messaging and My CallPilot pre-Installation checklist on page 119 to help you prepare for desktop messaging and My CallPilot installation:



Compatibility

Desktop messaging works with CallPilot 1.07 or later, CallPilot 150, and Business Communications Manager servers. Some features are only available with a CallPilot 2.0 or later server. For details about feature availability, refer to the *Desktop Messaging and My CallPilot Administration Guide* (NTP 555-7101-503).

Desktop messaging and My CallPilot pre-installation checklist

To help you prepare for installation, complete the checklist below, and then refer to it as you install and configure desktop messaging and My CallPilot.

Server settings for desktop messaging

Method for resolving CallPilot FQDN

❑ DNS ❑ HOSTS file ❑ CLAN IP only

CallPilot server FQDN _____ CLAN IP _____

LDAP server settings

❑ search base _____

❑ I am using a separate LDAP server (only supported with groupware clients)
FQDN or IP address _____

SMTP/VPIM prefix to use (PSTN recommended)

_____

If you have multiple NMS locations, define a prefix for each location.

My CallPilot URL

_____

Based on the web site name and virtual directory specified below

Example: http://messages.mycompany.com/callpilot

Additional server settings for My CallPilot

IMAP e-mail servers available for telephone or web access to e-mail
Record the following information for each server you plan to use:

	Server Name	IP Address	E-mail server type
Server 1			
Server 2			
Server 3			
Server 4			
Server 5			

Web site name

❑ Use default ❑ Other _____

Alias name of the virtual directory for My CallPilot

Obtain the alias name from the IS administrator.

❑ Use default (CallPilot) ❑ Other _____

User Administration

User access rights

❑ Desktop messaging mailbox class is created with appropriate privileges.

❑ Desktop messaging Restriction Permission List is defined as required.

Additional software requirements

❑ Supported e-mail client is installed for desktop messaging.

❑ Supported web browser is installed for My CallPilot.

Section B: Configuring the CallPilot server

In this section

Defining the CallPilot server FQDN 122
Configuring messaging services 125
Defining addressing prefixes 129

Defining the CallPilot server FQDN

Introduction

When you configure desktop messaging clients, you must specify the CallPilot server fully qualified domain name (FQDN) so that e-mail clients and other servers can locate the CallPilot server.

There are three main steps in defining the CallPilot server FQDN:

1. Determine the currently defined FQDN for the CallPilot server.
2. Determine the type of domain name resolution method your organization uses, and confirm that it is set up correctly.
3. Specify the CallPilot server FQDN in CallPilot Manager.

The following subsections describe these steps.

To determine the CallPilot server FQDN

1 On the CallPilot server, open the Windows Control Panel.

2 Double-click Network.

Result: The Network dialog box appears.

3 Click the Protocols tab.

4 Choose the TCP/IP component, and then click Properties.

Result: The Microsoft TCP/IP Properties dialog box appears.

5 Click the DNS Configuration tab.

6 Record the host name and the domain name.

When combined, the host name and the domain name form the FQDN.

Example: The host name, “compass”, and the domain name, “acme.com”, combine to form the FQDN, “compass.acme.com”.

7 Click OK.

ATTENTION

Do not restart the CallPilot server, even if you are asked to do so.

Verifying domain name resolution

Desktop messaging uses domain name resolution to translate a server name, such as cpserver.mycompany.com, into an IP address, such as 198.105.232.4. It is common to have a Domain Name System (DNS) server perform name resolution. If your environment does not have a DNS server, your IS administrator may have used one of the following solutions:

- Resolve domain names using a HOSTS file.
- Use an IP address only to identify the CallPilot server.

Ask your IS administrator about the method your system uses for domain name resolution. For details about configuring environments without a DNS server, refer to the CallPilot Manager online Help.

Note: If you use an IP address to identify the CallPilot server, ensure that you configure all desktop messaging e-mail clients with the IP address instead of the CallPilot FQDN.

Defining the CallPilot server FQDN in CallPilot Manager

Once you have determined the CallPilot server FQDN and verified the method your messaging network uses to resolve it, you are ready to specify the FQDN in CallPilot Manager.

To define the CallPilot server FQDN

1. In CallPilot Manager, choose Messaging → Message Network Configuration.
2. In the Local Server Maintenance section, select the server name, and then click Show Details.

   Result: The Server Properties page appears.
3. In the SMTP/VPIM prefix section, type the CallPilot server FQDN.

   Example: cpserver.mycompany.com
4. Click Save.

Configuring messaging services

Introduction

This section describes how to configure the CallPilot server so that the desktop messaging and My CallPilot clients can correctly communicate with the CallPilot server.

Before you begin

As you configure the CallPilot server, complete the “Desktop messaging and My CallPilot pre-installation checklist” on page 119 to help you prepare for desktop messaging installation. Additional information is also available in the CallPilot Manager online Help.

Messaging protocols

The following messaging protocols must be correctly configured in CallPilot Manager for desktop messaging and My CallPilot:

- IMAP server: Internet Message Access Protocol (IMAP) enables desktop messaging clients to log on to CallPilot and retrieve messages.
- LDAP server: Lightweight Directory Access Protocol (LDAP) enables desktop messaging clients to access the CallPilot address book. You can use the CallPilot LDAP server or your existing LDAP server.
- SMTP server: Simple Mail Transfer Protocol (SMTP) enables desktop messaging clients to send messages.

In the event of a security problem, you can disable the IMAP and SMTP services. For example, you can disable the IMAP service to temporarily prevent users from logging on to CallPilot from desktop messaging. Alteration of server settings can also interrupt service for desktop messaging users.

Additional server configuration

CallPilot also enables you to access a third-party LDAP address book for use with desktop messaging. You can only use a third-party LDAP server if you are using a desktop messaging groupware client (Outlook, GroupWise, or Lotus Notes).

You should verify that you can also specify security options for the My CallPilot web server.

For more information about these features, refer to the *Desktop Messaging and My CallPilot Administration Guide* (NTP 555-7101-503), and the CallPilot Manager online Help.

Security options

CallPilot supports the following encryption and authentication methods. The security method used for communication with servers depends on both the configuration of the server and the configuration of the desktop messaging client:

- Secure socket layer (SSL) encryption: SSL encrypts data communication between two end points on a network. It is normally used in environments that require additional security (for example, accessing a mailbox using a public Internet service provider).
- Challenge-Response authentication: An authentication method that uses the MD5 algorithm to transmit the CallPilot mailbox number and password in an encoded format to the CallPilot server.
- Plain Password authentication: An authentication method that uses the mailbox number and password, transmitted in clear text (unencrypted) over the network.

Ensure that you configure user e-mail clients to use the same security options that you select in CallPilot Manager. For additional information about security options related to desktop messaging, refer to the CallPilot Manager online Help. For details about security options supported by specific e-mail clients, refer to the e-mail client’s online Help.

Note: Due to the complexity and diversity of network configurations, this guide cannot adequately cover issues of data network security. Discuss data network security issues with a security specialist or data network administrator. Refer also to "Securing the CallPilot server" in the "*CallPilot Administrator's Guide"* (NTP 555-7101-301).

To configure IMAP and LDAP settings

1. In CallPilot Manager, choose Messaging → Internet Mail Clients.
2. To allow clients to access LDAP with a high level of security, check the Enable LDAP with SSL port box.

   SSL for LDAP must also be enabled by the client if a high level of security is desired.
3. To set up the LDAP search base, do the following:
   a. On the main page in CallPilot Manager, click Configuration Wizard.
   b. Click Next on the Welcome page.
   c. Choose the CallPilot Individual Feature Configuration (Express Mode) option, and then click Next.
   d. Click the Server Information check box, and then click Next.
   e. Scroll down to the LDAP search base section, and then type the search base information.

      Example: dc=nortel, dc=ca
4. In the IMAP section, check the Enable IMAP box to turn on IMAP service.
5. Choose the required IMAP options.

   For details about each option, refer to the online Help.
6. Click Save to save your changes.

   Note: If you enable SSL, ensure that you instruct users to enable SSL in the desktop messaging clients.

To set SMTP options

1. In CallPilot Manager, choose Messaging → Message Delivery Configuration.
2. In the SMTP/VPIM section, check Incoming SMTP/VPIM to enable access to SMTP service from desktop messaging clients.
3. Click Security Modes for SMTP sessions, and then specify the required security options.
4. Click Save.

Defining addressing prefixes

Introduction

VPIM shortcuts are addressing prefixes that enable CallPilot to identify network switch locations, as well as VPIM-compliant sites that are not defined in your network database. There are two types of VPIM shortcuts: VPIM network shortcuts and open VPIM shortcuts.

VPIM network shortcut

A numeric addressing prefix that CallPilot uses to identify switch locations in a messaging network.

You must define a VPIM network shortcut for all local and remote prime locations and all satellite locations to use desktop messaging and My CallPilot. In desktop messaging and My CallPilot applications, this type of VPIM shortcut is referred to as the *SMTP/VPIM prefix*.

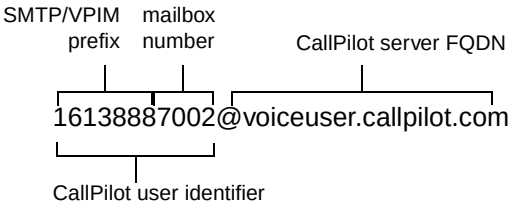
Open VPIM shortcut

A numeric prefix that CallPilot uses to identify VPIM-compliant sites that are not defined in your network database. These VPIM-compliant sites are referred to as *open sites*. If users need to send CallPilot messages to open sites, you can configure open VPIM shortcuts for those sites.

For more information about VPIM shortcuts, search for “VPIM addresses” in the CallPilot Manager online Help.

Setting the SMTP/VPIM prefix

Desktop messaging uses the SMTP/VPIM prefix to create a unique CallPilot address for each mailbox on the CallPilot system.



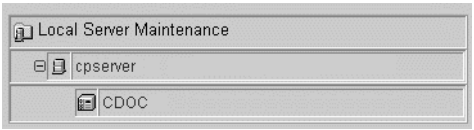
In a Network Message Service (NMS) system, the SMTP/VPIM prefix allows two different NMS sites to have the same mailbox number.

	User A (Toronto)	User B (Richardson)
Mailbox	5833	5833
SMTP/VPIM prefix	1416338	1314442

In systems that do not use NMS, the SMTP/VPIM prefix is still required for the prime location on the CallPilot server. It identifies a site for VPIM Networking and enables users to receive messages from other VPIM-compliant voice messaging systems.

To add an SMTP/VPIM prefix

1. In CallPilot Manager, choose Messaging → Message Network Configuration.
2. In the Local Server Maintenance section, expand the network tree to display the locations associated with the local server.



3. In the list of locations, select the prime location, and then click Show Details.
4. In the VPIM section, click Add.

5 In the Prefix box, type the SMTP/VPIM prefix for the prime location, and then click Save to return to the Location Properties page.

6 Click Save.

7 If you are using NMS, configure an SMTP/VPIM prefix for each local and remote prime switch location, as well as for all satellite switch locations.

Note: If your messaging network is configured with Electronic Switched Network (ESN), Coordinated Dialing Plan (CDP), or a hybrid dialing plan that includes both ESN and CDP, ensure that the options for these plans are correctly configured on the Location Properties page for each switch location. For more information, search for “dialing plan” in the CallPilot Manager online Help.

Section C: Installing software

In this section

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Installing My CallPilot 145

Desktop messaging requirements

Servers

You must install CallPilot with a keycode that enables desktop messaging features. Desktop messaging works with CallPilot 1.07 or later servers, Nortel Business Communications Manager 2.5 server, and Nortel CallPilot 150 server.

The CallPilot server must be configured with a minimum of Windows NT Service Pack 5 for Secure Socket Layer (SSL) to work.

Desktop messaging client installation



CAUTION

Risk of reduced system performance and security vulnerability

Do not install desktop messaging clients on the CallPilot server. Nortel Networks does not support the use of desktop messaging clients on the CallPilot server because they

- consume disk space that CallPilot may need
- may cause the introduction of e-mail-distributed viruses to the server

Server configuration

Before you install desktop messaging, ensure that you have properly configured the CallPilot server. For details, see Section B: “Configuring the CallPilot server,” on page 121.

User workstation requirements

Users require the following software and hardware for desktop messaging:

- Windows 95 B, Windows 98 SE, Windows 2000 Professional, Windows NT 4 SP6a, Windows XP
- monitor with 256-color 800 x 600 capability
- 15 Mbytes of free disk space to install software
- sound card and speakers for playing messages on the computer
- microphone for recording messages from the computer
- for desktop messaging, a LAN (Ethernet) connection to the CallPilot server

  Users can access CallPilot messages on your network via ISDN, ADSL, or dial-up modem.

Note: If users do not have a sound card, speakers, or microphone, they can listen to and record messages over their phonesets instead.

E-mail client requirements

Desktop messaging supports *groupware* e-mail clients that run with a corporate e-mail server and IMAP *Internet* e-mail clients. Refer to the *CallPilot 2.02 General Release Bulletin* for the most up-to-date list of supported clients.

Nortel Networks recommends that you install the latest service release (SR) update for your e-mail client. The table below indicates the recommended SR for proper functioning with desktop messaging:

Groupware clients	Internet clients
■ Microsoft Outlook 98 or 2000 (SR-2) in Corporate mode ■ Microsoft Outlook 2002 (SP-1) ■ Novell GroupWise 6.x ■ Lotus Notes 4.6 and 5.x	■ Microsoft Outlook Express 5.0 or 6.x ■ Microsoft Outlook 98 or 2000 (SR-2) in Internet mail mode ■ Microsoft Outlook 2002 (SP-1) ■ Netscape Mail 6.2x ■ Qualcomm Eudora Email 5.x

Notes:

- Outlook 2002 (Office XP client): For information about the latest Office XP service pack, go to the Microsoft web site and search for article Q307841 in the Microsoft Knowledge Base. Also refer to articles Q309491 and Q319820 for additional Outlook 2002 fixes.

  To work correctly with CallPilot, you must also install the Microsoft fix to address a problem with the Outlook Protocol Manager. For information about the Microsoft fix, go to the Microsoft web site and search for article Q311744 in the Microsoft Knowledge Base.

- Outlook and GroupWise: To use desktop messaging for GroupWise or Outlook, Windows Messaging 4.0 must be installed.

  During GroupWise installation, the installation program checks for Windows Messaging. If it is not detected, the system asks if you want to install Windows Messaging. You should install the complete Windows Messaging system, even if Windows Messaging is already installed on the computer. This ensures that the GroupWise option is available during desktop messaging installation.

- Lotus Notes: To install desktop messaging for Lotus Notes, you must have Manager or Designer control of the user's mail database. This control is set on the server by the Lotus Notes administrator.

- fax messaging: Imaging for Windows must be installed for viewing faxes. It is normally installed with Windows versions previous to Windows XP. If Imaging for Windows is not installed, you can install it from the desktop messaging software CD-ROM.

Installing desktop messaging

Preparing for desktop messaging installation

Before you install desktop messaging, ensure that

- you have completed the “Desktop messaging and My CallPilot pre-installation checklist” on page 119
- user workstations have the required software for desktop messaging

  For more information, see “Desktop messaging requirements” on page 134.

Upgrading desktop messaging

If you are upgrading from a previous version of desktop messaging, verify the currently installed version:

- desktop messaging 1.06 or earlier: You must uninstall the currently installed version before installing a newer version of desktop messaging.
- desktop messaging 1.07 or later: You can reinstall the same version or install a newer version of desktop messaging without removing the currently installed software.

To uninstall desktop messaging (Windows XP)

1. In the Windows Control Panel, click Add or Remove Programs.
2. In the program list, select the desktop messaging client to remove.
3. Click Change/Remove.

   Result: The uninstallation program starts and the Welcome page appears.
4. Click Uninstall to begin the uninstallation process.

To uninstall desktop messaging (previous versions of Windows)

1. In the Windows Control Panel, double-click Add/Remove Programs.
2. On the Install/Uninstall tab, select the CallPilot desktop messaging client to remove, and then click Add/Remove.
3. Follow the prompts to remove desktop messaging.

Running desktop messaging installation

You have two installation options for desktop messaging:

- Customized installation: To simplify installation, you can define installation defaults before you install desktop messaging on individual workstations.
- Manual installation: Install desktop messaging without setting installation defaults first. If you do not set installation defaults, you must specify all the required installation options each time you install desktop messaging on a workstation.

Benefits of customized installation

If you set installation defaults, you only need to specify a few user-specific options during software installation. Since all other options are already predefined, you can let users install desktop messaging themselves from a network location. If you want users to perform the installation, customize the README.RTF file, located in the root directory of the CallPilot product CD-ROM, to reflect your CallPilot system. Place the file in a network location accessible to your users.

When you customize installation, you can make the default options read-only. If you make options read-only, the installation program automatically hides or disables options that you do not want to make available. This setting is useful when you want to

- ensure that all users install desktop messaging with the same options
- block access to specific options

For example, if fax messaging is not available to your desktop messaging users, you can disable the fax printer driver installation option, and then make settings read-only to prevent users from installing the driver.

To customize installation

1. Create a folder for the desktop messaging installation software in a network location that is accessible to all desktop messaging users.
2. Copy the contents of the desktop messaging software CD-ROM into the installation folder that you just created.
3. In the installation folder, run inisetup.exe.

   Result: The Setup initialization program starts.
4. Click Next to continue the setup initialization procedure, and then follow the prompts.

   For information about a specific option, refer to the online Help.

   Result: The Setup initialization program creates a file called setup.ini in the installation folder.
5. If you want to prevent users from sending voice messages to external e-mail addresses, perform the following steps:

   a. In the installation folder, open the customized setup.ini file in a text editor.

   b. In the [Installation] section of the file, add the following line:

   BV=TRUE

   c. Save the file.

   Result: Once the voice blocking setting is enabled, users cannot forward CallPilot voice messages to external e-mail addresses. In addition, users cannot save CallPilot voice messages they receive. This prevents them from attaching a saved voice message to an e-mail message or copying the voice message onto a disk. Users can still send voice messages to all supported CallPilot addresses.

To install desktop messaging on user workstations

Note: If you are installing desktop messaging on a Windows 2000, Windows NT, or Windows XP system, you must have local administrator privileges.

1 Run setup.exe from the appropriate location (network folder or CD-ROM).

- If you customized the installation program, run setup.exe from the network folder where you placed the installation software.
- If you did not set installation defaults, run setup.exe from the desktop messaging software CD-ROM or a network folder.

Result: The setup program starts and the Welcome window appears.

2 Click Next to continue the installation, and then follow the prompts. For information about a specific option, refer to the online Help.

My CallPilot requirements

Servers

My CallPilot only works with a CallPilot 2.0 or later server. You can install My CallPilot on the CallPilot server or on a separate web server. For optimal performance, you should use a separate web server dedicated only to My CallPilot applications. If desired, you can install My CallPilot on the same stand-alone web server as CallPilot Manager and CallPilot Reporter.

You need approximately 25 Mbytes of disk space for My CallPilot. Nortel Networks recommends an additional 100 Mbytes after installation for temporary files.

Place the web server on the customer LAN and not on the CallPilot ELAN. Most client-server communications are implemented using HTTP and the intermediary web server. In this way, you can deploy My CallPilot across your company's firewall to the Internet, with the option of using third-party certificate authorities.

My CallPilot requires Microsoft Internet Information Server (IIS) 4 with SP6a, or 5 with SP1 and SP2 to provide users with access to applications. If you are unfamiliar with the operation and administration of IIS, contact your IS administrator for assistance.



CAUTION

Risk of system interruption or malfunction

Do not download and install any IIS security patches from the Microsoft web site unless they have been approved for CallPilot by Nortel Networks. Installation of unapproved security patches can result in incorrect operation of your CallPilot system.

To determine which patches have been approved by Nortel Networks, refer to the latest issue of the *CallPilot General Release Bulletin.*

Server configuration

The server configuration described in “Configuring the CallPilot server” on page 121 is required for both desktop messaging and My CallPilot. Ensure that the CallPilot server is properly configured before you begin My CallPilot installation.

After My CallPilot installation, you can assign access to My CallPilot features and set up web server security.

For information about assigning access to features and configuring the Useful Information section of My CallPilot, see Section D: “Controlling access to features,” on page 149.

For information about web server security, refer to Chapter 3, “Additional Server Configuration,” in the *Desktop Messaging and My CallPilot Administration Guide* (NTP 555-7101-503).

User workstation requirements

My CallPilot requires the same hardware as desktop messaging. For more details, see “User workstation requirements” on page 135.

Web browser requirements

My CallPilot supports the following web browsers:

- Microsoft Internet Explorer 5.x, 6.x
- Netscape 6.2x

Javascript and cookies must be enabled in the web browser.

Note: If you use Netscape 6 with My CallPilot, you need Java Runtime Environment (JRE) to view the online Help. When you install Netscape, the Default and Typical installation options do not include JRE. You can reinstall Netscape with the Full installation option, or obtain JRE from the Sun Microsystems web site.

Additional software

Some My CallPilot features require additional software as follows:

To	You need
Play voice messages	■ CallPilot Player to play files in VBK format ■ Windows Media Player to play files in WAV format
Record voice messages	CallPilot Player or an audio editor that can record messages in WAV format
View fax messages	an image viewer that can display TIFF-F files
Create fax messages	Nortel Fax driver (included with desktop messaging) or an application that can create images in TIFF-F format
View online guides in PDF format	Adobe Acrobat Reader

You can download CallPilot Player and Windows Media Player from the My CallPilot web site. In My CallPilot, click the CallPilot Features tab, and then click the Downloads link to access the software.

Note: Some of the links are associated with external sites.

Installing My CallPilot

Preparing for My CallPilot installation

Before installing CallPilot web applications, ensure that

- you have completed the "Desktop messaging and My CallPilot pre-installation checklist" on page 119
- an operational version of IIS 4 or IIS 5 is installed on the server
- you have removed any previous versions of Web Messaging from the IIS server
- user workstations have the required software for My CallPilot

  For more information, see "My CallPilot requirements" on page 142.

To uninstall Web Messaging

If an earlier version of Web Messaging is installed, you must uninstall it before installing My CallPilot.

1. Shut down the IIS web server service.
2. In the Windows Control Panel, double-click Add/Remove Programs.
3. Select CallPilot Web Messaging, and then click Add/Remove.
4. Click Yes to confirm that you want to remove CallPilot Web Messaging.
5. Run the CallPilot Web Messaging uninstall program.

   Result: The service starts and deletes the CallPilot virtual directory.
6. If required, restart your computer, and then manually remove the old directory and files that were in use.

   Note: The uninstall program does not remove the directory structure c:\CallPilot\WebMessaging\bin. You must remove this structure manually.

If the web client fails to stop the World Wide Web service or seems to hang while you stop the service, you may need to stop the service manually, as shown by the following:

a. In the Windows Control Panel, double-click Services. Select World Wide Web Publishing service, and then click Stop.

b. If this fails to stop the service, open a console window and type **net stop iisadmin /y**.

This stops all IIS services, such as FTP and World Wide Web.

c. You must restart these services after you uninstall Web Messaging.

In the Windows Control Panel, double-click Services. Select World Wide Web Publishing service, and then click Start.

To install My CallPilot

This procedure can be done in conjunction with the IS administrator.

1 Log on to your IIS computer with administrator privileges.

2 Run the installation program (setup.exe) from the “My CallPilot from Nortel Networks” CD-ROM (NTRH4593).

The installation program is located in the root directory of the CD-ROM.

Result: The Welcome window appears.

3 Click Next to continue the installation, and then follow the prompts.

For information about a specific option, refer to the online Help.

My CallPilot web server setup

An important final step is to update the CallPilot web server settings and to enable or disable SSL encryption for communication with the My CallPilot web server. Run the “My CallPilot Administration Utility” as described in the *Desktop Messaging and My CallPilot Administration Guide* (NTP 555-7101-503).

To test the installation

1. Go to a client computer that has the required software for My CallPilot and access over the network to the My CallPilot web server.
2. Start Internet Explorer or Netscape.
3. Navigate to the My CallPilot web site, which is the virtual directory you created during installation.
4. Type the My CallPilot URL in the following format:

   http://<web_server_name>/<virtual_directory_name>

   Result: In a few seconds, the Logon page appears.
5. Log on to My CallPilot.

My CallPilot web server security

For information about setting up a secure environment for My CallPilot web server access, refer to the *Desktop Messaging and My CallPilot Administration Guide* (NTP 555-7101-503).

Section D: Controlling access to features

In this section

Overview of feature access options 150
Controlling access to desktop messaging features 151
Controlling access to My CallPilot features 152
CallPilot server configuration for My CallPilot services 159

Overview of feature access options

Introduction

To provide users with access to desktop messaging, you must correctly set up mailbox classes and restriction/permission lists (RPLs). For details about RPLs and mailbox classes, refer to the *CallPilot Administrator's Guide* (NTP 555-7101-301), or the CallPilot Manager online Help.

Mailbox classes

A mailbox class is a defined set of CallPilot access rights that you assign to a group of users. The capabilities that you enable affect the features and services available to users.

Consider the following feature interactions when you are creating a mailbox class for users of desktop messaging and My CallPilot:

- You can assign desktop messaging capability with or without fax capability.
- Configuration of some features is only available from My CallPilot. For example, you can only set preferences for E-mail By Phone from My CallPilot.
- Some features are easier to use in My CallPilot. For example, you can assign a name and number to a personal distribution list (PDL) in My CallPilot. From the telephone, you can only assign a number to a PDL.

Restriction permission lists

In a mailbox class with desktop messaging capability, an RPL is associated. CallPilot applies the desktop messaging RPL to all messages sent from the desktop messaging clients. If a message requires a feature that has an RPL associated with it, then CallPilot applies both RPLs to the call. For example, if a user sends a message to a fax machine, the desktop messaging RPL and the Delivery to Telephone RPL are both applied.

Controlling access to desktop messaging features

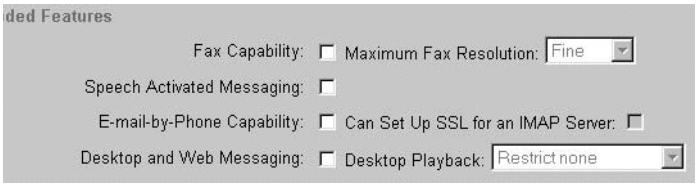
Introduction

You can control access to desktop messaging from CallPilot Manager and specify restrictions for audio device usage and fax messaging. Access rights are assigned in the mailbox class.

To set desktop messaging privileges

1. In CallPilot Manager, choose User → Mailbox Classes.
2. In the mailbox class list, click the name of the appropriate mailbox class.

   Result: The Mailbox Class Browser page appears.
3. In the Keycoded Features section, select the appropriate options.



   - To grant access to desktop messaging features, enable Desktop and Web Messaging capability.
   - To restrict audio playback and recording to either the computer or telephone, select the appropriate option in the Desktop Playback list.
   - To allow users to send and receive CallPilot fax and text messages, enable Fax Capability. Without fax capability, users can only send and receive voice messages.
4. Click Save.

Controlling access to My CallPilot features

Introduction

The following options are available to all mailbox owners:

- Useful Information: The Useful Information section of My CallPilot provides mailbox status information, dialing numbers for your CallPilot system, and CallPilot user documentation.
- Downloads: The Downloads page provides access to media players for recording and playing voice messages.
- My CallPilot Home Page: This option enables mailbox owners to select the default My CallPilot section to display after logon.

In CallPilot Manager, you can provide additional features to mailbox owners, based on their needs.

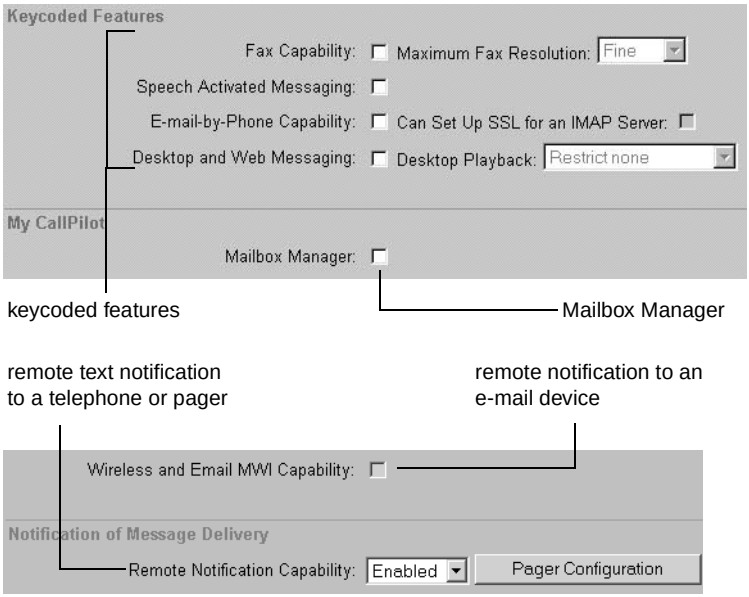
Controlling access to features

CallPilot mailbox class settings determine access to My CallPilot features. As you create or modify mailbox classes in CallPilot Manager to control access rights, consider how members of each mailbox class will use My CallPilot. In a mailbox class, you can control the following access rights:

- access to keycoded feature preferences: When you grant access to fax messaging, desktop and web messaging, or E-mail by Phone, configuration options for these features appear in My CallPilot.
- access to mailbox management options: When you grant access to Mailbox Manager, the following options are available in My CallPilot:
  - message notification preferences
  - personal distribution list management
  - password change
  - options for the telephone interface

- access to message notification options: When you grant access to remote text notification or remote notification to a telephone or pager, mailbox owners can set notification preferences in My CallPilot.

The illustrations below show the mailbox class options that affect My CallPilot feature availability:



The table below summarizes the available access options:

To make this feature available in My CallPilot	Select these options in CallPilot Manager
fax options	Fax Capability
telephone access to e-mail (E-mail By Phone)	E-mail By Phone Capability

To make this feature available in My CallPilot	Select these options in CallPilot Manager
web messaging (access to CallPilot messages and e-mail messages) and associated preferences	Desktop and Web Messaging
Mailbox Manager options	Mailbox Manager
preferences for remote notification to a telephone or pager	Remote Notification Capability
preferences for remote text notification to an e-mail device	Wireless and Email MWI Capability

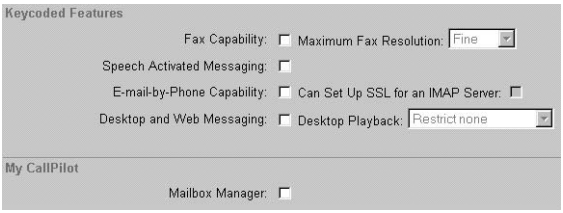
Access levels for My CallPilot

The following subsections describe levels of access you can provide for My CallPilot:

Reference information and documentation only

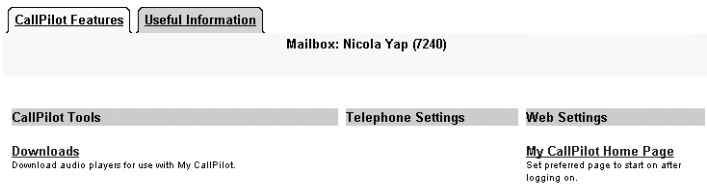
If you disable keycoded features and Mailbox Manager, My CallPilot only provides access to the Useful Information area, the Downloads page, and selection of the default My CallPilot tab.

This level of access is appropriate for mailbox owners who usually access their CallPilot mailbox by telephone, and who do not require desktop messaging, web messaging, or telephone access to e-mail (E-mail by Phone).



CallPilot Manager

A mailbox class with access to reference information only.



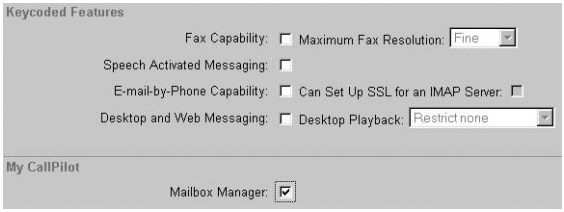
My CallPilot

My CallPilot options available for the mailbox class.

Mailbox management only

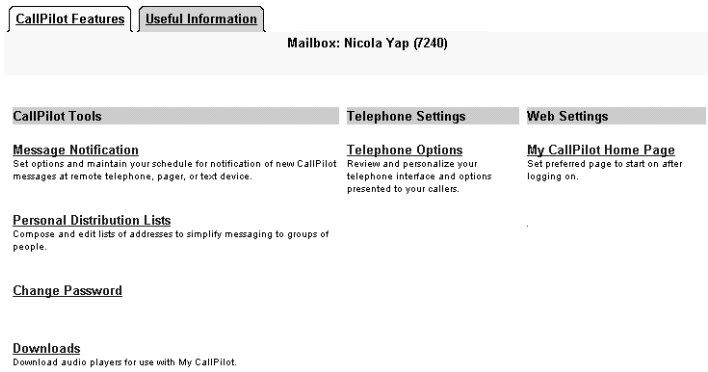
Since My CallPilot provides a graphical interface for configuring mailbox options, mailbox owners who do not require keycoded features can still benefit from web-based access to mailbox management.

Configuration of features, such as remote notification and personal distribution lists, is simple and accessible from any location with Internet access.



CallPilot Manager

A mailbox class with mailbox management only.



My CallPilot

My CallPilot options available for the mailbox class.

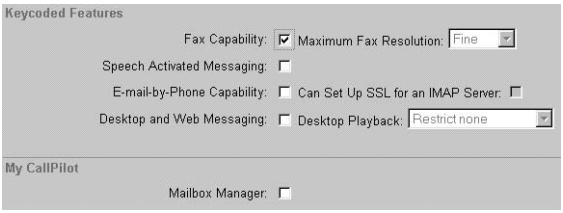
Keycoded features enabled without additional mailbox management

When you enable keycoded features, the associated configuration options appear in My CallPilot. My CallPilot provides configuration options for

- fax messaging
- desktop and web messaging
- E-mail by Phone

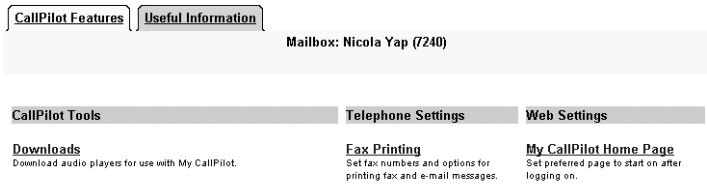
If some mailbox owners require keycoded features, and will only access My CallPilot occasionally to change their preferences, you can enable the required keycoded features and disable Mailbox Manager.

Note: E-mail by Phone and web messaging options are only accessible from My CallPilot.



CallPilot Manager

A mailbox class with fax capability. Mailbox management is disabled.



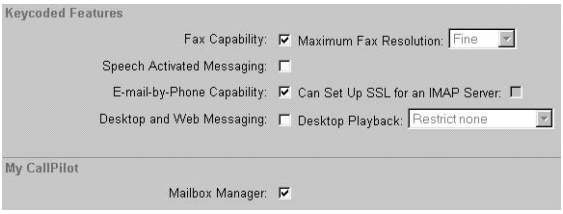
My CallPilot

My CallPilot options available for the mailbox class.

Keycoded features enabled with mailbox management

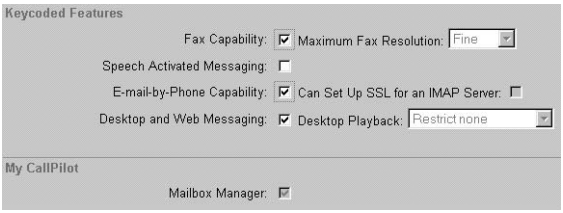
When you enable keycoded features for a mailbox class, you can also enable Mailbox Manager to provide access to mailbox management features.

If you enable fax capability or E-mail by Phone capability, Mailbox Manager is optional. If you enable desktop and web messaging capability, you require Mailbox Manager.



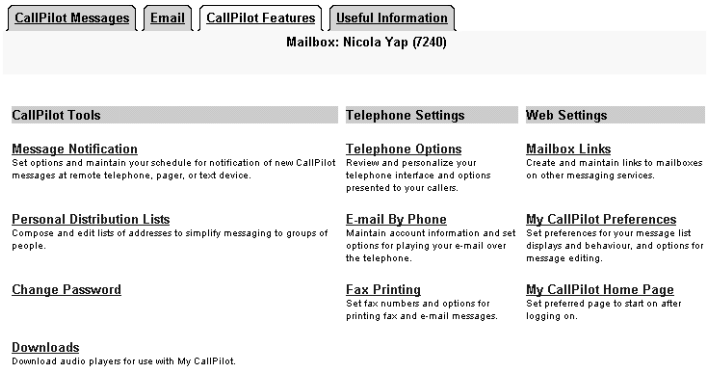
CallPilot Manager

A mailbox class with keycoded features and mailbox management. Mailbox Manager is optional.



CallPilot Manager

A mailbox class that includes desktop and web messaging. Mailbox manager is required.



My CallPilot

My CallPilot options available for a mailbox class that includes all keycoded features that have associated options in My CallPilot.

CallPilot server configuration for My CallPilot services

Overview

This section briefly describes how to configure CallPilot server for several services available in My CallPilot.

Providing user reference information

My CallPilot includes a Useful Information section that provides reference information and online documentation for users. In CallPilot Manager, you can specify the following support information:

- a system-wide message that appears when a mailbox owner logs on to My CallPilot
- dialing numbers for your CallPilot system, such as the Voice Messaging DN and the ESN access code
- local contact information for your CallPilot support staff

To specify support information

1. In CallPilot Manager, choose Tools → My CallPilot Configuration. The My CallPilot Configuration page appears.
2. Specify the support information, as required. For information about a specific option, see the online Help.

Specifying external e-mail servers

You can specify multiple IMAP servers that users can access from My CallPilot or from the telephone. To access e-mail from My CallPilot, you must enable Desktop and Web Messaging capability for the mailbox. To access e-mail from the telephone, you must enable the E-mail By Phone capability for the mailbox.

To configure external e-mail servers

1. In CallPilot Manager, choose Messaging → External Email Servers.
2. In the Text to Speech section, specify the download options for E-mail-by-Phone users. For more information, see the CallPilot Manager online Help.
3. In the External Email Server list, define the servers users can access with E-mail-by-Phone and from My CallPilot.

   For more information, refer to the CallPilot Manager online Help.

Chapter 7

Recovering from system failures

In this chapter

Recovery strategies 162
Recovering from a hard drive failure 166

Recovery strategies

Introduction

If the CallPilot server fails to function normally, then you may have to recover it. This may involve doing one or more of the following:

- replacing the hard drive
- rebuilding the hard drive in a RAID system pack

  This involves copying data from the operating drive to a replacement drive by using the RAID maintenance utility.
- reinstalling the software

  If all of the software has to be reinstalled (that is, Windows NT and CallPilot server software), this is considered to be a system rebuild.
- all of the above

ATTENTION

If you require a hard drive recovery, contact your distributor.

About RAID systems

The 703t, 1001rp, and 1002rp servers are RAID servers. On the 702t server, RAID is an option.

In a RAID system, the hard drives are mirrored. When one hard drive fails, its secondary hard drive takes over and there is no system down time. However, you must replace the hard drive that failed as soon as possible to ensure that hard drive redundancy is restored to the system.

Determining your recovery strategy

IF	THEN
■ the language prompts are generating alarms on the CallPilot server ■ errors appeared while installing the languages ■ there is dead air when you dial into the CallPilot system	you may need to reinstall the languages. For instructions, see “Reinstalling languages” on page 53.
■ errors that indicate incomplete or incorrect installation appeared during the CallPilot software installation ■ the CallPilot software is not functioning	you may need to reinstall the CallPilot server software. For instructions, see “Reinstalling the server software” on page 55. If you need to (or are advised to) rebuild the system, see Chapter 8, “Installing the operating system on the CallPilot server.”
the server is a new system and it failed while (or shortly after) running the Configuration Wizard	you may need to reinstall the CallPilot server software. For instructions, see “Reinstalling the server software” on page 55. If this does not fix the problem, contact your Nortel Networks technical support representative.

IF	THEN
a RAID card failed	replace the faulty RAID card. For instructions, refer to Part 5 of the *CallPilot Installation and Configuration* binder. **Note:** The new RAID card must be the same model as the RAID card that is being replaced. If it is not the same model, you must reinstall the RAID software.
a hard drive in a RAID system failed	you must replace the faulty hard drive as soon as possible to maintain hard drive redundancy. Then, you must rebuild the hard drive in the RAID system pack by running the RAID maintenance utility. This copies data from the working hard drive to the new hard drive. For instructions on replacing the hard drive and running the RAID system maintenance utility, refer to the appropriate “Maintaining the RAID system” section in Part 5 of the *CallPilot Installation and Configuration* binder.

IF	THEN
■ the hard drive on a non-RAID system failed ■ both hard drives in a mirrored pair failed	you must replace the hard drive, and then rebuild and restore the CallPilot system (if a backup tape is available). **ATTENTION** The rebuilt system must contain the same version of Windows NT operating system and CallPilot software (including any PEPs) that were present during the last backup. If there are any differences in software between the rebuilt system and the last backup, the restore from tape fails. For instructions on rebuilding the system, see “Recovering from a hard drive failure” on page 166.

You rebuild the system by replacing the hard drive (if required), and then installing Windows NT, various software components, and CallPilot server software.

You restore CallPilot data by using the Backup/Restore Command Line Utility provided in the System Utilities Support Tools.

Note: The Backup/Restore Command Line Utility is not available to customers. Only distributors can perform the restore from tape.

ATTENTION

If you encounter problems when recovering from a system failure, contact your Nortel Networks technical support representative.

Recovering from a hard drive failure

Introduction

This section provides a high-level overview of how to recover your server from a hard drive failure, as follows:

Server model	See
■ 200i or 201i server ■ tower or rackmount server without RAID	"To recover a non-RAID system from a hard drive failure" on page 167
tower or rackmount server with RAID	"To recover a RAID system from a hard drive failure" on page 169 **Note:** If both of the hard drives in a mirrored pair fail, then see "To recover a non-RAID system from a hard drive failure" on page 167.

Requirements

To recover from a hard drive failure, you need the following items:

- a new hard drive

ATTENTION

The new hard drive must be a hard drive that is supported by Nortel Networks for your server model. To obtain a new hard drive, contact your Nortel Networks distributor.

- all software media that came with the CallPilot system:
  - CallPilot 2.02 OS Recovery or OS Upgrade CD-ROM

    Note: If your server was upgraded to CallPilot 2.02 from a previous release, and you do not have the CallPilot 2.02 OS Recovery CD-ROM, you also need the CallPilot 1.0x OS recovery CD-ROM and documentation.
  - CallPilot 2.02 Server Software CD-ROM
  - CallPilot 2.02 PEP CD-ROM
- a system backup (if available)

To recover a non-RAID system from a hard drive failure

1 Replace the faulty hard drive(s).

For instructions, refer to Part 5 of the *CallPilot Installation and Configuration* binder.

2 Install Windows NT.

For instructions, see Chapter 8, “Installing the operating system on the CallPilot server.”

3 Install the CallPilot server software and, if required, PEPs.

Result: For instructions, see “Installing CallPilot server software” on page 43.

4 Run the Configuration Wizard to configure the CallPilot server software.

For instructions, refer to “Configuring the CallPilot server software” in Part 3 of the *CallPilot Installation and Configuration* binder.

5 Do one of the following:

IF your CallPilot system	THEN
failed during operation	continue with the rest of this procedure.

IF your CallPilot system	THEN
failed before it became operational	you have completed the recovery process. Test CallPilot to ensure it can receive calls, as described in "Testing the CallPilot installation" in Part 3 of the *CallPilot Installation and Configuration* binder.

6 Log on to the CallPilot server as **Administrator** or with any account that has local administrative privileges.

7 Perform a data restore from backup tape.

Note: The restore procedure requires access to a utility that is not available to customers. Only distributors can perform the restore from tape.

Distributors should refer to the *Support Tools Guide for CallPilot Distributors* for instructions.

8 Restart the restored system.

For instructions, refer to "Restarting the server" in Part 1 of the *CallPilot Installation and Configuration* binder.

9 Test CallPilot to ensure it can receive calls, as described in "Testing the CallPilot installation" in Part 3 of the *CallPilot Installation and Configuration* binder.

10 When you are satisfied that the system is working correctly, perform a full system backup.

To recover a RAID system from a mirrored-pair failure

If both hard drives in a mirrored pair fail, then you must replace both hard drives, and then perform the recovery as if the system did not have RAID. For instructions, see "To recover a non-RAID system from a hard drive failure" on page 167.

To recover a RAID system from a hard drive failure

1. Replace the faulty hard drive.

   For instructions, refer to Part 5 of the *CallPilot Installation and Configuration* binder.

2. Rebuild the hard drive in the RAID system pack as described in the "Maintaining the RAID system" section in Part 5 of the *CallPilot Installation and Configuration* binder.

3. Test CallPilot to ensure it can receive calls, as described in "Testing the CallPilot installation" in Part 3 of the *CallPilot Installation and Configuration* binder.

4. When you are satisfied that the system is working correctly, perform a full system backup.

Chapter 8

Installing the operating system on the CallPilot server

In this chapter

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OS installation checklist: upgraded 200i server only 180

OS installation checklist: CallPilot 2.02 tower or rackmount server 184

OS installation checklist: CallPilot 2.02 201i server 187

Windows NT configuration worksheet 190

Section B: Preparing the tower or rackmount system 193

Before you begin 194

Changing the BIOS boot device priority 196

Starting the server from CD-ROM or floppy disk 200

Erasing the hard drive 202

Partitioning the hard drive 203

Formatting the partition and starting Windows NT installation 205

Section C: Preparing the 201i server 207

Overview 208

Starting to ROM-DOS 209

Displaying the Windows NT installation menu from ROM-DOS 211

Erasing the hard drive 212

Creating the operating system partition 213
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Starting the Windows NT installation 215
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Installing Windows NT 218
Creating the NTFS partitions 221
Installing Windows NT Service Pack 6a 237
Updating the Windows NT operating system for CallPilot 2.02 239

Overview

Introduction

This chapter describes how to rebuild the CallPilot server by reinstalling Windows NT and the CallPilot server software.



CAUTION

Risk of data loss

When you reinstall the Windows NT operating system, all data is lost. If a good backup of the system is available, you can restore the data after the CallPilot server software has been reinstalled.

When to perform a system rebuild

The following describes two scenarios that require a system rebuild:

ATTENTION

In either case, Nortel Networks recommends that you open a support ticket with your technical support group before you proceed with a system rebuild.

Scenario 1

If the CallPilot server fails completely due to a hardware or software malfunction, then you may need to rebuild the system. The following are examples of situations where a system rebuild may be required:

- The hard drive is not mirrored, and it fails completely.
- Data on the hard drive has been seriously corrupted.

- The server will not start Windows NT.

ATTENTION

In these situations, perform a system rebuild only when all attempts to resolve the hardware or software problem have failed.

Scenario 2

If you want to perform a platform migration, and the target server is running CallPilot software that is older than what is installed on the original server, you must reinstall the Windows NT operating system and CallPilot server software so that the target server matches the original server.

For more information about platform migrations, see Chapter 3, "Performing a platform migration."

System rebuild methodology

You rebuild the system by replacing the hard drive (if required), and then installing Windows NT and the software components required for CallPilot 2.02 operation.

In CallPilot 2.02, the OS recovery software is provided on the following CD-ROMs:

CD-ROM	Description
OS Recovery CD-ROM	This CD-ROM is provided with CallPilot servers that ship as CallPilot 2.02.
OS Upgrade CD-ROM	This CD-ROM is provided to customers who purchased a CallPilot 2.02 upgrade. **Note:** Ensure that you have the OS recovery CD-ROM that was originally provided with the server. You need it to complete the system rebuild on an upgraded server.

The following table describes the system rebuild methodology for new versus upgraded systems:

Server was new or upgraded?	OS CD-ROM provided	System rebuild methodology
New (as CallPilot 2.02)	CallPilot 2.02 OS Recovery CD-ROM	1 Use the CallPilot 2.02 OS Recovery CD-ROM to install, upgrade, and configure Windows NT. 2 Install the CallPilot 2.02 server software.
Upgraded (201i, 702t, or 1001rp)	CallPilot 2.02 OS Upgrade CD-ROM	1 Use the CallPilot 2.02 OS Upgrade CD-ROM to install and configure Windows NT. 2 When prompted, insert the OS recovery CD-ROM that was originally shipped with the server. When the required files are copied to the hard drive, reinsert the CallPilot 2.02 OS Upgrade CD-ROM. 3 Install the CallPilot 2.02 server software.
Upgraded (200i only)	CallPilot 2.02 OS Upgrade CD-ROM	1 Use the OS recovery CD-ROM and supporting documentation that was originally shipped with the server to install Windows NT. 2 Use the CallPilot 2.02 OS Upgrade CD-ROM to update Windows NT with the components required by CallPilot 2.02. 3 Install the CallPilot 2.02 server software.

See “Operating system installation checklists” on page 176 for more details.

Note: In CallPilot 2.02, most of the OS recovery steps have been automated. You can use the CallPilot 2.02 OS Recovery CD-ROM to rebuild a system that was upgraded to CallPilot 2.02. Take the CallPilot 2.02 OS Recovery CD-ROM with you *temporarily* to the customer's site.

Exception: If the server is a 200i server, Nortel Networks does not support automated Windows NT installation from the CallPilot 2.02 OS Recovery CD-ROM.

Operating system installation checklists

Use one of the operating system installation checklists that are provided in this chapter to track your progress through the process. To determine which checklist you should use, review the following table:

Server was new or upgraded?	OS CD-ROM provided with server	OS installation checklist
New (as CallPilot 2.02)	CallPilot 2.02 OS Recovery CD-ROM	Use one of the following: ■ "OS installation checklist: CallPilot 2.02 tower or rackmount server" on page 184 ■ "OS installation checklist: CallPilot 2.02 201i server" on page 187
Upgraded (201i, 702t, or 1001rp)	CallPilot 2.02 OS Upgrade CD-ROM	Use one of the following: ■ "OS installation checklist: CallPilot 2.02 tower or rackmount server" on page 184 ■ "OS installation checklist: CallPilot 2.02 201i server" on page 187

Server was new or upgraded?	OS CD-ROM provided with server	OS installation checklist
Upgraded (200i only)	CallPilot 2.02 OS Upgrade CD-ROM	"OS installation checklist: upgraded 200i server only" on page 180 **Note:** Nortel Networks does not support automated Windows NT installation on the 200i server using the CallPilot 2.02 OS Recovery CD-ROM.

Section A: Checklists and worksheets

In this section

OS installation checklist: upgraded 200i server only 180
OS installation checklist: CallPilot 2.02 tower or rackmount server 184
OS installation checklist: CallPilot 2.02 201i server 187
Windows NT configuration worksheet 190

OS installation checklist: upgraded 200i server only

Use this checklist if the server is a 200i server.

Note: You must complete the tasks in the sequence specified to help ensure a smooth, trouble-free installation.

Step	Description	Check
1	Complete the "Windows NT configuration worksheet" on page 190.	❒
2	Use the OS recovery CD-ROM and supporting documentation that was originally shipped with the server (that is, CallPilot 1.0x) to install and configure Windows NT. **Note:** The CD-ROM may be labeled as Windows NT OS Recovery or MAS 2.0 Operating System. The part code is NTRH8027. This includes the following tasks: ■ Create the DOS partition. ■ Install Windows NT. ■ Format the disks and partitions. ■ Ensure the CD-ROM drive letter is Z:. ■ If the server is equipped with a tape drive, install the SCSI device driver. **Notes:** ■ Do not install any Service Packs (such as SP3, SP4, or SP5). ■ Do not install pcAnywhere. ■ Do not install the tape drive driver.	❒

Step	Description	Check
2 (cont)	■ Do not configure the server's date, time, time zone, network interface, or virtual memory and recovery settings. The system prompts you to configure some of these items during the Windows NT update procedure. Other items are configured automatically.	❒
3	Change the Administrator password to null. For instructions, refer to the Windows NT documentation.	❒
4	Insert the CallPilot 2.02 OS Upgrade CD-ROM into the server's CD-ROM drive, and then execute the SP6a.bat file in the \Utils folder (see page 237). This installs Service Pack 6a and restarts the server.	❒
5	Close all open windows, including Windows NT Explorer, Control Panel, and Notepad.	❒
6	Log on to Windows NT, click Start → Run, and then browse for the setup.bat file in the root folder on the CallPilot 2.02 OS Upgrade CD-ROM (see page 239). This initiates the Windows NT update for CallPilot 2.02. The system prompts you to complete the following tasks during the update: ■ Configure the date, time, and time zone. ■ Install the tape drive driver (if the server is equipped with a tape drive). The driver is located in Z:\Drivers\Misc\Tape. ■ Ensure the computer name is correct. If it is not correct, change it.	❒

Step	Description	Check
6 (cont)	■ Configure the TCP/IP settings (IP addresses, subnet masks, gateway, WINS and DNS parameters for both the ELAN and CLAN adapters). ■ Change the Windows NT administrator password. **Note:** Components that do not require action from you are installed automatically. The server automatically restarts multiple times.	❒
7	Verify the network bindings, if required (see page 268).	❒
8	Install antivirus software on the server (optional). You must supply your own antivirus software. For information about the antivirus software packages that have been approved by Nortel Networks for CallPilot, refer to *Product Bulletin 2003-0151-Global: CallPilot Support for AntiVirus Applications*.	❒
9	Insert the CallPilot 2.02 Server Software CD-ROM into the server's CD-ROM drive, and then install the CallPilot server software. For instructions, see "Installing the CallPilot server software" on page 44.	❒ ❒
10	Install CallPilot 2.02 service updates or PEPs, if required. For instructions, see "Installing Performance Enhancement Packages" on page 29.	❒
11	Configure the server, or restore server data from backup. For instructions on configuring the server, refer to "Configuring the CallPilot server software" in Part 3 of the *CallPilot Installation and Configuration* binder. For instructions on restoring data from a backup, refer to the *Support Tools Guide for CallPilot Distributors*.	❒

Step	Description	Check
12	Test the system to ensure that it is working as expected. For instructions, refer to “Testing the CallPilot installation” in Part 3 of the *CallPilot Installation and Configuration* binder.	❒
13	Perform a full system backup. For instructions, refer to “Backing up and restoring CallPilot information” in the *CallPilot Administrator’s Guide* (NTP 5551-7101-301).	❒

OS installation checklist: CallPilot 2.02 tower or rackmount server

Use this checklist if the server was shipped as or upgraded to CallPilot 2.02.

Notes:

- You must complete the tasks in the sequence specified to help ensure a smooth, trouble-free installation.
- If the server was upgraded to CallPilot 2.02, ensure that you also have the OS recovery CD-ROM that was originally provided with the server.

Step	Description	Check
1	If the server is a 1001rp server, ensure that it is equipped with a Diamond Stealth III video card. The card has the following characteristics: ■ the word “Diamond” imprinted on the board ■ black heat sink on the 3D chip ■ blue VGA connector If the installed video card is not a Diamond Stealth III card, contact Nortel Networks.	❒
2	If the server is equipped with RAID, ensure that the RAID array and logical volumes are set up. For instructions, refer to Part 5 of the *CallPilot Installation and Configuration* binder.	❒
3	Complete the “Windows NT configuration worksheet” on page 190.	❒
4	Change the boot device priority in the BIOS Setup to CD-ROM (see page 196).	❒

Step	Description	Check
5	Start the server using the CallPilot 2.02 OS Recovery or OS Upgrade CD-ROM (see page 200).	❒
6	Erase the first hard drive (see page 202).	❒
7	Create the operating system partition on the first hard drive (see page 203).	❒
8	Format the partition and start Windows NT installation (see pages 205 and 218).	❒
9	Create and format the NTFS partitions (see page 221).	❒
10	Execute the setup.bat file in the root folder of the CallPilot 2.02 OS Recovery or OS Upgrade CD-ROM (see page 239). This initiates the Windows NT update for CallPilot 2.02. The system prompts you to complete the following tasks during the update: ■ Configure the date, time, and time zone. ■ Install the tape drive driver (if the server is equipped with a tape drive). ■ Configure the TCP/IP settings and the computer name. ■ Change the Windows NT administrator password. ■ Specify the RAID card type, and install the RAID management software (if the server is equipped with RAID). **Note:** Components that do not require action from you are installed automatically. The server restarts multiple times.	❒

Step	Description	Check
11	Install antivirus software on the server (optional). You must supply your own antivirus software. For information about the antivirus software packages that have been approved by Nortel Networks for CallPilot, refer to *Product Bulletin 2003-0151-Global: CallPilot Support for AntiVirus Applications*.	❒
12	Insert the CallPilot 2.02 Server Software CD-ROM into the server's CD-ROM drive, and then install the CallPilot server software. For instructions, see "Installing the CallPilot server software" on page 44.	❒ ❒
13	Install CallPilot 2.02 service updates or PEPs, if required. For instructions, see "Installing Performance Enhancement Packages" on page 29.	❒
14	Configure the server, or restore server data from backup. For instructions on configuring the server, refer to "Configuring the CallPilot server software" in Part 3 of the *CallPilot Installation and Configuration* binder. For instructions on restoring data from a backup, refer to the *Support Tools Guide for CallPilot Distributors*.	❒
15	Test the system to ensure that it is working as expected. For instructions, refer to "Testing the CallPilot installation" in Part 3 of the *CallPilot Installation and Configuration* binder.	❒
16	Perform a full system backup. For instructions, refer to "Backing up and restoring CallPilot information" in the *CallPilot Administrator's Guide* (NTP 5551-7101-301).	❒
17	Create or update the emergency repair disk (see page 276).	❒

OS installation checklist: CallPilot 2.02 201i server

Use this checklist if the 201i server was shipped as or upgraded to CallPilot 2.02.

Notes:

- You must complete the tasks in the sequence specified to help ensure a smooth, trouble-free installation.
- If the server was upgraded to CallPilot 2.02, ensure that you also have the OS recovery CD-ROM that was originally provided with the server.

Step	Description	Check
1	Complete the "Windows NT configuration worksheet" on page 190.	❒
2	Start the 201i server into ROM-DOS, and then display the Windows NT installation menu (see pages 209 and 211).	❒
3	Erase the hard drive (see page 212).	❒
4	Create the operating system partition (see page 213).	❒
5	Format the new partition (see page 214).	❒
6	Insert the CallPilot 2.02 OS Recovery or OS Upgrade CD-ROM into the CD-ROM drive, and start the Windows NT installation (see pages 215 and 218).	❒
7	Create the NTFS partition on drive D (see page 221).	❒

Step	Description	Check
8	Execute the setup.bat file in the root folder on the CallPilot 2.02 OS Recovery or OS Upgrade CD-ROM (see page 239). This initiates the Windows NT update for CallPilot 2.02. The system prompts you to complete the following tasks during the update: ■ Configure the date, time, and time zone. ■ Install the tape drive driver (if the server is equipped with a tape drive). ■ Configure the TCP/IP settings and the computer name. ■ Change the Windows NT administrator password. **Note:** Components that do not require action from you are installed automatically. The server automatically restarts multiple times.	❒
9	Install antivirus software on the server (optional). You must supply your own antivirus software. For information about the antivirus software packages that have been approved by Nortel Networks for CallPilot, refer to *Product Bulletin 2003-0151-Global: CallPilot Support for AntiVirus Applications*.	❒
10	Insert the CallPilot 2.02 Server Software CD-ROM into the server's CD-ROM drive, and then install the CallPilot server software. For instructions, see "Installing the CallPilot server software" on page 44.	❒ ❒
11	Install CallPilot 2.02 service updates or PEPs, if required. For instructions, see "Installing Performance Enhancement Packages" on page 29.	❒

Step	Description	Check
12	Configure the server, or restore server data from backup. For instructions on configuring the server, refer to "Configuring the CallPilot server software" in Part 3 of the *CallPilot Installation and Configuration* binder. For instructions on restoring data from a backup, refer to the *Support Tools Guide for CallPilot Distributors.*	❒
13	Test the system to ensure that it is working as expected. For instructions, refer to "Testing the CallPilot installation" in Part 3 of the *CallPilot Installation and Configuration* binder.	❒
14	Perform a full system backup. For instructions, refer to "Backing up and restoring CallPilot information" in the *CallPilot Administrator's Guide* (NTP 5551-7101-301).	❒

Windows NT configuration worksheet

Introduction

Use the following worksheet to record the information you must enter during Windows NT installation. Obtain this information from the network administrator.

General information

Computer name:	_____
Windows NT Administrator password:	_____

ELAN adapter

IP address:	_____ . _____ . _____ . _____
Subnet mask:	_____ . _____ . _____ . _____
Default gateway:	_____ . _____ . _____ . _____

CLAN adapter

IP address:	_____ . _____ . _____ . _____
Subnet mask:	_____ . _____ . _____ . _____
Default gateway:	_____ . _____ . _____ . _____

DNS and WINS

DNS	
Host (computer) name:	_____
Domain name:	_____
DNS service search order	_____
	_____
	_____
Domain Suffix Search Order:	_____
	_____
	_____
WINS—ELAN adapter	
Primary WINS server:	_____ . _____ . _____ . _____
Secondary WINS server	_____ . _____ . _____ . _____
WINS—CLAN adapter	
Primary WINS server:	_____ . _____ . _____ . _____
Secondary WINS server	_____ . _____ . _____ . _____

Section B: Preparing the tower or rackmount system

In this section

Before you begin 194
Changing the BIOS boot device priority 196
Starting the server from CD-ROM or floppy disk 200
Erasing the hard drive 202
Partitioning the hard drive 203
Formatting the partition and starting Windows NT installation 205

Before you begin

Introduction

This section describes the tasks you must perform to prepare the tower or rackmount server for Windows NT installation.

ATTENTION

If you have the CallPilot 2.02 OS Upgrade CD-ROM, ensure that you also have the OS recovery CD-ROM that was originally provided with the server. The system prompts you to use it at the appropriate time.

Hardware requirements

1 If the server you are rebuilding is a 1001rp server, ensure that it is equipped with the Diamond Stealth III video card.

The card has the following characteristics:

- the word “Diamond” imprinted on the board
- black heat sink on the 3D chip
- blue VGA connector

If the installed video card is not a Diamond Stealth III card, contact Nortel Networks.

2 If the server is equipped with RAID, ensure that the RAID array and logical volumes are set up. For instructions, refer to Part 5 of the *CallPilot Installation and Configuration* binder.

Using the CallPilot 2.02 OS Recovery or OS Upgrade CD-ROM to start the server

The options and files used to install and update the Windows NT operating system are provided on the CallPilot 2.02 OS Recovery or OS Upgrade CD-ROM. You must start the server using this CD-ROM before proceeding. To accomplish this, you must change the BIOS setup so that the server can start from the CD-ROM drive.

Preparing the hard drive

You must erase, partition, and then format the hard drive before you install Windows NT. If the server is equipped with more than one hard drive, this operation removes all data from all hard drives.

Ensure that all valid data has been backed up (if applicable).

Changing the BIOS boot device priority

Introduction

You must start the server using the CallPilot 2.02 OS Recovery or OS Upgrade CD-ROM to complete the following tasks:

- Erase the hard drive (see page 202).
- Partition the hard drive (see page 203).
- Format the partition and initiate Windows NT installation (see page 205).
- Update the server's BIOS, System Setup Utility (SSU) or RAID card firmware (refer to Part 5 of the *CallPilot Installation and Configuration* binder).

On the 702t, 1001rp, and 1002rp servers, you can start the server from the CallPilot 2.02 OS Recovery or OS Upgrade CD-ROM by changing the boot device priority option in the server's BIOS (see page 198). When you have completed these tasks, change the boot device priority in BIOS setup back to the original settings so that the server can start from its hard drive.

On the 703t server, you can change the boot device option during the server startup process (see below). The change is temporary; the server will start from the hard disk the next time you restart the server.

To change the boot device priority on the 703t server

1. Insert the CallPilot 2.02 OS Recovery or OS Upgrade CD-ROM into the 703t server's CD-ROM drive.
2. Restart the server and observe the startup diagnostics.

3 When the processor diagnostics screen appears, press Esc.

Result: The following appears at the bottom of the screen:

```
Entering the boot menu ....
Please select boot device:
ATAPI CD-ROM
Removable Devices
Hard Drive
IBA 4.1.0.4 Slot 0118
IBA GE Slot 0120 v1109
Use <arrow up> and <arrow down> to change selection,
Use ENTER to select and save,
Use ESC to Exit without save.
```

4 Choose ATAPI CD-ROM, and then press Enter.

Result: The following menu appears:

```
MS-DOS 6.2 Startup Menu


1.  Delete all partitions on first hard drive, reboot
2.  Create C partition for OS ...
3.  Format C Install Windows NT from CD-ROM ...
4.  Command Prompt with IDE CD-ROM as Z:
5.  Command Prompt with LAN access ...
6.  Make a Bootable Floppy Disk with IDE CD support
7.  Run PC Hardware Diagnostics
8.  Other Utilities (BIOS, Firmware, etc) ...
```

Notes:

- Three periods (...) after an option indicates that you must respond to additional prompts after choosing the option.
- You use options 1, 2, and 3 to perform the Windows NT installation. The remaining options are used only when necessary, and are not discussed in this section.

5 Continue with “Erasing the hard drive” on page 202.

To change the boot device priority on the 702t, 1001rp, or 1002rp server

1. Restart the server and observe the startup diagnostics.
2. When you are informed that you can press a key to enter Setup, press the specified key.

IF the server is a	THEN press
702t server	F2.
1001rp server	F2.
1002rp server	Del.

Result: The BIOS Setup Utility screen appears.

Note: The steps that follow may vary for each server model.

3. Choose the Boot option, and then press Enter.
4. Change the boot priority of the CD-ROM and hard drives, as required.

IF you want to start the server from the	THEN
CD-ROM drive	ensure that the CD-ROM drive is listed as the second device. The first device must be the floppy disk drive. **Note:** The floppy disk drive is referred to as the *removable device*.
hard drive	ensure that the hard drive is listed as the second device. The first device must be the floppy disk drive. **Note:** The floppy disk drive is referred to as the *removable device*.

5 Exit the Boot Menu.

6 Press F10 to save and exit the BIOS setup.

7 Continue with “Starting the server from CD-ROM or floppy disk” on page 200.

Starting the server from CD-ROM or floppy disk

Introduction

The options and files used to install the Windows NT operating system are provided on the CallPilot 2.02 OS Recovery or OS Upgrade CD-ROM. You must start the server using this CD-ROM before proceeding.

Note: If you are not able to start the server from the CallPilot 2.02 OS Recovery or OS Upgrade CD-ROM, create a CallPilot 2.02 OS Recovery or OS Upgrade bootable floppy disk, and use that disk to start the server. For instructions, see page 201.

To start the server from the CallPilot 2.02 OS Recovery or OS Upgrade CD-ROM

1. Change the BIOS boot device priority to list the CD-ROM drive as the second device.

   Note: For instructions, see “Changing the BIOS boot device priority” on page 196.

2. Insert the CallPilot 2.02 OS Recovery or OS Upgrade CD-ROM in the server’s CD-ROM drive.

3. Restart the server.

   Result: The following menu appears:

```
MS-DOS 6.2 Startup Menu

1.  Delete all partitions on first hard drive, reboot
2.  Create C partition for OS ...
3.  Format C Install Windows NT from CD-ROM ...
4.  Command Prompt with IDE CD-ROM as Z:
5.  Command Prompt with LAN access ...
6.  Make a Bootable Floppy Disk with IDE CD support
```

```
7.  Run PC Hardware Diagnostics
8.  Other Utilities (BIOS, Firmware, etc) ...
```

Notes:

- Three periods (...) after an option indicates that you must respond to additional prompts after choosing the option.
- You use options 1, 2, and 3 to perform the Windows NT installation. The remaining options are used only when necessary, and are not discussed in this section.

4 Continue with “Erasing the hard drive” on page 202.

To start the server from a CallPilot 2.02 bootable floppy disk

Notes:

- You do not have to change the BIOS boot device priority on the server to start the server from a floppy disk.
- Ensure that the floppy disk is created with the same operating system as the server you are trying to start.

1 Use another PC to start from the CallPilot 2.02 OS Recovery or OS Upgrade CD-ROM.

Result: The following menu appears:

```
MS-DOS 6.2 Startup Menu

1.  Delete all partitions on first hard drive, reboot
2.  Create C partition for OS ...
3.  Format C Install Windows NT from CD-ROM ...
4.  Command Prompt with IDE CD-ROM as Z:
5.  Command Prompt with LAN access ...
6.  Make a Bootable Floppy Disk with IDE CD support
7.  Run PC Hardware Diagnostics
8.  Other Utilities (BIOS, Firmware, etc) ...
```

2 Choose option 6 to create a special CallPilot 2.02 bootable floppy disk.

3 Start the server from the bootable floppy disk created in step 2.

4 Continue with “Erasing the hard drive” on page 202.

Erasing the hard drive

Introduction

This section describes how to erase the hard drive in preparation for installing Windows NT. If the server is equipped with more than one hard drive, this operation removes all data from all hard drives.

Ensure that all valid data has been backed up (if applicable).

To erase the hard drive

1. From the MS-DOS 6.2 Startup Menu on the CallPilot 2.02 OS Recovery or OS Upgrade CD-ROM, choose Delete all partitions on all hard drives.

   Result: The following appears:

   ```
   Please select which partitions to delete:
   1.  Delete all partitions on all hard drives
   2.  Delete partitions only on the first hard drive
   ```

2. Press 1 to ensure that all hard drives are cleared of old data.

   Result: The contents of the hard drive(s) are erased. When completed, the server automatically restarts. Do not remove the CD-ROM from the CD-ROM drive (or, if you are starting from floppy disk, the disk from the floppy disk drive).

3. Continue with “Partitioning the hard drive” on page 203.

Partitioning the hard drive

Introduction

This section describes how to create the operating system partition on the hard drive. If the server is equipped with more than one hard drive, this operation creates the operating system partition on the first hard drive only.

To partition the hard drive

1 From the MS-DOS 6.2 Startup Menu on the CallPilot 2.02 OS Recovery or OS Upgrade CD-ROM, choose Create C partition for OS ... .

Result: The following menu appears:

```
Nortel Networks CallPilot 2 OS CD
*** CREATING OS PARTITION ***
System will reboot after creating partition.
Please select the size of the partition to create:
1.  Create 1024 MB C partition for OS
2.  Create 600 MB C partition (use when first disk is
    4 GB or less)
3.  Create 2000 MB C partition for OS (use for 703t)
```

2 Do the following:

IF	THEN
the server is a 703t server	choose option 3.
the hard drive is 4 Gbytes or less in size	choose option 2.

IF	THEN
the hard drive is larger than 4 Gbytes in size	choose option 1.

Result: The partition is created. When completed, the server automatically restarts. Do not remove the CD-ROM from the CD-ROM drive (or, if you are starting from a floppy disk, the disk from the floppy disk drive).

3 Continue with “Formatting the partition and starting Windows NT installation” on page 205.

Formatting the partition and starting Windows NT installation

Introduction

This section describes how to format the hard drive. If the server is equipped with more than one hard drive, this operation formats the first hard drive only.

To format the new partition and start Windows NT installation

1. From the MS-DOS 6.2 Startup Menu on the CallPilot 2.02 OS Recovery or OS Upgrade CD-ROM, choose Format C, Install Windows NT from CD-ROM ... .

   Result: The system prompts you to specify the server model.

2. Type the option that represents the server model.

   Result: The partition is formatted, drivers are copied, and the server restarts.

3. Change the boot device priority in the BIOS Setup so that the server starts from the hard drive.

   For instructions, see “Changing the BIOS boot device priority” on page 196.

   Result: When the restart is done, Windows NT installation is initiated.

4. Continue with Section D: “Installing and configuring Windows NT” on page 217.

Section C: Preparing the 201i server

In this section

Overview 208
Starting to ROM-DOS 209
Displaying the Windows NT installation menu from ROM-DOS 211
Erasing the hard drive 212
Creating the operating system partition 213
Formatting the new partition 214
Starting the Windows NT installation 215

Overview

Introduction

This section describes the tasks you must perform to prepare the 201i server for Windows NT installation.

ATTENTION

Perform the procedures in this section only if you have the CallPilot 2.02 OS Recovery CD-ROM.

If you do not have the CallPilot 2.02 OS Recovery CD-ROM, you must use the OS recovery CD-ROM and supporting documentation that was originally shipped with the server to install Windows NT.

Using ROM-DOS to start the server

The options and files used to install and update the Windows NT operating system are provided on the CallPilot 2.02 OS Recovery CD-ROM. You must start the 201i server to ROM-DOS to access this CD-ROM.

Before you begin, ensure that all data has been backed up (if required.)

Preparing the hard drive

You must erase and partition the hard drive before you install Windows NT. Ensure all valid data has been backed up (if applicable).

Starting to ROM-DOS

Introduction

ROM-DOS is a read-only disk operating system that resides on the 201i server. You do not have to install it. It is currently defined as drive A and is only accessible when you select it during the 201i server startup.

When you start the 201i server to ROM-DOS, you can perform the following tasks:

- View the contents of the hard drive using standard DOS commands.
- Access the CD-ROM drive.
- Partition and reformat the hard drive.
- Install Windows NT using the SCSI CD-ROM drive.

ATTENTION

ROM-DOS is a read-only version of DOS. Therefore, you cannot write to drive A (for example, copy files) while running ROM-DOS.

Before you begin

Ensure that all data has been backed up (if required.)

To start to ROM-DOS

1 Restart the server.

For instructions, refer to Part 1 of the *CallPilot Installation and Configuration* binder.

Result: The system asks if you want to start into ROM-DOS:

```
CallPilot 201i Nortel Networks (c) 2000
Option ROM Build from 07/13/00 15:43:44

Boot ROM-DOS (Default: No after 5 secs.)(Y/N)?
```

ATTENTION

If you do not press Y within 5 seconds, the 201i server attempts to start from the hard drive. If the start cycle fails, an error message appears. Press Ctrl+Alt+Delete again. When you see “Boot ROM-DOS (Default: No after 5 seconds.) (Y/N)?” on the screen, press Y.

2 Press Y.

Result: A ROM-DOS startup menu appears as follows. Use this menu to start the Windows NT installation:

```
1. SCSI CD-ROM

2. CLAN NETWORK

3. WINNT INSTALLATION
```

Note: Use only option 3 to perform the Windows NT installation. Options 1 and 2 are used only when necessary, and are not discussed in this section.

Displaying the Windows NT installation menu from ROM-DOS

Introduction

The Windows NT installation menu provided in ROM-DOS allows you to prepare the 201i server's hard drive for the Windows NT installation.

To display the menu

1 From the ROM-DOS menu, type **3** and press Enter for WINNT INSTALLATION.

Result: The following menu appears:

```
1. ERASE HARD DRIVE

2. CREATE DOS PARTITION

3. FORMAT HARD DRIVE

4. WINNT INSTALLATION VIA CD-ROM
```

2 Continue with "Erasing the hard drive" on page 212.

Erasing the hard drive

Introduction

Before you erase the hard drive, ensure all valid data has been backed up (if applicable).

To erase the hard drive

1. From the WINNT INSTALLATION menu, type **1** and press Enter for ERASE HARD DRIVE.

   Result: The 201i server erases the contents of the hard drive. When completed, the server automatically restarts.

2. When the system prompts you for ROM-DOS, press Y.

   Result: The ROM-DOS menu appears.

3. Type **3**, and then press Enter to display the Windows NT installation menu.

4. Continue with “Creating the operating system partition” on page 213.

Creating the operating system partition

Introduction

The next step in preparing the hard drive for Windows NT installation is to partition the hard drive.

To create a new partition

1. From the WINNT INSTALLATION menu, type **2**, and then press Enter for CREATE DOS PARTITION.

   Result: A 1 Gbyte FAT partition is created and the server restarts.

2. When the ROM-DOS prompt appears, press Y.

   Result: The ROM-DOS menu appears.

3. Type **3**, and then press Enter to display the Windows NT installation menu.

4. Continue with “Formatting the new partition” on page 214.

Formatting the new partition

Introduction

This section describes how to format the partition you just created.

To format the new partition

1. From the WINNT INSTALLATION menu, type **3**, and then press Enter for FORMAT HARD DRIVE.

   Result: The system asks you if you want to proceed.

2. Type **Y**, and then press Enter to delete all contents of the hard drive.

   Result: When the drive format is completed, the server automatically restarts.

3. When the ROM-DOS prompt appears, press Y.

   Result: The ROM-DOS menu appears.

4. Type **3**, and then press Enter to display the Windows NT installation menu.

5. Continue with “Starting the Windows NT installation” on page 215.

Starting the Windows NT installation

Introduction

This section describes how to start the Windows NT installation.

To start Windows NT installation

1. From the WINNT INSTALLATION menu, type **4**, and then press Enter for WINNT INSTALLATION VIA CD-ROM.

   Result: The SCSI and CD-ROM drivers are loaded, and the system prompts you to insert the CallPilot 2.02 OS Recovery or OS Upgrade CD-ROM.

2. Insert the CallPilot 2.02 OS Recovery or OS Upgrade CD-ROM into the CD-ROM drive.

3. Wait for the CD-ROM drive's LED to extinguish, and then press any key.

   Result: Windows NT installation is initiated.

4. Continue with Section D: "Installing and configuring Windows NT" on page 217.

Section D: Installing and configuring Windows NT

In this section

Installing Windows NT 218
Creating the NTFS partitions 221
Installing Windows NT Service Pack 6a 237
Updating the Windows NT operating system for CallPilot 2.02 239

Installing Windows NT

Introduction

Windows NT installation from the CallPilot 2.02 OS Recovery or OS Upgrade CD-ROM is mostly an automated process. For the latest information about the installation process, refer to the readme.txt file on the CallPilot 2.02 OS Recovery or OS Upgrade CD-ROM.

Note: Nortel Networks recommends that you print the readme.txt file. Errors can occur when you attempt to read the readme.txt file on the monitor during the installation process.

Before you begin

Before you proceed with Windows NT installation, ensure that you have erased, and then partitioned and formatted the server's hard drive. For instructions, see one of the following:

- tower or rackmount server: Section B: "Preparing the tower or rackmount system" on page 193
- 201i server: Section C: "Preparing the 201i server" on page 207

When you complete these procedures, Windows NT installation begins automatically.

Time required for Windows NT installation

The time required to actually install Windows NT depends on the CallPilot server's system speed. You must allocate at least 20 minutes.

To install Windows NT

1 Do the following:

IF you are using the	THEN
CallPilot 2.02 OS Recovery CD-ROM	files are copied to the hard drive, and then the server restarts. Windows NT installation continues as described on page 220.

CallPilot 2.02 OS Upgrade CD-ROM	the following prompt appears:
	`*** You are using the CallPilot 2.02 OS Upgrade CD ***`
	`The Windows NT OS files are not on this CD.`
	`Please insert one of the following CDs:`
	`- MAS 2.0 Operating System NTRH8027)`
	`- Windows NT 4.0 OS Recovery (NTRH8027)`
	`- CallPilot 2 OS Recovery CD (NTUB47AD)`
	`Press any key to continue...`
	Do the following:
	a. Remove the CallPilot 2.02 OS Upgrade CD-ROM.
	b. Insert one of the specified OS recovery CD-ROMs, and then wait for the CD-ROM drive's LED to extinguish.
	Note: If you are using one of the older OS recovery CD-ROMs, refer to the CallPilot 1.0x documentation for supporting instructions.
	c. Press the space bar to continue.
	Result: Files are copied to the hard drive. When done, the following prompt appears:
	`*** Now please reinsert the CallPilot 2 OS Upgrade CD & leave it in ***`
	`Press any key to continue...`
	d. Replace the OS recovery CD-ROM with the CallPilot 2.02 OS Upgrade CD-ROM, and then press any key.

Result: Windows NT installation continues (with several restarts). No interaction is required from you until the Windows NT logon prompt. The following actions occur during the installation:

- The disk is examined.
- The Microsoft Windows files that were copied previously are copied to another area on the hard drive.
- The server restarts.
- Windows NT installation for the server model continues.
- The configuration is saved.
- The Nortel Networks logo appears.
- Windows NT components are installed.
- The server restarts into Windows NT.
- Service Pack 6a is installed.
- The server restarts and you are prompted to log on.

2 Log on as **Administrator** with a blank password.

3 Continue with “Creating the NTFS partitions” on page 221.

Creating the NTFS partitions

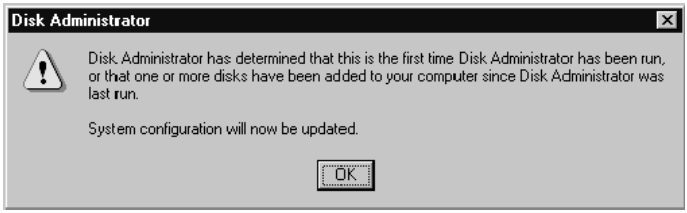
Introduction

This section explains how to create the NTFS partitions on the server.

To create the NTFS partitions

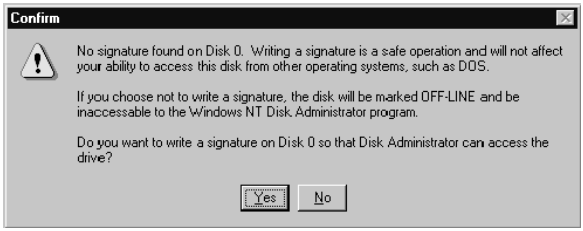
1 Click Start → Programs → Administrative Tools (Common) → Disk Administrator.

Result: Disk Administrator initializes and then prompts you to update the system configuration.



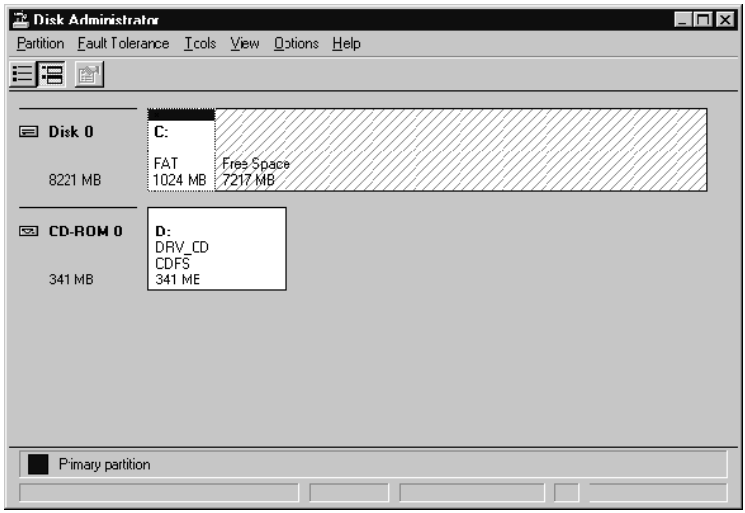
2 Click OK.

Result: If you are installing Windows NT on a system that has never had Windows NT installed, the following dialog box appears. Click Yes.

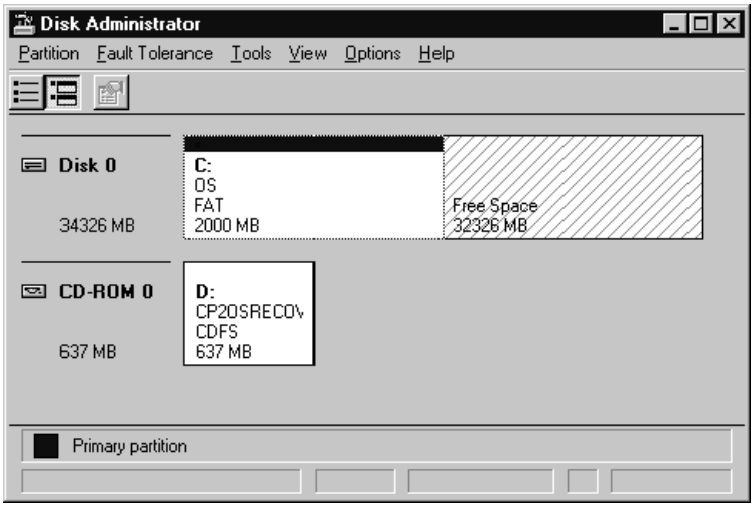


If Windows NT was previously installed, the Disk Administrator window appears.

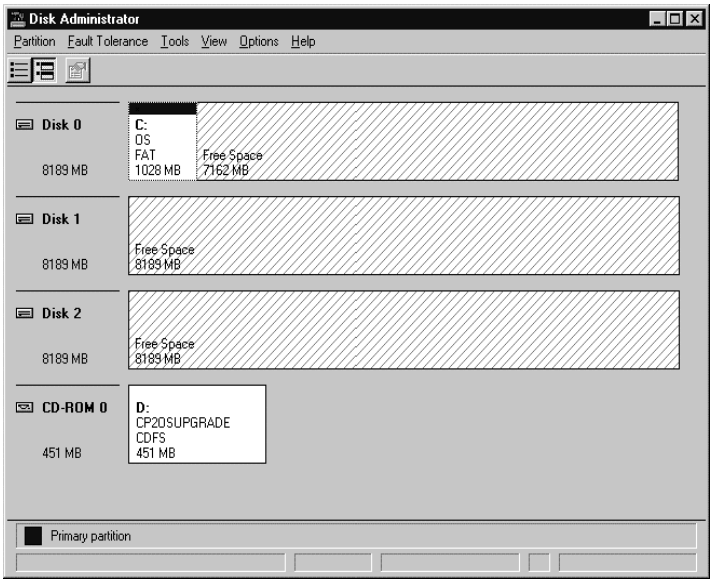
The following is an example for the 201i server:



The following is an example for the 703t server:



The following is an example for a 702t, 1001rp, or 1002rp server:



Notes:

- Before you can create a new partition on Disk 0, you must change the CD-ROM drive letter to drive Z. This releases drive letter D so that it can be reassigned to a disk partition.
- If the server is a 702t, 1001rp, or 1002rp server with more than one drive, you should partition and format disk drives greater than 0, if they appear in Disk Administrator. These drives were not partitioned and formatted during the preparation tasks described in Section B: “Preparing the tower or rackmount system” on page 193.

ATTENTION

Before you proceed, do the following:

a. Remove the OS Recovery CD-ROM from the CD-ROM drive.

b. Close any files that may be open.

c. Close any programs that may be running.

If a program is running or a file is open, you cannot change the drive letters.

3 Change the CD-ROM drive letter (for all server types), as follows:

a. Right-click the white square next to CD-ROM 0.

b. Select Assign Drive Letter.

c. Choose drive Z, and then click OK.

Result: The following message appears:

```
This assignment will happen immediately, do you
wish to continue?
```

d. Click Yes.

4 On a 702t, 1001rp, or 1002rp server, reassign the drive letter for disk 2, as follows:

a. Right-click the diagonally lined rectangle next to disk 2.

Result: A pop-up menu appears.

b. Select Create.

c. Click OK to accept the value presented.

d. Click Yes to confirm that you want to create the partition.

e. Right-click the white rectangle next to disk 2.

Result: A pop-up menu appears.

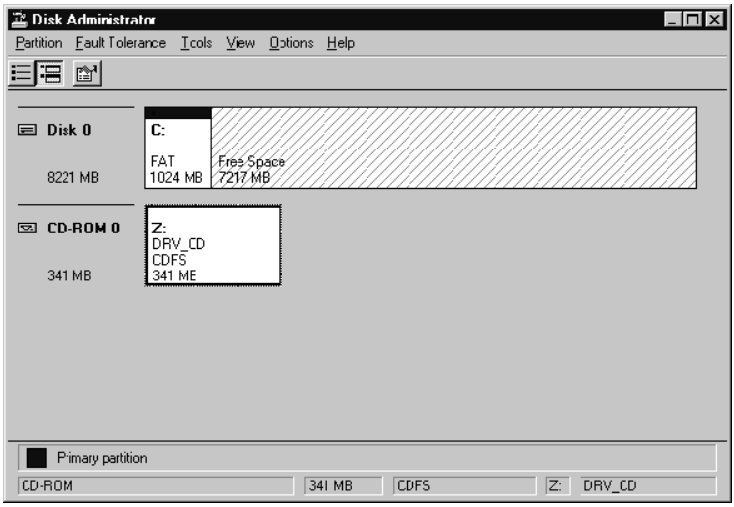
f. Select Assign Drive Letter.

g. Choose drive F.

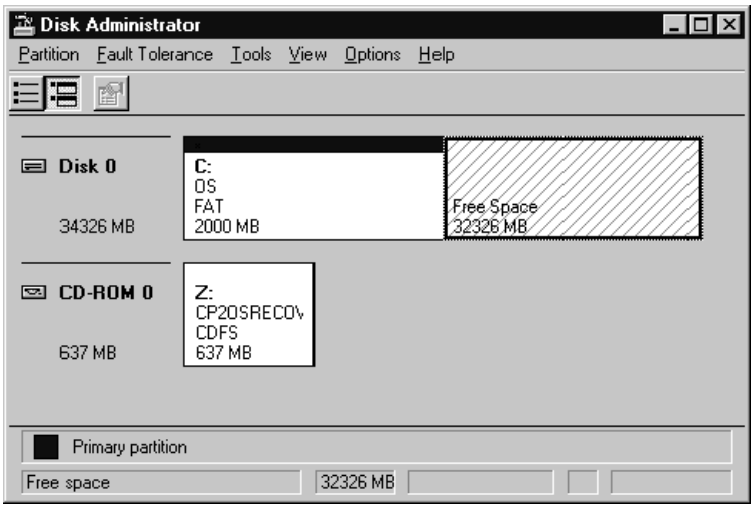
h. Click OK.

5 If the server is a 702t, 1001rp, or 1002rp server, repeat step 4 to change disk 1 to drive letter E.

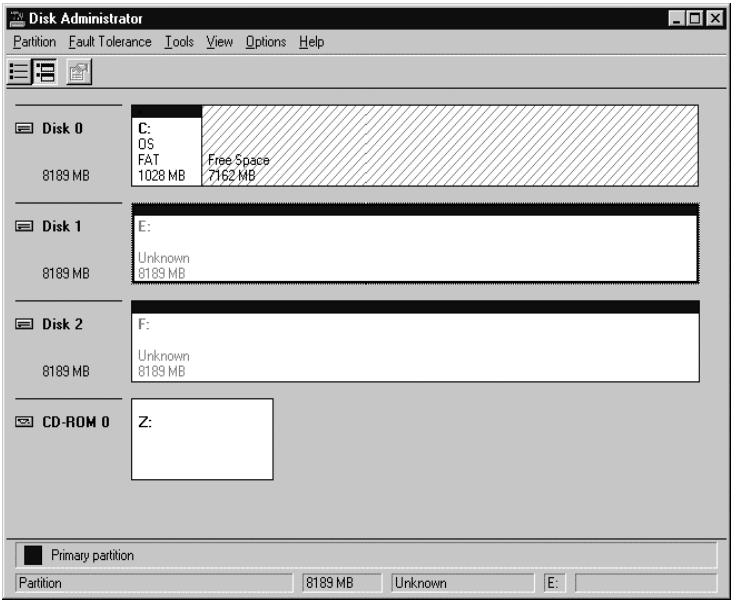
The following is a completed example for the 201i server:



The following is a completed example for the 703t server:



The following is a completed example for a 702t, 1001rp, or 1002rp server:

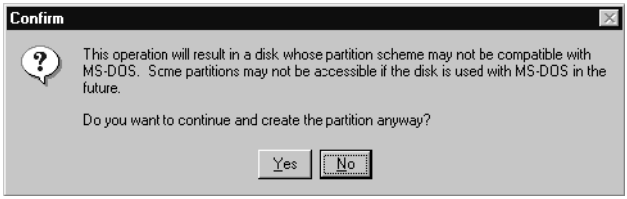


6 Right-click the diagonally lined box labeled “Free Space” beside Disk 0.

Result: A pop-up menu appears.

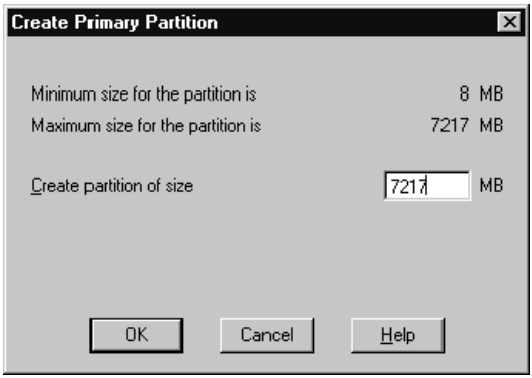
7 Select Create.

Result: The system prompts you to confirm that you want to create the partition:



8 Click Yes.

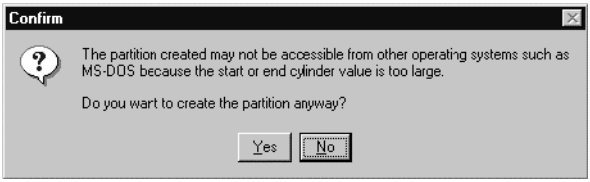
The following dialog box appears:



9 Do one of the following:

IF the server is a	THEN
201i, 702t, 1001rp, or 1002rp server	accept the value presented, and then click OK. **Note:** The value presented varies based on the size of the hard drive installed on the server.
703t server	type **10982**, and then click OK.

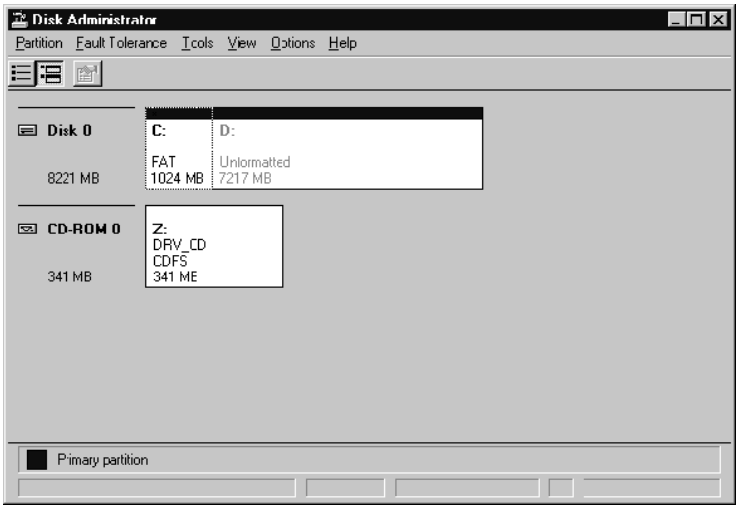
Result: A warning that the partition is not compatible with DOS appears.



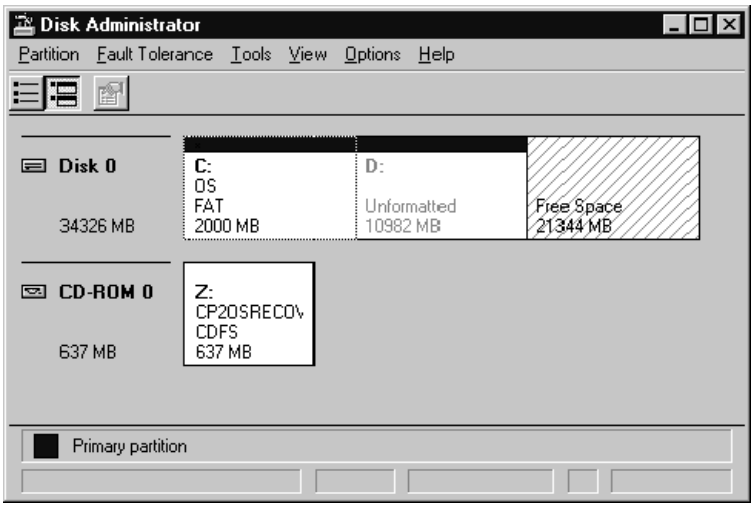
10 Click Yes.

Result: The system returns you to the Disk Administrator window.

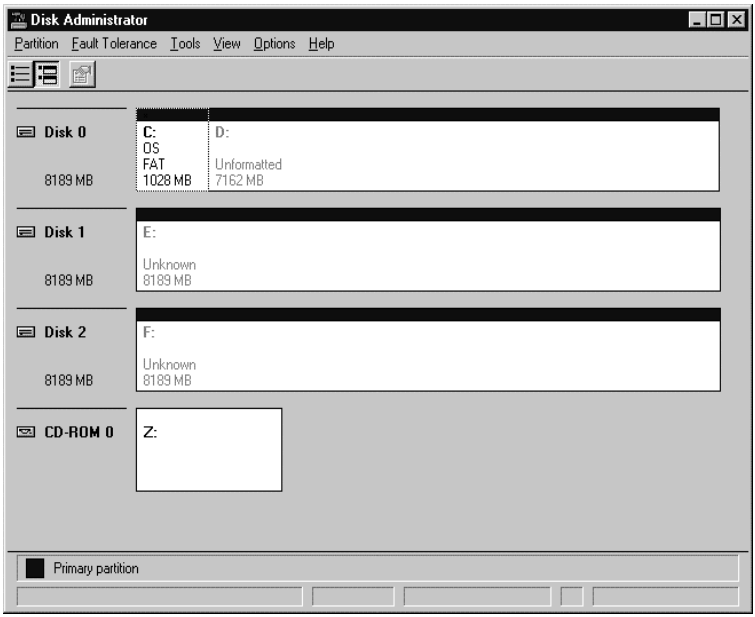
The following is an example for the 201i server:



The following is an example for the 703t server:



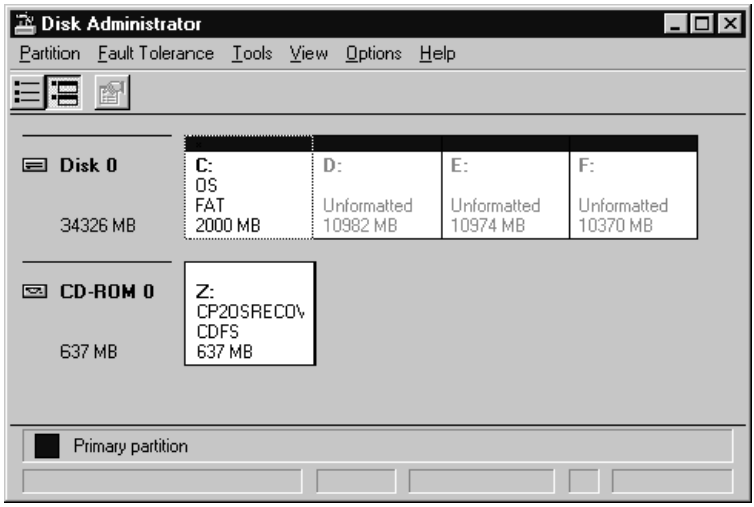
The following is an example for a 702t, 1001rp, or 1002rp server:



11 If the server is a 703t server, repeat steps 9 and 10 two more times to create the E: and F: partitions.

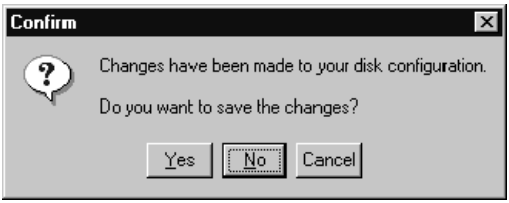
Specify 10974 as the value for the E: partition, and accept the default value for the F: partition.

Result: The following is a completed example:



12 Click Partition → Commit Changes Now.

Result: A confirmation window appears.



13 Click Yes.

Result: The Disk Administrator responds by stating that your changes were successful.

14 Click Yes.

Result: The following dialog box appears:



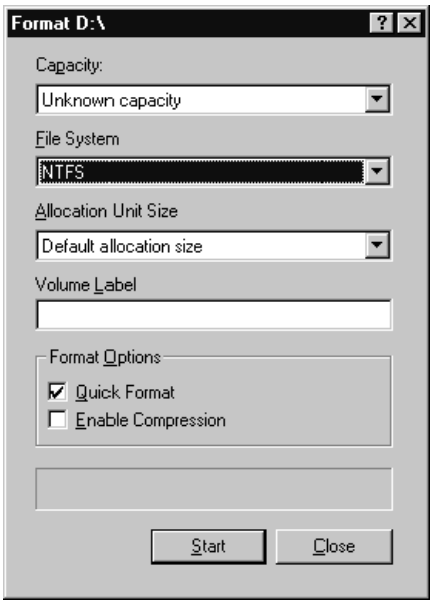
15 Click OK.

The next step is to format the new partitions to NTFS.

16 Right-click the white box for drive D.

17 From the pop-up menu, select Format.

Result: The Format dialog box appears:



18 Ensure that NTFS is selected in the File System list.

19 Click the Quick Format box to enable quick formatting.

CAUTION

Risk of reduced system performance

Ensure that Enable Compression is *not* checked. Compression impacts the CallPilot server's performance and speed.

20 Click Start.

Result: A warning message appears.

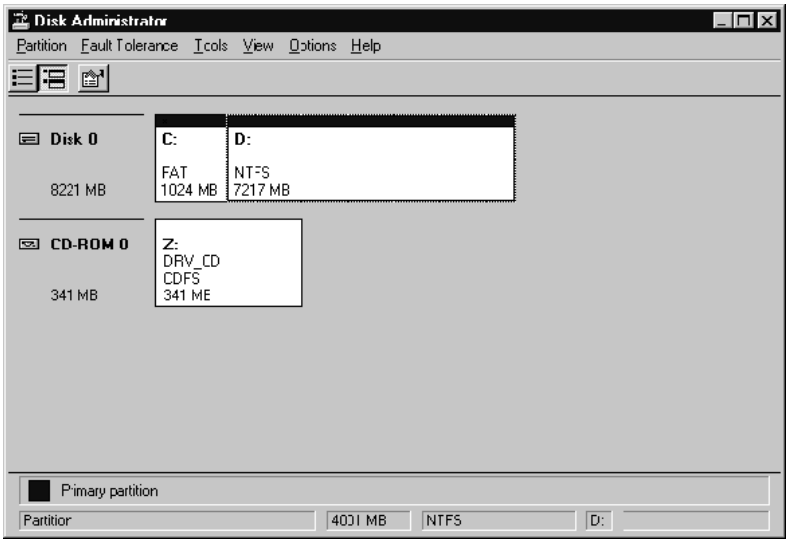


21 Click OK.

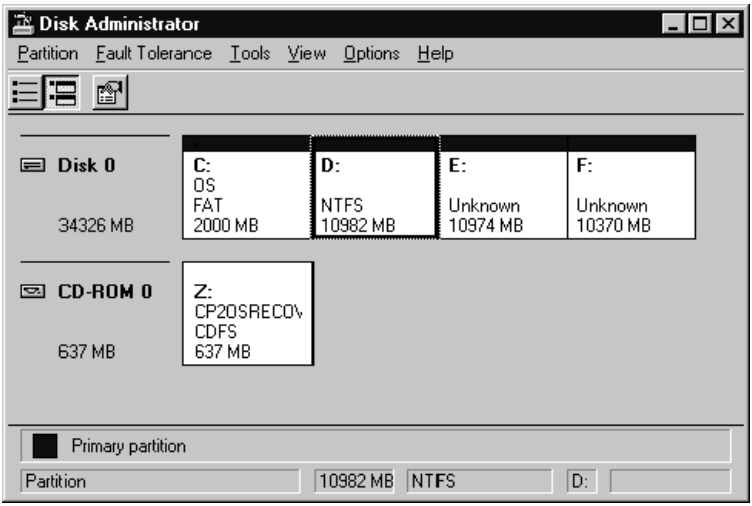
Result: Drive formatting begins. The time required to complete this operation depends on the size of hard drive installed.

22 When drive formatting is completed, click OK, and then click Close to exit the Format D: dialog box.

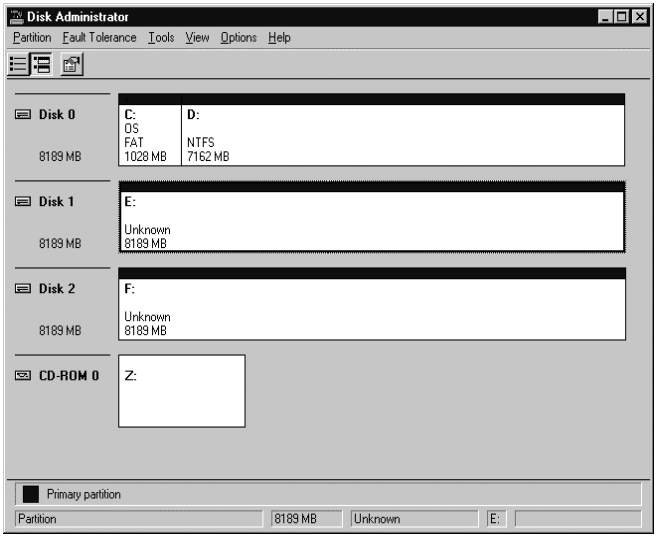
The following is an example for the 201i server:



The following is an example for the 703t server:

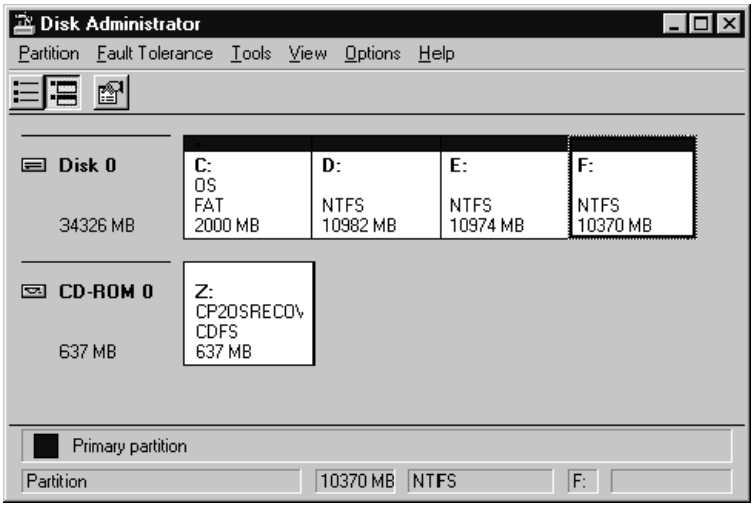


The following is an example for a 702t, 1001rp, or 1002rp server:

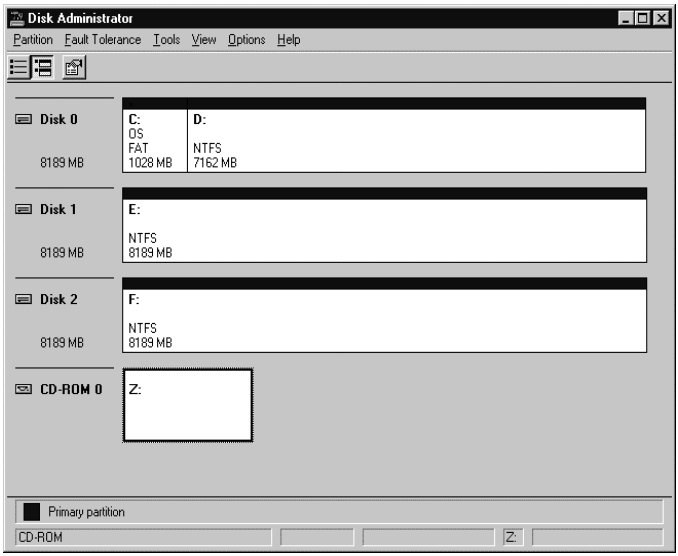


23 If the server is a tower or rackmount server, repeat steps 16 through 22 to format the E: and F: partitions as NTFS.

Result: The following is a completed example for the 703t server:



The following is a completed example for a 702t, 1001rp, or 1002rp server:



24 Click Partition → Exit to leave Disk Administrator.

25 Continue with “Updating the Windows NT operating system for CallPilot 2.02” on page 239.

Installing Windows NT Service Pack 6a

Introduction

Perform this procedure only if the following conditions exist:

- You installed Windows NT using a CallPilot 1.0x OS recovery CD-ROM.

  Note: If you used the CallPilot 2.02 OS Recovery CD-ROM to install Windows NT (see page 218), Service Pack 6a was installed automatically.
- You manually installed or reinstalled an operating system component, such as RAS.

To install Service Pack 6a

1. Insert the CallPilot 2.02 OS Recovery CD-ROM or the CallPilot 2.02 OS Upgrade CD-ROM into the server's CD-ROM drive.
2. Click Start → Run.

   Result: The Run dialog box opens.
3. Click Browse.

   Result: The Browse dialog box opens.
4. Navigate to the CD-ROM drive (Z:).
5. Navigate to the \Utils folder.
6. Double-click the SP6a.bat file, and then click OK.

   Result: Service Pack 6a is installed and the server restarts.
7. Continue with "Updating the Windows NT operating system for CallPilot 2.02" on page 239.

What's next?

IF you installed Windows NT Service Pack 6A	THEN
after installing Windows NT from a CallPilot 1.0x OS recovery CD-ROM	continue with "Updating the Windows NT operating system for CallPilot 2.02" on page 239.
after manually installing or reinstalling a Windows NT component	reapply Microsoft hot fixes. For instructions, see "Verifying that Microsoft hot fixes have been installed" on page 274.

Updating the Windows NT operating system for CallPilot 2.02

Introduction

Before you can install the CallPilot 2.02 software, you must make several changes to the base Windows NT operating system as follows:

- Remove components that are not used by CallPilot 2.02.
- Install components that are required by CallPilot 2.02.

You can use either the CallPilot 2.02 OS Recovery CD-ROM or the CallPilot 2.02 OS Upgrade CD-ROM.

Estimated time required for the update

During the Windows NT update, the system restarts multiple times. The time required for each restart cycle is based on the CallPilot server's system speed, as well as the operations that are being performed during the start cycle. Start cycles can range anywhere from 2 minutes to 10 minutes each.

You should allocate at least 1 hour for completing the Windows NT update.

Windows NT update overview

The Windows NT update program is an automated process that is divided into eight sections (Sections A–H), which are identified on the screen. The server automatically restarts at the end of each section and continues with the next section. Specific instructions are provided on the screen during some sections. Follow the instructions on the screen, as well as in this section.

The following table describes what occurs in each section:

Section	Description
A	The system prompts you to ■ configure the date, time, and time zone ■ install the tape driver, if the server is equipped with a tape drive ■ configure the TCP/IP settings and computer name The server has at least one network interface card and one Ethernet adapter installed. If CallPilot uses both the CLAN and ELAN, and the network interface cards are different, you must install an additional Ethernet adapter. See “Installing network adapters” on page 262 for instructions. To establish connectivity between CallPilot, the switch, and the network, you must enter the CallPilot server’s IP address, subnet mask, and default gateway. You must also specify the WINS servers’ IP addresses, domain name, DNS service search order, and domain suffix search order. Do not respond when the system prompts you to restart the server. The Windows NT update process automatically responds to the request.
B	Auto-logon is set up, and the server restarts automatically. If the operating system is on drive C:\, chkdsk runs. Drive C:\ is converted to NTFS.
C	Internet Explorer 5.5 Service Pack 2 is installed using automatic button pushing. The server restarts automatically.

Section	Description
D	NT Option Pack is installed using automatic button pushing. Do not use the keyboard and mouse even if nothing seems to be happening for up to 5 minutes. The server restarts automatically.
E	The following components are installed automatically: ■ Language Pack ■ Adobe Acrobat Reader 5 ■ MDAC 2.5 ■ Service Pack 6a (a reinstall) The server restarts automatically.
F	Microsoft Security Rollup packages are installed. The server restarts automatically. If an error message appears during the restart, ignore it. Ensure that the restart completes.
G	Section G runs several times, restarting the server each time. The following actions occur during this section: ■ Microsoft hot fixes are installed. ■ The video driver is updated, if necessary. ■ pcAnywhere 10.5 is automatically installed using button pushing. If an error message appears during a restart, ignore it. Ensure that the restart completes.
H	Additional hot fixes are installed. The system prompts you to ■ change the Windows NT administrator password

Section	Description
H (continued)	■ specify which type of RAID card is installed (if the server is equipped with RAID); once specified, the RAID management software is installed The Microsoft IISLockDown utility runs, and some folder permissions are changed to increase server security. The system prompts you to restart the server. Click OK.

To perform the Windows NT update

ATTENTION

Do not use Windows NT Explorer to locate and run the setup.bat file. Windows NT Explorer hides windows that appear during the Windows NT update.

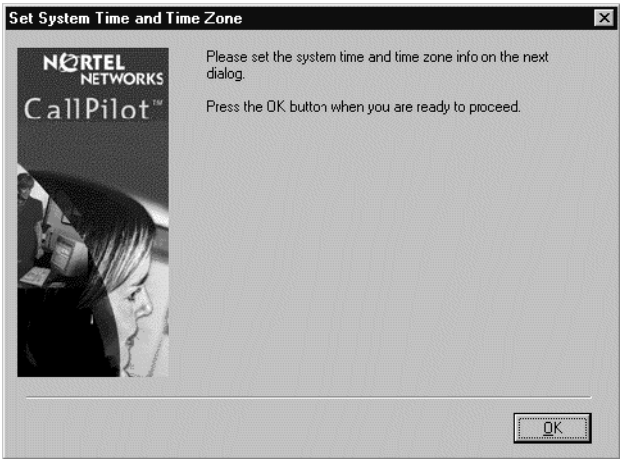
1. Ensure that all windows and applications are closed.
2. Insert the CallPilot 2.02 OS Recovery CD-ROM or the CallPilot 2.02 OS Upgrade CD-ROM into the CD-ROM drive.
3. Click Start → Run.

   Result: The Run dialog box opens.
4. Click Browse.

   Result: The Browse dialog box opens.
5. Navigate to the CD-ROM drive (Z:).
6. Double-click the setup.bat file that is located in the root folder.

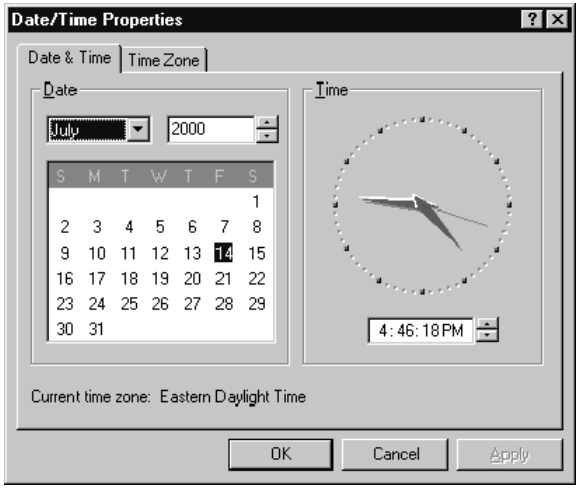
7 Click OK.

Result: The Windows NT update begins, and you are instructed to configure the server's time and time zone.



8 Click OK.

Result: The Date/Time Properties dialog box appears.



9 Enter the correct date and time, if required.

10 Click the Time Zone tab.

Result: The Time Zone property page appears.

11 Select the time zone for the server's geographical area, if required.

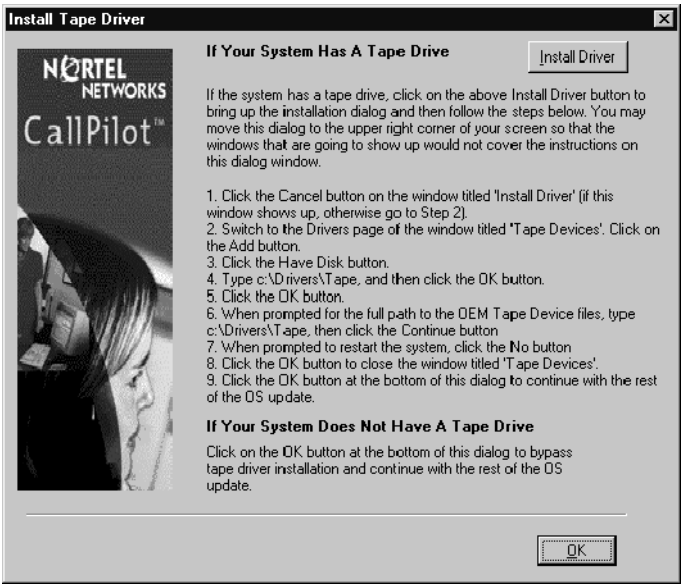
Example: (GMT -05:00) Eastern Time (US & Canada)

Note: During installation, Eastern Time is defined as the default. Select the time zone for the server's region.

12 If Daylight Saving Time is observed at this location, ensure that the check box for "Automatically adjust clock for daylight saving changes" is checked.

13 Click OK.

Result: The following tape driver installation instruction dialog box appears:



14 Follow the instructions on the screen.

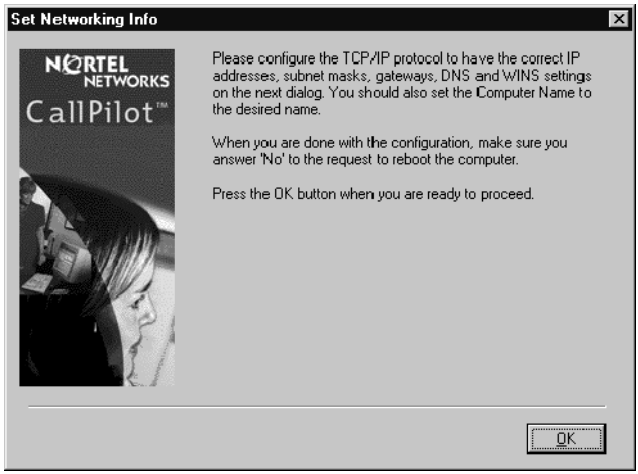
The tape drive driver is available in the c:\drivers\tape, or z:\drivers\misc\tape folder on the CallPilot 2.02 OS Recovery CD-ROM or on the OS Upgrade CD-ROM.

Note: The system prompts you to restart the server. *Do not* restart the server.

ATTENTION

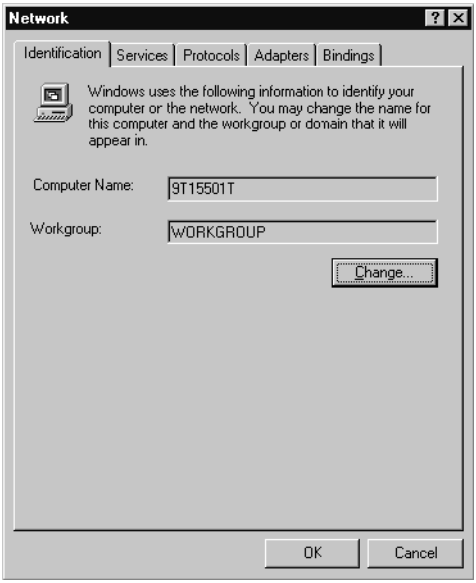
If you restart the server in error, you must rerun the setup.bat file (see step 3 on page 242).

Result: When you are done, you are instructed to configure the TCP/IP protocol on the server.



15 Click OK.

Result: The Network dialog box appears.



The computer name is defined by default as CALLPILOT.

16 To change the computer name, do the following:

a. Click Change.

b. In the dialog box that appears, type the new computer name over the old one.

c. Click OK.

Result: The Network dialog box appears.

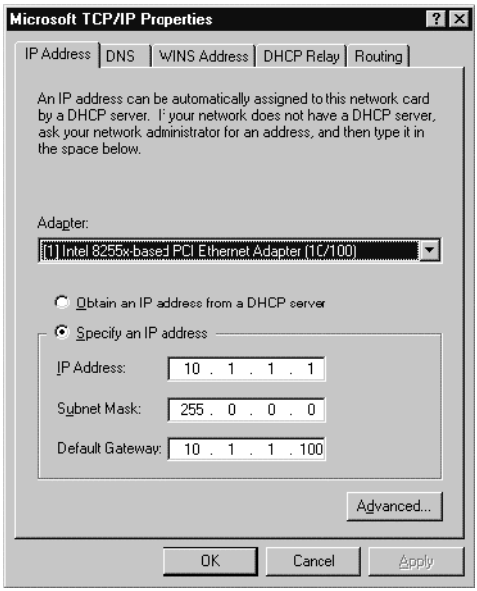
17 Click the Protocols tab.

Result: The Protocols property page appears.



18 Click TCP/IP Protocol, and then click Properties.

Result: The Microsoft TCP/IP Properties dialog box appears.



19 Choose the adapter that you want to configure.

IF the CallPilot server is a	THEN
200i server	■ the ELAN is defined as the first network adapter (AMD PCNET Family Ethernet), and is represented as [1]. ■ the CLAN card is the second network adapter (3Com Etherlink III or 3Com LAN Megahertz), and is represented as [5].
201i server	■ the CLAN is defined as the first Intel network adapter, and is represented as [1]. ■ the ELAN is the second Intel network adapter, and is represented as [5].

IF the CallPilot server is a	THEN
702t server	■ the CLAN is defined as the first network adapter (Intel Pro 100), and is represented as [1]. ■ the ELAN is the second network adapter (Intel 82558-based Integrated Ethernet, and is represented as [2].
703t server	■ the ELAN is defined as the first network adapter (Intel 8255x-based PCI Ethernet Adapter [10/100]), and is represented as [1]. ■ the CLAN is defined as the second network adapter (Intel 82540-based PCI Ethernet Adapter [10/100/1000]), and is represented as [2].
1001rp server	the order of the ELAN and CLAN adapters may vary because the order is based on the slots in which the cards are installed. You can determine which adapter is ELAN or CLAN by doing the following: **a.** On the Adapters tab, highlight the adapter you want to review, and then click Properties. **b.** On the window that appears, identify the IRQ assigned to the adapter. **c.** Review the 1001rp slot assignment and IRQ mapping information in Part 2 of the *CallPilot Installation and Configuration* binder.
1002rp server	■ the ELAN is defined as the first Intel network adapter, and is represented as [1]. ■ the CLAN is the second Intel network adapter, and is represented as [2].

20 Enter the following information according to the network infrastructure:

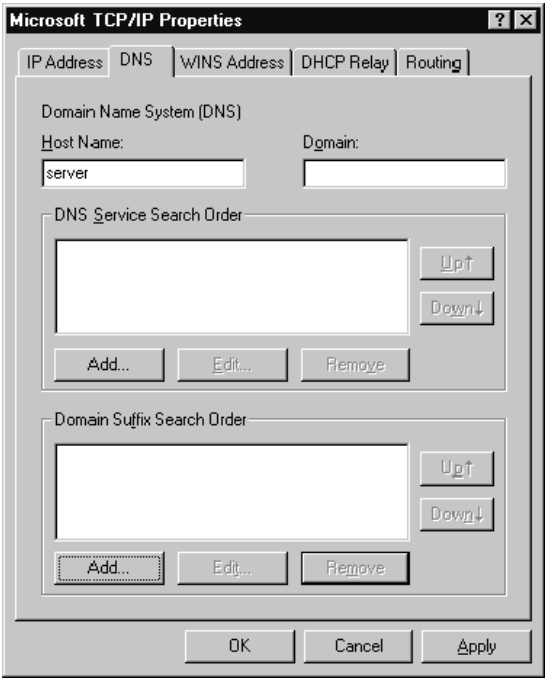
- IP Address
- Subnet Mask (for example, 255.255.255.0)
- Default Gateway

Note: Refer to the “Windows NT configuration worksheet” on page 190.

21 Repeat steps 19 and 20 for the other network adapter.

22 Click the DNS tab.

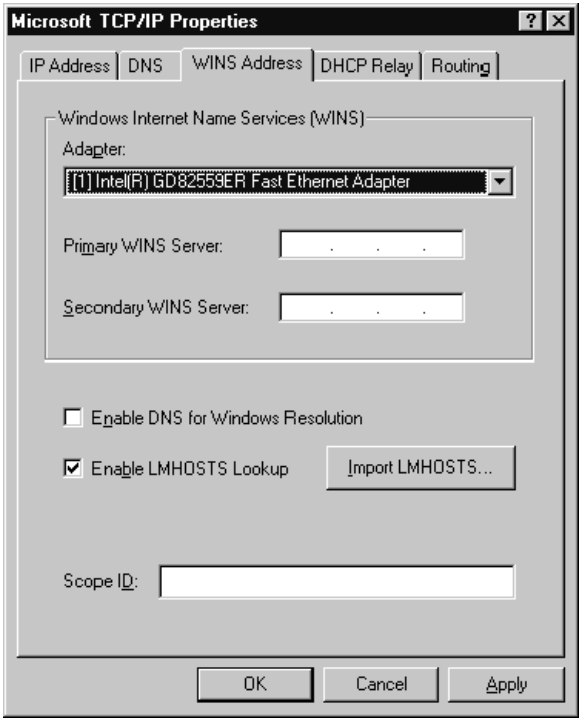
Result: The DNS property page appears.



23 Enter the domain name, DNS service search order, and domain suffix search order information for the network infrastructure.

24 Click the WINS Address tab.

Result: The WINS Address property page appears.



25 Enter the IP addresses for the primary and secondary WINS servers.

Ensure (if applicable) that the WINS server IP addresses are entered for both Ethernet adapters.

26 Enable other options, as required.

27 Click OK.

Result: The Network dialog box appears.

28 Click OK.

Result: Windows NT prompts you to restart the server to allow the changes to take effect.

29 Click No.

ATTENTION

If you restart the server in error, you must run the ossetup.bat file to continue. The ossetup.bat file is located in the \Utils folder on the CallPilot 2.02 OS Recovery or OS Upgrade CD-ROM.

Result: Windows NT update continues. The following actions occur in Section B:

- The server restarts automatically.
- A warning appears indicating that the drive may be corrupted. This is normal.
- The system runs chkdsk on drive C:\, and converts drive C:\ to NTFS.
- The system logs you on to Windows NT, and resumes the update.

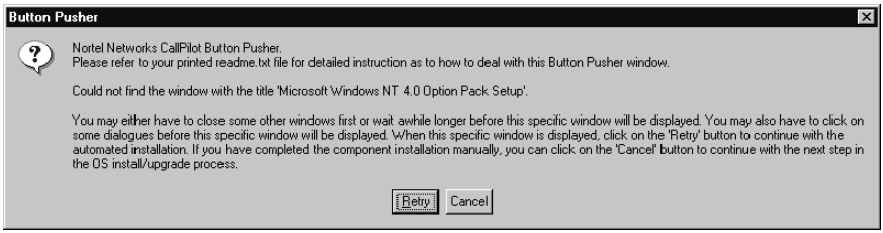
ATTENTION

From this point on, do not use the mouse or keyboard unless you are instructed otherwise. To determine when an action is required by you, continue reading.

The following actions occur (Sections C–G take about 1 hour to complete):

- In Section C of the Windows NT installation, Internet Explorer 5.5 Service Pack 2 is automatically installed using automatic button pushing. A series of dialog boxes appear and disappear. *Do not* respond to any of them unless you are absolutely certain that an error has occurred.

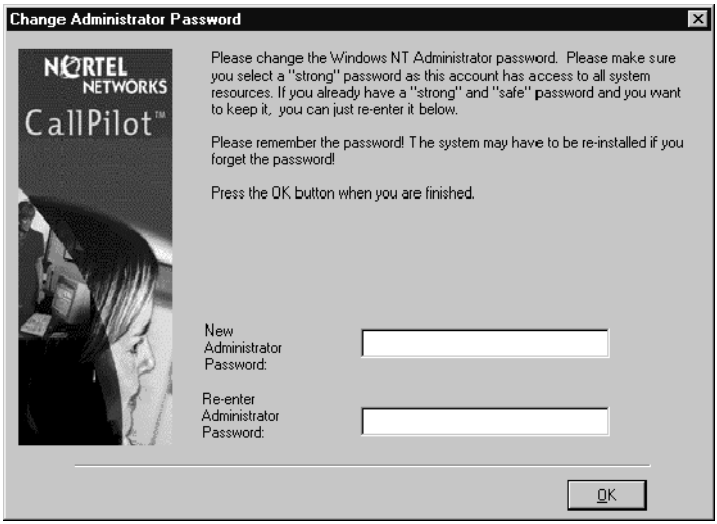
Note: An error can be characterized by an unusual wait time longer than 5 minutes with nothing happening, or the appearance of the following message from the Button Pusher program:



Since the Button Pusher message may be covered by another window on the screen, look for Button Pusher on the taskbar.

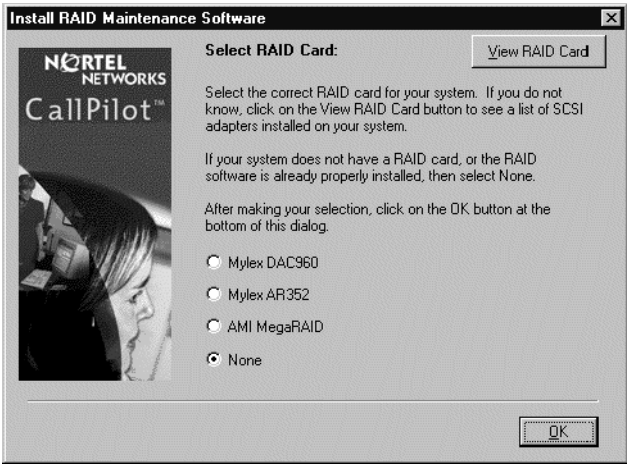
- When the install is completed, the server restarts automatically, logs you on to Windows NT, and resumes the update.
- In Section D of the Windows NT installation, Windows NT 4.0 Option Pack installation begins using automatic button pushing. A series of dialog boxes appears and disappears. *Do not* respond to any of them unless you are absolutely certain that an error has occurred (as described above).
  Note: The last dialog box for the NT Option Pack (Thank you for choosing Microsoft) may remain visible for up to 5 minutes. This is normal. Eventually, a message appears asking you to click Finish. *Do not* respond. The system clicks Finish for you, and then restarts automatically, logs you on to Windows NT, and resumes the update.
- In Section E of the Windows NT installation, the following components are automatically installed:
  — Language Pack
  — Adobe Acrobat Reader 5.0
  — MDAC 2.5
  — Service Pack 6a (a reinstall)
  When the last installation is completed, the server restarts automatically, logs you on to Windows NT, and resumes the update.

- In Section F of the Windows NT installation, security rollup packages are installed. When the installations are completed, the server restarts automatically, logs you on to Windows NT, and resumes the update.
  Note: If an error message appears, ignore it. Ensure that the restart completes. You verify that the packages were installed later (see step 34).
- In Section G of the Windows NT update process, Microsoft hot fixes are installed.
  Section G runs several times, restarting the server each time. When the hot fix installations are completed, the video driver is updated (if required), and pcAnywhere 10.5 is installed. The server restarts automatically, logs you on to Windows NT, and resumes the update.
  Note: If an error message appears, ignore it. Ensure that the restart completes. You verify that the hot fixes were installed later (see step 34).
- In Section H, additional hot fixes are installed. The system also prompts you to change the Windows NT Administrator password (from null).



30 Type the Administrator's password into both of the password boxes, and then click OK.

Result: You are prompted to specify which RAID card is installed in the server.



31 If the server is a tower or rackmount server, specify the RAID card that is installed.

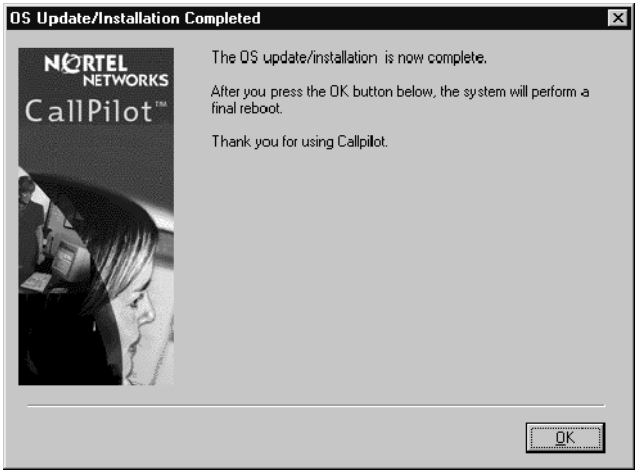
For your reference: The RAID management software is available in the following locations:

- the c:\drivers\RAID\<RAID card type> folder on the server's hard drive
- the z:\drivers\misc\RAID\<RAID card type> folder on the CallPilot 2.02 OS Recovery or OS Upgrade CD-ROM

Note: Nortel Networks supports the following RAID cards. The drivers are located in the folder for each RAID card:

RAID card type	Folder
AMI Mega RAID Elite 1600	AMI1600
Mylex AcceleRAID 352	AR352
Mylex DAC960	DAC960

Result: When the RAID management software installation is done, the system runs the Microsoft IISLockDown utility. Folder permissions are changed to increase server security. When that is finished, the following dialog box appears:



32 Click OK.

Result: The server restarts.

33 Log on to Windows NT with the new Administrator password.

34 Do one of the following:

IF	THEN
an error message appeared during the server restart after installation of security packages and hot fixes	continue with “Verifying that Microsoft hot fixes have been installed” on page 274.
the server restarted without errors after installation of hot fixes	remove the OS Recovery or OS Upgrade CD-ROM from the CD-ROM drive, and then continue with step 35.

35 Empty the following folders (do not remove them):

- c:\temp (if this folder exists)
- d:\temp
- Recycle Bin

What's next?

Continue with "Installing the CallPilot server software" on page 44.

If you want, you can install antivirus software that has been approved by Nortel Networks for CallPilot. You must supply your own antivirus software. Refer to *Product Bulletin 2003-0151-Global: CallPilot Support for AntiVirus Applications* for

- information about the antivirus software packages that have been approved by Nortel Networks for CallPilot
- instructions on how to configure the antivirus software

Appendix A

Operating system reference information

In this appendix

Copying drivers to the server's hard drive 260
Installing network adapters 262
Verifying the network bindings 268
Reapplying Microsoft hot fixes 273
Verifying that Microsoft hot fixes have been installed 274
Creating or updating the emergency repair disk 276

Copying drivers to the server’s hard drive

Introduction

Drivers are automatically copied to c:\drivers on the server’s hard drive when you install Windows NT from the CallPilot 2.02 OS Recovery CD-ROM.

If you are not able to locate the driver you need, you can use the procedure in this section to manually copy the drivers from CD-ROM to the server’s hard drive.

Note: On the 200i server, the drivers are located in c:\200tmp.

Driver folders on CD-ROM

Hardware drivers required by CallPilot 2.02 are available on the CallPilot 2.02 OS Recovery CD-ROM or the OS Upgrade CD-ROM in the following folders:

- z:\drivers\<server model>

  The files are compressed (in a batch file) for each server model.

- z:\drivers\misc\<driver type>

  The files are not compressed (that is, they are provided as individual drivers).

To unzip the drivers to the server’s hard drive

1. Insert the CallPilot 2.02 OS Recovery CD-ROM or the OS Upgrade CD-ROM into the CD-ROM drive.
2. Click Start → Run.

   Result: The Run dialog box opens.

3. Click Browse.

   Result: The Browse dialog box opens.

4. Navigate to the drivers folder on the CD-ROM drive (Z:\drivers).

5. Open the folder for the server model (Z:\drivers\<server model>).

6. Double-click the setup.bat file, and then click OK.

   Result: The file is unzipped, and the files within are copied to the c:\drivers folder on the server's hard drive. A separate folder is created for each driver type.

Installing network adapters

Introduction

The CallPilot server has at least one network interface card and Ethernet adapter driver installed. If CallPilot uses both the CLAN and ELAN, and the network interface cards are different, you may need to install an additional Ethernet adapter driver.

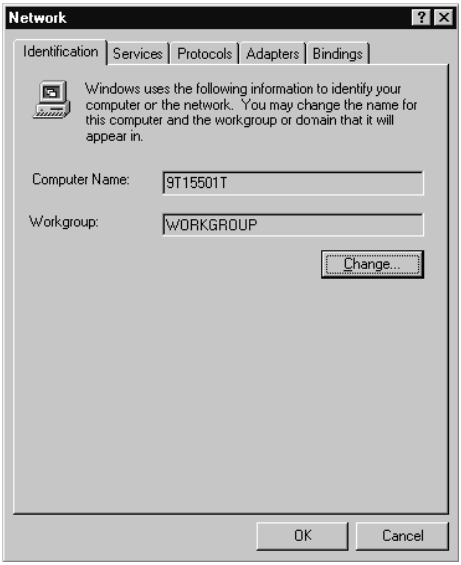
Notes:

- Network adapter drivers are normally installed automatically as part of the Windows NT installation process. This section has been provided as reference.
- For instructions on configuring the adapters, refer to steps 15 to 28 about adapter configuration in “Updating the Windows NT operating system for CallPilot 2.02” on page 239.

To install the network adapters

1. Click Start → Settings → Control Panel.
2. Double-click the Network icon.

   Result: The Network dialog box appears.



3. Click the Adapters tab.
4. Click Add.

   Result: The system prompts you for the source files for the network adapter cards.

5. Click Have Disk, and then type one of the following as the path:

Card type	Path
3Com LAN Megahertz	c:\drivers\network\megahz
3Compci1	c:\drivers\network\3compci1
AMD PCNET Family	c:\drivers\network\pcnet

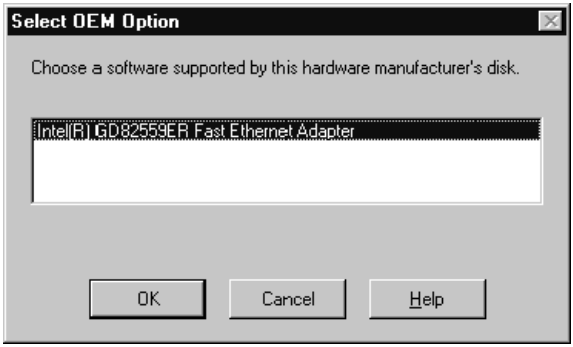
Card type	Path
Etherlink	c:\drivers\network\etherlink
Intel	c:\drivers\network\intel
Racore	c:\drivers\network\racore

Note: If you cannot locate the drivers on drive C, try one of the following alternate locations:

- c:\200tmp
- d:\drivers
- z:\drivers\misc

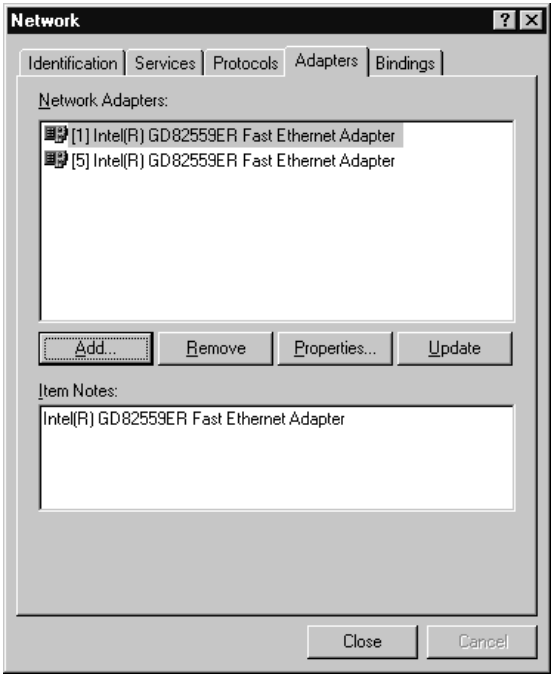
6 Press Enter.

Result: A dialog box similar to the following appears:



7 Click OK.

Result: When the adapter is installed, it may appear twice in the list, similar to the following example:



IF the CallPilot server is a	THEN
200i server	■ the ELAN is defined as the first network adapter (AMD PCNET Family Ethernet), and is represented as [1]. ■ the CLAN card is the second network adapter (3Com Etherlink III or 3Com LAN Megahertz), and is represented as [5].

IF the CallPilot server is a	THEN
201i server	■ the CLAN is defined as the first Intel network adapter, and is represented as [1]. ■ the ELAN is the second Intel network adapter, and is represented as [5].
702t server	■ the CLAN is defined as the first network adapter (Intel Pro 100), and is represented as [1]. ■ the ELAN is the second network adapter (Intel 82558-based Integrated Ethernet), and is represented as [2].
703t server	■ the ELAN is defined as the first network adapter (Intel 8255x-based PCI Ethernet Adapter [10/100]), and is represented as [1]. ■ the CLAN is defined as the second network adapter (Intel 82540-based PCI Ethernet Adapter [10/100/1000]), and is represented as [2].
1001rp server	the order of the ELAN and CLAN adapters may vary because the order is based on the slots in which the cards are installed. You can determine which adapter is ELAN or CLAN by doing the following: **a.** Highlight the adapter you want to review, and then click Properties. **b.** On the window that appears, identify the IRQ assigned to the adapter. **c.** Review the 1001rp slot assignment and IRQ mapping information in Part 2 of the *CallPilot Installation and Configuration* binder.

IF the CallPilot server is a	THEN
1002rp server	■ the ELAN is defined as the first Intel network adapter, and is represented as [1]. ■ the CLAN is the second Intel network adapter, and is represented as [2].

Verifying the network bindings

Introduction

This section explains how to verify that the network bindings are configured correctly. Network bindings tell the CallPilot server the order in which to find information on the network.

Notes:

- Network bindings configuration is normally completed automatically as part of the Windows NT installation process. Use this procedure only if you are performing a system recovery on a server that was upgraded to CallPilot 2.02.
- If, at a later time, you add or replace the CLAN adapter, you must readjust the binding order.

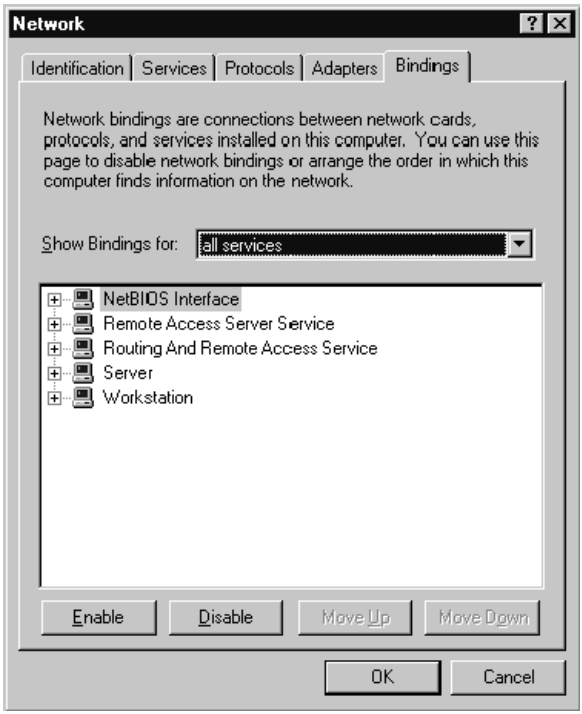
To verify the network bindings

1. Click Start → Settings → Control Panel.
2. Double-click the Network icon.

   Result: The Network dialog box appears.

3 Click the Bindings tab.

Result: The Bindings property page appears.

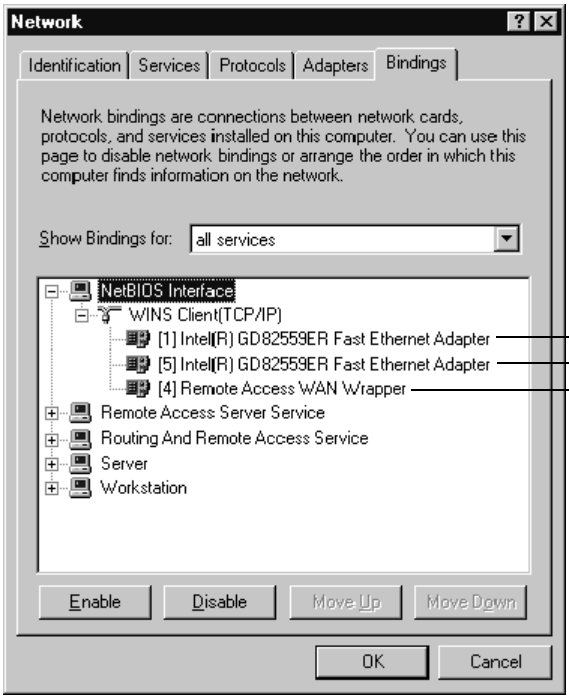


4 Verify the bindings for the NetBIOS Interface service group as follows:

a. Expand the NetBIOS service group by clicking the plus sign (+) beside NetBIOS Interface.

b. Expand the WINS client (TCP/IP) group by clicking the plus sign (+).

c. Click each adapter, and then click Move Up or Move Down to sort the list as shown in the following example:

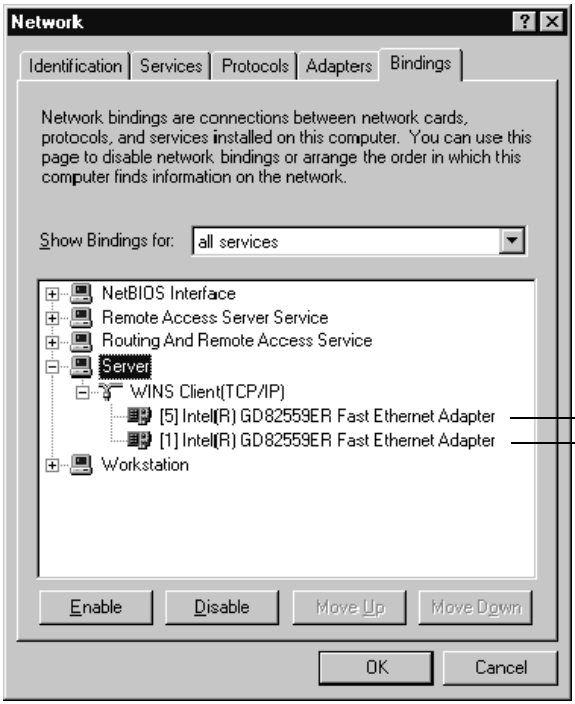


Ensure the adapters are listed in this order:

- CLAN
- ELAN
- RAS

d. Collapse the NetBIOS Interface service group by clicking the plus sign (+).

5 Repeat the procedure described in step 4 to verify the binding order for the Server service group as shown in the following example:

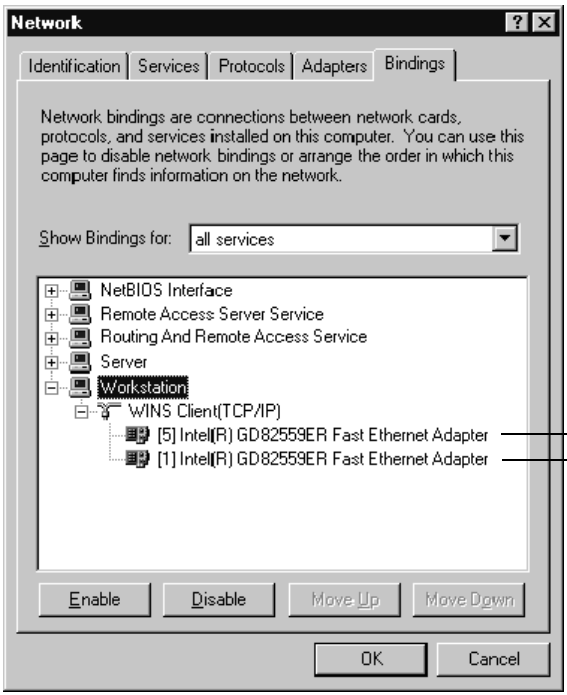


Ensure the adapters are listed in this order:

ELAN

CLAN

6 Repeat the procedure again to verify the Workstation service group as shown in the following example:



Ensure the adapters are listed in this order:

- ELAN
- CLAN

7 Click OK.

Result: Windows NT prompts you to restart the server to allow the changes to take effect.

8 Click No.

Reapplying Microsoft hot fixes

Introduction

You must reapply Microsoft hot fixes if you manually installed Windows NT Service Pack 6a after manually installing or reinstalling any operating system component (such as RAS).

To reapply Microsoft hot fixes

For instructions on reapplying Microsoft hot fixes, refer to the readme.txt file on the CallPilot 2.02 OS Recovery or OS Upgrade CD-ROM.

What's next

Verify that all of the Microsoft hot fixes are properly installed. For instructions, see "Verifying that Microsoft hot fixes have been installed" on page 274.

Verifying that Microsoft hot fixes have been installed

Introduction

If an error message appeared after hot fixes were installed during the Windows NT update (performed during a CallPilot server upgrade or system rebuild), use the procedure in this section to verify that all of the hot fixes were installed.

Microsoft hot fix verification tools

Hfnetchk is a Microsoft tool that is provided by Nortel Networks on the CallPilot 2.02 OS Recovery or OS Upgrade CD-ROM. Mssecure.xml is a data tool used by hfnetchk to determine which hot fixes are available. To run hfnetchk, see “To verify that all hot fixes were installed” on page 275.



CAUTION

Risk of system interruption or malfunction

Do not download and install any Windows NT security patches from the Microsoft web site unless they have been approved for CallPilot by Nortel Networks. Installation of unapproved security patches may result in incorrect operation of your CallPilot system.

To determine which Windows NT security patches have been approved by Nortel Networks, refer to the latest issue of the *CallPilot General Release Bulletin*.

To verify that all hot fixes were installed

Note: Ensure that the CallPilot server has completed the start cycle. An error appears if the server is still starting when you run the hfnetchk tool.

Double-click the FixCheck.bat file in the root folder of the CallPilot 2.02 OS Recovery or OS Upgrade CD-ROM.
Result: Results appear on the screen.

IF Patch Not Found	THEN
appears	hot fixes are required on the CallPilot server, but are missing. Do the following: **a.** Review the z:\HotFixes\FixInfo.txt file for information about each hot fix. **b.** Locate the .exe file for the missing hot fix in the z:\HotFixes folder, and then double-click it to install it. **c.** Restart the server if the system prompts you to do so.
does not appear	all of the required hot fixes are present on the CallPilot server.

Creating or updating the emergency repair disk

Introduction

An emergency repair disk is used to replace damaged system files, restore damaged or incorrect registry information, and rebuild the startup environment.

The emergency repair disk is applicable to tower and rackmount servers only.

ATTENTION

Nortel Networks recommends that you create and maintain more than one copy of the emergency repair disk. Store the disks in a safe location off-site for disaster recovery purposes.

When to create the emergency repair disk

Create the emergency repair disk immediately after you complete the recovery of the server. Recovery includes Windows NT installation, CallPilot software installation, and server configuration.

Keeping the emergency repair disk up-to-date

You must update the emergency repair disk each time you

- install new software (such as service packs or CallPilot PEPs)
- change software configuration
- alter network configuration
- perform hardware changes (such as to replace faulty hardware)
- update the operating system

Requirements

To create the emergency repair disk, you need the following:

- a blank 3.5 inch disk (not supplied with CallPilot)
  Label this disk as “Emergency Repair Disk.”
- a server with Windows NT 4.0 and Service Pack 6a installed

To create the emergency repair disk

1. Ensure that you are logged on in Windows NT.
2. Insert the blank disk in the floppy drive.
3. Click Start → Run.
4. When prompted, type **rdisk**, and then click OK.
5. Click Update Repair Info.
6. Click Yes to continue.

   Result: Setup prompts you to create the Repair disk.
7. Click Yes.
8. Click OK at the prompt.

   Result: The disk is formatted and configuration files are copied to the disk being created.
9. When complete, remove the disk from the floppy drive.
10. Click Exit on the Repair Disk Utility.

Who to contact if you need to use the emergency repair disk

ATTENTION

The emergency repair disk should be used only by support personnel, or as requested by support personnel.

If you need to use the emergency repair disk, contact your Nortel Networks technical support representative.

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CallPilot

Installation and Configuration

Part 4: Software Installation and Maintenance

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