CallPilot

Troubleshooting Reference

Product releases 1.0 to 2.02 | Standard 1.0 | May 2003

NORTEL NETWORKS™

P0913837

CallPilot
Troubleshooting Reference

Publication number:	P0913837
Product releases:	1.0 to 2.02
Document release:	Standard 1.0
Date:	May 2003

Publication history

May 2003	Standard 1.0 version of the *CallPilot Troubleshooting Reference* is updated for CallPilot release 2.02 to reflect changes in the Meridian Mail migration troubleshooting procedures. “Symptom 14: SCCS unable to de-acquire resources after improper shutdown or crash” has been added to Chapter 2, “Hardware troubleshooting”.
October 2002	Standard 1.0 version of the *CallPilot Troubleshooting Reference* is updated with additional information pertaining to CallPilot 2.0.
September 2002	The *CallPilot Troubleshooting Reference* is updated with information pertaining to CallPilot 2.0.

Contents

Chapter 1

Overview

Introduction

This reference provides step-by-step troubleshooting procedures for CallPilot release 2.02. There may be minor differences for these procedures between various CallPilot releases.

Each troubleshooting area contains symptom tables outlining basic checks that include diagnostics and resolutions for each check. This guide is applicable to all CallPilot servers. Exceptions are noted for each server, where necessary, in the heading for each symptom or check. The appendix in the back of this document contains a listing of parts referred to in this reference.

This document provides basic procedures for troubleshooting; you can find further information in the CallPilot documentation. Specific references are provided throughout this document. Below is a list of the related documents.

CallPilot documentation references

CallPilot 2.02 documentation references

Document title	Document number
CallPilot Installation and Configuration, Part 3: Meridian 1 and CallPilot Server Configuration	NTP 555-7101-222
CallPilot Installation and Configuration, Part 3: Succession CSE 1000 and CallPilot Server Configuration	NTP 555-7101-510
CallPilot Installation and Configuration Part 4 Software Installation and Maintenance	NTP 555-7101-202
CallPilot Installation and Configuration Part 2: 201i Server Hardware Installation	NTP 555-7101-220
CallPilot Installation and Configuration Part 5: 201i Server Maintenance and Diagnostics	NTP 555-7101-119
CallPilot Installation and Configuration Part 2: 702t Server Hardware Installation	NTP 555-7101-215

CallPilot 2.02 documentation references

Document title	Document number
CallPilot Installation and Configuration Part 5: 702t Server Maintenance and Diagnostics	NTP 555-7101-216
CallPilot Installation and Configuration Part 2: 1001rp Server Hardware Installation	NTP 555-7101-217
CallPilot Installation and Configuration Part 5: 1001rp Server Maintenance and Diagnostics	NTP 555-7101-206
CallPilot Installation and Configuration Part 2: 1002rp Server Hardware Installation	NTP 555-7101-205
CallPilot Installation and Configuration Part 5: 1002rp Server Maintenance and Diagnostics	NTP 555-7101-206
CallPilot 2.02 Administrator's Guide	NTP 555-7101-301
CallPilot Meridian Mail to CallPilot Migration Utility Guide	NTP 555-7101-801

CallPilot 1.07 documentation references

Document title	Document number
CallPilot Documentation Addendum	not applicable
CallPilot Installation and Configuration, Part 2: 200i Server Hardware Installation	NTP 555-7101-213
CallPilot Installation and Configuration, Part 5: 200i Server Maintenance and Diagnostics	NTP 555-7101-214
CallPilot Installation and Configuration, Part 2: 201i Server Hardware Installation	NTP 555-7101-220
CallPilot Installation and Configuration, Part 5: 201i Server Maintenance and Diagnostics	NTP 555-7101-119
CallPilot Installation and Configuration, Part 2: 702t Server Hardware Installation	NTP 555-7101-215

CallPilot 1.07 documentation references

Document title	Document number
CallPilot Installation and Configuration, Part 5: 702t Server Maintenance and Diagnostics	NTP 555-7101-216
CallPilot Installation and Configuration, Part 2: 1001rp Server Hardware Installation	NTP 555-7101-217
CallPilot Installation and Configuration, Part 5: 1001rp Server Maintenance and Diagnostics	NTP 555-7101-218
CallPilot Installation and Configuration, Part 3: Switch Setup and CallPilot Server Configuration **Note:** *For Meridian 1, use NTP 555-7101-222 below.*	NTP 555-7101-211
CallPilot Installation and Configuration, Part 3: Meridian 1 Switch Setup and CallPilot Server Configuration	NTP 555-7101-222
CallPilot Installation and Configuration, Part 4: Client Software Installation	NTP 555-7101-212
CallPilot Administrator's Guide	NTP 555-7101-300
CallPilot Monitoring and Security for the Administrator	NTP 555-7101-500
CallPilot Meridian Mail to CallPilot Migration Utility Guide	NTP 555-7101-801

CallPilot 1.06 documentation references

Document title	Document number
Meridian Applications Server 1001rp Installation and Maintenance Guide	NTP 555-7101-252

CallPilot 1.0 documentation references

Document title	Document number
Meridian Applications Server 200i Installation and Maintenance Guide	P0903075
Meridian Applications Server 702t Installation and Maintenance Guide	P0884909
CallPilot Software Installation Guide	NTP 555-7101-200
CallPilot Maintenance and Diagnostics Guide	NTP 555-7101-500
CallPilot Basic Administration Guide	NTP 555-7101-301

Chapter 2

Hardware troubleshooting

In this chapter

Symptom 1: CallPilot server fails to start (no message)	
Diagnostic steps	**Resolution**
Check the monitor. **1** With system power on, verify that the monitor LED is lit green. **2** If the monitor LED is not lit green, then the monitor may be defective. **3** Adjust monitor Contrast and Brightness settings to the default values. **4** Connect the monitor to known good working system or PC. **5** If the monitor LED is still not lit green and the amber light is not flashing, confirm the power cable is connected. **6** If the light is blinking amber and the system is a 200i or 201i server, then reseat the CallPilot server. **7** If the monitor light still does not turn green, then the monitor is probably defective.	**A** Replace the monitor.
1001rp server: Has the SBC BIOS been flashed? **8** If you have recently flashed the BIOS and your system is completely unresponsive, the BIOS flash may not have worked. **9** Proceed with crisis recovery.	**B** Create a Crisis Recovery diskette using the NTRH8042 diskette on another PC as follows: ■ In DOS mode, copy the contents of the NTRH8042 diskette into a temporary directory. ■ Put a blank diskette in the floppy drive and from the temporary directory, type **crisdisk** and press Enter. ■ Type **makeboot** and press Enter to make the disk bootable. **C** Using the manufacturer's documentation, locate switch block SW1 on the SBC. SW1 contains four switches. **D** With the system power off, set DIP switch 2 to the closed/on position. The default setting is open/off. **E** Put the Crisis Recovery diskette in the floppy drive.

Symptom 1: CallPilot server fails to start (no message)	
Diagnostic steps	**Resolution**
1001rp server: Has the SBC BIOS been flashed? (continued)	**F** Turn the power on. At power up, the only devices which will work are the floppy controller, floppy drive, and speaker. No messages will be displayed, but you will hear a series of beeps. **G** When the beeps stop (after approximately 15 seconds), remove the diskette and switch the power off. **H** Set DIP switch 2 back to its default setting (open/off). **I** Turn the power on again. The system should boot normally and prompt for setup.
1001rp server: Check the video card. **10** The video card may be defective.	**J** Replace the video card. Refer to *CallPilot Installation and Configuration Part 5: 1001rp Server Maintenance and Diagnostics*, "Replacing the video card."
Check the Keytronic keyboard. **11** Check the back of the keyboard to verify that ■ The model is Keytronic EO3601QUS201-C. ■ The date code is later than "9940" (October 1st, 1999). ■ The date code is included in the Serial Number on the back of the keyboard. (For example, S/N: Q994407128 contains the date code "9944", which translates to year 99, week 44. The date in this instance would be November 1st, 1999.) **12** If the system starts properly without the keyboard, the keyboard may be defective.	**K** Replace the Keytronic keyboard with part number NTRH9013.
13 Does the problem still exist?	**L** Does the keyboard have an integrated pointing device, such as a trackball? ■ If so, check the keyboard's pointing device. ■ If not, check the mouse.

Symptom 1: CallPilot server fails to start (no message)			
Diagnostic steps		**Resolution**	
Check the keyboard's pointing device (if applicable).		**M**	Replace the integrated mouse.
14	If the system starts properly, the integrated pointing device may be defective.		
702t or 201i server: Check the motherboard.		**N**	Contact your Nortel Networks technical support representative for assistance.
15	The motherboard may be defective.		
16	Does the problem still exist?	**O**	Check the memory module.
Check the memory module.		**P**	If the memory module is missing, contact Your Nortel Networks technical support representative for assistance.
17	Verify that the memory module (DIMM or SIMM) is present.		
18	Verify that the memory module (DIMM or SIMM) is properly seated.	**Q**	Reseat the memory module. Refer to the appropriate documentation for your server: ■ *CallPilot Installation and Configuration, Part 5: 702t Server Maintenance and Diagnostics*, "Replacing baseboard DIMMs" ■ *CallPilot Installation and Configuration, Part 5: 1001rp Server Maintenance and Diagnostics* — "Dual Inline Memory Modules" in "Maintaining the Pentium II SBC Card" or — "Replacing or adding Dual Inline Memory Modules" in "Maintaining the Pentium III SBC card." ■ *CallPilot Installation and Configuration, Part 5: 1002rp Server Maintenance and Diagnostics*, "Replacing or adding Dual Inline Memory Modules" in "Maintaining the Pentium III SBC card"
19	Verify that the memory module (DIMM or SIMM) is qualified. The qualified memory modules for the 201i server are as follows: ■ Samsung KMM374F1600BK1-6 ■ Kingston Technology KTM16X72VN84-60EG ■ SMART Modular Technologies SM572168094D6G6 ■ SMART Modular Technologies Inc SM57216809UDUGU		
20	Does the problem still exist?	**R**	Check the keyboard.
21	Does the problem still exist?	**S**	Check the mouse.

Symptom 1: CallPilot server fails to start (no message)	
Diagnostic steps	**Resolution**
22 Does the problem still exist?	**T** **1001rp server:** Check the video card. **U** **702t or 201i server:** Check the power supply.
1001rp server: Check the video card. **23** Verify that the video card is seated properly, and in the correct slot.	**V** Reseat the video card in the correct PCI slot location. Refer to *CallPilot Installation and Configuration, Part 5: 1001rp Server Maintenance and Diagnostics*, "Replacing the video card."
1001rp server: Recheck the video card. **24** If you reseated or moved the video card, power up the server. **25** If the fans start, the disk LEDs come on, and the server appears to start, then the video card may be defective.	**W** Replace the video card.
26 Does the problem still exist?	**X** Check the power supply.
1001rp server: Check the power supply. **27** Verify that the AC (DC) power supplies are installed in AC (DC) systems. Refer to *CallPilot Installation and Configuration, Part 5: 1001rp Server Maintenance and Diagnostics*, "Replacing the power supply" in "Replacing basic chassis components." **28** If the LEDs on the back of the server are not green, the power supply may not be inserted properly or may be defective.	**Y** Remove and reinsert the power supply. **Z** **Note:** In the case of the 48V DC power supply, the leads may have been reversed. Reversed leads will not damage the system but will prevent booting. **AA** Replace power supply or supplies with ▪ A0723663 - 48V DC 400W load sharing hot swap power supply ▪ A0769126 - 220V-only Power Supply w/o 3.3V output (3 Rail) ▪ A0805434 - Power Supply 500W Hot swappable
1001rp server: Check the power supply cabling. **29** Ensure that a power supply cable is securely connected to a known working AC outlet. **30** Power up the server and listen/feel to verify that the power supply fan is operational.	**AB** Replace the power cable.

Symptom 1: CallPilot server fails to start (no message)	
Diagnostic steps	**Resolution**
1001rp server: Check the power supply cabling (continued) **31** If the fan is not operational, the AC power cable may be defective.	See the previous page.
1001rp server: Check power supply fan. **32** Open the server and detach the power supply's internal cabling from all devices except the motherboard. **33** Power up the server and listen/feel to verify that the power supply fan is operational. The cooling fan is at the front of the hot-swap power supply module. **34** If the fan is not operational, use a volt meter to verify that the two outside pins of the 4-pin power connector generate the following:· ▪ +5 Volts ▪ +12 Volts **35** If either of these is incorrect, the power supply may be defective.	**AC** Remove and reinsert the power supply. **AD** If the voltages are incorrect, replace power supply or supplies with ▪ A0723663 - 48V DC 400W load sharing hot swap power supply ▪ A0769126 - 220V-only Power Supply w/o 3.3V output (3 Rail) ▪ A0805434 - Power Supply 500W Hot swappable
1001rp server: Check the motherboard. **36** If the server still does not start, then the server's motherboard may be defective.	**AE** Do the following: ▪ Replace the chassis. ▪ Contact your Nortel Networks technical support representative for assistance.
702t server: Check the power supply. **37** Ensure that the power supply cable is securely connected to a working AC outlet. **38** Power up the server and listen/feel to verify that the power supply fan is operational. The fan is at the top rear of the server. **39** If the fan is not operational, the AC power cable may be defective.	**AF** Replace the power cable.
702t server: Check the power supply fan. **40** Open the server's housing and detach the power supply's internal cabling from all devices except the motherboard.	**AG** Replace the power supply. Contact your Nortel Networks technical support representative for assistance.

Symptom 1: CallPilot server fails to start (no message)	
Diagnostic steps	**Resolution**
702t server: Check the power supply fan (continued) **41** Power up the server and listen/feel to verify that the power supply fan is operational. **42** If the fan is not operational, use a voltmeter to measure the two outside pins of the 4-pin power connector with ground. One should be +5 Volts, the other +12 Volts. If either of these is incorrect, the power supply may be defective.	See the previous page.
702t server: Check the motherboard. **43** If the server still does not start, then the server's motherboard may be defective.	**AH** Replace the server. Contact your Nortel Networks technical support representative for assistance.
201i server: Check the power supply. **44** Ensure that the slot the 201i server is in is receiving power by temporarily plugging in a working switch card. **45** If the card does not receive power, then the switch backplane may be defective.	**AI** Replace the switch.
201i server: Check the card slot. **46** Move the 201i server to a working card slot. **47** If the 201i server startup begins successfully but fails before completion, the switch backplane may be defective.	**AJ** Replace the switch.
201i server: Check the 201i server hex display. **48** If the green hex display at the bottom of the 201i server faceplate is not lit, the 201i server may be defective. **49** During startup, if the hex display shows **T:00 - T:17** or **F:00-F:17** at any time, then the 201i server may be defective.	**AK** Replace the 201i server. Contact your Nortel Networks technical support representative for assistance.
201i server: Check the dongle. **50** If **F:10** is briefly displayed, the dongle may not be present or may be defective.	**AL** Replace the dongle.

Symptom 1: CallPilot server fails to start (no message)	
Diagnostic steps	**Resolution**
201i server: Check the hard drive. **51** Remove and insert the 201i server, and jump into the BIOS by hitting F2. Within the BIOS, auto-detect the hard drives. If the drive is successfully auto-detected it indicates that the drive and its cables are working and connected properly and you should skip out of this section. **52** Remove the 201i server from the switch. **53** Remove the daughterboard from the motherboard. **54** Leave the hard drive power cable connected from the motherboard to the hard drive. **55** Ensure that the hard drive data cable is disconnected from the daughterboard. **56** Reinsert the 201i server and listen carefully for the hard disk spin-up cycle. If the disk does not spin then the hard disk drive may be defective. **57** Remove the 201i server and connect the ribbon cable, ensuring that the red stripe on the ribbon cable is facing the power cable.	**AM** Replace the hard drive.
201i server: Check the server. **58** Reinsert the daughterboard into the motherboard and fasten the four mounting screws. **59** Reinsert the 201i server into the switch. **60** If the 201i server fails to start, the server may be defective.	**AN** Replace the 201i server. Contact your Nortel Networks technical support representative for assistance.

Symptom 2: The server fails to start (BIOS abnormal device message)	
Diagnostic steps	**Resolution**
Check the BIOS settings. **1** Check the NVRAM/BIOS/SSU settings. **2** If the BIOS displays a message regarding a peripheral or other device that seems to be abnormal, then the NVRAM may have been corrupted, or the BIOS/SSU settings may be incorrect.	**A** Verify that you have the latest BIOS revision. **B** Clear the NVRAM. **C** Ensure that all BIOS settings are correct. **201i server:** ■ Restart the 201i server and press F2 to enter the BIOS setup. ■ Select “Get Default Values” from the Exit menu. ■ Select Save Changes and Exit, then restart. **702t server:** Refer to *CallPilot Installation and Configuration, Part 5: 702t Server Maintenance and Diagnostics*, “Upgrading and configuring the BIOS” in “SSU AND BIOS.” **1001rp server:** Refer to *CallPilot Installation and Configuration, Part 5: 1001rp Server Maintenance and Diagnostics*, “Upgrading the BIOS” in “Maintaining the Pentium II SBC card” or “Configuring the 1001rp Pentium III BIOS” in “Maintaining the Pentium III SBC card.” **1002rp server:** Refer to *CallPilot Installation and Configuration, Part 5: 1002rp Server Maintenance and Diagnostics*, “Configuring the 1002rp Pentium III BIOS” in “Maintaining the Pentium III SBC card.”
3 Does the problem still exist?	**D** Contact your Nortel Networks technical support representative for assistance.

Symptom 3: The server fails to start (beep codes are generated)	
Diagnostic steps	**Resolution**
Check hardware components and cabling. **1** If beep codes are generated while the server is starting, at least one hardware component is not connected or is malfunctioning. **2** Check the following components: ■ memory modules ■ keyboard and mouse connections ■ all internal cables ■ all peripheral card seatings Refer to the documentation for your server: ■ *CallPilot Installation and Configuration, Part 2: 201i Server Hardware Installation*, "Connecting peripheral devices to the 201i server" ■ *CallPilot Installation and Configuration, Part 2: 702t Server Hardware Installation*, "Connecting peripherals to the server" ■ *CallPilot Installation and Configuration, Part 5: 702t Server Maintenance and Diagnostics*, "Replacing baseboard DIMMs" ■ *CallPilot Installation and Configuration, Part 2: 1001rp Server Hardware Installation*, "Connecting peripherals to the server" ■ *CallPilot Installation and Configuration, Part 5: 1001rp Server Maintenance and Diagnostics*, "Dual Inline Memory Modules" ■ *CallPilot Installation and Configuration, Part 2: 1002rp Server Hardware Installation*, "Connecting peripherals to the server" in "Installing the server and connecting the peripheral devices"	**A** Contact your Nortel Networks technical support representative for assistance.

Symptom 3: The server fails to start (beep codes are generated)	
Diagnostic steps	**Resolution**
Check hardware components and cabling (continued). ■ CallPilot Installation and Configuration, Part 5: 1002rp Server Maintenance and Diagnostics, "Replacing or adding Dual Inline Memory Modules" in "Maintaining the Pentium III SBC card" **Note:** Pay particular attention to the Ethernet and video cards. See "Symptom 1: CallPilot server fails to start (no message)" on page 14.	See the previous page.

Symptom 4: The server fails to start (BIOS cannot identify hard disks)	
Diagnostic steps	**Resolution**
Check all cable connections and SCSI terminations. **1** Check all cable connections. **2** If using a SCSI hard drive, check the termination setting on each device and verify that the settings are unique.	**A** Correct the SCSI termination settings. Refer to the documentation for your server: ■ *CallPilot Installation and Configuration Part 2: 201i Server Hardware Installation*, “Setting the CD-ROM drive's SCSI ID and DIP switches” and “Setting the tape drive's SCSI ID” in “Preparing peripheral devices” as well as “Setting SCSI device termination” ■ *CallPilot Installation and Configuration, Part 5: 702t Server Maintenance and Diagnostics*, “Replacing or installing hard drives” in “Replacing the hard drive, tape drive, CD-ROM drive, or floppy drive” ■ *CallPilot Installation and Configuration, Part 5: 1001rp Server Maintenance and Diagnostics*, “Replacing a hard drive” and “Installing a tape drive” in “Replacing a hard drive, tape drive, CD-ROM drive, or floppy drive” ■ *CallPilot Installation and Configuration, Part 5: 1001rp Server Maintenance and Diagnostics*, “Replacing a tape, CD-ROM, or floppy drive” in “Replacing a hard drive, tape drive, CD-ROM drive, or floppy drive”
702t server: Check SCSI terminators. **3** Restart the server. If the SCSI hard disk is still not identified by the BIOS, then SCSI terminators may be defective.	**B** Replace any SCSI terminators that are missing, have an odor, or a have small pea-size bulge on any surface. **C** Verify the all SCSI device IDs.

Symptom 4: The server fails to start (BIOS cannot identify hard disks)		
Diagnostic steps	**Resolution**	
702t server: Check SCSI terminators (continued).	**D**	Refer to *CallPilot Installation and Configuration, Part 5: 702t Server Maintenance and Diagnostics*, "Replacing or installing hard drives" in "Replacing the hard drive, tape drive, CD-ROM drive, or floppy drive."
702t or 1001rp server: Check the RAID subsystem. **4** If your system has RAID, the RAID configuration may have an error. **5** Check the RAID configuration.	**E**	Refer to the documentation for your server: ■ *CallPilot Installation and Configuration, Part 5: 702t Server Maintenance and Diagnostics*, "Configuring an AcceleRAID352 RAID system" in "Maintaining an AcceleRAID352 RAID system" ■ *CallPilot Installation and Configuration, Part 5: 702t Server Maintenance and Diagnostics*, "Configuring a DAC960 RAID system" in "Maintaining a DAC960 RAID system" ■ *CallPilot Installation and Configuration, Part 5: 1001rp Server Maintenance and Diagnostics*, "Configuring an AcceleRAID352 RAID system" in "Maintaining an AcceleRAID352 RAID system" ■ *CallPilot Installation and Configuration, Part 5: 1001rp Server Maintenance and Diagnostics*, "Configuring a DAC960 RAID system" in "Maintaining a DAC960 RAID system"

Symptom 4: The server fails to start (BIOS cannot identify hard disks)			
Diagnostic steps		**Resolution**	
702t server: Check the SCSI interface.		**F**	Refer to *CallPilot Installation and Configuration, Part 5: 702t Server Maintenance and Diagnostics*, "SCSI and IDE cabling illustrations" in "Replacing the hard drive, tape drive, CD-ROM drive, or floppy drive."
6	While the system is starting, verify that the SCSI message identifying the tape drive on the SCSI bus appears.		
7	If the message does not appear, then there may be a problem with the tape drive's SCSI interface.		
8	Examine the 702t system for a proper connection from the main board to the tape drive, and then to the SCSI terminator.		
9	Does the problem still exist?	**G**	Contact your Nortel Networks technical support representative for assistance.

Symptom 5: The server starts but the tape drive does not function	
Diagnostic steps	**Resolution**
Check tape drive installation. **1** If the system starts and the tape drive is still not operational, then the tape drive may have to be re-installed through the operating system.	**A** Re-install the tape drive through the operating system. Refer to the documentation for your server: ■ *MAS 702t Installation and Maintenance Guide*, "Installing the tape device driver" in "Performing software installation and configuration" ■ *MAS 1001rp Installation and Maintenance Guide*, "Installing the tape device driver" in "Performing software maintenance" ■ *MAS 201i Installation and Maintenance Guide*, "To install the tape drive driver" in "Hard disk recovery and build"
Defective tape drive. **2** If tape drive errors persist, then there may be defect in the SCSI tape drive.	**B** Replace the tape drive unit.
3 Does the problem still exist?	**C** Contact your Nortel Networks technical support representative for assistance.

Symptom 6: Server unable to boot into NT

Diagnostic steps	Resolution
1 You are experiencing a problem booting NT because one of the files (**boot.ini**, **NTLDR** or **NTDETECT.COM**) is missing or corrupted.	**Tower or rackmount server only:** **A** If the system has DOS, BOOT into DOS. If the system is newer, it will not have DOS installed and you will need to boot from a floppy disk. **B** If you don't have the boot floppy, create it by Create a Boot Floppy from another NT OS: ■ Open My Computer and select the floppy icon. ■ Place a blank floppy in the disk drive. ■ Select File > Format; click Start to format the floppy. ■ Click OK to continue and then OK to Format ■ Copy boot.ini, NTLDR and NTDETECT.COM from your hard disk to your floppy disk. **C** Copy boot.ini, NTLDR and NTDETECT.COM from a floppy to your system. **201i server:** **A** Insert the PC-CIA Flash card and boot the system. **B** Check to see if the file BOOT.INI is in the root of the C: drive. If it does not proceed to step C. **C** From the DOS window, go to drive C: and create a new BOOT.INI file using EDIT. BOOT.INI should be in the root directory of C:

Symptom 6: Server unable to boot into NT			
Diagnostic steps		**Resolution**	
2	Windows NT could not start because the following file is missing or corrupted: \ <winnt root>\system32\ntoskrnl.exe. Please reinstall a copy of the above file.	**Tower or rackmount server only**	
		D	Boot.ini is missing or directs the OS to wrong partition (see above for details on how to boot system). Boot NT from the boot floppy and correct boot.ini file.
		E	If ntoskrnl.exe is damaged, use the three Windows NT installation diskettes, NT CD-ROM and the repair diskette.
3	Does the problem still exist?	**F**	Contact your Nortel Networks technical support representative for assistance.

Symptom 7: The screen image moves back and forth (201i server only)			
Diagnostic steps		**Resolution**	
201i server: Check modem DIP switch settings.			
1	Verify the modem DIP switch settings. Refer to *CallPilot Installation and Configuration, Part 2: 201i Server Hardware Installation*, "Setting the modem DIP switches" in "Preparing peripheral devices."	**A**	Correct the DIP switch settings. The correct settings are: 1-OFF, 2-OFF, 3-ON, 4-ON, 5-ON, 6-OFF, 7-OFF, and 8-ON.
2	Does the problem still exist?	**B**	Contact your Nortel Networks technical support representative for assistance.

Symptom 8: The 201i server restarts randomly and unpredictably	
Diagnostic steps	**Resolution**
201i server: Check motherboard. **1** Remove the four screws holding down the NTRH13BA daughterboard. **2** Remove the daughterboard from the motherboard. **3** Locate device U61 found on the motherboard, near the center of the PCB, beside another component labeled "Lattice" (the component name is DS1232S). **4** If the date code is followed by "C2" (for example, 9922C2) then the 201i server is defective.	**A** Replace the 201i server. Contact your Nortel Networks technical support representative for assistance.

Symptom 9: Error message "Can’t find Cirrus Logic PCMCIA controller..." interrupts CallPilot installation (201i server only)

Diagnostic steps	Resolution
201i server: Bypass startup errors. **Note:** Although the 201i server is malfunctioning, you can continue the CallPilot installation: **1** Hold down the ALT key to bypass the halting and proceed with Windows NT logon. **2** Proceed with CallPilot installation.	**A** Contact your Nortel Networks technical support representative to report the error.
201i server: Check the SCSI peripherals. **3** Remove the 201i server from the switch. **4** Unplug all SCSI peripherals such as the tape drive and CD-ROM drive from the cable. **5** Reinsert the 201i server in the slot. **6** If the 201i server functions as expected, a SCSI peripheral device may be defective.	**B** Identify the defective SCSI peripheral by re-attaching one peripheral at a time until the defective component is found. **C** Replace the defective peripheral. Refer to *CallPilot Installation and Configuration, Part 2: 201i Server Hardware Installation*, “Preparing peripheral devices.”
201i server: Check the SCSI cable. **7** Remove the 201i server from the switch. **8** Unplug the SCSI cable from the 201i server’s faceplate. **9** Reinsert the 201i server in the slot. **10** If the 201i server functions as expected, the SCSI cable may be defective.	**D** Verify the cable's NT or A0# product code and replace the defective cable. **E** Refer to *CallPilot Installation and Configuration, Part 2: 201i Server Hardware Installation*, “Installing the SCSI cables for Meridian 1.”
11 Does the problem still exist?	**F** Contact your Nortel Networks technical support representative for assistance.

Symptom 10: System fails to boot (boots to a blue screen or freezes)

Diagnostic steps	Resolution
Check all external and internal cabling. **1** Disconnect, reconnect, and check for damage to the cabling, including: ▪ **201i server:** Check the cabling for the following: CD-ROM and tape drive cabling, SCSI faceplate, hard drive, motherboard and SCSI paddleboard, internal and external Ethernet and Token Ring, power supply, modem, and breakout box cabling. ▪ **702t or 1001rp:** Check the power cords and cabling for the following: RAID, floppy drive, CDROM and tape drives, SCSI faceplate, hard drive, motherboard and SCSI paddleboard, internal and external Ethernet and Token Ring, power supply, Modem, and breakout box. **2** Restart the server. If the blue screen no longer appears, at least one cable was missing, improperly connected, or damaged.	**A** Try starting in VGA MODE by selecting the third operating system from the list displayed after startup. **B** Try using the "Last known good menu" by pressing the space bar immediately before Windows NT begins to start. **C** If cables were improperly connected, ensure that all cable connectors are undamaged and dust-free. **D** If cables are missing or damaged, order the appropriate cables and/or devices and replace them.
Check SCSI Termination - STOP CODES: 77, 7A, 7B **3** If the server has SCSI devices, ensure that each SCSI device in the chain has the correct termination settings and that the entire chain has been terminated properly by a non-defective terminator. **4** If a device's SCSI termination jumpers have been set incorrectly, or, the SCSI terminator is missing or defective, then a SCSI termination problem exists.	**E** Replace any SCSI terminators that are missing, have an odor, or have a small pea-size bulge on any of their surfaces. **F** Set the termination jumpers of all SCSI devices to their correct values. Refer to the documentation for your server: ▪ *CallPilot Installation and Configuration, Part 2: 201i Server Hardware Installation*, "Setting SCSI device termination"

Symptom 10: System fails to boot (boots to a blue screen or freezes)		
Diagnostic steps		**Resolution**
Check SCSI Termination - STOP CODES: 77, 7A, 7B (continued)		■ *CallPilot Installation and Configuration, Part 5: 702t Server Maintenance and Diagnostics*, “Replacing or installing hard drives” in “Replacing the hard drive, tape drive, CD-ROM drive, or floppy drive” ■ *CallPilot Installation and Configuration, Part 5: 1001rp Server Maintenance and Diagnostics*, “Replacing a hard drive” and “Installing a tape drive” in “Replacing a hard drive, tape drive, CD-ROM drive, or floppy drive” ■ *CallPilot Installation and Configuration, Part 5: 1002rp Server Maintenance and Diagnostics*, “Replacing a tape, CD-ROM, or floppy drive” in “Replacing a hard drive, tape drive, CD-ROM drive, or floppy drive”
Check SCSI IDs - STOP CODES: 77, 7A, 7B **5** If the server uses SCSI devices, ensure that each SCSI device in the chain has its SCSI ID set to the correct value. **6** If a device's SCSI ID is not set to its correct value then a SCSI ID problem exists.	**G**	Set the SCSI ID jumpers/switches of all SCSI devices to their correct values.
Check memory - STOP CODES: 1A, 2C, 2D, 2E, 7D **7** Remove all memory modules from the server and verify the memory module part numbers. Do this by recording the manufacturers' part numbers and comparing them against a list of supported parts for the server. **8** If part numbers do not match exactly, the memory may be substandard, causing a blue screen.	**H**	Contact your Nortel Networks technical support representative for assistance for the latest approved memory products.

Symptom 10: System fails to boot (boots to a blue screen or freezes)

Diagnostic steps	Resolution
Check the memory modules.	**I** Reseat the memory module.
9 Remove the memory modules and ensure that their connectors are dust free, and reinsert them in the motherboard. Refer to the documentation for your server: ■ *CallPilot Installation and Configuration, Part 5: 702t Server Maintenance and Diagnostics*, "Replacing baseboard DIMMs" ■ *CallPilot Installation and Configuration, Part 5: 1001rp Server Maintenance and Diagnostics*, "Dual Inline Memory Modules" in "Maintaining the Pentium II SBC Card" or "Replacing or adding Dual Inline Memory Modules" in "Maintaining the Pentium III SBC card" ■ *CallPilot Installation and Configuration, Part 5: 1002rp Server Maintenance and Diagnostics*, "Replacing or adding Dual Inline Memory Modules" in "Maintaining the Pentium III SBC card"	**J** Ensure that the memory module latches on the motherboard are closed securely.
10 Restart the server. If the blue screens no longer appear, then at least one memory module may have been improperly seated.	
Isolate the memory modules.	**K** Replace all of the memory modules.
11 Remove one or more memory modules so that only a single module remains in the server. Alternatively, replace all of the memory modules with new modules.	
12 Restart the server. If the blue screens no longer appear, then at least one memory module may be defective.	

Symptom 10: System fails to boot (boots to a blue screen or freezes)

Diagnostic steps	Resolution
702t, 1001rp, or 1002rp server: Check processor - STOP CODES: 1A, 1E, 3E, 79, 92, 9C **13** Remove all CPUs from the server, ensure that their connectors are dust free, and reinsert them in the motherboard. Refer to the documentation for your server: ▪ *CallPilot Installation and Configuration, Part 5: 702t Server Maintenance and Diagnostics*, "Replacing the CPU" in "Replacing DIMMs and the CPU" ▪ *CallPilot Installation and Configuration, Part 5: 1001rp Server Maintenance and Diagnostics*, "Replacing the Pentium II SBC card" in "Maintaining the Pentium II SBC card" or "Replacing the Pentium III SBC card" in "Maintaining the Pentium III SBC card" ▪ *CallPilot Installation and Configuration, Part 5: 1002rp Server Maintenance and Diagnostics*, "Replacing the Pentium III SBC card" in "Maintaining the Pentium III SBC card" **14** Restart the server. If the blue screens no longer appear, then at least one processor may have been improperly seated.	**L** Remove and reseat all processors. **M** Ensure that the processor SLOT1/ Socket370 latches are closed securely on the motherboard.
702t server: Check processors. **15** In a multiprocessor system, check the type and stepping version of all processors to ensure that they match. Refer to *CallPilot Installation and Configuration, Part 5: 702t Server Maintenance and Diagnostics*, "Replacing the CPU" in "Replacing DIMMs and the CPU." **16** If any processors are missing, or if all processors are not identical, then at least one processor may be missing or be the incorrect type.	**N** Replace the missing or mismatched processors with new ones.

Symptom 10: System fails to boot (boots to a blue screen or freezes)

Diagnostic steps	Resolution
Check I/O card locations.	
17 Ensure that all PCMCIA cards, ISA cards, and PCI cards have been inserted into their correct slot assignments. Refer to the documentation for your server: ■ *CallPilot Installation and Configuration, Part 2: 702t Server Hardware Installation*, "Slot assignments" in "702t server description" ■ *CallPilot Installation and Configuration, Part 2: 1001rp Server Hardware Installation*, "Slot assignments" in "1001rp server description" ■ *CallPilot Installation and Configuration, Part 2: 201i Server Hardware Installation*, "Installing the MPCs" in "Connecting peripheral devices to the 201i server" ■ *CallPilot Installation and Configuration, Part 2: 1002rp Server Hardware Installation*, "Slot assignments" in "1002rp server description" **18** If the cards are located in their incorrect slot assignment, then the system may be unstable due to incorrect I/O card locations.	**O** Move all PCMCIA, ISA, and PCI cards to their correct slot locations. **P** **702t server:** Use the SSU BIOS configuration disks to ensure that the slot interrupt mappings are also correct.
Check CD-ROM drive cabling.	
19 If you have a 201i server, and both the CD-ROM and the tape drive connected, ensure that the CD-ROM drive is connected first followed by the tape drive. **20** If you have a 201i server and both a CD-ROM and a tape drive, and only the CD-ROM drive can be seen, check to see that termination is disabled on the CD-ROM. **21** Remove and detach the CD-ROM drive from the server. Continued on next page.	**Q** Verify the CD-ROM drive cabling and power cabling. **R** Replace the CD-ROM cable. Refer to the documentation for your server: ■ *CallPilot Installation and Configuration, Part 2: 201i Server Hardware Installation*, "Preparing peripheral devices"

Symptom 10: System fails to boot (boots to a blue screen or freezes)		
Diagnostic steps		**Resolution**
Check CD-ROM drive cabling (continued). **22** If SCSI, ensure that the remaining devices are terminated properly. **23** Restart the server. If the blue screens no longer appear, then the CD-ROM drive, its cabling, or its termination or SCSI ID (if applicable) may be defective or incorrect.		■ *CallPilot Installation and Configuration, Part 5: 702t Server Maintenance and Diagnostics*, "SCSI and IDE cabling illustrations" in "Replacing the hard drive, tape drive, CD-ROM drive, or floppy drive" ■ *CallPilot Installation and Configuration, Part 5: 1001rp Server Maintenance and Diagnostics*, "Replacing a tape, CD-ROM, or floppy drive" in "Replacing a hard drive, tape drive, CD-ROM drive, or floppy drive" ■ *CallPilot Installation and Configuration, Part 5: 1002rp Server Maintenance and Diagnostics*, "Replacing a tape, CD-ROM, or floppy drive" in "Replacing a hard drive, tape drive, CD-ROM drive, or floppy drive"
Check CD-ROM drive. **24** Verify the CD-ROM termination jumper settings (if SCSI). **25** Verify the CD-ROM is terminated properly (if SCSI). **26** Verify the CD-ROM has the correct SCSI ID (if SCSI).	**S**	Replace the CD-ROM drive.
Check the tape drive cabling and configuration. **27** Remove and detach the tape drive from the server. **28** If SCSI, ensure that the remaining devices are terminated properly. **29** Restart the server. If the blue screens no longer appear, then the tape drive, its cabling, its termination, or its SCSI ID may be defective or incorrect.	**T**	Replace the tape drive cable. Refer to the documentation for your server: ■ *CallPilot Installation and Configuration, Part 2: 201i Server Hardware Installation*, "Connecting the CD-ROM and tape drives" in "Connecting peripheral devices to the 201i server"

Symptom 10: System fails to boot (boots to a blue screen or freezes)		
Diagnostic steps		**Resolution**
Check the tape drive cabling and configuration (continued).		■ *CallPilot Installation and Configuration, Part 5: 702t Server Maintenance and Diagnostics*, "SCSI and IDE cabling illustrations" in "Replacing the hard drive, tape drive, CD-ROM drive, or floppy drive" ■ *CallPilot Installation and Configuration, Part 5: 1001rp Server Maintenance and Diagnostics*, "Replacing a tape, CD-ROM, or floppy drive" in "Replacing a hard drive, tape drive, CD-ROM drive, or floppy drive" ■ *CallPilot Installation and Configuration, Part 5: 1002rp Server Maintenance and Diagnostics*, "Replacing a tape, CD-ROM, or floppy drive" in "Replacing a hard drive, tape drive, CD-ROM drive, or floppy drive"
Check the tape drive. **30** Verify the tape drive cabling and power cabling. **31** Verify the tape drive termination jumper settings (if SCSI). **32** Verify the tape drive is terminated properly (if SCSI). **33** Verify the tape drive has the correct SCSI ID (if SCSI).	**U**	Replace the tape drive.
Check the modem cabling. **34** Remove and detach the modem from the server/breakout box. **35** Restart the server. If the blue screens no longer appear, then the modem or its cabling may be defective or incorrect.	**V**	Replace the modem serial cable.

Symptom 10: System fails to boot (boots to a blue screen or freezes)

Diagnostic steps	Resolution
Check the modem (if applicable).	**W** Replace the modem.
36 Verify the modem serial cabling and power cabling. Refer to the documentation for your server: ■ *CallPilot Installation and Configuration, Part 2: 201i Server Hardware Installation*, "Connecting the modem" in "Connecting peripheral devices to the 201i server" ■ *CallPilot Installation and Configuration, Part 2: 702t Server Hardware Installation*, "Preparing the modem" in "Installing the server and connecting the peripheral devices" ■ *CallPilot Installation and Configuration, Part 2: 1001rp Server Hardware Installation*, "Preparing the modem" in "Installing the server and connecting the peripheral devices" ■ *CallPilot Installation and Configuration, Part 2: 1002rp Server Hardware Installation*, "Preparing the modem" in "Installing the server and connecting the peripheral devices"	
37 Replace the modem serial cable with a known good cable.	
702t or 1001rp server: Check the BIOS settings.	**X** Change the BIOS settings to the correct values. Refer to the documentation for your server: ■ *CallPilot Installation and Configuration, Part 5: 702t Server Maintenance and Diagnostics*, "Upgrading and configuring the BIOS" and "Configuring your system using SSU" in "SSU and BIOS"
38 Verify all of the BIOS settings including IRQ, memory, and DMA assignments. For the 702t server, use the SSU disks.	
39 Restart the server. If the blue screens no longer appear, then the BIOS settings may have been incorrect.	

Symptom 10: System fails to boot (boots to a blue screen or freezes)

Diagnostic steps	Resolution
702t or 1001rp server: Check the BIOS settings (continued)	■ *CallPilot Installation and Configuration, Part 5: 1001rp Server Maintenance and Diagnostics*, "Upgrading the BIOS" in "Maintaining the Pentium II SBC card" or "Configuring the 1001rp Pentium III BIOS" in "Maintaining the Pentium III SBC card" ■ *CallPilot Installation and Configuration, Part 5: 1002rp Server Maintenance and Diagnostics*, "Configuring the 1002rp Pentium III BIOS" in "Maintaining the Pentium III SBC card"
702t, 1001rp, or 1002rp server: Check the ELAN card internal cabling. **40** Remove the ELAN ISA/PCI network interface card and restart the server. **41** If the blue screens no longer appear, then the ELAN network interface card or its cabling may be configured incorrectly or is defective. **42** Restart the system without the network card and verify that the IRQ, I/O ports, and other network interface software parameters have been set correctly. **43** If the parameters are correct, ensure that the ELAN network interface card is inserted into its correct ISA/PCI slot. **702t server:** Use the SSU BIOS configuration disks to ensure that the slot interrupt mappings are correct.	**Y** Replace any network interface card internal cabling. **Z** Replace the network interface card. Refer to the documentation for your server: ■ *CallPilot Installation and Configuration, Part 2: 702t Server Hardware Installation*, "Connecting the server to the ELAN" in "Installing the server and connecting the peripheral devices" ■ *CallPilot Installation and Configuration, Part 2: 1001rp Server Hardware Installation*, "Connecting the server to the ELAN" in "Installing the server and connecting the peripheral devices" ■ *CallPilot Installation and Configuration, Part 2: 1002rp Server Hardware Installation*, "Connecting the server to the ELAN" in "Installing the server and connecting the peripheral devices"

Symptom 10: System fails to boot (boots to a blue screen or freezes)

Diagnostic steps	Resolution
Check the CLAN card. **44** Remove the CLAN PCMCIA/ISA/PCI network interface card and restart the server. **45** If the blue screens no longer appear, then the CLAN card or its cabling may be configured incorrectly or defective. **46** Restart the system without the network card and ensure that the IRQ, I/O ports, and other network interface software parameters have been set correctly. **47** If the parameters are correct, ensure that the CLAN card is inserted into it correct PCMCIA/ISA/PCI slot. **48** **702t server:** Use the SSU BIOS configuration disks to ensure that the slot interrupt mappings are correct.	**AA** Replace the internal cabling, if any, on the network interface card.Refer to the documentation for your server: ■ *CallPilot Installation and Configuration, Part 2: 702t Server Hardware Installation*, "Connecting the server to the CLAN (optional)" in "Installing the server and connecting the peripheral devices" ■ *CallPilot Installation and Configuration, Part 2: 1001rp Server Hardware Installation*, "Connecting the server to the CLAN (optional)" in "Installing the server and connecting the peripheral devices" ■ *CallPilot Installation and Configuration, Part 2: 1002rp Server Hardware Installation*, "Connecting the server to the CLAN (optional)" in "Installing the server and connecting the peripheral devices" **AB** Replace the network interface card: ■ PCI 10Mb Ethernet Adapter (NTRH9009) ■ PCI 100Mb Ethernet Adapter (NTRH9036) ■ ISA 10Mbps Ethernet Adapter (NTRH9047)

Symptom 10: System fails to boot (boots to a blue screen or freezes)

Diagnostic steps	Resolution
Check the multimedia processing cards and sockets. **49** Remove all multimedia processing cards from all MPBs/201i in the platform. **50** Restart the server. If the blue screens no longer appear, then at least one card or socket may be defective. **51** Isolate a card problem by inserting each card one at a time and rebooting. **52** Determine if multimedia processing cards or sockets are defective by using good cards in questionable sockets and inserting questionable cards into good sockets.	**AC** Depending on whether cards or sockets are defective, replace the cards, sockets, and/or the MPB/201i accordingly. Refer to the documentation for your server: ■ *CallPilot Installation and Configuration, Part 5: 201i Server Maintenance and Diagnostics*, "Replacing Multimedia Processing Cards" in "Performing hardware maintenance and mechanical assembly" ■ *CallPilot Installation and Configuration, Part 5: 702t Server Maintenance and Diagnostics*, "Replacing or adding voice processing boards" ■ *CallPilot Installation and Configuration, Part 5: 1001rp Server Maintenance and Diagnostics*, "Replacing or adding voice processing boards" ■ *CallPilot Installation and Configuration, Part 5: 1002rp Server Maintenance and Diagnostics*, "Replacing or adding voice processing boards"
702t and 1001rp server: Check the multimedia processing boards. **53** Remove all multimedia processing boards from the platform. **54** Restart the server and if the blue screens no longer occur then at least one board may be defective or the server may be defective or incorrectly configured. **55** Ensure that the multimedia processing boards are inserted into their correct PCI slots. Continued on the next page.	**AD** Depending on whether MPBs or the server is defective, replace the appropriate components accordingly.

Symptom 10: System fails to boot (boots to a blue screen or freezes)	
Diagnostic steps	**Resolution**
702t and 1001rp server: Check the multimedia processing boards (continued) **56** **702t server:** Use the SSU BIOS configuration disks to ensure that the slot interrupt mappings are also correct. **57** Determine whether MPBs or PCI slots are defective by using known-good MPBs in questionable PCI slots, and questionable MPBs in known-good PCI slots.	See the previous page.
Check hard disk drive(s) for corruption - MISC STOP CODES **58** If the server was shutdown improperly or was subject to a power loss, then the hard drive may have been corrupted. **59** Check the hard drive cabling. **60** Check for physical hard drive damage. **702t or 1001rp server:** ▪ If a recent emergency repair disk is available, use it with the Windows NT startup disks to repair the hard disk. ▪ If a recent emergency repair disk is not available, attempt repair using the Windows NT startup disks.	**AE** Rebuild the hard drive and reinstall the operating system and all CallPilot software. **Note:** To prevent future occurrences of corruption, follow proper shutdown procedures and consider purchasing an uninterruptible power supply (UPS).
201i server: Check cables and peripherals. **61** Shut down the server and remove the power unit. Unplug all external cables (such as the NTRH0910/NTRH0911 breakout cable and the applicable SCSI faceplate cable) and peripherals. **62** Identify the defective cable by connecting one external cable at a time and restarting the server after each connection. **63** Identify any defective peripherals by connecting one at a time and restarting the server after each connection. **64** Restart the server. **65** Does the problem still exist?	**AF** Conduct memory diagnostics.

Symptom 10: System fails to boot (boots to a blue screen or freezes)	
Diagnostic steps	**Resolution**
Conduct memory diagnostics. **66** Restart the server and select DOS from the three-option startup menu. **67** Execute PCDiags and review test logs for failures. Refer to the documentation for your server: ■ *MAS 702t Installation and Maintenance Guide*, "Running PCDiags" in "Troubleshooting" ■ *MAS 1001rp Installation and Maintenance Guide*, "Running PCDiags" in "Diagnostics" ■ *MAS 201i Installation and Maintenance Guide*, "Working with PCDiags" in "Troubleshooting and diagnostics"	**AG** If any memory tests fail, replace the defective memory module.
68 Does the problem still exist?	**AH** Contact your Nortel Networks technical support representative for assistance.

Symptom 11: Modem does not function	
Diagnostic steps	**Resolution**
Conduct modem sanity check. **1** Verify that the modem is a Nortel Networks-approved US Robotics product. **2** Verify that red LEDs are illuminated on the modem faceplate. **3** If no red LEDs are lit then the modem may not be receiving power.	**A** Ensure the unit is properly plugged in to the wall AC outlet.
Check cabling and DIP switch settings. **4** Ensure that the modem cable is properly connected to the server COM port or NTRH09AA breakout box at both ends of the cable and in its designated COM port. **5** Verify the DIP switch settings. The settings for each switch are: 1-OFF, 2-OFF, 3-ON, 4-ON, 5-ON, 6-OFF, 7-OFF, and 8-ON. **6** The modem will operate abnormally or not all if the DIP switch settings are incorrect or serial cable connection is not fully secured.	**B** Check the telephone connection. **C** Correct the DIP switch settings.
Check the telephone connection. **7** Verify that the RJ45 telephone cable is properly connected between the modem's line-in jack and the analog telco telephone line. Ensure that the modem's volume control is set in the middle of the selectable range. If you do not hear a dial tone while dialing a phone number, then it is likely that your analog telephone connection not connected.	**D** Consult local technical staff to ensure the correct jack is being used and is properly connected to the public analog telephone system.
Check console redirection settings. **8** Verify the BIOS console redirection settings by entering the BIOS setup. Refer to the documentation for your server: ■ *MAS 702t Installation and Maintenance Guide*, "Performing software installation and configuration" ■ *MAS 1001rp Installation and Maintenance Guide*, "Running PCDiags" in "Diagnostics"	**E** Correct the BIOS redirection settings according to the following: ■ **201i server:** Enabled ■ **702t or 1001rp server:** Disabled

Symptom 11: Modem does not function			
Diagnostic steps		**Resolution**	
Check console redirection settings (continued) ■ MAS 201i Installation and Maintenance Guide, “Using console redirection” in “Troubleshooting and diagnostics” The modem will operate abnormally or not all if the BIOS console redirection settings are incorrect.		See the previous page.	
Determine if multiple software programs (such as RAS, pcAnywhere, Windows NT or HyperTerminal) are accessing the modem.		**F**	Use the Windows NT Task Manager to exit other programs that are using the COM port.
9	Press Ctrl-Alt-Del to access the Task Manager. Note which programs are active. Only one software program can access the COM port.		
10	If more then one program is accessing the COM port then you may suffer from a software contention issue.		
11	Does the problem still exist?	**G**	Contact your Nortel Networks technical support representative for assistance.

Symptom 12: CD-ROM drive does not function	
Diagnostic steps	**Resolution**
Check the CD-ROM. **1** Verify that the CD is properly installed and not upside down.	**A** Eject the CD and ensure that the CD label is facing up.
Inspect the CD. **2** Inspect the CD. If it is visibly scratched or damaged, the CD may be unusable.	**B** Insert a CD that is known to be working and verify that the server can access it.
702t, 1001rp, or 1002rp server: Check CD-ROM settings **3** Verify that the CD-ROM LED flashes during a startup. **4** The CD-ROM drive may be incorrectly configured.	**C** Check the IDE CD-ROM settings from the BIOS. The selection should be set for an ATAPI device.
702t, 1001rp, or 1002rp server: Check CD-ROM startup messages. **5** The CD-ROM LED still does not flash briefly during a startup, or the startup screen does not report the following message: ATAPI CDROM: CD-XXXXXXXXXXX where XXXXX is the actual model number. **Note:** If you receive this message, then the CD-ROM is properly configured in the BIOS. **6** The CD-ROM cables may not be correctly installed.	**D** Open the server and verify that the internal CD-ROM has the power connector and the IDE cable firmly connected to the CD-ROM drive and the baseboard or SBC. Refer to the documentation for your server: ■ *CallPilot Installation and Configuration, Part 5: 702t Server Maintenance and Diagnostics*, "SCSI and IDE cabling illustrations" in "Replacing the hard drive, tape drive, CD-ROM drive, or floppy drive" ■ *CallPilot Installation and Configuration, Part 5: 1001rp Server Maintenance and Diagnostics*, "Replacing a tape, CD-ROM, or floppy drive" in "Replacing a hard drive, tape drive, CD-ROM drive, or floppy drive"

Symptom 12: CD-ROM drive does not function

Diagnostic steps		Resolution
702t, 1001rp, or 1002rp server: Check CD-ROM startup messages (continued).		■ *CallPilot Installation and Configuration, Part 5: 1002rp Server Maintenance and Diagnostics*, "Replacing a tape, CD-ROM, or floppy drive" in "Replacing a hard drive, tape drive, CD-ROM drive, or floppy drive"
201i server: Check SCSI adapter.		**E** If the Symbios SCSI driver is not present then there are two options:
7	Verify that the SCSI driver is loaded.	■ Insert the CallPilot CD into a PC on the customer network. Install the driver accessing the PC through a shared network connection using Network Neighborhood.
8	In the Control Panel, click SCSI Adapters.	■ Replace the 201i server. Contact your Nortel Networks technical support representative for assistance.
9	Under the Devices tab, verify that the Symbios Logic C… SCSI Host Adapter is present.	
201i server: Check SCSI switch settings.		**F** Correct the DIP switch settings. Refer to *CallPilot Installation and Configuration, Part 2: 201i Server Hardware Installation*, "Setting the CD-ROM drive's SCSI ID and DIP switches" in "Preparing peripheral devices."
10	Assuming the SCSI tape drive is not connected, verify the DIP switch settings on the CD-ROM unit.	
11	The first two (from the left) are in the up position and the rest are in the down position.	
12	If the DIP switch settings are incorrect then termination errors may result in either a Windows NT blue screen or incomplete CD-ROM operation.	
201i server: Check SCSI termination.		**G** Correct the DIP switch settings. Refer to *CallPilot Installation and Configuration, Part 2: 201i Server Hardware Installation*, "Setting the CD-ROM drive's SCSI ID and DIP switches" in "Preparing peripheral devices."
13	If the SCSI tape drive and CD-ROM drive are daisy chained together, then the second switch (termination) should be in the OFF (down) position.	
14	The CD-ROM drive will not work if the second DIP switch setting is in the ON (up) position.	

Symptom 12: CD-ROM drive does not function	
Diagnostic steps	**Resolution**
201i server: Check SCSI ID settings. **15** Ensure that the SCSI ID numbers of the SCSI tape drive and CD-ROM drive are different. **Note:** SCSI operation will be unstable or inoperable if the SCSI ID numbers are the same.	**H** Change the SCSI ID on one of the SCSI units by pressing a button (for the tape drive) or rotating a dial (for the CD-ROM drive) on the back of the SCSI peripheral device. **I** Shut down and restart the 201i server.
CD-ROM drive defective. **16** If the CD-ROM is still not recognized by the operating system then the CD-ROM drive may be defective.	**J** Replace the CD-ROM drive. Contact your Nortel Networks technical support representative for assistance.

Symptom 13: Serial ports do not function	
Diagnostic steps	**Resolution**
Confirm the ports are enabled in the BIOS. **1** Enter BIOS: Press F2 to enter setup. **2** Use the arrow key to move to the Advanced tab. **3** Select I/O Device Configuration and press Enter. **4** Select Serial port A, press Enter, and then select Enabled. **5** Select Serial port B, press Enter, and then select Enabled. **6** Use the arrow key to move to the Exit tab, select Exit Saving Changes, and then press Enter.	**A** If the ports are not enabled, enable and reboot
If ports are enabled but not recognized. **7** **702t, 1001rp, or 1002rp server:** There are two serial ports on tower and rackmount servers. Try reversing the external cables to ensure the device is connected to the right serial port. **8** If this does not correct the problem, power down the server and ensure that the internal serial cables are connected correctly. Ensure that the cables are connected and that the red strip connects to pin 1. **9** If the cables were connected properly, try reversing the internal cables. Reboot and test again.	**B** If the ports are enabled in the BIOS but are not displayed in the OS boot sequence this indicates faulty hardware on the motherboard.

Symptom 14: SCCS unable to de-acquire resources after improper shutdown or crash

The Symposium Call Center Services (SCCS) server acquires devices such as Terminal Numbers (TNs) and Automatic Call Distribution (ACD) agent telephone sets on the Meridian 1 and Succession CSE 1000 switches. If the SCCS server crashes or is shut down without running the shutdown utility, then the devices remain acquired and cannot be used by other applications.

Diagnostic steps	Resolution
Verify if the SCCS server can de-aquire one or more devices.	**A** Perform a switch SYSLOAD.
After the switch INIT, verify if the Control Directory Number (CDN) count is corrupted for an application link.	**B** De-acquire manually resources from the switch using the following commands from overlay 48 (LD 48): ■ De-acquire an acquired AGENT: DACR AGT <loop> <shelf> <card> <unit> <CR> ■ De-acquire an acquired ROUTE: DACR RTE <route #> <customer #> <CR> ■ De-acquire ALL acquired devices on a specified link: DACR ALL <link #> <CR> **C** De-acquire manually resources from the switch using the following commands from overlay 23 (LD 23): ■ De-acquire an acquired CDN: REQ <DACR> TYPE <CDN> CUST <customer #> CDN <XXXX> ■ De-acquire an acquired ACD-DN: REQ <DACR> TYPE <ACD> CUST <customer #> ACDN <XXXX> **Note:** You can use overlays 10, 11, 20, 21, or 23 to confirm that the action is carried out successfully on your device.

Chapter 3

Network troubleshooting

In this chapter

Symptom 1: Server fails to connect to any network

Diagnostic steps	Resolution
Check Windows NT networking. **1** Verify that the network icon appears on the Windows NT desktop. **2** **702t, 1001rp, or 1002rp server:** If the connection cards do not come up, there may be I/O conflicts. Check your system resources in Windows NT by selecting Start > Programs > Administrative Tools (Common) > Windows NT Diagnostics and click on the Resources tab. **3** Ensure that you have the correct IRQ settings. Refer to the documentation for your server: ■ *CallPilot Installation and Configuration, Part 5: 702t Server Maintenance and Diagnostics*, "IRQ mapping table" in "702t reference material" ■ *CallPilot Installation and Configuration, Part 5: 1001rp Server Maintenance and Diagnostics*, "IRQ mapping table" in "1001rp reference material" ■ *CallPilot Installation and Configuration, Part 5: 1002rp Server Maintenance and Diagnostics*, "IRQ mapping table" in "1002rp reference material"	**A** Remove and reinstall Network cards. Refer to the documentation for your server: ■ *CallPilot Installation and Configuration, Part 5: 702t Server Maintenance and Diagnostics*, "Replacing network cards" ■ *CallPilot Installation and Configuration, Part 5: 1001rp Server Maintenance and Diagnostics*, "Replacing network cards" **B** Contact your Nortel Networks technical support representative for assistance.

Symptom 2: Server fails to connect to the embedded LAN (ELAN)

Diagnostic steps	Resolution
Ping the ELAN Ethernet controller. **1** Obtain the Network Controller's IP address and open a DOS session from within Windows NT. **2** At the command line, type **ping <ELAN IP address>** (for example, ping 45.235.0.1). **3** Windows NT should display a summary (based on four attempts) indicating whether or not there was packet loss. A properly configured system will display "Packets: Sent=4, Received=4, Lost=0". **4** If the test fails then there is a problem with the software configuration of the network adapter card.	**A** Check the configuration of the network adapter card using Control Panel > Network. Refer to *CallPilot Installation and Configuration, Part 4: Software Installation and Maintenance*, "Installing network adapters" in "Operating system reference information."
Check the switch IP address. **5** If network changes have been made, restart the server. **6** Restart the switch to verify its IP assignment on the server. **7** Open a DOS session and ping the switch IP address. (for example, ping 45.235.1.125). **8** If you cannot ping the switch, the physical connection between the CallPilot server and the switch may be defective.	**B** Replace the network cable between CallPilot and the switch.
1001rp or 1002rp server: Check the network card. **9** Check the network card settings in Control Panel > Network. **10** If network changes have been made, restart the server. **11** Ping the switch. **12** If the problem still exists, then the network cables or the MAU (multi auxiliary unit) may be defective. **13** Restart the switch to verify that the switch IP address is correctly assigned.	**C** Replace the network cable between CallPilot and the switch.

Symptom 2: Server fails to connect to the embedded LAN (ELAN)	
Diagnostic steps	**Resolution**
1001rp or 1002rp server: Ping the switch. **14** Ping the switch again. **15** If this fails then the ELAN card may be defective.	**D** Replace the ELAN card.
1001rp server: Potential network problem. **16** If the ELAN still doesn't work, there may be a problem elsewhere in the network infrastructure.	**E** Contact your Nortel Networks technical support representative for assistance.
702t server: Check the network card. **Note:** The 702t ELAN network interface is embedded on the main board. **17** Check the on-board ELAN network interface settings. **18** If network changes have been made, restart the server. **19** Ping the switch. **20** If the problem still exists, then the network cables may be faulty or the MAU (multi auxiliary unit) may be faulty. **21** Restart the switch to verify its IP assignment on the server.	**F** Replace the network cable between the server and the switch.
702t server: Ping the switch. **22** After the network cable is replaced. Ping the switch again. **23** If this fails than the problem may be with the on-board ELAN network interface settings.	**G** Contact your Nortel Networks technical support representative for assistance.
201i server: Check the network card driver. **24** Verify that the driver is listed in the Control Panel Network settings. **25** Under the Adapters tab, verify that the AMD PCNet driver is present. (AMD and 3COM drivers should be present). **26** The ELAN cannot function if the drivers are not present.	**H** Load the network adapter driver. Refer to *CallPilot Installation and Configuration, Part 4: Software Installation and Maintenance*, "Installing network adapters" in "Operating system reference information."

Symptom 2: Server fails to connect to the embedded LAN (ELAN)			
Diagnostic steps		**Resolution**	
201i server: Check the network cable.		**I**	Replace the network cable.
27	Check the network cable.		
28	Network crossover cables are not supported.		
29	Visually inspect both ends of the cable. Ensure the cable is wired straight through (pin1->pin1, pin2->pin2, and so forth).		
30	Perform a continuity check using a simple ohmmeter (if available). (For example, pin1->pin1, pin2->pin2, and so on.)		
31	If this test fails then the Ethernet cable may be defective.		
201i server: Check the network cable connections.		**J**	Unplug the Ethernet connection on the right and plug it into the left (or first) RJ45 connector on the NTRH09AA breakout box.
32	Verify that the ELAN cable is properly connected to the first RJ45 connector of the NTRH09AA breakout box. The ELAN will not function if it's plugged into the second jack.		
201i server: Check the Ethernet MAC address.		**K**	Replace the 201i server. Contact your Nortel Networks technical support representative for assistance.
33	Each Ethernet controller has its own MAC or Physical address.		
34	Open a DOS session window from within Windows NT and, from the command line, type **ipconfig/all**. Each adapter will display its Mac (physical) address.		
35	Verify that each address is valid. A MAC address consists of a similar of numbers and letters of xx-xx-xx-xx-xx-xx. (For example, 00-C0-4F-04-88-85).		
36	If the sequence contains all FFs then the 201i server is defective.		

Symptom 3: Server fails to connect to the CLAN (Customer LAN)	
Diagnostic steps	**Resolution**
Ping the CLAN Ethernet controller. **1** Obtain the Network Controller's IP address and open a DOS session from within Windows NT. **2** At the command line, type ping <CLAN IP> (for example, ping 45.235.0.1). **3** Windows NT should display a summary (based on four attempts) indicating whether or not there was packet loss. A properly configured system will display "Packets: Sent=4, Received=4, Lost=0". **4** If the test fails then there is a problem with the software configuration of the network adapter card.	**A** Check the configuration of the network adapter card using Control Panel > Network. Refer to *CallPilot Installation and Configuration, Part 4: Software Installation and Maintenance*, "Installing network adapters" in "Operating system reference information."
Ping the customer network. **5** If network changes have been made, restart the server. **6** Check the IP setting of the customer's network adapter to ensure you have the correct IP address. **7** Open a DOS session and ping the customer's PC. (For example, ping 45.235.1.125). **8** If the problem still exists, then the network cables or Token Ring MAU (multi auxiliary unit) may be faulty.	**B** Replace the network cable between CallPilot and hub.
702t, 1001rp or 1002rp server: Check the network card settings. **9** Check the network card settings in Control Panel > Network. **10** If network changes have been made, restart the server. **11** Ping another server. **12** If the problem still exists, then the network cables or the MAU (multi auxiliary unit) may be faulty.	**C** Replace the network cable between CallPilot and the local network hub.

Symptom 3: Server fails to connect to the CLAN (Customer LAN)	
Diagnostic steps	**Resolution**
201i server: Check 201i seating. **13** The 201i server may not be firmly seated.	**D** Power down the 201i server and remove it from the switch for about one minute. **E** Reinsert the 201i server.
201i server: Check network drivers. **14** Verify that the driver is present within the Network settings in the Control Panel. **15** Under the Adapters tab verify that the 3COM driver is present. (AMD and 3COM drivers should be present). **16** The CLAN cannot function if the drivers are not present.	**F** Load the correct network adapter driver. Refer to *CallPilot Installation and Configuration, Part 4: Software Installation and Maintenance*, "Installing network adapters" in "Operating system reference information."
201i server: Check the network cable. **Note:** Network crossover cables are not supported. **17** Visually inspect both ends of the cable. Ensure the cable is wired straight through (pin1->pin1, pin2->pin2, and so on). **18** Perform a continuity check by using a simple ohmmeter (if available) (pin1->pin1, pin2->pin2, and so on). If this test fails, the Ethernet cable may be defective.	**G** Replace the defective network cable.
201i server: Check the physical connection. **19** Verify that the CLAN cable is properly connected to the first RJ45 connector of the NTRH09AA breakout box. **Note:** The CLAN cannot function if it is connected to the first RJ45 connector.	**H** On the NTRH09AA breakout box, unplug the Ethernet connection on the left (first) RJ45 connector and plug it into the right (second) RJ45 connector.

Symptom 4: The CallPilot server is unable to communicate over the network (the ELAN, CLAN, or both)

Diagnostic steps	Resolution
Physical Layer-1 **1** Verify the integrity of the server's ELAN network interface card. Refer to the documentation for the card and use the diagnostic utilities supplied by the card manufacturer. **2** Verify the integrity of the server's CLAN network interface card. Refer to the documentation for the card and use the diagnostic utilities supplied by the card manufacturer. **3** Verify the integrity of the transceivers (if used). Refer to the transceiver documentation for diagnostic steps. **4** Verify the integrity of the cables from the server to the hubs· ▪ Use cable testers and/or an ohmmeter. ▪ Ensure the physical characteristics are within technical specifications (for example, cable grade, length, shielding, and so on.) **5** Verify the integrity of the terminators (if 10Base2 or 10Base5 cables are used). **Note:** The two terminators should measure 50 ohms each. **6** Verify the integrity of the network devices such as hubs, bridges, routers, and Ethernet switches. ▪ Refer to the device documentation for diagnostic steps. ▪ Consult the end-customer's Network Operations department.	**A** Replace the defective hardware component. **B** If the defective part is a Nortel-supplied component, contact your Nortel Networks technical support representative to report the diagnostic results. **C** If all diagnostics passed, proceed to test the Data Link Layer.

Symptom 4: The CallPilot server is unable to communicate over the network (the ELAN, CLAN, or both)

Diagnostic steps	Resolution
Data Link Layer-2	
7 Verify the ELAN network driver and its version. (Refer to the ELAN card documentation for the driver name and installation procedures.)	**D** Install the appropriate driver for the associated network interface card (the make and model of the driver need to match those of the card).
8 Verify the network driver and its version for the CLAN card. (Refer to the CLAN card documentation for the driver name and installation procedures.)	**E** Make the applicable configuration changes within the driver configuration utility (for example, IRQ settings, 10 MBPS versus 100 MBPS mode, and so on).
9 Verify the ELAN and CLAN driver configurations. Refer to *CallPilot Installation and Configuration, Part 4: Software Installation and Maintenance*, "Installing network adapters" in "Operating system reference information."	**F** If all diagnostics all passed, proceed to test the Network and Transport layers.
Network Layer-3 and Transport Layer-4	**G** Add missing TCP/IP components.
10 Verify that TCP/IP is installed. Check the Network settings in the Control Panel.	**H** Correct configuration settings if necessary.
11 Verify the ELAN and CLAN IP configurations (for example, address, subnet mask, gateway, bindings, and so on). ■ At the server, open a DOS command window and type: **ipconfig/all**. ■ Verify that the ELAN and CLAN network interface cards are recognized. ■ Verify that the ELAN card physical address is associated with the ELAN IP address. ■ Verify that the ELAN subnet mask is correct and the default gateway address is on the same ELAN subnet. ■ Verify the CLAN card physical address is associated with the CLAN IP address. ■ Verify the CLAN subnet mask is correct and the default gateway address is on the same CLAN subnet.	**I** Consult the end-customer's network operations department. **J** If all diagnostics passed, proceed to test the Session and Presentation layers.

Symptom 4: The CallPilot server is unable to communicate over the network (the ELAN, CLAN, or both)

Diagnostic steps	Resolution
Session Layer-5 and Presentation Layer-6 **12** Verify the location and version of Winsock.dll: ■ Use Find Files or Folders from the Start menu to locate the winsock.dll file. ■ Check the version and date of the winsock.dll file.	**K** If winsock.dll is missing, install it according to the Windows NT documentation. **L** Verify that the location and version of winsock.dll correspond to those used by Windows NT. **M** If all diagnostics all passed, proceed to test the Application layer.
Application Layer-7 **13** Verify that the server can communicate over the ELAN. From the server's command prompt, ping the following (in sequence): ■ Ping 127.0.0.1 to verify the integrity of server's TCP/IP stack. ■ Ping the server's ELAN IP address to verify the server's ELAN IP configuration. ■ Ping the switch's ELAN IP address to verify the integrity of hardware and the network O/S on both the server and the switch. ■ Ping an operational PC's IP address on the ELAN to verify the integrity of cables and hub. **14** Verify that the server can communicate over the CLAN. From the server's command prompt, ping the following (in sequence): ■ Ping 127.0.0.1(To verify the integrity of server's TCP/IP stack.) ■ Ping the server's CLAN IP address to verify the server's CLAN IP configuration. ■ Ping an operational PC's IP address on the same subnet to verify the integrity of hardware and the network O/S. Continued on the next page.	**N** Verify and correct the TCP/IP settings and other networking settings on the server. Refer to *CallPilot Installation and Configuration, Part 4: Software Installation and Maintenance*, "Installing network adapters" in "Operating system reference information."

Symptom 4: The CallPilot server is unable to communicate over the network (the ELAN, CLAN, or both)			
Diagnostic steps		**Resolution**	
Application Layer-7 (continued) ■ Ping the default gateway address on the same CLAN subnet to verify the integrity of the routers. ■ Ping an operational PC's IP address on a different subnet to verify the integrity of the router configuration.		See the previous page.	
15	Does the problem still exist?	**O**	Contact your Nortel Networks technical support representative for assistance.

Symptom 5: 201i server is unable to communicate over the network with 3COM Megahertz CLAN

Diagnostic steps	Resolution
Check if 3Com Megahertz Driver is loaded **1** Ping 127.0.0.1 (to test TCP/IP installation). **2** Ping your IP address (to test proper driver for the card) **3** If both tests pass, go to setup 2 **4** If both tests fail, reload the TCP/IP drivers.	**A** If the first test passed but the second one did not and you are sure the TCP/IP configuration was correct then proceed as follows: ■ Remove the 3Com Megahertz LAN PC Card from the list of the adapters ■ Shut down the system and remove the network card ■ Start the system and then shut it down again. ■ Put back the network card and start the system. ■ Add the 3Com Megahertz LAN PC Card: Right click on the Network Neighborhood > Properties >Adapters tab and then click Add > Have Disk. Type **C:\ El3c589\disk1** and select 3Com Megahertz LAN PC adapter.
TCP/IP is correctly configured but you cannot access the network **5** Check as follows ■ Ping 127.0.0.1 (to test TCP/IP installation). ■ Ping your IP address (to test proper driver for the card). ■ Ping other IP addresses on your subnet (to test subnet mask, gateway, and a faulty network card or cables).	**B** If the first two tests passed but the third one did not and you are sure the TCP/IP configuration was correct then proceed as follows: ■ Remove the 3Com Megahertz LAN PC Card from the list of the adapters. ■ Shut down the system and remove the network card. ■ Start the system and then shut it down again. ■ Install a new network card and a new cable, and then start the system.

Symptom 5: 201i server is unable to communicate over the network with 3COM Megahertz CLAN			
Diagnostic steps		**Resolution**	
TCP/IP is correctly configured but you can not access the network (continued)			■ Add the 3Com Megahertz LAN PC Card: Right click on the Network Neighborhood > Properties > Adapters tab and click Add > Have Disk. Type **C:\ El3c589\disk1** and then select 3Com Megahertz LAN PC adapter.
6	Does the problem still exist?	**C**	Contact your Nortel Networks technical support representative for assistance.

Chapter 4

Remote access troubleshooting

In this chapter

Symptom 1: Unable to connect to CallPilot server using pcAnywhere			
Diagnostic steps		**Resolution**	
Check modem and RAS. **1** Verify that the modem is on and physically connected to the CallPilot server. **2** Place a call to the modem and verify that it is answered. **3** Verify that RAS is running on the server. **ATTENTION** You cannot establish a pcAnywhere modem to modem connection while Remote Access Service (RAS) is running.		**A** Stop RAS from Control Panel > Network > Services. **B** Establish a pcAnywhere modem to modem connection. Refer to the *CallPilot 2.0 Administrator's Guide*, "Establishing a connection using Dial-Up Networking" in "Configuring remote administration of the CallPilot server." **C** Terminate the pcAnywhere modem to modem connection before restarting RAS.
4	Does the problem still exist?	**D**	Call Your Nortel Networks technical support representative for assistance.

Symptom 2: Dial-Up Networking connects, but the pcAnywhere connection on the administrative PC fails

Diagnostic steps	Resolution
Verify the server configuration. **1** Verify that pcAnywhere is installed on the server by checking the Windows NT Start menu. **2** Run ipconfig from the DOS prompt on the server to verify that the Nortel Support entry appears in its pcAnywhere configuration.	**A** Install pcAnywhere if not already installed. Refer to *CallPilot Installation and Configuration, Part 4: Software Installation and Maintenance*, "Updating the Windows NT operating system for CallPilot 2.0" in "Installing and configuring Windows NT."
Ping the server. **3** Restart pcAnywhere on the administrative PC. **4** Run ipconfig from the DOS prompt on the administrative PC to verify the pcAnywhere client configuration. **5** If the ELAN adapter is not the first adapter listed, pcAnywhere will not work.	**B** Restore the adapter, using an ELAN subnet address space for the RAS: ■ In Control Panel > Network > Adapters, locate the adapter that must be first on the ipconfig list. ■ Remove the adapter and restart the server. ■ In Control Panel > Network > Adapters, add the adapter back and reconfigure the TCP/IP settings. **C** Reinstall the service pack from the server installation CD and restart the server again. Refer to *CallPilot Installation and Configuration, Part 4: Software Installation and Maintenance*, "Installing Windows NT Service Pack 6a" in "Installing and configuring Windows NT."
Verify adapter settings. **6** Run ipconfig to verify that the restored adapter is first on the list. **7** Check the address space allocated to the RAS (Control Panel > Network > Services > RAS). **8** Ping the server.	**D** If these steps fail, contact your Nortel Networks technical support representative for assistance.

Symptom 3: The administrative PC cannot access shared network resources when a dialup connection is established	
Diagnostic steps	**Resolution**
Check the dialup connection configuration. **1** Verify that the Dial-Up Networking connection is active. **2** Open Dial-Up Networking from Start > Programs > Accessories. **3** Click the Server tab for the phone book entry. **4** Verify the RAS settings.	**A** Uncheck TCP/IP settings and use default gateway on remote network.
Verify network settings. **5** The network settings may be incorrect.	**B** Contact the network administrator for the correct network settings.
6 Does the problem still exist?	**C** Contact your Nortel Networks technical support representative for assistance.

Symptom 4: Remote modem answers, Dialup Networking displays 'Verifying User' message, and logon process fails.

Diagnostic steps		Resolution	
Check RAS.			
1	Verify that RAS is running.		
2	Verify that the RAS static address pool is configured for the valid IP address pool on the first installed LAN adapter (ELAN usually).	**A**	Correct the static IP address. Check the IP address in the Network Properties under Protocols > TCP/IP Protocol > Properties > IP Address.
3	Does the problem still exist?	**B**	Contact your Nortel Networks technical support representative for assistance.

Symptom 5: pcAnywhere connects, but the file transfer program is not launched and Ctrl-Alt-Del does not work			
Diagnostic steps		**Resolution**	
Check video driver.			
1	Verify that pcAnywhere supports the server's video driver. For the list of video adapters supported by pcAnywhere, refer to the support section of the Symantec web site.	**A**	If necessary, replace the server's video driver. Refer to the documentation for the video card.
2	Does the problem still exist?	**B**	Contact your Nortel Networks technical support representative for assistance.

Symptom 6: pcAnywhere connects, but updates are extremely slow, or only a small portion of the screen is refreshed			
Diagnostic steps		**Resolution**	
Verify that pcAnywhere is running in Video Compatibility mode.		**A**	If necessary, set the Video mode selection item to Compatibility.
1	On the CallPilot server, start pcAnywhere.		
2	Open File > Application Options, and then click the Host Operation.		
3	Does the problem still exist?	**B**	Contact your Nortel Networks technical support representative for assistance.

Symptom 7: Remote Access Service (RAS) is not running			
Diagnostic steps		**Resolution**	
Verify the RAS startup settings.		**A**	If necessary, uncheck NetBEUI.
1	Check the RAS service startup settings. Select Control Panel > Network > Services > Remote Access Service > Properties and click on the Network button. Ensure that NetBEUI is unchecked.		
2	Check the event log for possible RAS errors.		
3	Does the problem still exist?	**B**	Reinstall the service pack and restart the server.
4	Does the problem still exist?	**C**	Contact your Nortel Networks technical support representative for assistance.

Chapter 5

Application troubleshooting

In this chapter

Symptom 1: Call answered, no voice	
Diagnostic steps	**Resolution**
Check the DS0s and DSPs. **1** Verify that the DS0s and DSPs are in service and accepting calls. Refer to the documentation for your server: ■ *CallPilot Installation and Configuration, Part 5: 201i Server Maintenance and Diagnostics*, "System Monitor" in "Using CallPilot system utilities" ■ *CallPilot Installation and Configuration, Part 5: 702t Server Maintenance and Diagnostics*, "System Monitor" in "Using CallPilot system utilities" ■ *CallPilot Installation and Configuration, Part 5: 1001rp Server Maintenance and Diagnostics*, "System Monitor" in "Using CallPilot system utilities" ■ *CallPilot Installation and Configuration, Part 5: 1002rp Server Maintenance and Diagnostics*, "System Monitor" in "Using CallPilot system utilities"	**A** If the DS0s and DSPs do not become active, verify the switch configuration. **B** If the DS0s and DSPs are active but there is still no voice, verify the prompt installation. Refer to ■ *CallPilot Installation and Configuration, Part 3: Meridian 1 and CallPilot Server Configuration*, "Configuring the Meridian 1 switch" ■ *CallPilot Installation and Configuration, Part 3: Succession CSE 1000 and CallPilot Server Configuration*, "Configuring the Succession CSE 1000 system"
Verify the switch configuration. **2** From the switch administration console, load overlay 32 (LD 32) and verify that the status of the defined DS0 channels are either Idle or Login.	**C** If the channels were disabled (but not because of a prior maintenance action), use overlay 32 (LD 32) to enable them.
Check the server's IP address. **3** Determine whether the IP address of the CallPilot server has been changed since the last restart.	**D** If the IP address was changed, shut down and restart the CallPilot server.
Check Windows NT Service Pack. **4** Determine if Windows NT Service Pack 6a has been reapplied to the CallPilot server.	**E** Update the Service Pack if it is not already at 6a.

Symptom 1: Call answered, no voice

Diagnostic steps	Resolution
Verify MGate version and placement. **5** If the system uses an MGate card on an Option 11 switch, verify that ■ The MGate card is Revision 4 or later. ■ The card slot it is not installed in slot 10.	**F** If the MGate card is Revision 3 or earlier, replace it with Revision 4 or later. **G** If the MGate card is installed in slot 10, move the card to a different slot.
Verify the prompt installation. **6** Open the installation log file (d:\nortel\sysops\mpcx\langprompts.<xxxx>.log). **7** Check the last line of the log file. It should read "Prompt Installation completed successfully." **8** If you cannot verify that the prompts were installed successfully, they may not have been. **Note:** xxxx is the Nortel Language ID (for example, 1033 is for US English, 17 is for Japanese). The Nortel Language ID is specified in the cdstruct.lng file, which is located in the root directory of the language CD.	**H** Reinstall the prompts. Refer to *CallPilot Installation and Configuration, Part 4: Software Installation and Maintenance*, "Reinstalling languages" in "Reinstalling CallPilot server software."
Verify the new configuration. **9** In the d:\nortel\langXXXX\voice\map directory, verify that the file sysmap.mxxxx exists, has the date and time of the prompt installation, and has a reasonable size (5K+). **10** Verify that all of the .l files in the d:\nortel\langxxxx\voice\template directory have the date/time of prompt installation. **11** Verify that the file imap_lng.txt exists in the d:\nortel\langXXXX\desktop directory. **12** If the fax feature is installed, verify that the six .cptemp and .bmp files exist in the d:\nortel\langXXXX\fax directory.	**I** If any of the verification steps fail, the language must be reinstalled. **Note:** Even if all the above checks are valid, the language still may not have installed correctly.

Symptom 1: Call answered, no voice			
Diagnostic steps		**Resolution**	
Verify the new configuration (continued).		See the previous page.	
13	If the ASR (automatic speech recognition) language component was installed (or was supposed to be installed), verify that the d:\nortel\langxxxx\asr directory exists and contains three .ctx files, three .cfg files, and one .asr file.		
14	If ASR language component was installed, verify that the ASR load was flashed in the DSP.		
15	From an MS-DOS Prompt window: ▪ Change to the dsp directory on the D drive. ▪ For each DSP installed, enter the command: **coffup <dsp#>.** **Example:** coffup 1 ▪ Verify that the names of the ASR load for a specific language are in the flashnames.dat file in the root directory of the language CD.		
16	MPB cables may be installed backwards (TRP) systems.	**J**	Try rolling the cables then retest.
17	Does the problem still exist?	**K**	Contact your Nortel Networks technical support representative for assistance.

Symptom 2: A user cannot log on to the mailbox from an external phone	
Diagnostic steps	**Resolution**
Verify internal access. **1** Verify that the user can log on from an internal phone.	**A** At the CallPilot Manager interface: ■ Connect to the server. ■ Click User. ■ Click User search. ■ Enter the search criteria for the user. ■ Ensure that the logon status is enabled.
Verify user rights. **2** Verify that the user has external logon rights.	**B** Ensure that external logon is enabled. Refer to the *CallPilot 2.0 Administrator's Guide*, "Controlling access to mailboxes" under "Configuring mailbox security" in "Securing the CallPilot system."
3 Does the problem still exist?	**C** Contact your Nortel Networks technical support representative for assistance.

Symptom 3: Speech recognition does not work	
Diagnostic steps	**Resolution**
Verify that speech recognition resources are assigned to the DN. **1** At the CallPilot Manager interface: Connect to the server, click System, click Service Directory number. **2** View the Speech Recognition Service Directory Number. **3** Verify that the Media type is "Speech Rec."	**A** Change the DN media type to "Speech Rec."
Verify speech recognition on keycode. **4** If "Speech Rec" is not on the Media type list, the server's keycode does not enable the speech recognition feature. **Note:** The keycode must enable Speech Recognition (SR) languages and seats for the Speech Rec. channels to answer correctly.	**B** Perform a keycode expansion. Contact your Nortel Networks technical support representative for assistance.
Verify the prompt installation. **5** Check the language installation log file: d:\nortel\sysops\mpcx\ langprompts.<xxxx>.log. **6** Verify that the last line of the log file reads "Prompt Installation completed successfully."	**C** Reinstall the language. Refer to *CallPilot Installation and Configuration, Part 4: Software Installation and Maintenance*, "Reinstalling languages" in "Reinstalling CallPilot server software."
7 Does the problem still exist?	**D** Contact your Nortel Networks technical support representative for assistance.

Symptom 4: Users cannot print or receive faxes			
Diagnostic steps		**Resolution**	
Verify that fax resources are assigned to the fax messaging DN.		**A**	Change the DN media type to “Fax.”
1	At the CallPilot Manager interface: Connect to the server, click System, click Service Directory number.		
2	View the Service Directory Number.		
3	Verify that the Media type is “Fax.”		
Verify that Fax feature is on keycode.		**B**	Perform a keycode expansion. Contact your Nortel Networks technical support representative for assistance.
4	If “Fax” is not on the Media type list, the server’s keycode does not enable fax features.		
5	Does the problem still exist?	**C**	Contact your Nortel Networks technical support representative for assistance.

Chapter 6

Meridian Mail migration troubleshooting

In this chapter

Symptom 1: Error reading tape during data transfer or message migration	
Diagnostic steps	**Resolution**
Verify the log file **1** Open the migration transaction log file on CallPilot server. The transaction log is located in the \nortel\MPCX\Migration folder on CallPilot. **2** Check the error description in the log file for more information.	**A** Correct the error according to the log information. If you could not find any solution, go to the next step.
Verify the type of the tape. **3** Check if the tape type is correct according the CallPilot product specification.	**B** Use the correct tape to collect data again.
Verify the tape drive. **4** Check if the tape drive should support the migration tape. **5** Check if the internal or external tape drive that you are using is installed or connected well.	**C** Install or connect the tape drive properly.
Verify the tape driver. **6** Open the Tape Devices applet on the Control Panel, and determine if the required devices and drivers are installed and loaded or started.	**D** If the device driver is missing or not started, try restarting it. If you still could not start it, reinstall the tape device driver and then restart the CallPilot server.
Try rerunning the tape on the same CallPilot server. **7** Type the same command in the command line window to start the migration.	**E** If error still exists, try the next step.
Try running another data or message tape on the same CallPilot server. **8** The tape should be proved to be good before. Type the correct command in the command line window to start the migration. If situation does not allow you to do this, skip this step.	**F** If the error disappears for step 8, it is tape problem. Try another blank tape to perform the data collection and then do the migration again. **G** If the error still exists for step 8, the problem is on CallPilot server. Try performing a hardware restart on the CallPilot server.

Symptom 1: Error reading tape during data transfer or message migration			
Diagnostic steps		**Resolution**	
Try rerunning the tape on a different CallPilot server.			
9	Type the correct command in the command line window to start the migration. If situation does not allow you to do this, skip this step.	**H**	If the error disappears for step 9, the tape is good, the problem is on CallPilot server. Try performing a hardware restart on the CallPilot server.
		I	If the error still exists for step 9, it is a tape problem. Try another blank tape to perform the data collection and then perform the migration again.
10	Does the problem still exist?	**J**	Contact your Nortel Networks technical support representative for assistance.

Symptom 2: All users could not be migrated due to invalid user preferred language ID	
Diagnostic steps	**Resolution**
Verify the CallPilot version and Meridian Mail Migration Utility tape version. **1** Open the migration transaction log file (\Nortel\MPCX\migration\ MigTransaction.log) on the CallPilot server. Check the error description in the user migration. **2** Check if the error is like: `ERROR:(USRAPI):(55122):Invalid input USER PREFFERRED LANG ID:`	**A** If the answer is yes for step 2, check the current CallPilot server release version. If you are using the old CallPilot version, or there is a version mismatch between the Migration utility tape used on Meridian Mail for data collection and the CallPilot release, the problem may happen. Try upgrading the CallPilot server or use the old Meridian Mail migration tape for data collection according to the supported migration specification. **B** If the answer is no for step 2, contact your Nortel Networks technical support representative for assistance.
3 Does the problem still exist?	**C** Contact your Nortel Networks technical support representative for assistance.

Symptom 3: Failed to create map directory

Diagnostic steps	Resolution
Verify the map file **1** Open the migration transaction log file (\Nortel\MPCX\migration\ MigTransaction.log) on the CallPilot server. Check the error description in the user migration. **2** Check if the error is like: `ERROR:(MAPFILE):(100): Map directory creation error:`	**A** If the answer is no, contact your Nortel Networks technical support representative for assistance. If the answer is yes, have you changed your current directory in command line to \norte\mpcx\migration? If necessary, change your directory and start the migrate.exe program again. **Note:** You should always start the migration program from the directory \norte\mpcx\migration. **B** If you still have problems when you start the program from the correct directory, check the same directory to find a file named *nmmgmap.dat*. Restore this file back to original if it was accidentally renamed or moved to other directory. Reinstall the CallPilot software if this map file is missing. **Note:** The nmmgmap.dat file must exist under the same directory in which migrate.exe is located.
3 Does the problem still exist?	**C** Contact your Nortel Networks technical support representative for assistance.

Symptom 4: Automatic log file backup failed			
Diagnostic steps		**Resolution**	
Verify the disk space.			
1	Open the migration transaction log file (\Nortel\MPCX\migration\ MigTransaction.log) on the CallPilot server. Check the error description in the user migration.		
2	Check if the error is like: `Could not backup the. transaction log file`	**A**	If the answer is yes, check the disk free space of the disk drive in which the directory \Nortel\mpcx\migration is located on the CallPilot server. You may run out of disk space. Clean up the Recycle Bin or move some log files to another disk drive that has enough space. Manually back up the log file. **Note:** For some older CallPilot releases, automatic log file backup is not supported. Nortel Networks recommends that you back up the log file manually each time you finish a migration tape.
		B	If the answer is no for step 2, contact your Nortel Networks technical support representative for assistance.
3	Does the problem still exist?	**C**	Contact your Nortel Networks technical support representative for assistance.

Symptom 5: On a recently migrated system, a user cannot log on to the mailbox or CallPilot does not recognize a user receiving an incoming call

Diagnostic steps	Resolution
Check user's class of service **1** On Meridian Mail, determine if the user had a personal COS. You can also verify this from the migration transaction log file (\Nortel\MPCX\migration\ MigTransaction.log) on the CallPilot server. **Note:** Before you migrate Meridian Mail users to CallPilot, you must reassign the personal COS (perhaps to a dummy COS, which can be added to Meridian Mail). Refer to the *Meridian Mail System Administration Guide* (NTP 555-7001-301) for information on how to add and reassign Classes of Service. CallPilot will not migrate personal COS and those users with personal COS.	**D** If the user does not have personal COS, go to the next step. Otherwise, you may do one of the following: ■ Recollect user data from Meridian Mail after reassigning the user COS. Perform the user migration again. ■ Use CallPilot Manager to add non-migrated users to the CallPilot system. Refer to the *CallPilot 2.0 Administrator's Guide*. **Note:** Before you recreate a user, ensure that the user's DN has not already been assigned to another user. CallPilot does not allow duplicate DNs.
Check user's mailbox number. **2** On Meridian Mail, ensure that the user has a mailbox number that is less than three digits in length. You can also verify this from migration transaction log file (\Nortel\MPCX\migration\ MigTransaction.log) on the CallPilot server. **Note:** CallPilot does not support mailbox numbers less than three digits in length.	**E** If no, go to the next step. If yes, you may do one of the following: ■ Recollect user data from Meridian Mail after changing the user mailbox number. Perform the user migration again. ■ Use CallPilot Manager to add non-migrated users to the CallPilot system. Refer to the *CallPilot 2.0 Administrator's Guide*.

Symptom 5: On a recently migrated system, a user cannot log on to the mailbox or CallPilot does not recognize a user receiving an incoming call			
Diagnostic steps		**Resolution**	
Check migration transaction log file.			
3	Check the migration log file (\Nortel\MPCX\migration\ MigTransaction.log) to determine if the user was migrated successfully.	**F**	If the user was migrated successfully, check the CallPilot system sanity. If the user failed to be migrated, you may do one of the following: ■ Recollect user data from Meridian Mail after correcting the user property or any other errors according to the CallPilot migration log information. Perform the user migration again. ■ Use CallPilot Manager to add non-migrated users to the CallPilot system. Refer to the *CallPilot 2.0 Administrator's Guide*.
4	Does the problem still exist?	**G**	Contact your Nortel Networks technical support representative for assistance.

Appendix A

Part numbers

This section contains a list of most of the parts referenced in this document. It is not meant as a comprehensive list of all replaceable parts.

Part	Part number
Common parts	
Monitor	NTRH9011
Keyboard	NTRH9013
Mouse	NTRH9014
External modem	NTRH9016
Modem cable	A0601464
Tandberg tape drive	NTRH8024
3 ft shielded Ethernet cable	A0769309
14 ft shielded Ethernet cable	A0769310
1001rp server, CPU, and memory	
1001rp AC base server	A0732414
1001rp DC base server	A0732415
1001rp 220V-only AC base server	A0769042
300MHz Pentium II CPU	A0735334
8MB SIMM module	A0684494
16MB SIMM module	A0684496
32MB SIMM module	A0684497
64MB SIMM module	A0684962
32MB DIMM EDO	A0735352
64MB DIMM EDO	A0735351
128MB DIMM EDO	A0735349
128MB SDRAM DIMM	A0803022

Part	Part number
1001rp server: power supplies and cabling	
48V DC 400W load sharing hot swap power supply	A0723663
220V-only power supply w/o 3.3V output (3 rail)	A0769126
Power supply 500W hot swappable	A0805434
Power cable	A0645811
DC power cable for PS400-48 power supply	A0725949
1001rp server: storage devices and cabling	
IDE CD-ROM drive	NTRH9035
SCSI CD-ROM drive	NTRH9005
9GB SCSI SCA hard drive	NTRH9053
Female to female SCSI adapter	A0684822
Male to male SCSI adapter	A0729069
Wide SCSI active terminator	A0766997
Narrow SCSI active terminator	A0767002
1001rp server networking devices	
PCI 10Mb Ethernet adapter	NTRH9009
PCI Token Ring network card	NTRH9010
PCI 100Mb Ethernet adapter	NTRH9036
ISA Token Ring network card	NTRH9026
ISA 10Mbps Ethernet adapter	NTRH9047
1001rp server: Miscellaneous items	
Integrated mouse	NTRH9048
Video card	NTRH9041
201i server	
Daughterboard	NTRH13BA
Tape drive	NTRH9038
CD-ROM drive	NTRH9037
Hard drive	NTRH9049

Part	Part number
External SCSI cable assembly	NTAK1305
SCSI paddleboard cable assembly	NTRH0710
Option 11 SCSI cable assembly	NTRH1407
Meridian 1 faceplate to bulkhead SCSI cable	NTRH1408
Meridian 1 bulkhead to faceplate SCSI Cable	NTRH1409
Breakout box	NTRH09AA
Breakout cable	NTRH0910/NTRH0911
702t server, CPU, and memory	
Base system	A0741582
System motherboard	A0741581
350MHz Pentium II CPU	A0761147
450MHz Pentium II CPU	A0761148
32MB SDRAM DIMM module	A0741594
64MB SDRAM DIMM module	A0741595
128MB SDRAM DIMM module	A0744456
702t server: power supplies and cabling	
Power cable	A0645811
Power supply	A0741561
702t server: storage devices and cabling	
IDE CD-ROM drive	NTRH9035
SCSI CD-ROM drive	NTRH9005
Wide SCSI cable—5 connector	A0684753
Wide SCSI cable—9 connector	A0772567
SCSI cable kit	A0764681
Female to female SCSI adapter	A0684822
Male to male SCSI adapter	A0729069
Wide SCSI active terminator	A0766997
Narrow SCSI active terminator	A0767002

Part	Part number
702t server: networking devices	
PCI 10Mb Ethernet adapter	NTRH9009
PCI Token Ring network card	NTRH9010
PCI 100Mb Ethernet adapter	NTRH9036
ISA Token Ring network card	NTRH9026
ISA 10Mbps Ethernet adapter	NTRH9047

CallPilot

Troubleshooting Reference

Publication number:	P0913837
Product releases:	1.0 to 2.02
Document release:	Standard 1.0
Date:	May 2003

NORTEL NETWORKS™