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CallPilot

703t Server Hardware Installation

Product release 3.0 Standard 1.0 November 2004

NORTEL NETWORKS™

CallPilot

703t Server Hardware Installation

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Publication history

November 2004	Standard 1.0 for CallPilot 3.0
September 2004	Preliminary 2.0 for CallPilot 3.0
July 2004	Preliminary 1.0 for CallPilot 3.0
May 2004	Draft 0.01 for CallPilot 3.0
November 2003	Standard 1.0 of the *CallPilot Installation and Configuration, 703t Server Hardware Installation* is issued for general release.

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Chapter 1

703t server description

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Server features

Introduction

This section provides a general overview of the 703t server.

Server dimensions

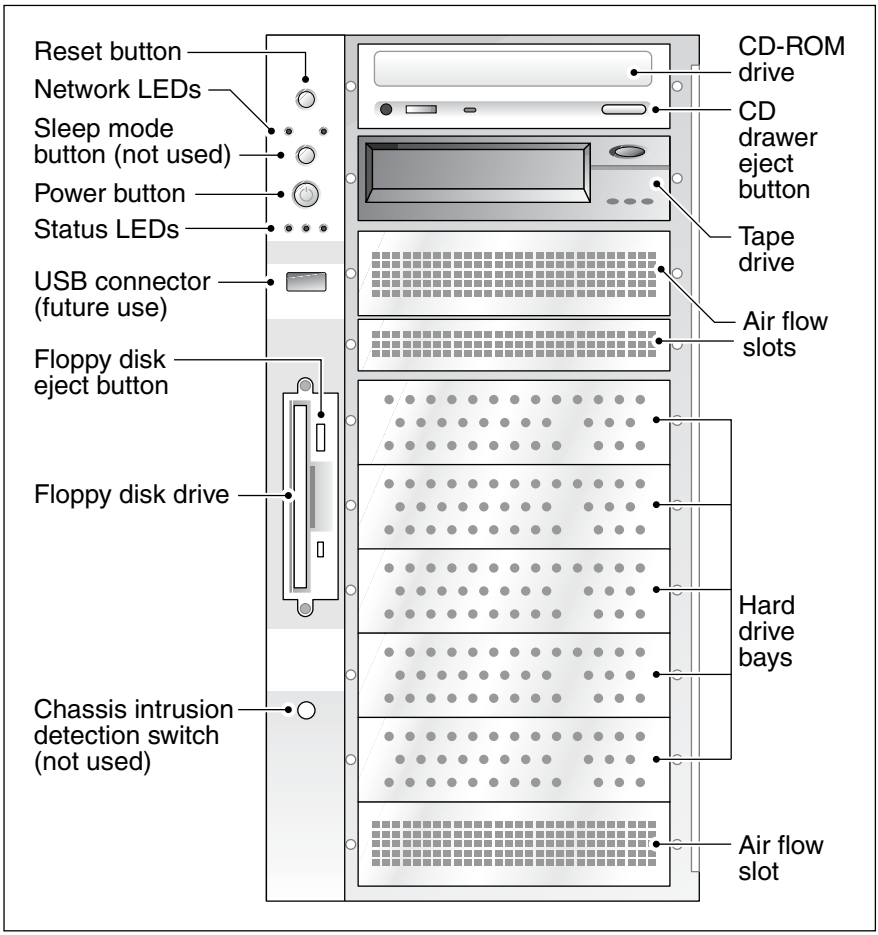
Height	chassis only: 420 mm (16.75 in.) with chassis feet: 440 mm (17.5 in.)
Width	chassis only: 215 mm (8.6 in.) with chassis feet: 320 mm (12.7 in.)
Depth (distance from front to back)	650 mm (26 in.)
Clearance	■ front: 250 mm (10 in.) ■ rear: 125 mm (5 in.) ■ side: 75 mm (3 in.) **Note:** Additional side clearance is required for service. ■ top: 75 mm (3 in.)
Weight of fully loaded system with ■ two SCSI hard drives ■ six populated boards ■ CD-ROM drive ■ floppy drive ■ tape drive	approximately 22 kg (46 lb)

Environmental specifications

Environmental condition	Specification
Operating temperature	10°C to 35°C (50°F to 95°F) Maximum rate of change must not exceed 10°C (50°F) per hour.
Non-operating (storage) temperature	-40°C to 70°C (-40°F to 158°F)
Non-operating humidity	95%, non-condensing at 30°C (86°F)
Altitude	1829 m (6000 ft)
Electrostatic discharge	15 kV or more
Acoustic noise	50 dBA in a typical office ambient temperature (18°C to 25°C [64.4°F to 77°F])
Operating shock	No errors with a half sine wave shock of 2G (with 1 millisecond duration)
Handling drop	Operational after a free fall from 450 mm to 600 mm (18 in. to 24 in.) (depending on weight)

Front panel features

The following diagram shows the 703t server's front panel features:



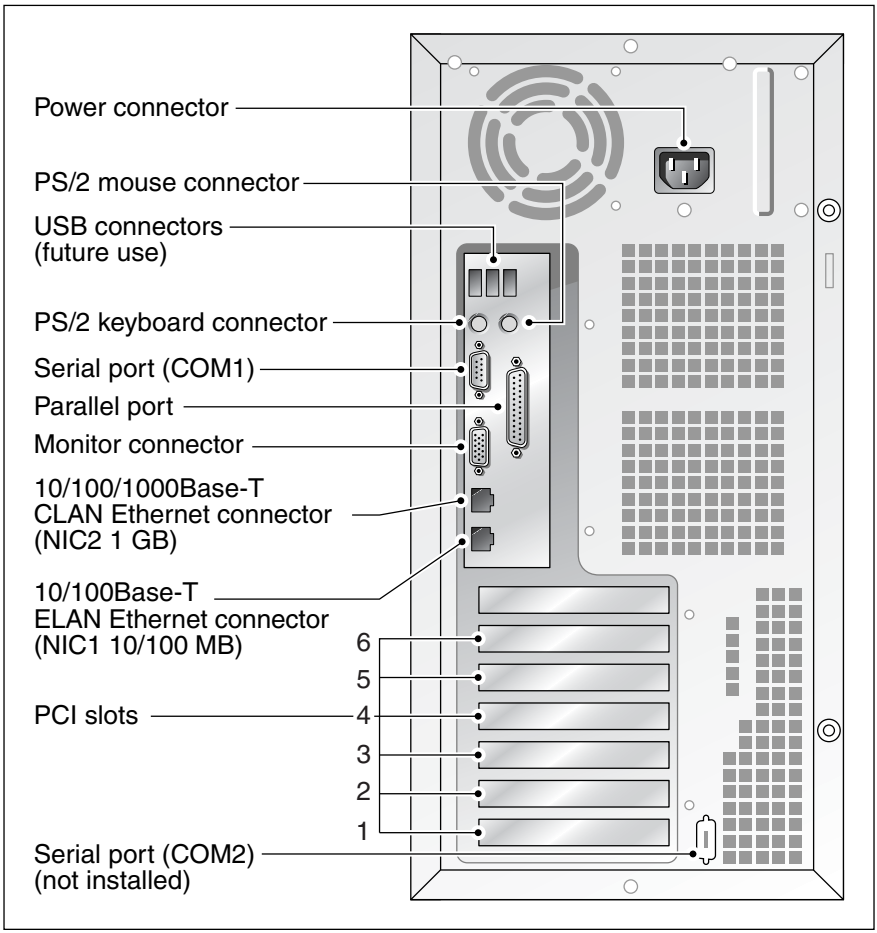
The table below describes the parts that are identified in the preceding diagram:

Part	Function
Reset button	Triggers a hardware (cold) reset. Do not use this button to perform a server restart. Restart the server as described in "Restarting the server" in the *Installation and Configuration Task List* (555-7101-210).
Network controller LEDs (green)	Left: 10/100Base-T controller LED (NIC1 10/100 MB: ELAN for Meridian 1/Succession 1000 connection) Right: 10/100/1000Base-T controller LED (NIC2 1 GB: CLAN for Customer LAN connection)
Sleep mode button	Not used
Power button	Turns the server's power on or off.
Status LEDs	Indicate when the server is powered up and the disk drives are active. ■ Left: hard drive activity LED (not used) ■ Center: power/sleep LED (green) ■ Right: status LED (bi-color) indicates whether the server is functioning properly, or whether a hardware event has occurred.
USB connector	For future use
Floppy disk eject button	Ejects the floppy disk.
Floppy drive	Drive for 3-1/2 inch diskettes.

Part	Function
IDE CD-ROM drive (5.25 in.)	Enables you to use the CallPilot software and documentation CD-ROMs.
CD drive eject button	Opens the CD-ROM drawer. Push the button again to close the drawer.
Backup tape drive	Allows backup of hard drive data.
Hard drive 1	10,000 rpm hard drive
Hard drive 2	10,000 rpm hard drive
Drive bay	Vacant
Drive bay	Vacant
Drive bay	Vacant
Air flow slot	Must remain empty for proper system cooling.

Rear panel diagram

The following diagram shows the 703t server's rear panel features:



Note: For more information, see "Slot assignments" on page 17.

The table below describes the parts that are identified in the preceding diagram:

Part	Color
AC power supply connector (450 W non hot-swap power supply)	Not applicable
USB connectors	Not applicable
PS/2 keyboard connector	Purple
PS/2 mouse connector	Green
COM1 serial port connector (9-pin)	Teal
Parallel port connector (25-pin)	Pink
Monitor connector (15-pin)	Blue
10/100/1000Base-T CLAN network connector for Customer LAN connection (NIC2 1 GB) **Note:** For more information, see "LAN connectivity" on page 23.	Not applicable
10/100Base-T ELAN network connector for Meridian 1/Succession 1000 connection (NIC1 10/100 MB) **Note:** For more information, see "LAN connectivity" on page 23.	Not applicable
PCI slots (6) ■ Four slots are 100 MHz 3.3 V 64-bit PCI slots. ■ Two slots are 33 MHz 5 V 32-bit PCI slots. **Note:** For more information, see "Slot assignments" on page 17.	Not applicable
COM2 serial port connector slot (not installed)	Teal

Slot assignments

Introduction

The slot assignment tables show

- the physical location of boards inside the server, relative to other boards
- the order in which boards are installed (for example, board #1, 2, 3, and so on)
- how the boards are represented in CallPilot Manager applications (that is, on the Maintenance Administration page)
- the maximum capacity for each switch connectivity

Note: Your server may vary depending on what was ordered from Nortel Networks; therefore, your server may not have all of the slots populated.

Slot definition and numbering

In the following table, the term “slot” refers to the available slot openings in the chassis, not the PCI connectors inside the server.

The slots are numbered from the bottom of the server to the top. Slot 1 is the bottom slot in the chassis when the chassis is standing upright.

Slot number	CallPilot-assigned board label[a]	Meridian 1 or Succession 1000
7 (not a slot)	Not used	Not used
PCI slot 6 (full length)	BRD06	RAID card
PCI slot 5 (full length)	BRD05	Not used
PCI slot 4 (full length)	BRD04	MPB96 board
PCI slot 3 (full length)	BRD03	Not used
PCI slot 2 (full length)	BRD02	Not used
PCI slot 1 (full length)	BRD01	Not used

a. In CallPilot Manager applications, the CallPilot-assigned board label may appear. This label corresponds to the slot number. For example, BRD01 refers to the board in slot 1.

IRQ mapping table

The following table lists the assignments for each Interrupt Request (IRQ). You do not need this information for installation, but it may be useful for troubleshooting.

Interrupt	I/O APIC level	Slot or device
INTR	INT0	Processor interrupt
IRQ0	INT2	Timer (from PIIX4)
IRQ1	INT1	PS/2 keyboard controller
IRQ2	Not applicable	Internal/reserved **Note:** IRQ2 is actually shared with IRQ9 as a cascade interrupt to support IRQs 8–15.
IRQ3	INT3	Onboard serial port B (COM2)
IRQ4	INT4	Onboard serial port A (COM1)
IRQ5	INT5	Available
IRQ6	INT6	Floppy disk drive controller
IRQ7	INT7	Parallel port 1(LPT1)
IRQ8	INT8	Real Time Clock
IRQ9	INT9	Available
IRQ10	INT10	Available
IRQ11	INT11	Available
IRQ12	INT12	PS/2 mouse
IRQ13	INT13	Internal/reserved
IRQ14	INT14	IDE controller
IRQ15	INT15	Available

Network connectivity

Introduction

This section describes how the 703t server can be integrated into your network. The integration depends on the type of switch you are using.

ATTENTION

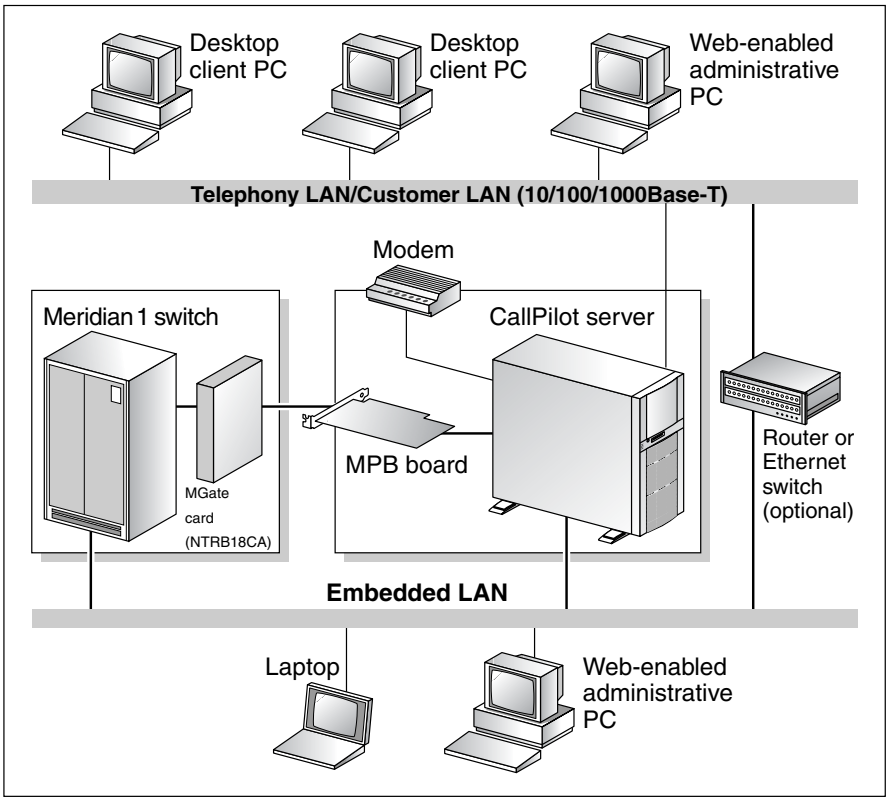
To secure the CallPilot server from unauthorized access, ensure that the CallPilot network is inside your organization's firewall.

Sample network setup: Meridian 1

The Meridian 1 switch can be one of the following:

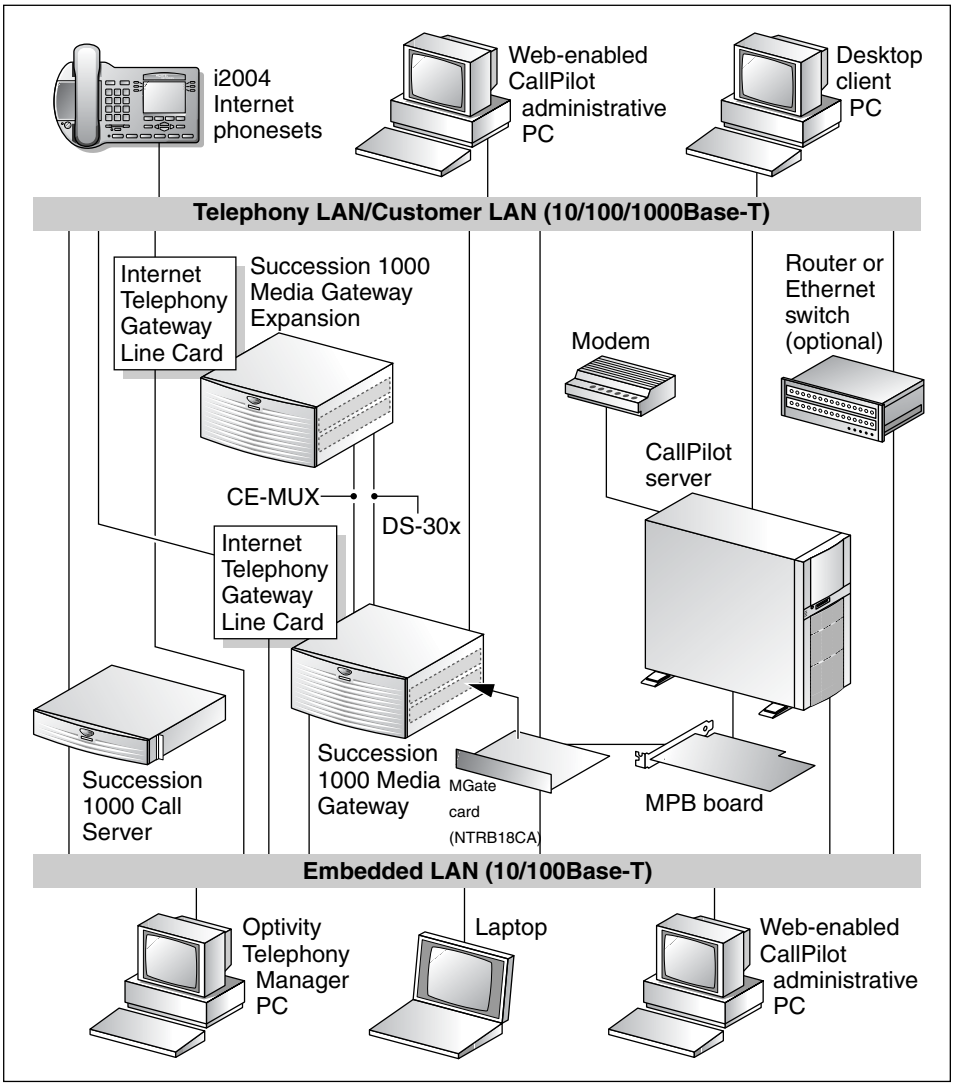
- Option 11C or Option 11C Mini using fiber connections
- Option 51C
- Option 61C
- Options 81 and 81C

The following diagram shows a CallPilot 703t server network setup with a Meridian 1 switch.



Sample network setup: Succession 1000

The following diagram shows a CallPilot 703t server network setup with a Succession 1000 system:



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In the previous diagram, the telephony LAN (TLAN) provides IP connectivity between the Succession 1000 system and the i2004 Internet phonesets. The connection between the Call Server and Media Gateway can be point-to-point, or it can be through the LAN, if the system is installed in a distributed data network.

For information about the Succession 1000 system and i2004 Internet phoneset bandwidth and network requirements, refer to the *Succession 1000 Planning and Installation Guide* (553-3023-210).

Switch connectivity

For more details about how the 703t server and switch connection is established, refer to the switch and server setup document for your switch:

- *Succession Communication Server Configuration* (555-7101-510)
- *Meridian 1 and CallPilot Server Configuration* (555-7101-222)

LAN connectivity

The 703t server contains two Ethernet controllers on the motherboard that provide the following:

- 10/100Base-T Ethernet network connectivity to the ELAN (Meridian 1 and Succession 1000 only)

  For information about the ELAN's purpose and requirements, see "About the ELAN" in the *Installation and Configuration Task List* (555-7101-210).
- 10/100/1000Base-T Ethernet connectivity to the CLAN

  The CLAN is an optional connection that provides data connectivity among desktop and web messaging clients, administrative PCs, and the CallPilot server.

See "Rear panel diagram" on page 15 to identify the location of network interface connectors.

Network requirements

Appropriate networking equipment must be available for the ELAN and the optional CLAN if it is used.

The ELAN (and the optional CLAN if used) must be properly configured for correct CallPilot operation. To ensure correct configuration, Nortel Networks recommends that you consult a network specialist.

ATTENTION

For important considerations about using the ELAN in your network (Meridian 1 and Succession 1000 only), see "About the ELAN" in the *Installation and Configuration Task List* (555-7101-210)

Remote access connectivity

The RS-232 COM1 connector on the rear of the 703t server provides the connection to an external dial-up modem. The modem allows administrators and technical support personnel to administer the 703t server from a remote location.

pcAnywhere is used to establish a remote access connection to the server.

Supported peripheral devices

Introduction

This section identifies external devices that are supported by the 703t server. The following table describes the supported peripheral devices:

Device	Description
Modem	A 56 Kbps external modem (NTRH9078 in North America only) provides remote access to the 703t server. The modem connects to the RS-232 COM1 connector on the rear of the server. Since the modem is an external device, it requires its own AC power source referenced to the same ground as the 703t server and the switch to which it is connected.
Ethernet hub	A 10Base-T Ethernet hub provides the ELAN connection between the 703t server and the Meridian 1 switch or Succession 1000 system. The customer can supply a hub or switch from third-party vendors or from Nortel Networks. Since the hub is an external device, it requires an AC power source referenced to the same ground as the 703t server and the switch to which it is connected. **ATTENTION** To comply with EMC requirements, a Class A hub must be located 10 m (33 ft.) away from the 703t server.

Device	Description
Monitor, keyboard, and mouse	■ 15-in. monitor: NTRH9011 Since the monitor is an external device, it requires its own AC power source referenced to the same ground as the 703t server and the switch to which it is connected. ■ Keyboard: NTRH9013 ■ Mouse: NTRH9014

Reference documents

CallPilot Customer Documentation Map

NTP Number 555-7101-(nnn)

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

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

Chapter 2

Preinstallation requirements

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Replacing the side cover 39
Installing the chassis feet 41

Installation overview

Introduction

This section provides an overview of the steps required to install the 703t server and peripheral devices. For detailed instructions, see Chapter 3, "Installing the server and connecting the peripheral devices."

When you are finished, continue with the switch and server setup as described in the document for your switch:

- *Succession Communication Server Configuration* (555-7101-510)
- *Meridian 1 and CallPilot Server Configuration* (555-7101-222)

Installation checklist

Step	Description	Check
1	Ensure that you have reviewed the "Installing CallPilot" section in the *Installation and Configuration Task List* (555-7101-210), and completed stage 1 of the "Installation checklist."	❒
2	Unpack the server, and ensure you have all the items you need (see page 33). Complete the following checklists that are provided in the *Installation and Configuration Task List* (555-7101-210): ■ "CallPilot software media and documentation checklist" ■ "CallPilot server hardware checklist"	❒
3	Remove the server cover, and inspect the interior (see pages 35 and 38).	❒
4	Replace the server cover.	❒
5	Place the 703t server in the chosen location (see page 44).	❒

Step	Description	Check
6	Set the DIP switches on the modem (see page 47).	❒
7	Connect the 703t server and devices as follows:	
	■ Connect the monitor, keyboard, and mouse (see page 51).	❒
	■ Connect the modem (see page 51).	❒
	■ Connect the 703t server to the ELAN hub; see page 53. **ATTENTION** To comply with EMC requirements, a Class A hub must be located 10 m (33 ft.) away from the 703t server.	❒
	Note: If you are connecting the optional CLAN, do not power up unless your anti-virus programs and Nortel Networks security updates are installed first.	❒
	■ Connect the 703t server to the CLAN hub (optional); (see page 55). **ATTENTION** To comply with EMC requirements, a Class A hub must be located 10 m (33 ft.) away from the 703t server.	
	■ Install the software feature dongle (see page 56).	❒
	■ Connect the power cords for all devices, and then power them up (see page 58).	❒
8	Start the 703t server (see page 60).	❒

Conventions for warnings

You may encounter the following types of warnings in this guide. Do not ignore them.



DANGER

Risk of electric shock

Warns you of an immediate electrical hazard, which, if not avoided, will result in shock, serious injury, or death.



WARNING

Risk of personal injury

Warns you of a situation in which you can be injured if instructions are not followed exactly as stated.



CAUTION

Risk of data loss or equipment damage

Alerts you to situations where data can be lost or damaged, equipment can be damaged, actions can result in service interruption, and productive time can be lost.

ATTENTION

Provides information that is essential to the completion of a task.

Unpacking the 703t server

Introduction

Follow this procedure to unpack the server and peripherals.



WARNING

Risk of personal injury

The 703t CallPilot server weighs approximately 22 kg (46 lb) as shipped from manufacturing. If necessary, and to prevent personal injury, ask someone to help you unpack and position the server.

To unpack the equipment

ATTENTION

As you unpack each item, check it off against the packing list, as well as against the following checklists provided in the *Installation and Configuration Task List* (555-7101-210):

- "CallPilot software media and documentation checklist"
- "CallPilot server hardware checklist"

1. Carefully open the cardboard carton containing the server.
2. Remove the server from the carton and set it on the floor.
3. Carefully open the cartons containing the monitor, keyboard, mouse, modem, and ELAN hub (if supplied), and set the peripherals aside.
4. Put all manuals, CD-ROMs, operating system disks, any disks for peripherals in a safe place.

5 Save all packing materials and cartons in case you must return any equipment to the carrier.

What's next?

Remove the server cover so that you can inspect the interior of the server. See "Removing the side cover" on page 35.

Removing the side cover

Introduction

This section describes how to remove the server's side cover so that you can work with the interior components. The side cover is on the server's left side when the front of the server is facing you.

To remove the side panel



WARNING

Risk of personal injury

Be careful when you handle the sharp edges of the side panel and chassis to prevent personal injury.

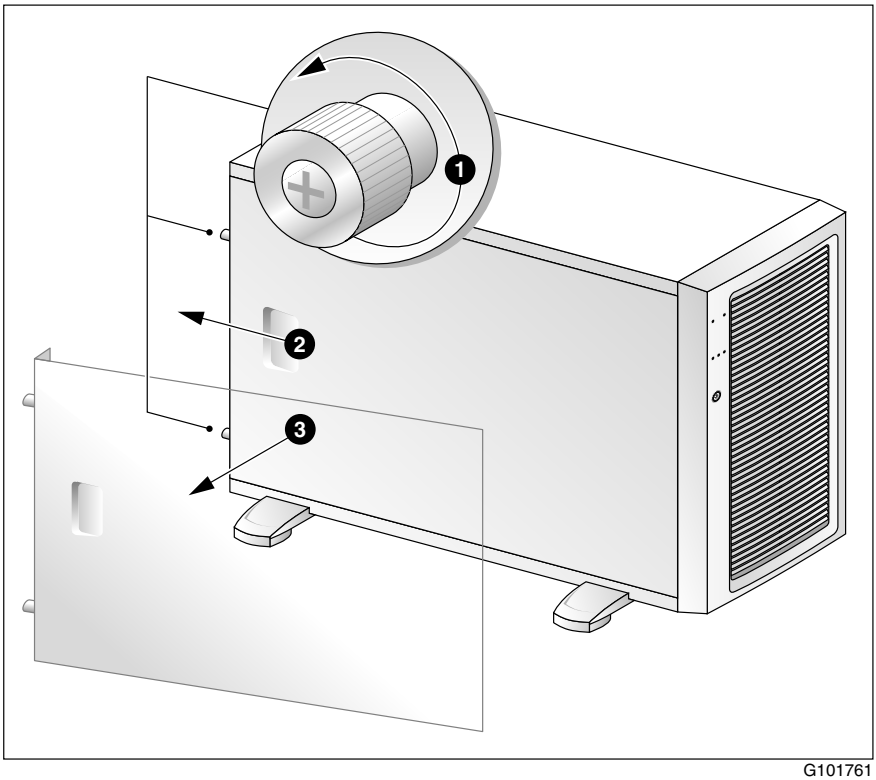


CAUTION

Risk of equipment damage

- Use an ESD wrist strap to protect static-sensitive components.
- Place the server on its side to prevent the server from accidentally falling over. This provides greater stability. If you attempt to work with the server in its standing position, it may tip over when you work with the interior components.

The following diagram shows how to remove the side panel. See the instructions for removal below.



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1 Place the server on its side on your working surface.

2 Turn the two thumbscrews on the back of the server counter-clockwise to loosen them.

Note: The thumbscrews are not removable.

Note: If a removable screw is present, remove it. This screw secures the cover to the server during shipping.

3 Place your fingertips in the depression on the side cover, and then as you apply pressure, pull the cover approximately 25 mm (1 in.) away from the front of the server until it stops.

4. Use one hand to pull the top edge of the cover away from the server to disengage the top row of tabs on the cover from the notches in the chassis.
5. Use both hands to lift the cover upward to disengage the bottom row of tabs from the notches in the chassis.
6. Set the cover aside.
7. Continue with “Inspecting the server interior” on page 38.

Inspecting the server interior

Introduction

Before you install the server, you should perform a visual inspection for loose components, foreign matter, or shipping damage inside the server.



CAUTION

Risk of equipment damage

When working with interior components, use an ESD wrist strap to protect static-sensitive components.

To inspect the server interior

1. Ensure that all the cards are fully seated on the baseboard.
2. Check for any loose wires or foreign objects, such as loose screws, inside the chassis.
3. Review the slot locations (see “Rear panel diagram” on page 15).
4. Do one of the following:

IF	THEN
you observe any damage	contact your Nortel Networks technical support representative.
components have become loose	secure them. Then replace the server cover and proceed with the hardware installation. Refer to the procedures in *CallPilot 703t Server Maintenance and Diagnostics* (555-7101-227).
you are satisfied that the 703t server has arrived at your site undamaged	replace the server cover. For instructions, see “Replacing the side cover” on page 39.

Replacing the side cover

Introduction

When you are satisfied that the server was not damaged during shipment, reinstall the side cover.

To replace the side cover



CAUTION

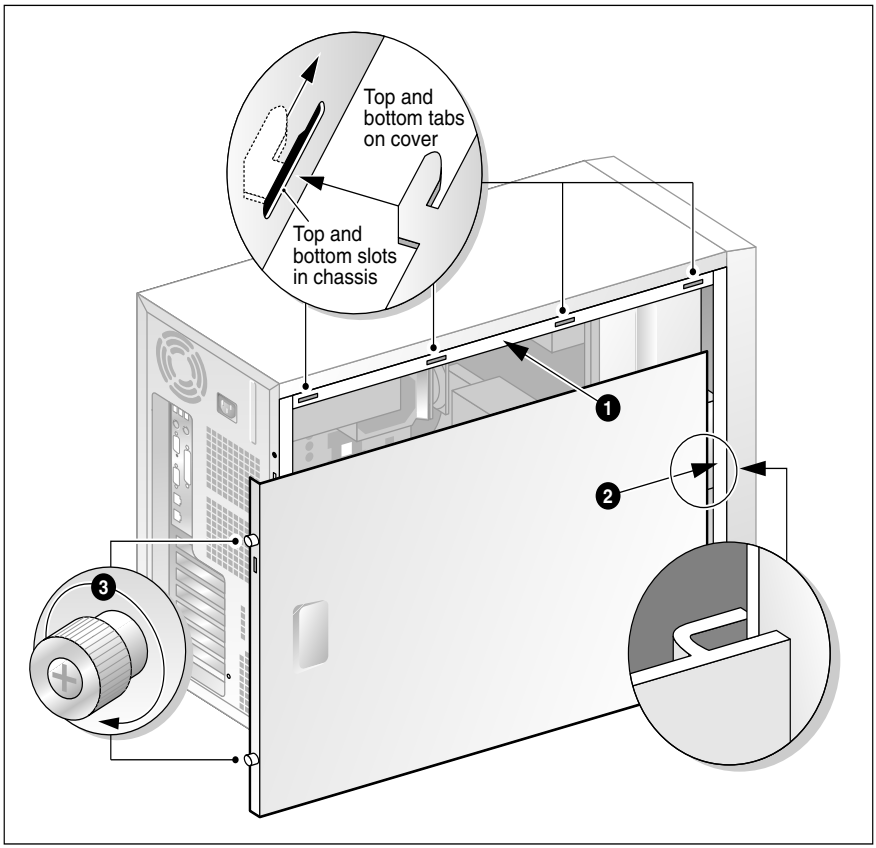
Risk of equipment damage

Ensure that there are no tools or loose parts inside the server chassis before replacing the side cover.

1. Align the right edge of the server's side cover with the inside ledge at the front of the server.
2. Ensure that the cover lays flat along the side of the server.
3. Insert the tabs along the top and bottom edges of the server's cover inside the slots along the top and bottom of the server.
4. Push the cover towards the front of the server until the tabs firmly engage in the chassis.

   Note: When correctly engaged, the cover clicks into place.
5. Tighten the two thumbscrews on the back of the server.

The following diagram shows how to: 1) align the tabs, 2) engage the cover and 3) tighten the thumbscrews.



What's next?

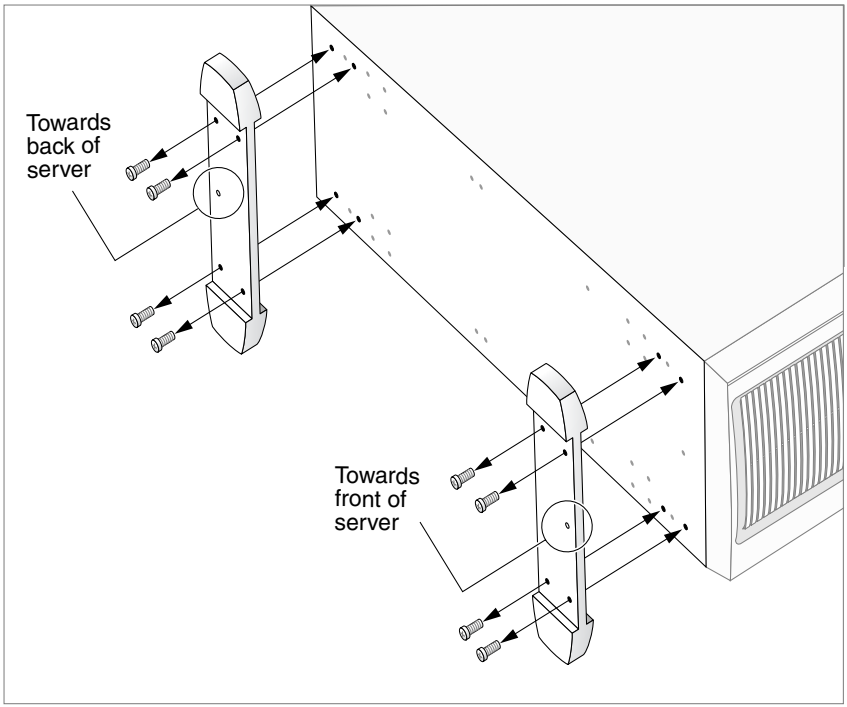
If you want to install the chassis feet on the bottom of the server, continue with "Installing the chassis feet" on page 41. Otherwise, continue with the hardware installation. For more information, see "Installation checklist" on page 30.

Installing the chassis feet

Introduction

You can install feet on the bottom of the server. The feet stabilize the server and will help prevent the server from accidentally falling over on its side.

To install the chassis feet



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1 Ensure that the server is laying on its side, supported to give the server bottom four to five inches clearance above the work surface.

2 Attach the feet as shown in the preceding diagram.

Use four screws to attach each foot to the chassis. The holes in the feet line up with only one set of holes in the chassis, as follows:

- front foot: The middle hole is towards the front of the chassis.
- back foot: The middle hole is towards the back of the chassis.

3 Place the server on its feet.

What's next?

Continue with the hardware installation. For more information, see "Installation checklist" on page 30.

Chapter 3

Installing the server and connecting the peripheral devices

In this chapter

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Connecting the server to the CLAN (optional) 55

Installing the Nortel Networks software feature dongle 56

Connecting the server to power 58

Installing the server

Introduction

Before you install the 703t server, ensure that the chosen location meets the requirements identified on the "Site inspection checklist" provided in the *Installation and Configuration Task List* (555-7101-210).

To install the server

1 Place the 703t server in its chosen location.

Note: The server must be placed within 20 m (60 feet) of the Meridian 1 switch or Succession 1000 system.

Note: The DS30X cable that connects the MPB96 boards to the MGate cards is 20 m (60 feet) long. This allows the server to be placed in a different room from the Meridian 1 switch or Succession 1000 system.

2 Connect peripheral devices as described in the remainder of this chapter.

Preparing the modem

Introduction

You require a modem to support remote dial-up access to the CallPilot server. The modem also enables Nortel Networks technical support to connect to your CallPilot server for troubleshooting purposes. Nortel Networks connects to your server only when you request technical assistance.

Required equipment

To install the modem, you need the following equipment:

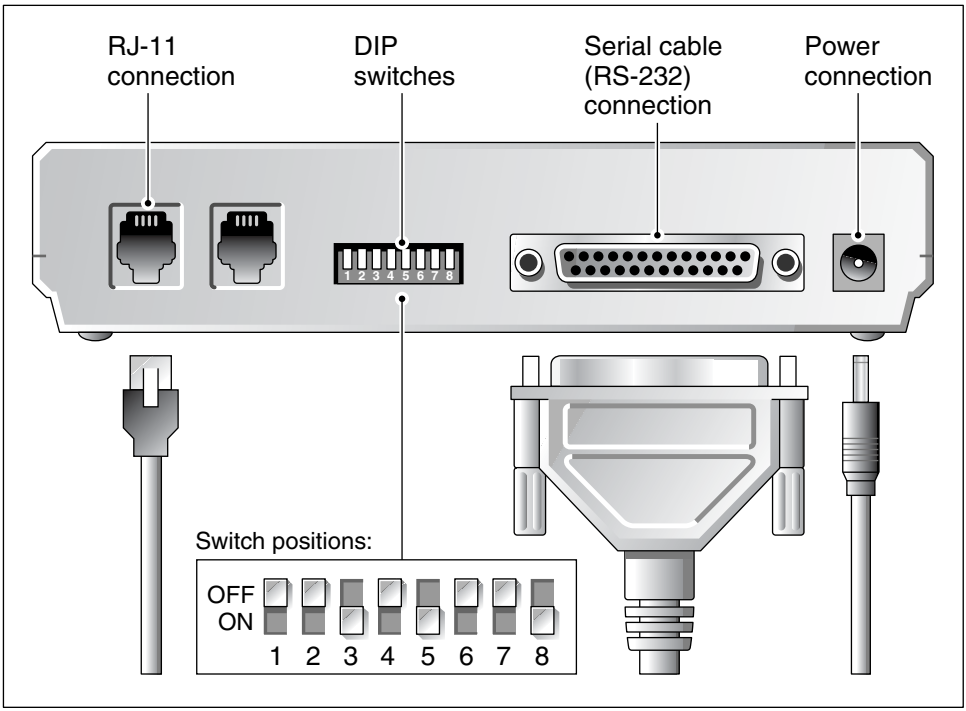
- an analog external modem that includes
  - an RJ-11 analog phone cord
  - a power adapter cord
  - US Robotics 56 Kbps modem (NTRH9078) (North America only)
  - a 25-pin male to 9-pin female shielded serial cable for your modem (A0841984)
- an analog line jack
- tweezers, or a screwdriver small enough to use to adjust DIP switches

Modem DIP switches

Set the modem DIP switches before you connect the modem to the CallPilot server.

Note: This section applies only to the US Robotics 56 Kbps external Sportster modem. If your modem is different, refer to the documentation for your modem.

The following diagram shows the key components of the external modem, including the location and required settings of the DIP switches:



To set the modem DIP switches

Use a pair of tweezers or a small screwdriver to set the DIP switches as described in the "Change to" column of the following table:

Note: ON is down. OFF is up.

DIP switch	Default setting	Change to	Function
1	OFF	OFF	Data Terminal Ready (DTR) override ■ OFF: Normal DTR operations. (The computer must provide a DTR signal for the modem to accept commands. If DTR is dropped, the call is terminated.) ■ ON: The modem ignores DTR (override).
2	OFF	OFF	Verbal/numeric result codes ■ OFF: Verbal (word) results. ■ ON: Numeric results.
3	ON	ON	Result code display ■ OFF: Suppresses result codes. ■ ON: Enables result codes.
4	OFF	OFF	Command mode local echo suppression ■ OFF: Displays keyboard commands. ■ ON: Suppresses echo.
5	ON	ON	Auto answer suppression ■ OFF: The modem answers on the first ring or later, as specified in user-defined nonvolatile memory (NVRAM). ■ ON: Disables auto answer.

DIP switch	Default setting	Change to	Function
6	OFF	OFF	Carrier Detect (CD) override ■ OFF: The modem sends a CD signal when it connects with another modem; it drops the CD on disconnect. ■ ON: CD is always ON (override).
7	OFF	OFF	Power-on and ATZ reset software defaults ■ OFF: Loads Y or Y1 configuration from NVRAM. ■ ON: Loads &F0-Generic template from read-only memory (ROM).
8	ON	ON	AT command set recognition ■ OFF: Disables command recognition (dumb mode). ■ ON: Enables recognition (smart mode).

What's next?

Continue with "Connecting peripherals to the server" on page 49.

Connecting peripherals to the server

Introduction

This section describes how to connect the monitor, keyboard, mouse, and modem to the server.

Rear panel

The peripheral device connection panel at the back of the server provides a legend that shows the symbol for each peripheral device and which connector to use.

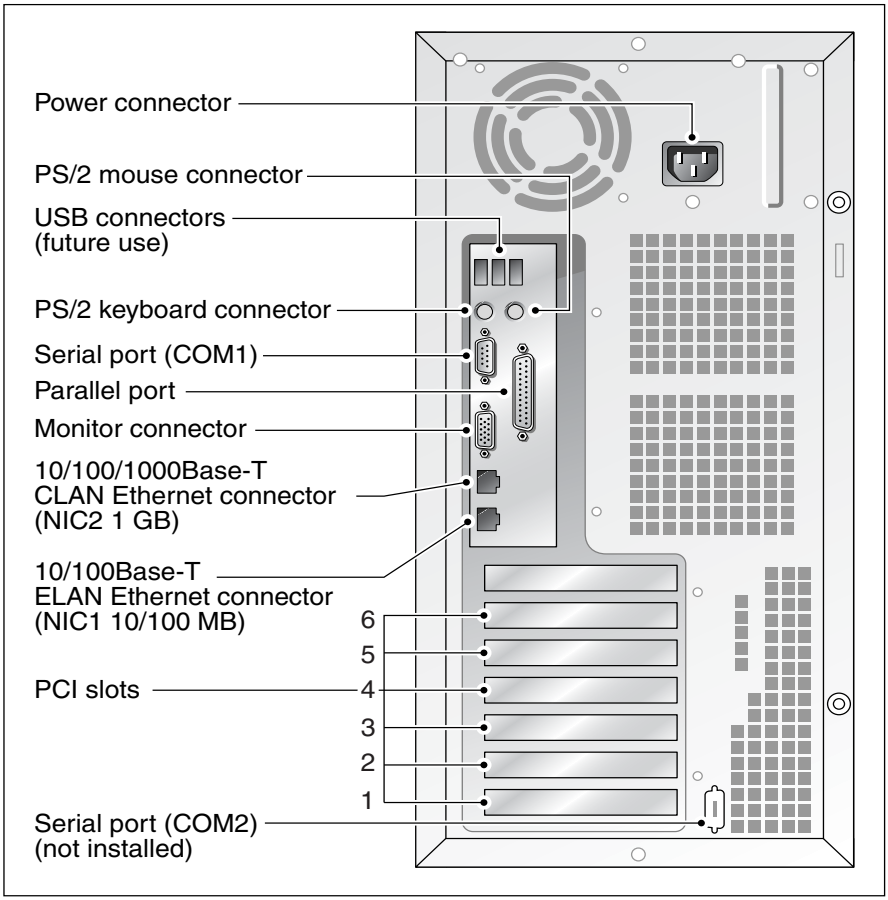


CAUTION

Risk of system failure

You can install or use only Nortel Networks-supplied peripheral devices on your server. Installation or use of other peripheral devices can result in system failure.

The diagram below shows the connectors for the power cord and the peripheral devices on the 703t server.



To connect the mouse, keyboard, and monitor to the server

1. Place the monitor, keyboard, and mouse in the same location as the server.
2. Plug the keyboard and mouse into the appropriate PS/2 connectors on the chassis rear panel. See the diagram on page 50.
3. Plug in the monitor connector. Tighten the screws on the connector.
4. Ensure that a single-point ground reference is available for all the power outlets serving the CallPilot server and its peripherals. Before the CallPilot server installation, a qualified electrician must implement the single-point ground reference requirement between the power outlets of the CallPilot server and the power outlets of the switch.
5. Connect the power cord to the monitor, and plug the other end into a wall receptacle or power bar.
6. Turn on the monitor.

To connect the modem to the server

1. Ensure that the modem's AC power cord is not plugged in.
2. Connect the large 25-pin male connector to the back of the modem. Tighten the connector screws.
3. Connect the 9-pin female connector to COM1 port at the rear of the server. Tighten the connector screws.
4. Connect one end of the telephone cable to the modem RJ-11 jack labeled LINE.
5. Connect the other end of the telephone cable to the RJ-11 jack in the wall.
6. Ensure that a single-point ground reference is available for all the power outlets serving the CallPilot server and its peripherals. Before the CallPilot server installation, a qualified electrician must implement the single-point ground reference requirement between the power outlets of the CallPilot server and the power outlets of the switch.
7. Connect the power cord to the modem, and plug the other end into a wall receptacle or power bar.
8. Turn on the modem.

What's next?

Connect the server to the ELAN and CLAN hubs (if applicable).

IF the server will	THEN
be connected to the ELAN	continue with page 53.
be connected only to a CLAN	continue with page 55.
not be connected to either the ELAN or CLAN	continue with installing the software feature dongle. See page 56.

Connecting the server to the ELAN

Introduction

Connect the CallPilot server to the Meridian 1 switch or Succession 1000 system using the Embedded LAN (ELAN).

ATTENTION

For important considerations about using the ELAN in your network, see "About the ELAN" in the *Installation and Configuration Task List* (555-7101-210).

ATTENTION

To comply with EMC requirements, a Class A hub must be located 10 m (33 feet) away from the 703t server.

To connect the server to the ELAN (Meridian 1 or Succession 1000 only)

1 Locate the ELAN Ethernet connector on the back of the server.

Note: The ELAN connector is labeled as NIC1 10/100 MB. For the connector location, see the diagram on page 50.

2 Connect an RJ-45 network cable from the ELAN hub to the server's ELAN connector.

Note: The ELAN hub is optional if you use a cross-over network cable to make a direct point-to-point connection from the server to the switch. However, if you choose to establish a direct point-to-point ELAN connection, no other device can connect to the ELAN.

3 At the switch, connect the ELAN network cable to an MAU (Ethernet) transceiver. Then complete the connection from the transceiver to the switch.



DANGER

Risk of fire hazard

The NTRH9069 MAU is not suitable for installation in ducts, plenums, or other spaces used for environmental air. Do not install it above a false ceiling or below a raised floor, unless it can be confirmed that these spaces are not used to convey environmental air.

What's next?

IF the server will	THEN
be connected to a CLAN	continue with page 55.
not be connected to a CLAN	continue with installing the software feature dongle. See page 56.

Connecting the server to the CLAN (optional)

Introduction

This section provides instructions to connect the server to the Customer LAN (CLAN).

Note: The CLAN connection is optional. However, connection to a CLAN is required for support of desktop and web messaging users, or administration by means of a web-enabled PC. Make sure that your latest anti-virus programs and Nortel Networks security updates are installed.

ATTENTION

To comply with EMC requirements, a Class A hub must be located 10 m (33 feet) away from the 703t server.

To connect the server to the CLAN

1 Locate the CLAN connector on the back of the server.

Note: The CLAN connector is labeled as NIC2 1GB. For the connector location, see the diagram on page 50.

2 Connect an RJ-45 network cable from the CLAN hub to the CLAN connector.

Note: When connecting the optional CLAN, do not power up unless your anti-virus programs and Nortel Networks security updates are installed first.

What's next?

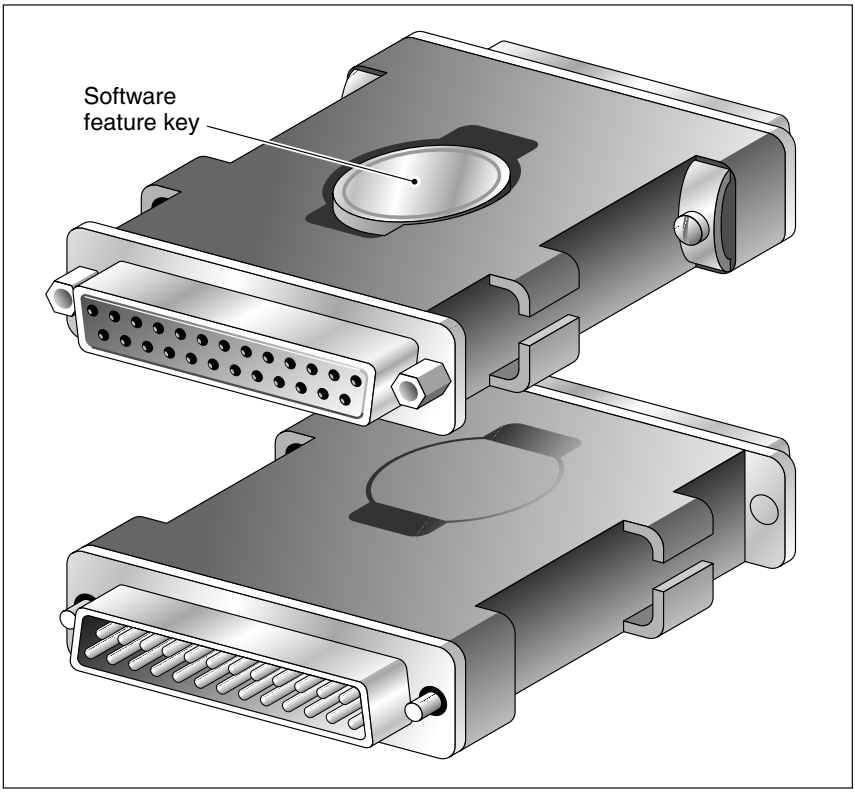
Continue with "Installing the Nortel Networks software feature dongle" on page 56.

Installing the Nortel Networks software feature dongle

Introduction

The software feature key is a security device that stores the unique serial number of the server. The feature key is embedded in the Nortel Networks software feature dongle, which plugs into the parallel port.

An illustration of the software feature key embedded in the software feature dongle is shown below:



G101738

Requirements

For installation, you require a Phillips No. 1 screwdriver.

To install the software feature dongle

1. Ensure that there is no cable connected to the parallel port.

   Note: The parallel port is also known as the printer port or LPT1. It is located at the back of the server. See the diagram on page 50.

2. If the software feature key is not pre-installed on the dongle, remove it from the plastic bag and carefully insert it into the software feature slot on the dongle. Make sure that the clips secure it properly and that the Nortel Networks logo faces outwards.

3. Plug the male end of the adapter into the parallel port.

4. Tighten the connector screws.

What's next?

Continue with "Connecting the server to power" on page 58.

Connecting the server to power

Before you begin

Ensure that proper power and grounding are available for all the power outlets serving the CallPilot server and its associated peripherals. Power for these devices must be wired and fused independently of all other receptacles and referenced to the same ground as the PBX system.

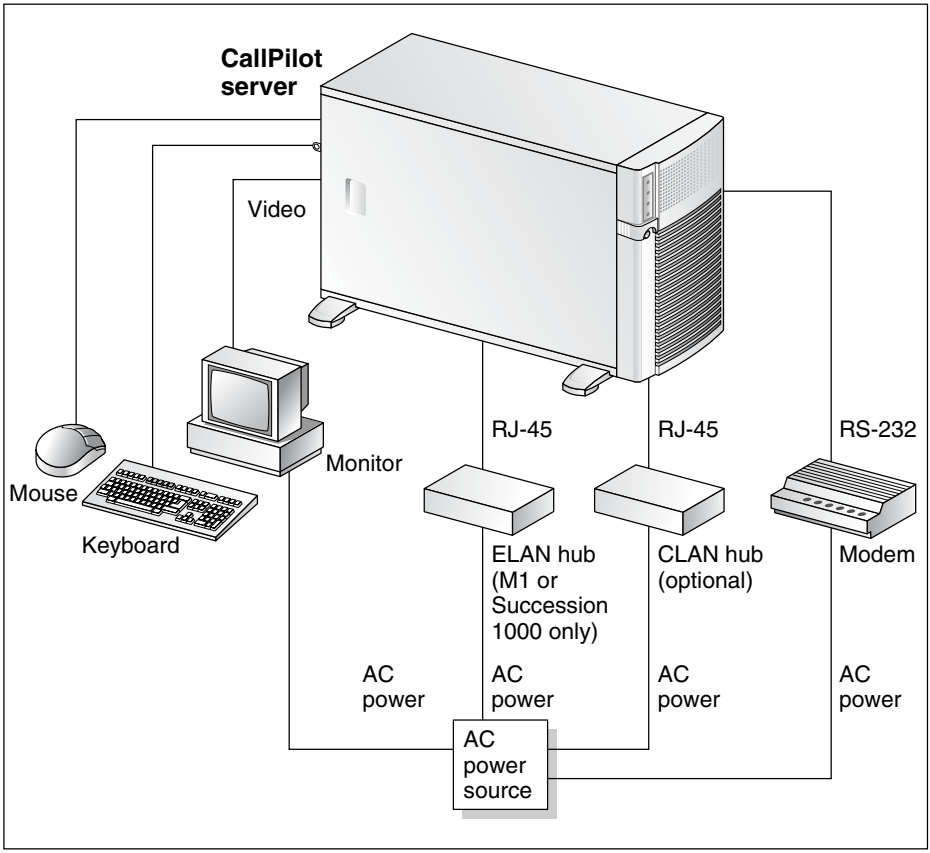
A qualified electrician must implement the single-point ground reference as required among the power outlets of the CallPilot server, its associated peripherals, and the power outlets of the switch.

Provide a sufficient number of properly grounded power outlets or power bars for all equipment.

The single-point ground (SPG) required by the system can be an isolated ground (IG) bus or ac equipment ground (ACEG) bus in the service panel or transformer. The system must be connected to safety ground/protective earth in accordance with NEC requirements. For international use, the system must be connected to safety ground/protective earth in accordance with Paragraph 2.5 of EN60950/IEC950.

Note: Refer to *Large System: Planning and Engineering* (553-3021-120) for a complete description of approved ground sources and methods. Insulated ground wire must be used for system grounding.

Before you connect the server to the power source, review the following diagram (and the warning that follows) to ensure that all peripheral hardware devices are in place:





WARNING

Risk of personal injury and risk of hardware failure

You must connect the power outlets that are used by the CallPilot server and its peripheral devices to the same single-point ground reference as the one used by the switching system connected to the CallPilot server.

If this requirement is not met, power transients can cause personal injury, hardware failure, or both. For more information on single-point grounding requirements, refer to the *Installation and Configuration Task List* (555-7101-210).

To connect the server to power

1. Plug the server's AC power cord into the server's rear panel.
2. Plug the other end into a wall receptacle or power bar.

To start the server

1. Press the server power switch to start the server.
2. Observe the Power-On Self Test (POST) and initialization messages on the monitor.
3. Let the mini-setup sequence run until you are prompted to login to the operating system.

   Note: The system may perform multiple reboots. This is normal.
4. Ensure that the operating system logon window appears on the monitor.

   Note: If the logon window does not appear, refer to the CallPilot Maintenance and Diagnostics guide for your server for troubleshooting instructions.
5. Proceed with the CallPilot server and switch configuration guide for your switch to connect and configure the server and switch.

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CallPilot

703t Server Hardware Installation

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