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201i Server Hardware Installation

CallPilot
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NORTEL

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CallPilot Customer Documentation Map

- **Fundamentals**
  - CallPilot Fundamentals Guide (555-7101-010)
- **Planning and Engineering**
  - Planning and Engineering Guide (555-7101-101)
  - Network Planning Guide (555-7101-102)
  - Data Networking for Voice over IP Guide (553-3001-160)
- **Installation and Configuration**
  - Upgrade and Platform Migration Guide (555-7101-207)
  - Installation and Configuration Task List Guide (555-7101-210)
  - **Server Installation Guides**
    - 201i Server Hardware Installation Guide (555-7101-220)
    - 703t Server Hardware Installation Guide (555-7101-226)
    - 1002rp Server Hardware Installation Guide (555-7101-205)
  - **Configuration and Testing Guides**
    - Meridian 1 and CallPilot Server Configuration Guide (555-7101-222)
    - T1/SMDI and CallPilot Server Configuration Guide (555-7101-224)
    - Succession 1000 System and CallPilot Server Configuration Guide (555-7101-510)
  - **Unified Messaging Software Installation**
    - Desktop Messaging and MyCallPilot Installation Guide (555-7101-505)
- **Administration**
  - Administrator's Guide (555-7101-301)
  - Software Administration and Maintenance Guide (555-7101-202)
  - Desktop Messaging and MyCallPilot Administration Guide (555-7101-503)
  - Meridian Mail to CallPilot Migration Guide (555-7101-801)
  - Application Builder Guide (555-7101-325)
  - Reporter Guide (555-7101-310)
- **Maintenance**
  - Troubleshooting Guide (555-7101-501)
  - **Server Maintenance and Diagnostics**
    - 201i Server Maintenance and Diagnostics Guide (555-7101-119)
    - 703t Server Maintenance and Diagnostics Guide (555-7101-227)
    - 1002rp Server Maintenance and Diagnostics Guide (555-7101-206)
    - Symposium, M1/Succession 1000, and Voice Processing Guide (297-2183-909)
- **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
A-Style Command Comparison Card	Desktop Messaging User Guide for Microsoft Outlook
S-Style Command Comparison Card	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

Task List

Preparing for installation 33

To unpack the 201i server 39

Installing the 201i server in a large Meridian 1 system ... 45

To prepare the 201i server for installation in a Meridian 1 switch ... 50
To position the 201i server on the switch shelf 54
To remove the backplane cables 57
To install the NTRH3501 backplane cable 61
To install the SCSI cables for Meridian 1 66

Installing the 201i server in an Option 11C or Option 11C Mini 69

To position the 201i server on the switch shelf 70
To install the cable 79
To install the NTRH3502 SCSI cable 86
To connect the cables 90

Installing the 201i server in the Succession 1000 system 93

To remove the front bezel and inside front cover plate 102
To install the 201i server inside the Media Gateway or Media Gateway Expansion 106
To install the NTRH3502 cable 109
To replace the inside front cover plate 112
To replace the front bezel 114
To connect the cables 115

Connecting peripheral devices to the 201i server 133

To install the MPCs 138
To connect the monitor, keyboard, and mouse 141
To connect the CD-ROM and tape drives to the 201i server (Meridian 1) 143
To connect the CD-ROM and tape drives to the 201i server (Option 11C) 145

To connect the CD-ROM and tape drives to the 201i server (Option 11C Mini) 147
To connect the CD-ROM and tape drives to the 201i server (Succession 1000)..... 149
To establish the switch and network connections 151
To connect the modem..... 154
To complete the installation and start the 201i server..... 157

Contents

1 How to get help 11

2 About the 201i server 13

201i server description 14
Network connectivity 22
Peripheral connectivity 29

3 Preparing for installation 33

Installation overview. 34
Unpacking and inspecting the 201i server 39
Switch and network requirements. 42

4 Installing the 201i server in a large Meridian 1 system 45

Overview. 46
Repositioning the secondary backplane connector. 48
Installing the 201i server in the large Meridian 1 switch 54
Removing the backplane (tip and ring) cables 56
Installing the NTRH3501 backplane cable. 60
Installing the SCSI cables for Meridian 1. 63

5 Installing the 201i server in an Option 11C or Option 11C Mini 69

Installing the 201i server in the Option 11C or Option 11C Mini switch 70

Section A: Installing Option 11C cables 75

Installing the intermediate SCSI cable for Option 11C 76

Section B: Installing Option 11C Mini cables 83

Installing the NTRH3502 SCSI cable for Option 11C Mini 84
Installing cables on the back of the Option 11C Mini cabinet 90

6 Installing the 201i server in the Succession 1000 system 93

Succession 1000 description 94
Removing the Media Gateway or Media Gateway Expansion cover 102
Installing the 201i server. 105
Installing the NTRH3502 SCSI cable for Succession 1000 108
Replacing the Media Gateway or Media Gateway Expansion cover 112
Connecting cables to the Succession 1000 system 115

7 Preparing peripheral devices 119

Overview. 120
Setting the modem DIP switches 122
Setting the CD-ROM drive SCSI ID and DIP switches 124
Setting the tape drive SCSI ID 126
Setting SCSI device termination. 128

8 Connecting peripheral devices to the 201i server 133

Overview. 134
Installing the MPCs 138
Installing the monitor, keyboard, and mouse 140
Connecting the CD-ROM and tape drives 142
Connecting the 201i server to the switch, ELAN, and CLAN 151
Connecting the modem 154
Completing the installation. 157

A RoHS part conversion table 161

RoHS part conversion table 162

Index 167

Chapter 1

How to get help

This section explains how to get help for Nortel products and services.

Getting Help from the Nortel Web site

The best way to get technical support for Nortel products is from the Nortel Technical Support Web site:

http://www.nortel.com/support

This site provides quick access to software, documentation, bulletins, and tools to address issues with Nortel products. More specifically, the site enables you to:

- download software, documentation, and product bulletins
- search the Technical Support Web site and the Nortel Knowledge Base for answers to technical issues
- sign up for automatic notification of new software and documentation for Nortel equipment
- open and manage technical support cases

Getting Help over the phone from a Nortel Solutions Center

If you don't find the information you require on the Nortel Technical Support Web site, and have a Nortel support contract, you can also get help over the phone from a Nortel Solutions Center.

In North America, call 1-800-4NORTEL (1-800-466-7835).

Outside North America, go to the following Web site to obtain the phone number for your region:

http://www.nortel.com/callus

Getting Help from a specialist by using an Express Routing Code

To access some Nortel Technical Solutions Centers, you can use an Express Routing Code (ERC) to quickly route your call to a specialist in your Nortel product or service. To locate the ERC for your product or service, go to:

http://www.nortel.com/erc

Getting Help through a Nortel distributor or reseller

If you purchased a service contract for your Nortel product from a distributor or authorized reseller, contact the technical support staff for that distributor or reseller.

Chapter 2

About the 201i server

In this chapter

201i server description 14

Network connectivity 22

Peripheral connectivity 29

201i server description

Introduction

The 201i server is a flexible multimedia telephony server designed to integrate with Nortel Meridian 1* and Succession* 1000 products.

The 201i server occupies two slots of a Meridian 1 shelf or Succession 1000 Media Gateway or Media Gateway Expansion. When the server is locked into position, its connectors attach to the backplane, which provides power and communications links.

RoHS compliance

In the latter part of 2006, Nortel is phasing in RoHS-compliant 201i servers in countries affected by the EUED (European Union Environmental Directives). This hardware replaces or supplements the non-RoHS version. In general, the RoHS parts are backwards compatible with the supported software, and they have equivalent functionality to the parts they are replacing. RoHS refers to the Reduction of Hazardous Substances Directive.

The text and diagrams in this guide refer to the part numbers for non-RoHS-compliant servers. If you are installing a RoHS-compliant server, see Appendix A, "RoHS part conversion table," for a listing of each RoHS-compliant part mapped to the equivalent non-RoHS-compliant part.

Primary components

The 201i server motherboard houses the interfaces needed:

- to communicate with the Meridian 1 switch or Succession 1000 system
- to facilitate data communications on Ethernet networks.

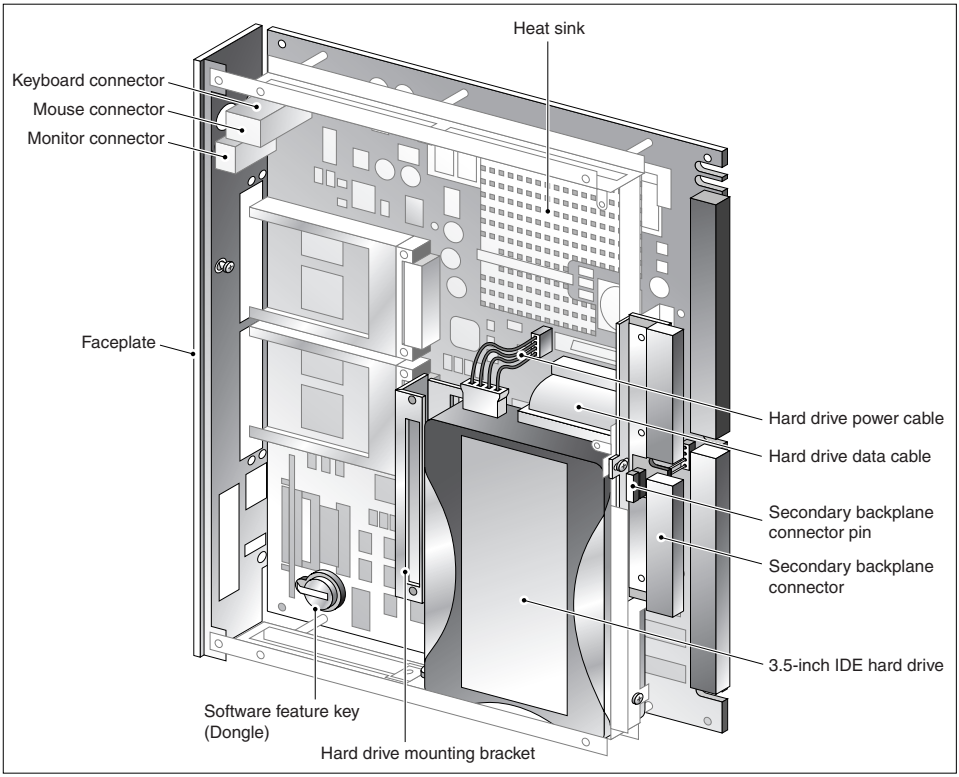
Two Ethernet controllers on the 201i server motherboard provide Ethernet capability. These controllers provide the network interfaces for both the embedded LAN (ELAN) and customer LAN (CLAN). The connections to the ELAN and CLAN are established by using the multi I/O cable described on page 26.

Note: The secondary backplane connector connects the 201i server to the second slot on the shelf, thereby providing access to the voice channels provided by that slot.

ATTENTION

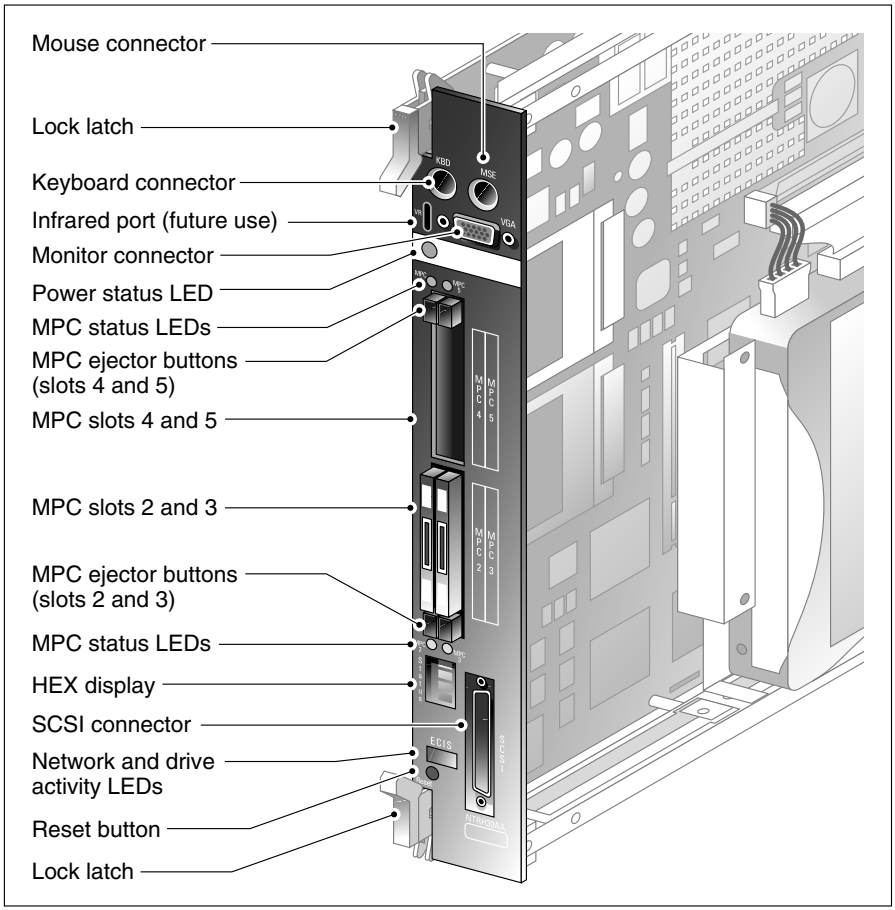
The 201i server is shipped ready for installation into an Option 11C or Option 11C Mini switch or Succession 1000 system. Before you install the 201i server in a larger Meridian 1 switch (for example, Option 51C), you must move the secondary backplane (DS30X) connector to the correct position. For more information, see "Repositioning the secondary backplane connector" on page 48.

The following diagram shows the 201i server components:.



Faceplate

The following diagram shows the 201i server faceplate. The faceplate provides LEDs, MPC card slots, and connectors for peripheral devices:



G101438

The following table describes each faceplate feature:

Faceplate feature	Description
Mouse connector	The mouse connector is a standard PS/2 connector and is hot-pluggable.
Lock latches	Lock latches at the top and bottom of the faceplate secure the server to the backplane of the Meridian 1 switch or the backplane of the Succession 1000 Media Gateway or Media Gateway Expansion.
Keyboard connector	The keyboard connector is a standard PS/2 connector and is hot-pluggable.
Infrared port	For future use.
Monitor connector	The monitor connector is a standard, high-density, 15-pin female connector.
Power status LED	The LED indicates two server states: ■ the completion of self-test diagnostics ■ when it is safe to remove the server from the Meridian 1 switch or Succession 1000 Media Gateway or Media Gateway Expansion
MPC card status LEDs	There is an LED for each MPC card slot. The following list describes each LED status: ■ Off: The MPC card is not receiving power. It is safe to remove the card. ■ On: The MPC card is in use. It is *not* safe to remove the card. ■ Off, then on: The MPC card has been recognized by the 201i server software and has been powered up.

Faceplate feature	Description
MPC card status LEDs (continued)	■ On, then off: The MPC card has been successfully powered down. It is safe to remove the card. **Note:** For instructions on powering up or powering down the MPC card, see "Starting and stopping components" in the *CallPilot 201i Server Maintenance and Diagnostics* guide.
MPC card ejector buttons	There is one ejector button for each MPC card slot. When you insert the card, the associated ejector button pops out. Press the button to eject the card from its slot.
MPC card slots	MPCs house DSP units and are used for multimedia telephony processing. You can install up to four MPCs on the 201i server. The 201i is shipped with two MPC-8 cards installed. All slots are faceplate-accessible. The MPCs are numbered as follows: ■ top row of slots: MPC cards 4 and 5 ■ bottom row of slots: MPC cards 2 and 3 **Note:** MPC 1 is embedded on the motherboard.
Hexadecimal (HEX) display	The four-digit LED-based display provides feedback on the current status of the server, including fault conditions.
SCSI connector	This connector connects SCSI devices to the 201i server (for example, a CD-ROM or tape drive). Press the button latches to lock or unlock a cable from the connector.

Faceplate feature	Description
Network and drive activity LEDs (labeled as E, C, I, and S)	The E and C LEDs indicate the presence of network activity for both the ELAN and CLAN interfaces (respectively). When they are lit, they indicate that the interfaces are properly attached to their respective hubs. When the LEDs are blinking, there is network activity. When the I and S LEDs are lit, it means that the IDE hard drive and SCSI device are being accessed.
Reset button	The reset button allows you to manually restart the 201i server without disconnecting it from the backplane. **ATTENTION** Before you press the reset button, you must shut down the operating system. Press the reset button while the operating system is running *only* when you cannot shut down the operating system normally.

Environmental specifications

Temperatures

Recommended temperature	15°C (59°F) to 30°C (86°F)
Absolute temperature	10°C (50°F) to 45°C (113°F)
Long-term storage temperature	–20°C (-4°F) to 60°C (140°F)
Short-term storage temperature	–40°C (-40°F) to 70°C (158°F) (less than 72 hours)
Change rate temperature	Less than 1°C (34°F) per 3 minutes

Relative humidity

Recommended relative humidity (RH)	20% to 55% RH (noncondensing)
Absolute RH	20% to 80% RH (noncondensing)
Long-term storage RH	5% to 95% RH [at –40°C (-40°F) to 70°C (158°F) respectively] (noncondensing)

Network connectivity

Introduction

This section shows how CallPilot and the Meridian 1 or Succession 1000 system are integrated into your network. It also describes what is required in the network for correct CallPilot operation.

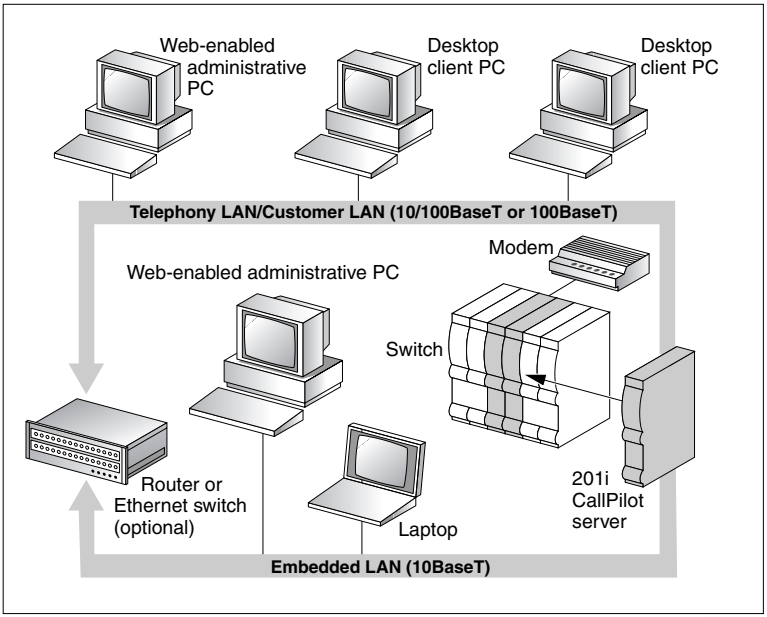
ATTENTION

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

Sample network setup: Meridian 1 switch

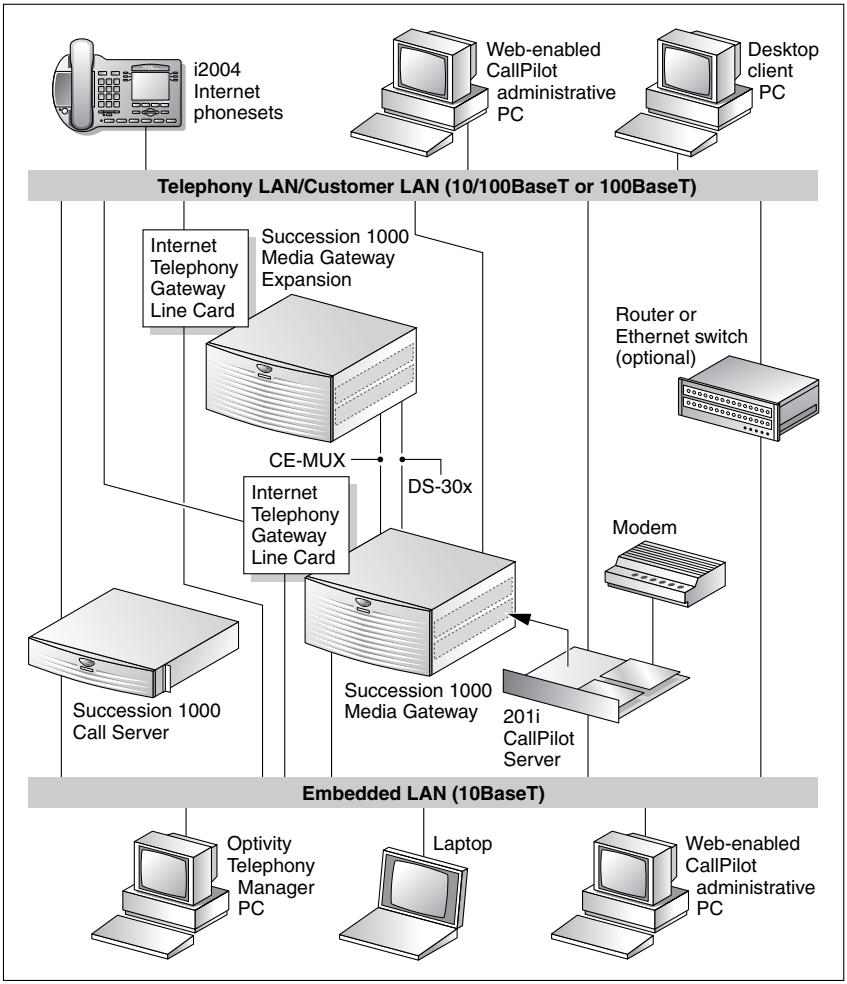
The following diagram shows how the 201i server is integrated into your network with the following Meridian 1 switches:

- large systems, such as Option 51C
- Option 11C
- Option 11C Mini


Web-enabled administrative PC
Desktop client PC
Desktop client PC
Telephony LAN/Customer LAN (10/100BaseT or 100BaseT)
Modem
Web-enabled administrative PC
Switch
Router or Ethernet switch (optional)
Laptop
201i CallPilot server
Embedded LAN (10BaseT)
G101631

Sample network setup: Succession 1000

The following diagram shows an example of how the 201i server can be integrated with the Succession 1000 system in your network:



In the illustration on page 24, 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* (NTP 553-3023-210).

For a description of each Succession 1000 system component, see "Succession 1000 description" on page 94.

CallPilot CLAN and ELAN network setup

The 201i server supports the following network protocols:

- CLAN: 10/100Base-T Ethernet

  A built-in Ethernet controller on the 201i server motherboard provides Ethernet CLAN capability. The CLAN provides data connectivity between desktop and web messaging clients, administrative PCs, and the CallPilot server.

- ELAN: 10Base-T Ethernet

  A built-in Ethernet controller on the 201i server motherboard provides Ethernet ELAN capability. The ELAN carries call processing traffic between the CallPilot server and the Meridian 1 switch or Succession 1000 system.

  Note: For more information about the ELAN, see "About the ELAN" in the *CallPilot Installation and Configuration Task List*.

You use the 201i server multi I/O cable to establish the CLAN and ELAN connections. For more information, see page 26.

Network requirements

Appropriate networking equipment must be available for both the CLAN and ELAN.

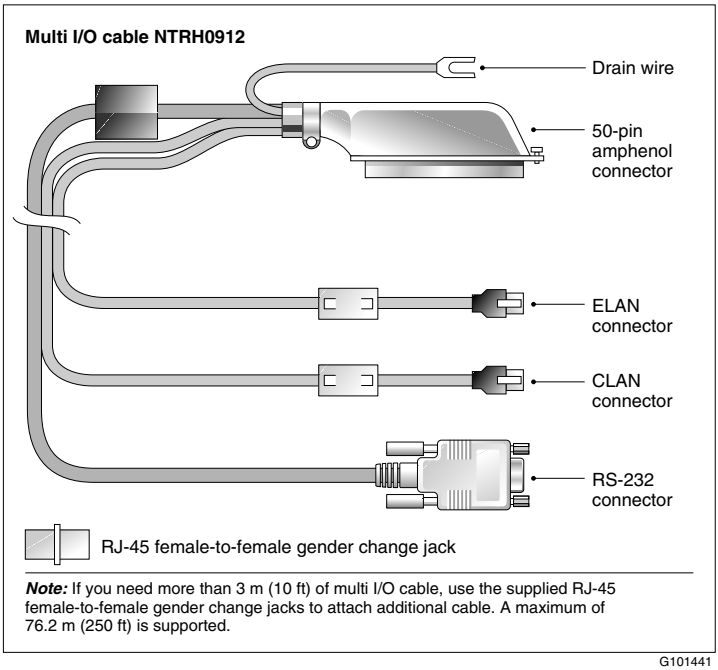
The CLAN and ELAN must be properly configured for correct CallPilot operation. To ensure correct configuration, Nortel recommends that you consult a network specialist.

ATTENTION

For important considerations about using the ELAN in your network, see "About the ELAN" in the *CallPilot Installation and Configuration Task List*.

Multi I/O cable description

The multi I/O cable contains four connectors, and is approximately 3 m (10 ft) in length. See the following diagram:



The following table identifies the purpose of each connector on the NTRH0912[1] multi I/O cable.

Note: Labels on the RJ-45 cables distinguish the CLAN and ELAN connectors.

Connector type	Purpose
50-pin amphenol	This connector establishes the connection between the Meridian 1 or Succession 1000 Media Gateway or Media Gateway Expansion backplane and the ELAN hub, the CLAN hub, and the modem.
10Base-T (RJ-45)	This connector provides a 10 Mbit/s Ethernet connection between the 201i server and the Meridian 1 switch or Succession 1000 system. This connection allows the exchange of call control information between the server and the Meridian 1 switch or Succession 1000 system. For more information about the ELAN, see "About the ELAN" in the *CallPilot Installation and Configuration Task List*.
10/100Base-T (RJ-45)	This connector provides a network connection for ■ user desktop computers, to enable use of the unified messaging and fax messaging features ■ LAN-based server administration **ATTENTION** If you need Ethernet 100Base-T operation at 100 Mbit/s on large Meridian 1 systems (such as Option 51), you must install the NTRH3501 backplane (tip and ring) cable. For more information, see Chapter 4, "Installing the 201i server in a large Meridian 1 system."

1.For customers in EUED countries: see Appendix A, "RoHS part conversion table," to look up part numbers for RoHS-compliant parts that are equivalent to the non-RoHS-compliant parts described in this guide.

Connector type	Purpose
RS-232 COM1 (male DB-9)	This connector provides the connection to an external modem. The modem allows administrators and technical support personnel to administer the 201i server from a remote location.

Peripheral connectivity

Introduction

Peripheral equipment is attached to the 201i server on the server faceplate.

Faceplate connections

ATTENTION Connections made to the faceplate (with the exceptions noted below) are temporary only, because you must remove the cabinet cover to make these connections. The system does not meet specifications for radiated EMI if you remove the cabinet cover.

The following peripheral devices connect to the 201i server faceplate:

- monitor (SVGA)
- keyboard
- mouse
- MPC card (permanent connection)
- SCSI cable (permanent connection)

Monitor, keyboard, and mouse

You must connect a monitor, keyboard, and mouse to run the Configuration Wizard or to install the operating system on the 201i server as part of a recovery process.

All three peripheral components are hot-pluggable.

MPC-8 card

The MPC-8 card looks like a Type II PC card, and supports the multimedia telephony services on the 201i server. Four specially-designed card slots are available for the MPC-8. All are located on the 201i server faceplate.

ATTENTION

You cannot insert MPC-8 cards in Type II PC card slots, or Type II PC cards into MPC-8 card slots. They are not compatible.

SCSI connections

The SCSI connection is the only permanent faceplate connection. A low-profile right-angle connector on the SCSI cable allows the cable to be attached with the cabinet covers on. For more information about how the 201i server and SCSI device connections are achieved, see:

- large Meridian 1 systems (for example, Option 51C): “Installing the SCSI cables for Meridian 1” on page 63.
- Option 11C or Option 11C Mini: “Installing the NTRH3502 SCSI cable for Option 11C Mini” on page 84.
- Succession 1000: “Installing the NTRH3502 SCSI cable for Succession 1000” on page 108.

Supported peripheral devices

CD-ROM drive (NTRH9105)

An external CD-ROM drive is used to install and upgrade the server. The drive connects to the server with an intermediate SCSI cable that connects to the SCSI connector on the faceplate.

Because the CD-ROM drive is an external device, it requires an AC power source.

Set the SCSI ID for the CD-ROM drive to 3. If you are connecting more than one SCSI device to the server (such as a tape drive), you must daisy chain those devices.

Note: The CD-ROM drive is not hot-pluggable. You must power off the server to connect or disconnect the drive.

Tape drive (NTRH9038)

An external SCSI tape drive is used to back up and restore data. The device connects to the server by an intermediate SCSI cable that connects to the SCSI connector on the faceplate.

Since the tape drive is an external device, it requires an AC power source.

Set the SCSI ID for the tape drive to 5. If you are connecting more than one SCSI device to the server (such as a CD-ROM drive), you must daisy chain those devices.

Note: The tape drive is not hot-pluggable. You must power off the server to connect or disconnect the drive.

Modem

An external modem provides remote access to the 201i server. The modem connects to the RS-232 COM1 connector on the multi I/O cable.

Since the modem is an external device, it requires its own AC power source.

The supported modem is the 56 Kbps modem (NTRH9078).

10Base-T Ethernet hub

The 10Base-T Ethernet hub provides the ELAN connection between the 201i server and the Meridian 1 switch or Succession 1000 system.

Since the hub is an external device, it requires an AC power source.

Monitor, keyboard, and mouse

- 15 in. monitor: NTRH9011 **or** N0038380 LCD monitor

  Since the monitor is an external device, it requires an AC power source.
- Keyboard: NTRH9013
- Mouse: NTRH9014

Note: The mouse connector on the 201i faceplate is a PS/2 connector. If you plan to use a USB mouse with USB-to-PS/2 converter, you must also use the Nortel-supplied 101 mm (4-in) PS/2 extension cable (A0855616). Without the extension cable, the monitor connector partially blocks the mouse connector.

Chapter 3

Preparing for installation

In this chapter

Installation overview 34

Unpacking and inspecting the 201i server 39

Switch and network requirements 42

Installation overview

Introduction

This section provides a high-level overview of the requirements and procedure for installing the 201i server.

For a list of CallPilot documentation, see the document map on page 6.

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 between the power outlets of the CallPilot server and the power outlets of the switch.

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

For more information, refer to Chapter 2, “Grounding and power requirements”, in the *CallPilot Planning and Engineering Guide*.

Installation checklist

The following checklist identifies the steps required to install the 201i server and peripheral devices. For more details, see Chapter 8, "Connecting peripheral devices to the 201i server."



WARNING

Risk of personal injury and hardware failure

The power outlets used by the CallPilot server and its peripheral devices must be connected to the same ground reference as the one used by the Meridian 1 switch or Succession 1000 system with MGate cards (NTRB18CA) connected to the CallPilot server. If this requirement is not met, power transients can cause personal injury and hardware failure.

Step	Description	Check
1	Ensure that you have reviewed the "Installing CallPilot" section in the *CallPilot Installation and Configuration Task List* and completed stage 1 of the "Installation checklist." This includes the following tasks:	❒
	■ Unpack the server, and ensure you have all the items you need (see page 39). Complete the following checklists that are provided in the *CallPilot Installation and Configuration Task List*: — "CallPilot software media and documentation checklist" — "CallPilot server hardware checklist"	❒
	■ Inspect the server for any damage that might have occurred during shipping (see page 39).	❒

Step	Description	Check
2	Familiarize yourself with the “Switch and network requirements” on page 42 of this guide.	❒
3	If you are installing the 201i server into a Meridian 1 tiered system, do the following: ■ Change the location of the secondary backplane (DS30X) connector on the 201i server (see page 48). ■ Replace the existing backplane (tip and ring) cable on the Meridian 1 with the one supplied with the 201i server (NTRH3501) (see pages 56–62).	❒
4	Install the intermediate SCSI cable. This cable connects the external CD-ROM or tape drive. ■ For Meridian 1, you require two cables to complete the connection between the 201i server and the SCSI device: NTRH1408 and NTRH1410. See page 63. ■ For Option 11C, you require two cables to complete the connection between the 201i server and the SCSI device: NTRH1407 and NTRH3502. See page 76. ■ For Option 11C Mini or Succession 1000, you require one cable to complete the connection between the 201i server and the SCSI device: the NTRH3502 cable that is provided in the CD-ROM and tape drive kits. See the following: — Option 11C Mini: page 84 — Succession 1000: page 108	❒
5	Set the DIP switches on the modem (see page 122).	❒

Step	Description	Check
6	Set the following: ■ SCSI IDs on the CD-ROM and tape drives (see pages 124 and 126) ■ DIP switches on the CD-ROM drive (see page 124) ■ device termination on the CD-ROM and tape drives (see page 128)	❒
7	Insert the 201i server into two consecutive slots inside the switch. For instructions, see: ■ large Meridian 1 systems, such as Option 51C (see page 54) ■ Option 11C or Option 11C Mini (see page 70) ■ Succession 1000 (see page 105)	❒
8	Install the MPC cards, if required (see page 138).	❒

Step	Description	Check
9	Connect the 201i server and devices as follows:	
	■ Connect the monitor, keyboard, and mouse to the 201i server faceplate (see page 140).	❒
	■ Connect the CD-ROM and tape drives to the intermediate SCSI cable (see page 142).	❒
	■ Connect the multi I/O cable to the ELAN and CLAN network hubs (see page 151). **Note:** If more than 3 m (10 ft) of multi I/O cable is required, use the supplied RJ-45 female-to-female gender change jacks to attach additional cable. Up to 76.2 m (250 ft) of cable length is supported.	❒
	■ Connect the modem to the multi I/O cable (maximum length 15 m (50 ft) (see page 154).	❒
	■ Connect the power cords for all devices, and then power them up.	❒
10	Complete the installation of the 201i server as follows: ■ Connect the intermediate SCSI cable to the 201i server faceplate. ■ Close the lock latches on the 201i server. ■ Boot the 201i server to the operating system. See page 157.	❒
11	Continue with the *CallPilot <switch model> and CallPilot Server Configuration* guide for your switch and server.	❒

Unpacking and inspecting the 201i server

Introduction

This section describes how to:

- unpack the 201i server and peripherals
- inspect the 201i server for damage

It also describes what to do if you determine that the 201i server is faulty.

To unpack the 201i server

ATTENTION

As you unpack each item, check it off against the packing list, as well as the following checklists provided in the *CallPilot Installation and Configuration Task List*:

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

1. Remove the 201i server from the carton and its antistatic bag.
2. Place the 201i server on an antistatic surface.
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 and CD-ROMs in a safe place.
5. Save all packing materials and cartons in case you must return any equipment to the carrier.
6. Review "201i server description" on page 14, and perform a visual inspection as described in "To inspect the 201i server for shipping damage" on page 40.

To inspect the 201i server for shipping damage

Before proceeding with the installation, visually inspect the 201i server for any damage that might have occurred during shipping. Ensure also that the items in the following checklists are secure:

Item	Yes	No
Are all cables securely seated? ■ hard drive power cable ■ hard drive data cable See items 2 and 3 in the diagram on page 16.	❒ ❒	❒ ❒
Is the hard drive and bracket interface secure? See items 6 and 7 in the diagram on page 16.	❒	❒
Is the software feature key (dongle) securely seated in its bracket? See 201i server components diagram on page 16.	❒	❒

What to do if components are missing or damaged

IF	THEN
you observe any damage	contact your Nortel technical support representative.
components have become loose	secure them. If necessary, refer to the procedures in the *CallPilot <server model> Server Maintenance and Diagnostics* guide for your server.
you are satisfied that the 201i server has arrived at your site undamaged	you are ready to proceed with installation.

What's next?

Review the "Switch and network requirements" on page 42.

Switch and network requirements

Introduction

The information in this section will help you plan your 201i server installation.

Meridian 1 or Succession 1000 slot requirements

The 201i server occupies physical and electrical slots.

Note: You can place the unit in Slot 9 of an Option11C as the unit can function from slots 9 and 10. Do not place the unit in slot 10. Even though the unit can physically fit, there is no electrical connection on the backplane to slot 11.

You must install the 201i server in two peripheral equipment slots as follows:

Switch	Slots
Meridian 1 tiered systems	0 through 14 Ensure that both slots have electrical backplane connectivity.
Option 11C	1 through 9 in any Option 11C cabinet
Option 11C Mini	A pair of consecutive slots in any cabinet **Note:** You cannot install the 201i server in slots 0 or 4 because these slots are dedicated to other cards. For more information about cards and slots, refer to the Option 11C Mini documentation.

Switch	Slots
Succession 1000	A pair of consecutive slots in any Media Gateway or Media Gateway Expansion. **Note:** The 201i server cannot be installed in slots 0 or 4, because these slots are dedicated to other cards. For more information about cards and slots, refer to the *Succession 1000 Planning and Installation Guide* (NTP 553-3023-210).

Meridian 1 I/O panel connections

On large Meridian 1 systems (such as Option 51C), the 201i server requires two connections from the slots to the I/O panel on the rear of the switch, as follows:

- One connection is for the multi I/O cable.

  This connection corresponds to the left slot (when viewing the front of the Meridian 1 switch).

- The other connection is for the external SCSI device.

  This connection corresponds to the right slot (when viewing the front of the Meridian 1 switch).

For information about slot and rear bulkhead wiring, refer to the *Meridian 1 System Installation and Maintenance Guide* (NTP 553-3001-210).

CLAN and ELAN network requirements

If you have a LAN (for example, customer LAN [CLAN] or embedded LAN [ELAN]), the LAN must be configured and the appropriate networking equipment must be available.

If the LAN is to be networked with the 201i server, you need a network specialist to ensure proper configuration.

ATTENTION

For important considerations about using the ELAN in your network, see "About the ELAN" in the *CallPilot Installation and Configuration Task List*.

What's next?

Install the 201i server in the Meridian 1 switch or Succession 1000 system. For instructions, see one of the following:

To install the 201i server in	See
a large Meridian 1 switch (for example, Option 51C)	Chapter 4, "Installing the 201i server in a large Meridian 1 system."
an Option 11C or Option 11C Mini switch	Chapter 5, "Installing the 201i server in an Option 11C or Option 11C Mini."
the Succession 1000 system	Chapter 6, "Installing the 201i server in the Succession 1000 system."

Chapter 4

Installing the 201i server in a large Meridian 1 system

In this chapter

Overview 46

Repositioning the secondary backplane connector 48

Installing the 201i server in the large Meridian 1 switch 54

Removing the backplane (tip and ring) cables 56

Installing the NTRH3501 backplane cable 60

Installing the SCSI cables for Meridian 1 63

Overview

Introduction

This section describes how to install the 201i server in a Meridian 1 switch.

ATTENTION

To install the 201i server in an Option 11C, go to page 70. For Option 11C Mini, go to page 83. For Succession 1000, go to page 93.

Meridian 1 I/O panel connections

On the Meridian 1, the 201i server requires two connections from the slots to the I/O panel on the rear of the switch, as follows:

- One connection is for the multi I/O cable.

  This connection corresponds to the left slot (when viewing the front of the Meridian 1 switch).

- The other connection is for the external SCSI device.

  This connection corresponds to the right slot (when viewing the front of the Meridian 1 switch).

For information about slot and rear bulkhead wiring, refer to the *Meridian 1 System Installation and Maintenance Guide* (NTP 553-3001-210).

Secondary backplane connector

The secondary backplane (DS30X) connector on the 201i server connects the server to the second slot on the shelf, thereby providing access to the voice channels provided by that slot.



CAUTION

Risk of equipment damage

The 201i server is shipped ready for installation into an Option 11C switch. Before you install the 201i server in a larger Meridian 1 switch (for example, Option 51C), you must move the secondary backplane (DS30X) connector to the correct position.

ATTENTION

A yellow warning label over the top lock latch on the 201i server prevents you from securing the 201i server in a slot. This label serves as a reminder to move the secondary backplane connector to the Meridian 1 position, if required, before installing the 201i server into the slot.

Backplane (tip and ring) cable

The backplane (tip and ring) cable supplied with the 201i server (NTRH3501) provides 100Base-T Ethernet CLAN operation. This cable offers more network throughput than the cable that is already installed on the Meridian 1.

When installed, this cable completes the connection between the left slot, the I/O panel on the rear of the switch, and the multi I/O cable on the 201i server.

SCSI cables

Before you can connect a CD-ROM or tape drive to the 201i server, you must install the SCSI cables. You require two cables. These cables route the SCSI connection away from the 201i server faceplate so that an external SCSI device can remain permanently connected.

Repositioning the secondary backplane connector

Introduction

The secondary backplane (DS30X) connector on the 201i server connects the server to the second slot on the shelf, thereby providing access to the voice channels provided by that slot.



CAUTION

Risk of equipment damage

The 201i server ships ready for installation into an Option 11C or Option 11C Mini switch. Before you install the 201i server in a larger Meridian 1 switch (for example, Option 51C), you must move the secondary backplane (DS30X) connector to the correct position.

Why you must move the connector

There is an approximate difference of 2 mm (0.08 in) between slots on a Meridian 1 tiered system and an Option 11C or Option 11C Mini system. As a result, you must install the secondary backplane (DS30X) connector on the 201i server in the correct position before a successful connection with the switch backplane can be established.

ATTENTION

A yellow warning label over the top lock latch on the 201i server prevents you from securing the 201i server in a slot. This label serves as a reminder to move the secondary backplane connector to the Meridian 1 position, if required, before installing the 201i server into the slot.

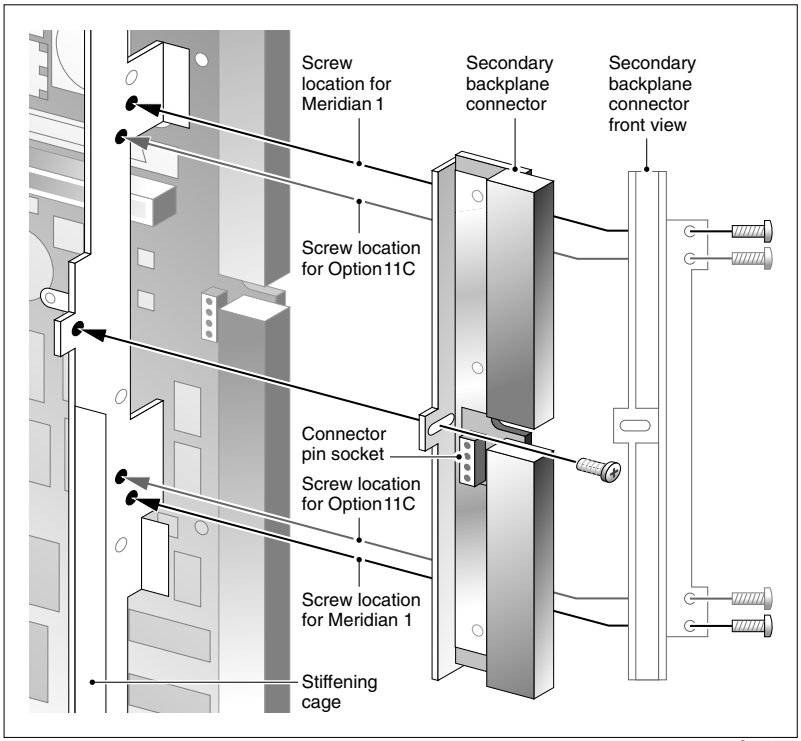
Secondary backplane connector description

The secondary backplane connector is attached to the backplane edge of the 201i server. It consists of the following items:

- connector
- screws
- pin connector (with four pins)

Two pairs of screw holes are provided for connecting the secondary backplane connector to the 201i server stiffening cage. The outside pair provides the Meridian 1 spacing. The inside pair provides the Option 11C or Option 11C Mini spacing.

See the following diagram:



Required equipment

To move the secondary backplane connector, you need a Phillips No. 1 screwdriver. A pair of needle-nosed pliers can also be helpful for removing the pin connector.

To prepare the 201i server for installation in a Meridian 1 switch

1. Remove the secondary backplane pin connector.

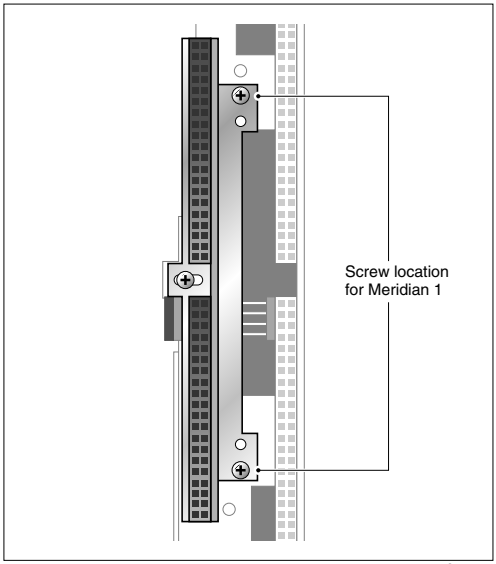
   The pin connector has four pins. If necessary, use needle-nosed pliers to remove it.

2. Remove the top and bottom screws that hold the secondary backplane connector in place on the stiffening cage.

3. Loosen the middle screw, and then align the outside pair of screw holes on the bracket with the matching pair on the stiffening cage.

4. Replace and alternately tighten all screws until the connector is evenly and securely fastened.

See the following diagram:



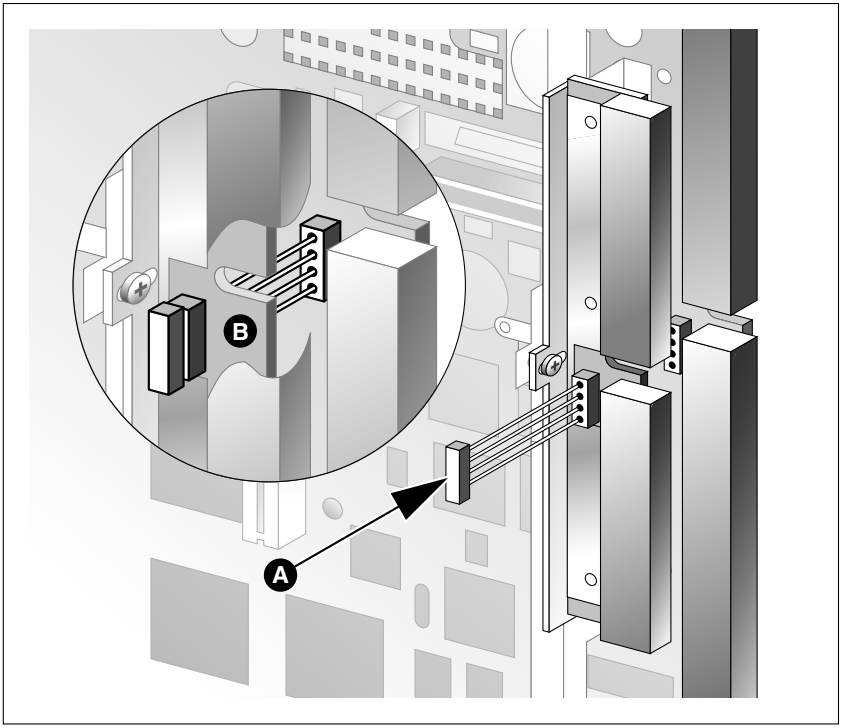
5 Replace the pin connector so the pins protrude through both connectors.

Ensure that the connectors are correctly aligned as shown in the diagram below.

CAUTION

Risk of equipment damage

If the connectors are not correctly aligned when the pin connector is pressed into the socket, the pins can bend.



G101442

6 Gently press the pin connector into the socket until it is fully seated.

7 Remove the yellow backplane warning label from the top lock latch on the 201i server.

What's next?

Continue with "Installing the 201i server in the large Meridian 1 switch" on page 54.

Installing the 201i server in the large Meridian 1 switch

Introduction

The 201i server occupies two slots. You can install the 201i server in slots 0 through 14. Ensure that both slots have electrical backplane connectivity.

To position the 201i server on the switch shelf

1 Ensure that no cables are connected to the slots in which you are installing the 201i server.

2 Open the lock latches at the top and bottom of the 201i server faceplate.

Note: When you open the top lock latch, you break the yellow backplane warning label, if it has not been removed. You must move the secondary backplane connector before you install the 201i server. For details, see “Repositioning the secondary backplane connector” on page 48.

3 Slide the 201i server into an unoccupied pair of slots.

Ensure that the 201i server is positioned correctly between the slots.

ATTENTION

Do not push the 201i server into place against the backplane until you are ready to observe the startup cycle.

The 201i server receives power and starts as soon as the 201i server makes contact with the switch backplane.

4 Connect the low-profile right-angle SCSI cable connector to the SCSI connector on the 201i server faceplate.

What's next?

Continue with "Removing the backplane (tip and ring) cables" on page 56.

Removing the backplane (tip and ring) cables

Introduction

You must remove the Meridian 1 backplane (tip and ring) cables that are associated with the slots occupied by the 201i server so that you can install the following cables:

- NTRH3501 backplane (tip and ring) cable

  The NTRH3501 cable offers more network throughput than the cable that is already installed on the Meridian 1. This cable is connected to the backplane connectors and I/O panel slot associated with the left slot.

- NTRH1408 intermediate SCSI cable

  The NTRH1408 intermediate SCSI cable routes the SCSI device connection away from the 201i server faceplate so that an external SCSI device can remain permanently connected. This cable is connected to the I/O panel only. The backplane connectors associated with the right slot are left vacant.

These cables are supplied with the 201i server.

Before you begin



DANGER

Risk of electrical shock

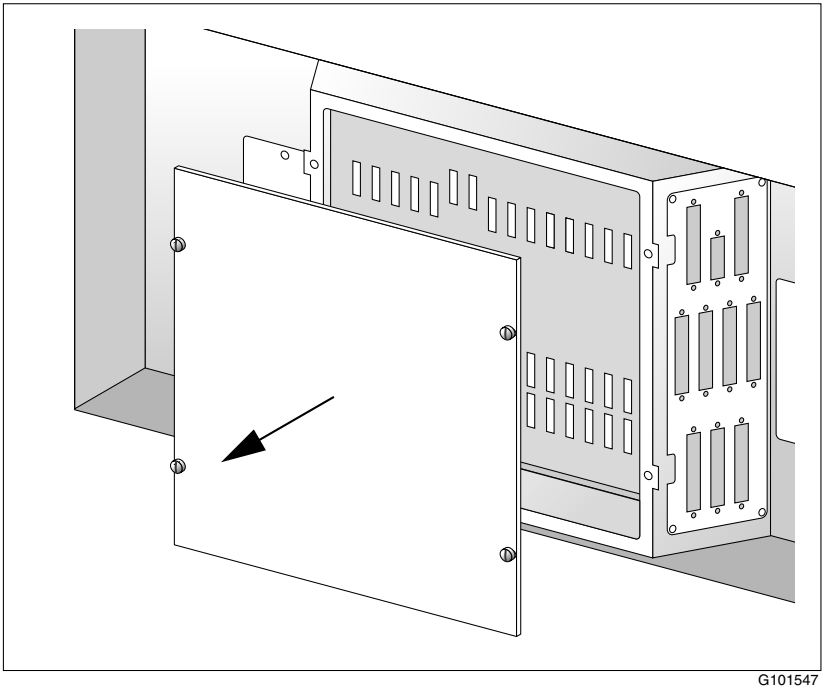
Ensure that the shelf is powered off before you remove the backplane cables.

Note: For information about slot and rear bulkhead wiring and powering off the shelf, refer to the *Meridian 1 System Installation and Maintenance Guide* (NTP 553-3001-210).

To remove the backplane cables

1 Remove the I/O panel cover from the rear of the Meridian 1 switch.

2 Remove the protective plate from the rear of the Meridian 1 switch.



3 Remove the existing backplane cable, including the I/O filter assembly (NT8D81xx) and mounting hardware for the left slot as follows:

a. Remove the external cable attached to the outside of the I/O panel.

b. For each of the UP 1, UP 2, and UP 3 cable connectors, push the lock tab outwards to unlock the cable connection, and then pull the connector off.

ATTENTION

If you attempt to pull the connector off without pressing the lock tab, you can pull the connector shroud off the backplane. If this happens, refer to the adjacent connectors for correct key positioning, and then replace the connector shroud.

Remove the tie wraps where applicable to free the cable.

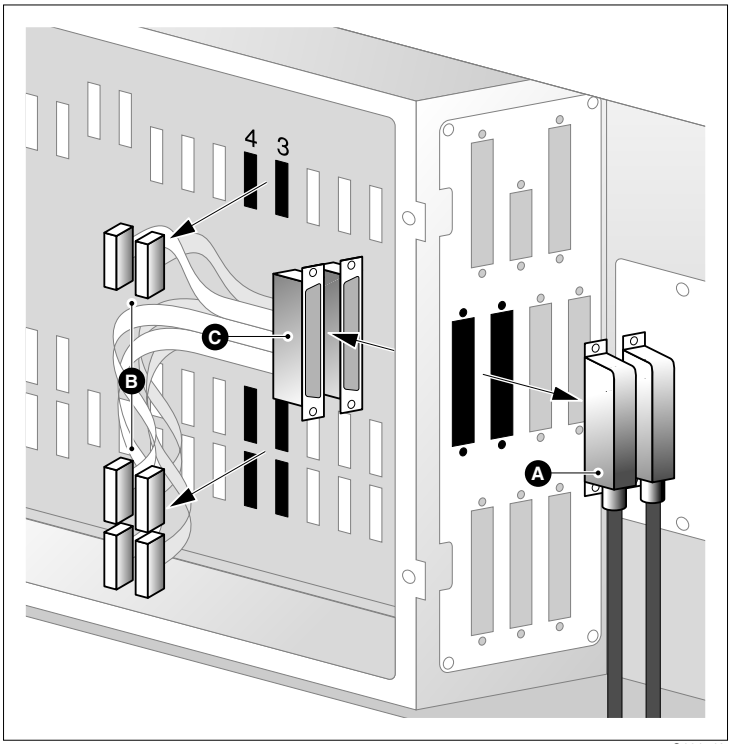
c. Remove the connector, I/O filter assembly, and all mounting hardware from the inside of the I/O panel so the slot is completely vacated.

Retain the mounting hardware (that is, screws, tie wrap base, standoffs, and so on). You will reuse this hardware to fasten the NTRH3501 cable.

4 Repeat step 3 to remove the existing backplane cable for the right slot.

Store the cable, I/O filter assembly, and mounting hardware for this cable with your Meridian 1 spares. You will not use them with the 201i server.

The following diagram shows an example using slots 3 and 4:



What's next?

Continue with "Installing the NTRH3501 backplane cable" on page 60.

Installing the NTRH3501 backplane cable

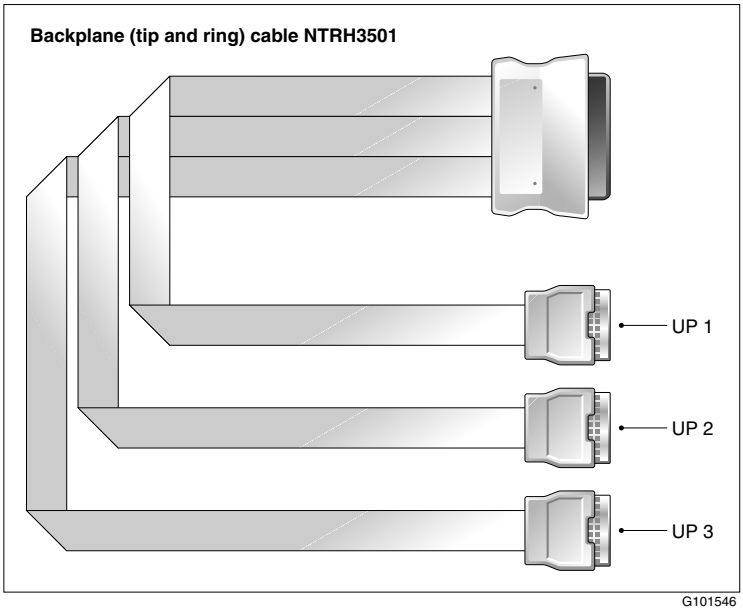
Introduction

You must connect the backplane (tip and ring) cable supplied with the 201i server (NTRH3501) for 100Base-T Ethernet CLAN operation. This cable offers more network throughput than the cable you just removed from the Meridian 1.

When installed, this cable completes the connection between the left slot, the I/O panel on the rear of the switch, and the multi I/O cable on the 201i server.

Backplane (tip and ring) cable

The following diagram shows the NTRH3501 backplane (tip and ring) cable:



Before you begin

Before you can install the NTRH3501 cable, you must remove the existing backplane cable from the back of the switch. See “Removing the backplane (tip and ring) cables” on page 56.

To install the NTRH3501 backplane cable

1 Install and connect the NTRH3501 cable to the multi I/O cable as follows:

a. Attach the backplane connector of the NTRH3501 cable to the inside of the I/O panel slot associated with the 201i server left slot.

Insert the original screw into the tie wrap base and fasten the screw into the lower position of the I/O panel slot.

b. Attach the three inner cables to the backplane connectors associated with the left slot as follows:

— UP 1 cable to the top position

— UP 2 cable to the middle position

— UP 3 cable to the lower position

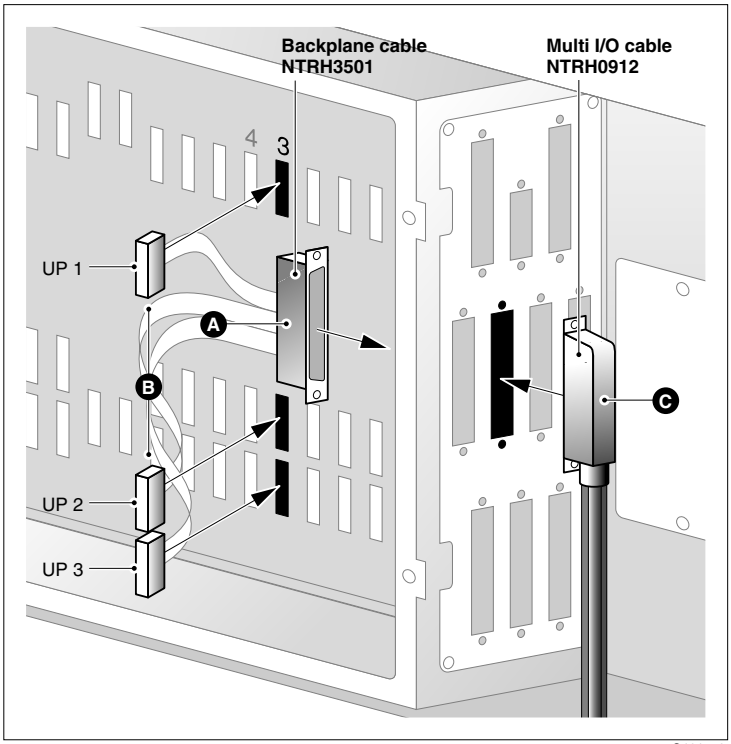
ATTENTION

The connectors are keyed; you can insert them in one position only.

Use tie wraps to secure the cables in their original positions.

c. Connect the 50-pin amphenol connector on the multi I/O cable (NTRH0912) to the NTRH3501 backplane cable connector on the I/O panel.

See the following diagram:



What's next?

Continue with "Installing the SCSI cables for Meridian 1" on page 63.

Installing the SCSI cables for Meridian 1

Introduction

Before you can connect a CD-ROM or tape drive to the 201i server, you must install the SCSI cables. The SCSI cables route the SCSI connection away from the 201i server faceplate so that an external SCSI device can remain permanently connected.



CAUTION

Risk of equipment damage

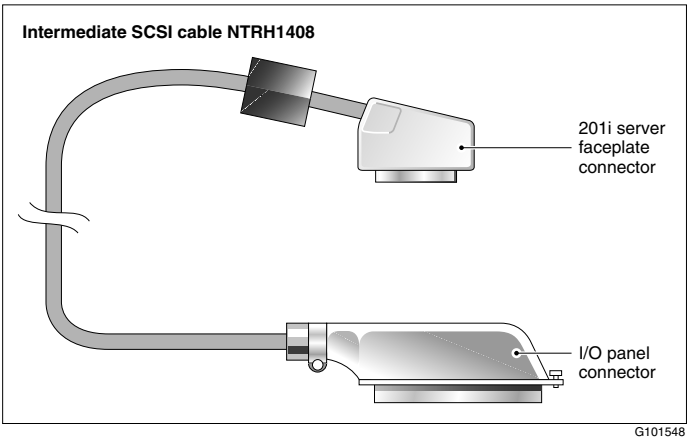
You must power off the 201i server before connecting or disconnecting SCSI cables.

Cables you need

You require the following cables:

- NTRH1408 (for connecting the 201i server to the Meridian 1 I/O panel)

The connector on the intermediate SCSI cable that attaches to the 201i server faceplate is a low-profile right-angle connector. This allows the cable to be attached with the Meridian 1 cabinet cover on.



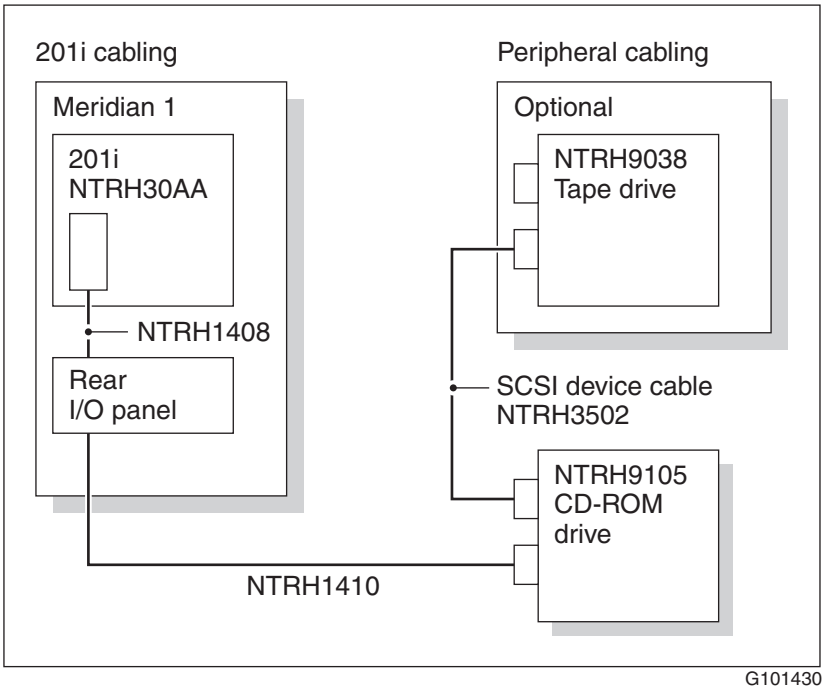
- NTRH1410 (for connecting an external SCSI device to the NTRH1408 connector on the Meridian 1 I/O panel)

  The total length of the cable from the I/O panel is 4.1 m (13.3 ft).

What the completed installation looks like

The following diagram shows how the intermediate SCSI cable, CD-ROM drive, and tape drive are connected to the Meridian 1.

In this diagram, the CD-ROM drive is the first device. The tape drive is the last device.



Note: Alternate SCSI device connection scenarios are supported, but are not depicted in this guide. If you want to use a connection scenario that is not described in this guide, ensure that you use appropriate cabling for each device.

Before you begin

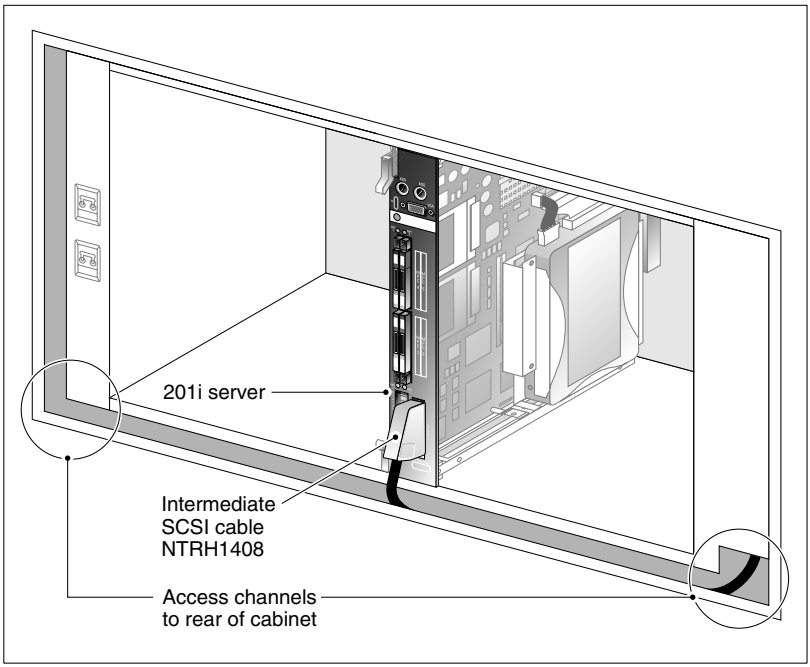
Before you install the SCSI devices in a daisy chain, you must configure the SCSI device IDs and DIP switches. For instructions, refer to Chapter 7, “Preparing peripheral devices.”

To install the SCSI cables for Meridian 1

1 Thread the SCSI connector end of the NTRH1408 cable from the front of the Meridian 1 along the bottom of the shelf to either the left or the right access channel.

2 Leave the low-profile right-angle SCSI connector hanging for now. You will connect it later to the 201i server faceplate.

Note: The following diagram shows what the connection looks like after the cable is connected:

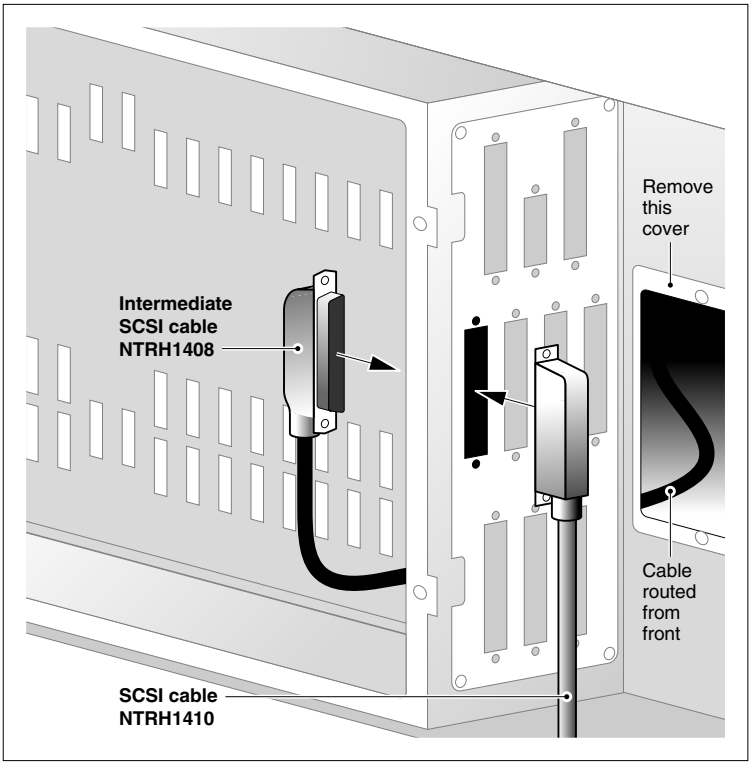


3 Thread the cable through the access channel to the back of the Meridian 1.

4 Attach the NTRH1408 cable to the inside of the I/O panel slot associated with the 201i server right slot.

5 Connect the NTRH1410 cable to the NTRH1408 cable connector on the I/O panel.

See the following diagram:



Note: The backplane connectors for the right slot are not required and, therefore, are left vacant.

6 Thread the NTRH1410 cable through the shelves below and out through the bottom of the Meridian 1 tower.

7 Replace the protective plate.

8 Replace the I/O panel cover.

9 Power up the shelf.

What's next?

Prepare the modem, CD-ROM drive, and tape drive for connection to the 201i server. For instructions, see Chapter 7, "Preparing peripheral devices."

Chapter 5

Installing the 201i server in an Option 11C or Option 11C Mini

In this chapter

Installing the 201i server in the Option 11C or Option 11C Mini switch 70

Section A: Installing Option 11C cables 75

Installing the intermediate SCSI cable for Option 11C 76

Section B: Installing Option 11C Mini cables 83

Installing the NTRH3502 SCSI cable for Option 11C Mini 84

Installing cables on the back of the Option 11C Mini cabinet 90

Installing the 201i server in the Option 11C or Option 11C Mini switch

Introduction

The 201i server occupies physical and electrical slots. The 201i server must be installed in two peripheral equipment slots as follows:

Switch	Eligible slots
Option 11C	Slots 1 through 9 in any cabinet
Option 11C Mini	A pair of consecutive slots in any cabinet **Note:** You cannot install the 201i server in slots 0 or 4, because these slots are dedicated to other cards. For more information about cards and slots, refer to the Option 11C Mini documentation.

To position the 201i server on the switch shelf

1 Remove the front panel of the switch.

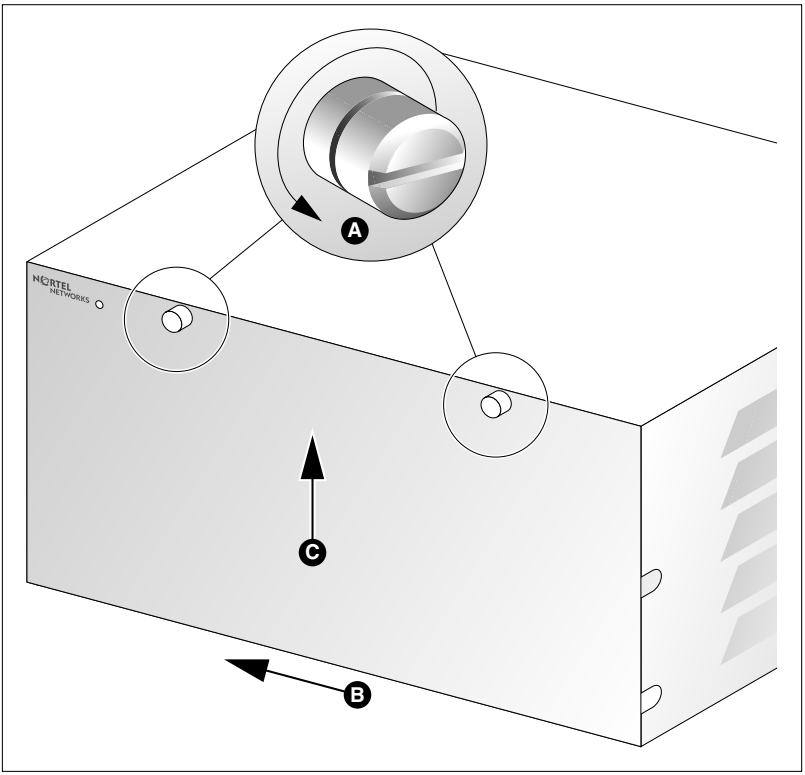
Note: On the Option 11C Mini, do the following:

a. Loosen the spring-loaded clips.

b. Slide the cover to the left.

c. Pull the cover up to remove it from the cabinet.

See the following diagram:



2 Ensure that no cables are connected to the slots in which you are installing the 201i server.

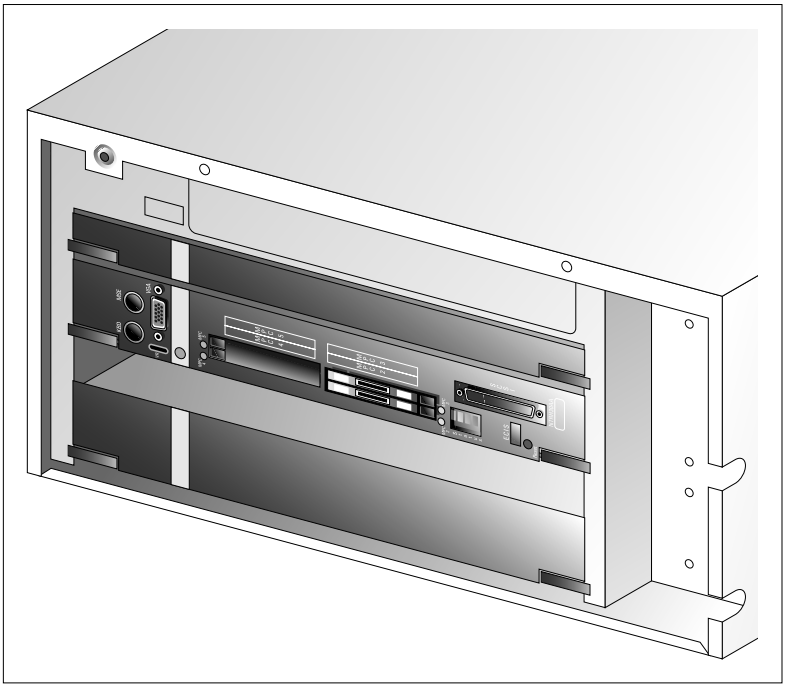
3 Open the lock latches at the top and bottom of the 201i server faceplate.

Note: When you open the top lock latch, it breaks the yellow backplane warning label, if the label has not been removed. The label is not relevant for Option 11C or Option 11C Mini. Remove the label and continue with this procedure.

4 Slide the 201i server into an unoccupied pair of slots.

Ensure that the 201i server is positioned correctly between the slots.

Note: When correctly inserted in the Option 11C Mini, the top of the 201i server is on the left. See the following diagram:



G101588b

ATTENTION

Do not push the 201i server into place against the backplane until you are ready to observe the startup cycle.

The 201i server receives power and starts as soon as the 201i server makes contact with the switch backplane.

What's next?

Continue with installing the cables. Refer to one of the following:

- Section A: "Installing Option 11C cables," on page 75
- Section B: "Installing Option 11C Mini cables," on page 83

Section A: Installing Option 11C cables

In this section

Installing the intermediate SCSI cable for Option 11C 76

Installing the intermediate SCSI cable for Option 11C

Introduction

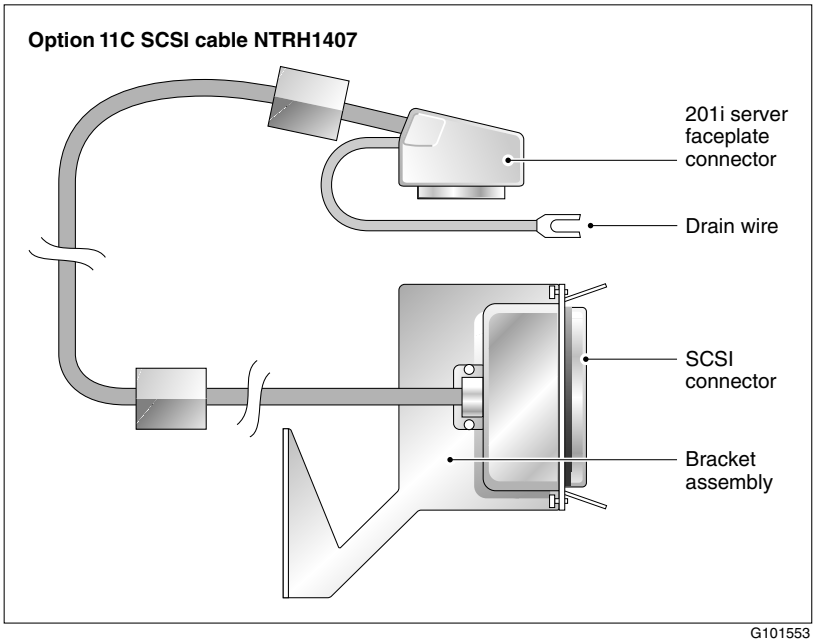
Before you can connect an external CD-ROM or tape drive to the 201i server, Option 11C requires an intermediate SCSI cable (NTRH1407).

Note: If you are installing the 201i server in an Option 11C Mini, go to page 84.

Cable description

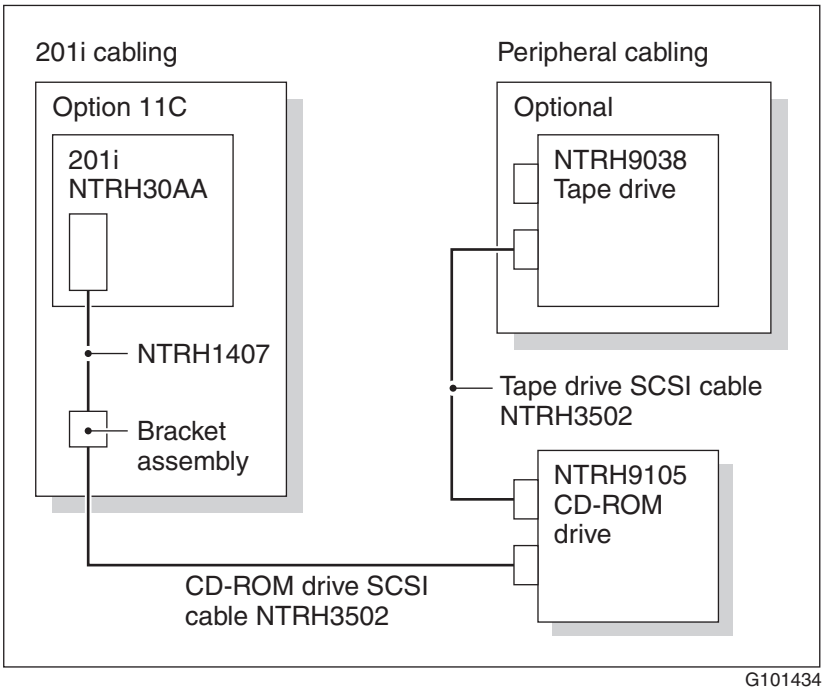
The connector on the NTRH1407 cable that attaches to the 201i server faceplate is a low-profile right-angle connector. This allows the SCSI device to be permanently connected to the 201i server with the Option 11C cabinet cover on.

The SCSI device connector end is equipped with a bracket assembly. This bracket assembly attaches to the Option 11C below the card cage. The CD-ROM or tape drive connects to this bracket assembly with the NTRH3502 cable that is provided with the device.



What the completed installation looks like

The following diagram shows how the intermediate SCSI cable, CD-ROM drive, and tape drive are connected to the Option 11C. The CD-ROM drive is the first device. The tape drive is the last device.



Note: Alternate SCSI device connection scenarios are supported, but are not depicted in this guide. If you want to use a connection scenario that is not described in this guide, ensure that you use appropriate cabling for each device.

Before you begin

Before you install the SCSI devices in a daisy chain, you must configure the SCSI device IDs and DIP switches. For instructions, see Chapter 7, “Preparing peripheral devices.”

To install the cable



CAUTION

Risk of equipment damage

You must power off the 201i server before connecting or disconnecting SCSI cables.

1 Attach the bracket assembly and cable as follows:

a. Below the card cage, temporarily remove the hardware that secures cable connections to the Option 11C.

b. Temporarily remove any cabling that may interfere with the installation of the intermediate SCSI cable bracket assembly.

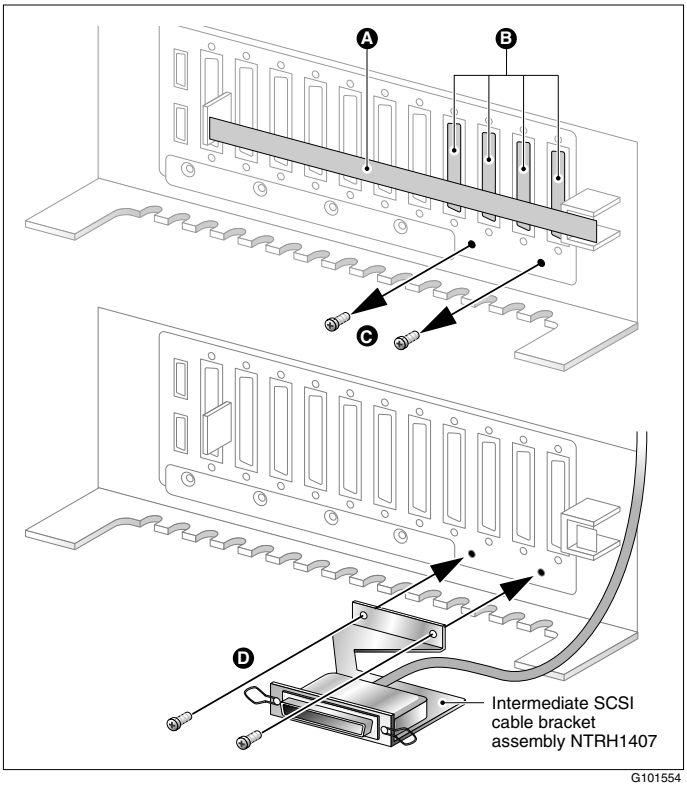
ATTENTION

Before you disconnect the cabling, take the telephony equipment services associated with the cabling out of service.

c. Remove the two screws on the right side of the Option 11C I/O panel.

d. Attach the intermediate SCSI cable bracket assembly, using the screws that were removed previously, so that the SCSI connector appears on the right side of the Option 11C cabinet.

See the following diagram:



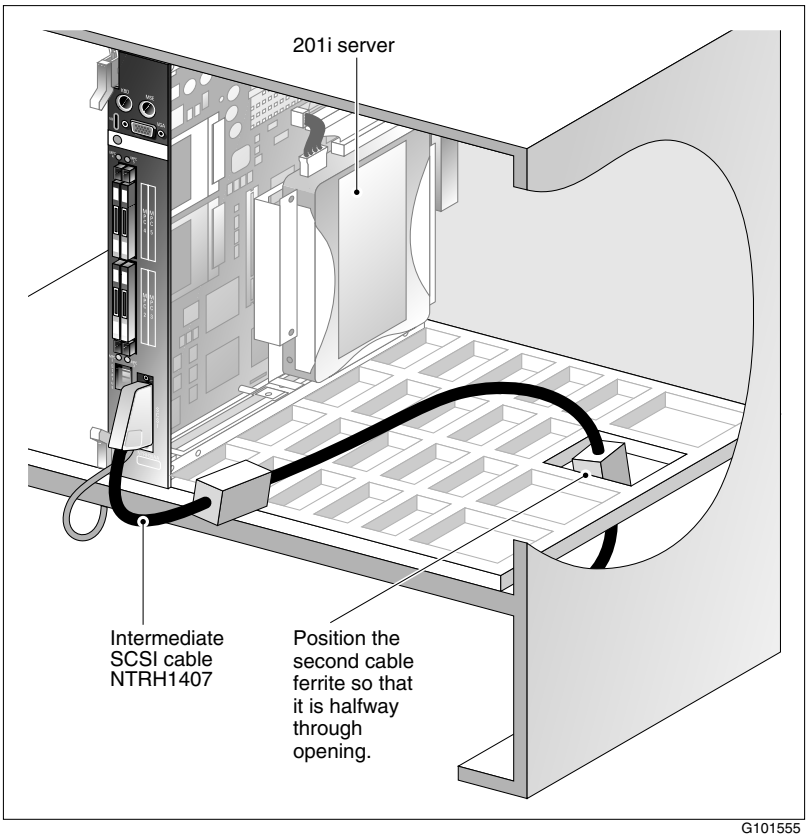
2 Thread the cable up through the card cage.

Note: When routing the SCSI cable through the card cage, ensure the second cable ferrite is placed halfway through the opening.

3 Connect the grounding braid on the intermediate SCSI cable to the card cage, and tighten the screw.

4 Leave the low-profile right-angle SCSI connector loose for now. You will connect it later to the 201i server faceplate.

Note: The following diagram shows what the connection looks like after the cable is connected:



5 Replace all cabling and hardware that you removed in step 1.

6 Restore any services that you took out of service in step 1.

What's next?

Prepare the modem, CD-ROM drive, and tape drive for connection to the 201i server. For instructions, see Chapter 7, "Preparing peripheral devices."

Section B: Installing Option 11C Mini cables

In this section

Installing the NTRH3502 SCSI cable for Option 11C Mini 84
Installing cables on the back of the Option 11C Mini cabinet 90

Installing the NTRH3502 SCSI cable for Option 11C Mini

Introduction

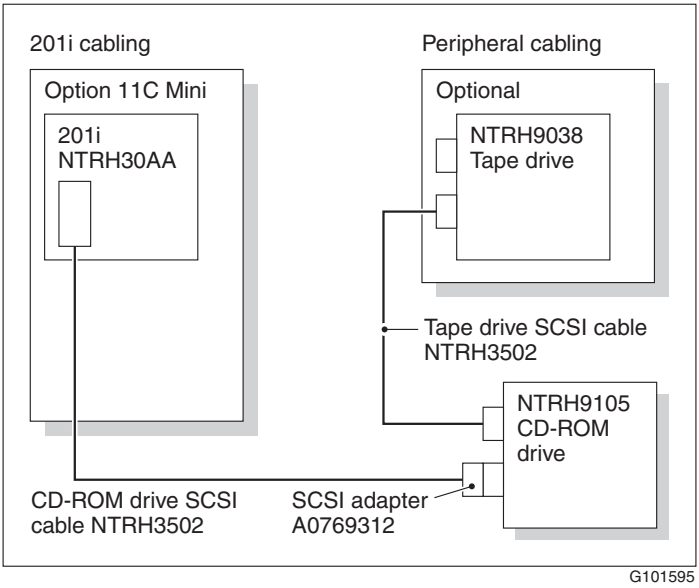
Before you can connect a CD-ROM or tape drive to the 201i server, you must install the NTRH3502 SCSI cable. The NTRH3502 SCSI cable routes the SCSI connection away from the 201i server faceplate so that an external SCSI device can remain permanently connected.

If the Option 11C Mini is equipped with a Fiber Routing Guide (consisting of a spool and mounting bracket), you must remove it before you can install the NTRH3502 SCSI cable, and then reinstall it when you are finished.

For detailed instructions on removing and installing the Fiber Routing Guide, refer to the *Option 11C and Option 11C Mini Expansion Guide* (NTP 553-3021-208).

What the completed installation looks like

The following diagram shows how the intermediate SCSI cable, CD-ROM drive, and tape drive are connected to the Option 11C Mini. In the diagram, the CD-ROM drive is the first device. The tape drive is the last device.



Note: Alternate SCSI device connection scenarios are supported, but are not depicted in this guide. If you want to use a connection scenario that is not described in this guide, ensure that you use appropriate cabling for each SCSI device.

Before you begin

1. Before you install the SCSI devices in a daisy chain, you must configure the SCSI device IDs and DIP switches.

   For instructions, see Chapter 7, “Preparing peripheral devices.”

To install the NTRH3502 SCSI cable

CAUTION

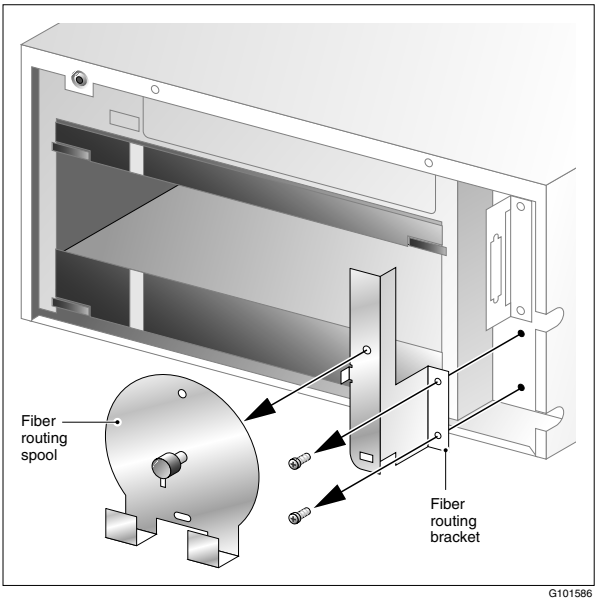
Risk of equipment damage

You must power off the 201i server before connecting or disconnecting SCSI cables.

1 If your Option 11C Mini is equipped with a Fiber Routing Guide, temporarily remove it.

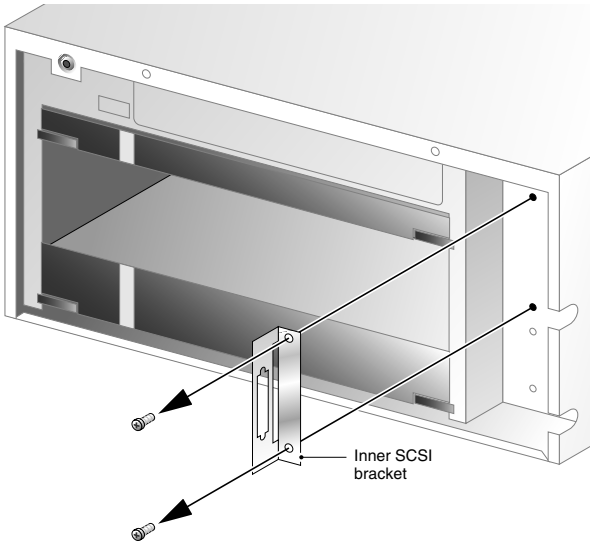
Note: For detailed instructions, refer to the *Option 11C and Option 11C Mini Expansion Guide* (NTP 553-3021-208).

See the following diagram:



2 Remove the inner SCSI bracket from the inside of the cabinet.

See the following diagram:



Note: After you remove the bracket, refasten the screws in their original locations inside the cabinet.

G101587

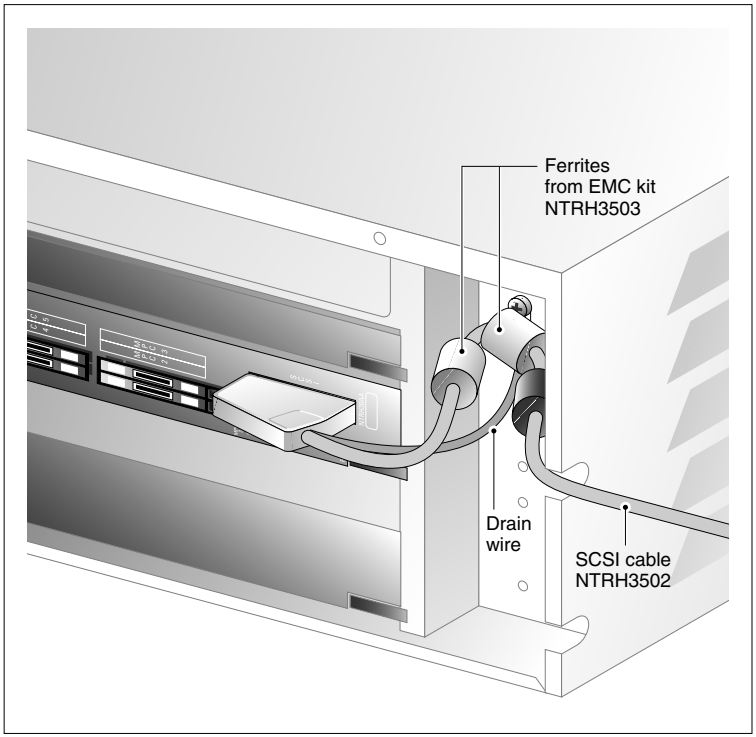
3 Refasten the inner SCSI bracket screws in their original locations inside the cabinet.

You will use the top screw later to fasten the NTRH3502 SCSI cable drain wire.

4 Connect the low-profile right-angle SCSI connector on the NTRH3502 cable to the SCSI connector on the 201i server faceplate.

5 Fasten the SCSI cable drain wire to the top screw that previously held the inner SCSI bracket in place.

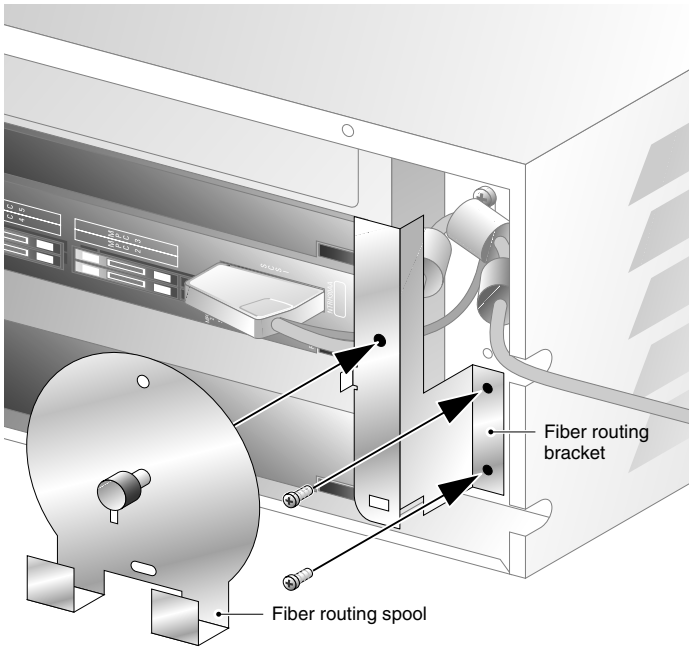
SCSI cable installation to accommodate the Fiber Routing Guide



6 If required, reinstall the Fiber Routing Guide.

Note: For detailed instructions, refer to the *Option 11C and Option 11C Mini Expansion Guide* (NTP 553-3021-208).

See the following diagram:



Note: Ensure the fiber routing spool and bracket are correctly aligned before fastening them in place.

G101591

7 Replace the cabinet cover.

What's next?

Continue with "Installing cables on the back of the Option 11C Mini cabinet" on page 90.

Installing cables on the back of the Option 11C Mini cabinet

Introduction

The following items connect to the back of the Option 11C Mini cabinet:

- multi I/O cable (NTRH0912)
- Option 11C Mini power cord with two ferrites

You must connect the multi I/O cable first before connecting the power cord, because the power cord routes over the multi I/O cable connection.

To connect the cables

1 On the rear of the Option 11C Mini cabinet, locate the connector associated with the first slot occupied by the 201i server.

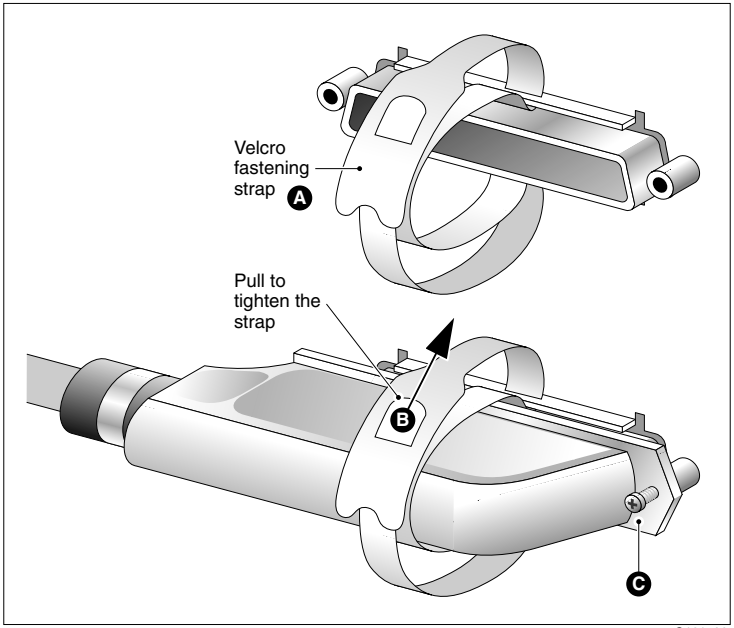
2 Connect the NTRH0912 multi I/O cable as follows:

   a. Loosen the connector's Velcro fastening strap.

   b. Connect the amphenol connector on the NTRH0912 multi I/O cable to the connector on the back of the Option 11C Mini cabinet.

   c. Secure the connection by tightening the retaining screw and Velcro fastening strap of the connector.

The following diagram shows how to secure the multi I/O cable connection:

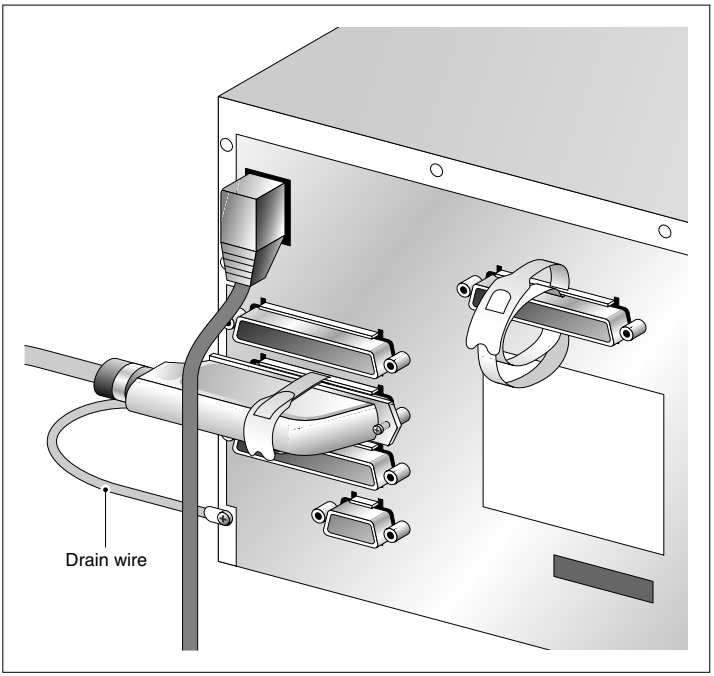


3 Attach the multi I/O cable drain wire to a screw on the cabinet.

See the diagram in step 4.

4 Connect the power cord to the Option 11C Mini cabinet.

See the following diagram:



What's next?

Prepare the modem, CD-ROM drive, and tape drive for connection to the 201i server. For instructions, see Chapter 7, "Preparing peripheral devices."

Chapter 6

Installing the 201i server in the Succession 1000 system

In this chapter

Succession 1000 description 94

Removing the Media Gateway or Media Gateway Expansion cover 102

Installing the 201i server 105

Installing the NTRH3502 SCSI cable for Succession 1000 108

Replacing the Media Gateway or Media Gateway Expansion cover 112

Connecting cables to the Succession 1000 system 115

Succession 1000 description

Introduction

The Succession 1000 system is an IP PBX that provides telephony and data capabilities over an IP network. The Succession 1000 system consists of the following major components:

- Call Server
- Media Gateway
- Media Gateway Expansion

Call Server

The Call Server provides telephony services and call processing.

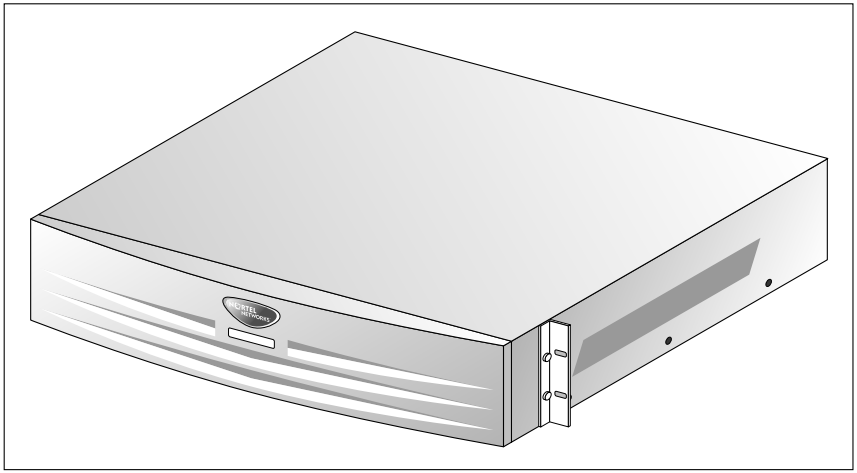
It supports up to four Media Gateways and four Media Gateway Expansions when the Small System Controller (SSC) card inside the unit is fully populated with two dual-port 100BaseT daughterboards.

The following connectors are located on the back of the Call Server:

- four 100Base-T connectors for connecting Media Gateways using one of the following:
  - for connections over the LAN customer-supplied standard 100Base-T CAT5 Ethernet cables
  - for point-to-point connections (Nortel-supplied crossover Ethernet cables)
- one 10Base-T Ethernet connector that
  - provides the ELAN interface to management software applications, such as Optivity Telephony Manager and CallPilot
  - accepts an industry-standard Medium Access Unit (MAU)
- one SDI connector that interfaces with three TTY ports using a three-port SDI cable

- one AC power cord connector and On/Off switch

The following diagram shows the Call Server:



Media Gateway and Media Gateway Expansion

The Media Gateway and Media Gateway Expansion provide the interface for analog or digital trunks, i2004 Internet phonesets, analog phonesets, and applications such as CallPilot.

A Media Gateway Expansion can be connected to the Media Gateway to increase system capacity.

Card slots

The 201i server occupies physical and electrical slots. You must install the 201i server in a pair of consecutive slots in the Media Gateway or Media Gateway Expansion.

The following table identifies the Media Gateway and Media Gateway Expansion slots into which you can install the CallPilot 201i server:

Unit	The 201i server can be installed in	Ineligible slots
Media Gateway	Slots 1 and 2 Slots 2 and 3	Slot 0 is dedicated to the SSC card. Slot 4 (includes slots 5 and 6) is not used.
Media Gateway Expansion	Slots 7 and 8 Slots 8 and 9 Slots 9 and 10	Slot 10 is a double-wide slot. The second half of this slot does not have a backplane connector.

For more information about cards and slots, refer to the *Succession 1000 Planning and Installation Guide* (NTP 553-3023-210).

Note: When you configure the Succession 1000 system, use the logical slot numbers shown in the following tables:

Media Gateway and Media Gateway Expansion 1		Media Gateway and Media Gateway Expansion 2	
Physical slot	**Logical slot**	**Physical slot**	**Logical slot**
Media Gateway		Media Gateway	
1	11	1	21
2	12	2	22
3	13	3	23
4	Not supported	4	Not supported
5	Not supported	5	Not supported

Media Gateway and Media Gateway Expansion 1		Media Gateway and Media Gateway Expansion 2	
Physical slot	**Logical slot**	**Physical slot**	**Logical slot**
6	Not supported	6	Not supported
Media Gateway Expansion		Media Gateway Expansion	
7	17	7	27
8	18	8	28
9	19	9	29
10	20	10	30

Media Gateway and Media Gateway Expansion 3		Media Gateway and Media Gateway Expansion 4	
Physical slot	**Logical slot**	**Physical slot**	**Logical slot**
Media Gateway		Media Gateway	
1	31	1	41
2	32	2	42
3	33	3	43
4	Not supported	4	Not supported
5	Not supported	5	Not supported
6	Not supported	6	Not supported

Media Gateway and Media Gateway Expansion 3		Media Gateway and Media Gateway Expansion 4	
Physical slot	**Logical slot**	**Physical slot**	**Logical slot**
Media Gateway Expansion		Media Gateway Expansion	
7	37	7	47
8	38	8	48
9	39	9	49
10	40	10	50

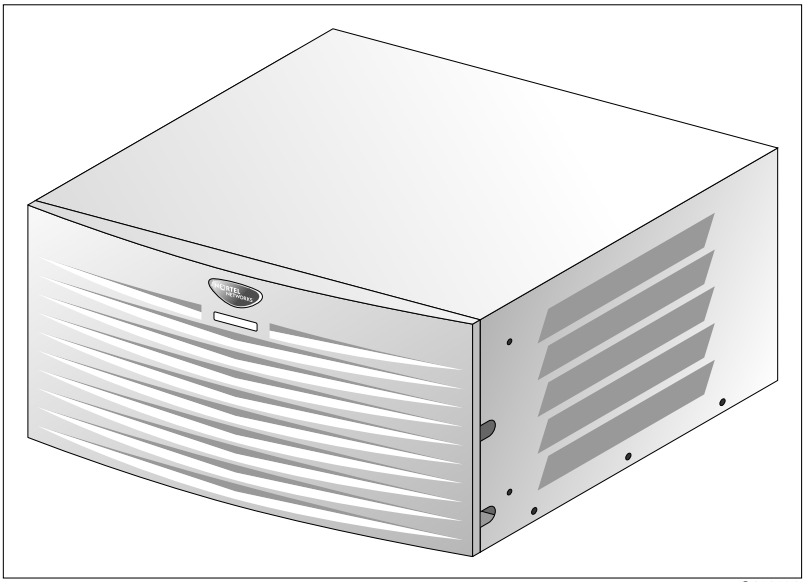
Back panel connectors

The following table describes the connectors that are located on the back of each Media Gateway and Media Gateway Expansion, and how they relate to CallPilot:

Connector	Media Gateway	Media Gateway Expansion
Four 50-pin amphenol connectors that interface with the cross-connect terminal The CallPilot 201i server multi I/O cable must be connected to the connector that is associated with the first slot that the 201i server occupies. This is described in “Connecting cables to the Succession 1000 system” on page 115.	yes	yes
One auxiliary (AUX) connector	yes	no
One SDI connector	yes	no

Connector	Media Gateway	Media Gateway Expansion
One 10Base-T Ethernet connector that ■ provides the ELAN interface to management software applications such as Optivity Telephony Manager and CallPilot ■ accepts an industry-standard Medium Access Unit (MAU)	yes	no
DS30X and CE-MUX connectors for connecting the Media Gateway and Media Gateway Expansions together	yes	yes
Power connector	yes	yes

The following diagram shows the Media Gateway:



G101624

Note: Except for the back panel connectors, the Media Gateway Expansion is similar in external appearance to the Media Gateway.

Succession 1000 software

For the 201i server, the Succession 1000 system must be running Succession Release 3.00 (or later) software.

The Media Gateways and Media Gateway Expansions are centrally configured from the Call Server. This allows for a single point of management. Configuration required for correct CallPilot operation is, therefore, performed on the Call Server.

Administration software

The Succession 1000 system interfaces with Optivity Telephony Manager Release 1.1 (or later). Optivity Telephony Manager is an integrated suite of system management tools. You can use Optivity Telephony Manager to configure, control, and manage your Succession 1000 system. Optivity Telephony Manager operates on a platform that is compatible with a standard Windows PC.

Refer to the Optivity Telephony Manager documentation for information about the Optivity Telephony Manager application, its requirements, and how to install it.

Succession 1000 documentation

If you need to refer to the following Succession 1000 technical documents, they are stored on the Customer Documentation Library CD-ROM (NTLH80BA), provided with your Succession 1000 system:

- *Succession 1000 Planning and Installation Guide* (NTP 553-3023-210)

  Note: This guide is also provided in printed format with your Succession 1000 system.
- *Succession 1000 Input/Output X21 Administration* (NTP 553-3023-311)
- *Succession 1000 Input/Output X21 Maintenance* (NTP 553-3023-511)

You can search the entire suite of documentation online, or you can print part or all of a guide.

Removing the Media Gateway or Media Gateway Expansion cover

Introduction

To access the interior of the Media Gateway or Media Gateway Expansion, you must remove the front bezel and inside front cover plate.

To remove the front bezel and inside front cover plate

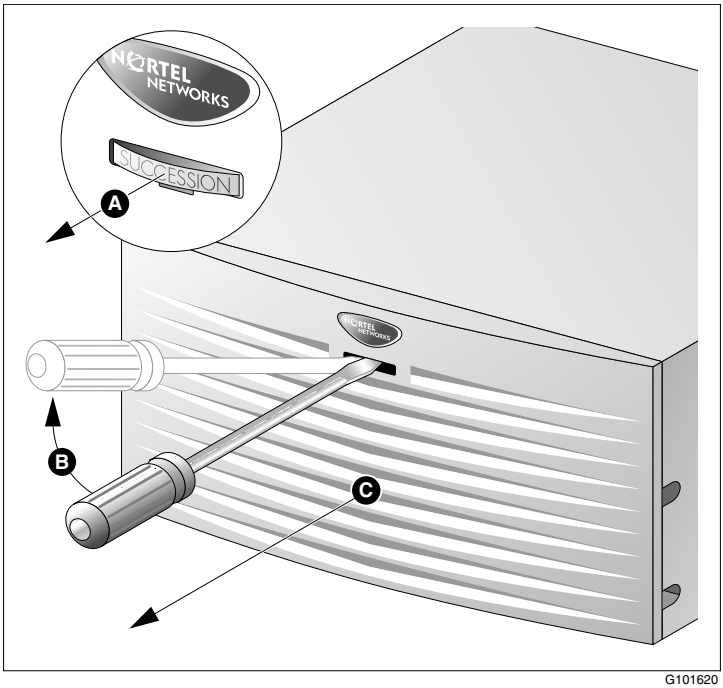


WARNING

Risk of eye injury

Nortel recommends that you operate the Media Gateway and Media Gateway Expansion with their front bezels installed. When the blue LEDs inside these units are lit, they are very bright.

1 Remove the front bezel from the Media Gateway or Media Gateway Expansion as shown in the diagram on the next page.



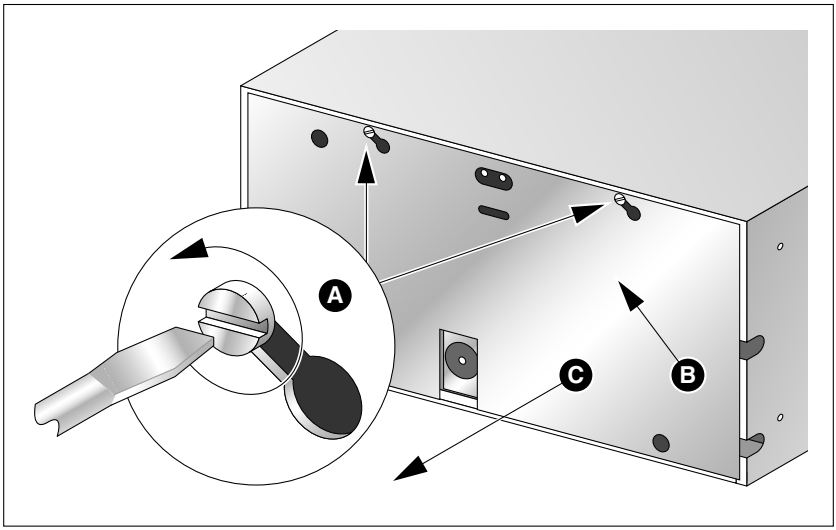
a. Use a slot screwdriver to gently pry off the SUCCESSION label.

b. Insert the screwdriver approximately 2 cm (0.75 in.) into the open slot, and then gently lift the screwdriver handle, thus applying downward pressure on the tab inside the bezel.

At the same time, gently pull the bezel away from the chassis (approximately 2 cm [0.75 in.]) until the inside tab has cleared the catch.

c. Grasp the bezel by both sides and carefully pull it straight away from the Media Gateway or Media Gateway Expansion.

2 Remove the inside front cover plate as follows:



a. Use a screwdriver to loosen each screw on the top of the inside front cover plate by three turns.

ATTENTION
Do not remove the screws.

b. Apply pressure and slide the inside front cover plate upward *to the left* until the screw holes are aligned with the screw heads.

c. Pull the inside front cover plate away from the Media Gateway or Media Gateway Expansion.

What's next?

Continue with "Installing the 201i server" on page 105.

Installing the 201i server

Introduction

This section describes how to install the 201i server inside the Media Gateway or Media Gateway Expansion.

Before you begin

Determine which pair of consecutive slots are to contain the 201i server. The following table identifies the Media Gateway and Media Gateway Expansion slots into which the CallPilot 201i server can be installed:

Unit	The 201i server can be installed in	Ineligible slots
Media Gateway	Slots 1 and 2 Slots 2 and 3	Slot 0 is dedicated to the SSC card. Slot 4 (includes slots 5 and 6) is not used.
Media Gateway Expansion	Slots 7 and 8 Slots 8 and 9 Slots 9 and 10	Slot 10 is a double-wide slot. The second half of this slot does not have a backplane connector.

Note: The 201i server will not function properly when installed in slots 3 and 4.

For more information about card slots, refer to the *Succession 1000 Planning and Installation Guide* (NTP 553-3023-210).

For the logical slot numbers that you must use when you configure the Succession 1000 system, see “Card slots” on page 95.

To install the 201i server inside the Media Gateway or Media Gateway Expansion

1 Ensure that no cables are connected to the slots in which you are installing the 201i server.

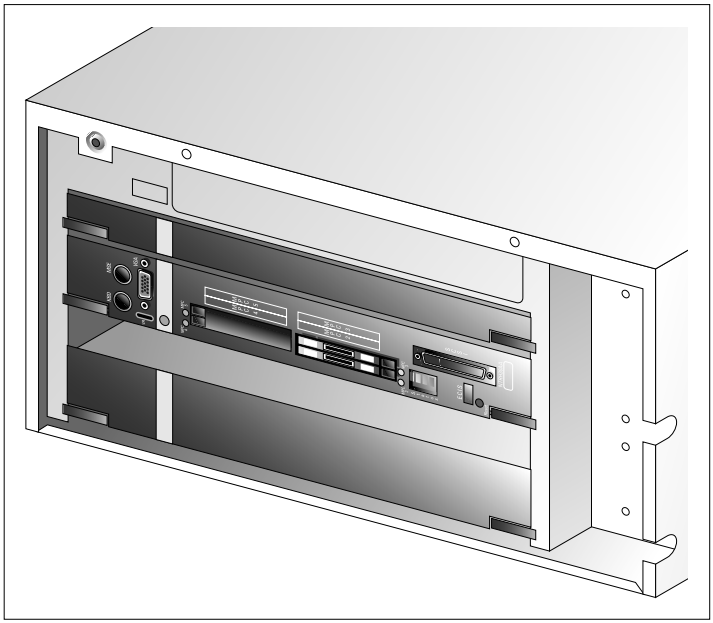
2 Open the lock latches at the top and bottom of the 201i server faceplate.

Note: When you open the top lock latch, it breaks the yellow backplane warning label if it has not been removed. The label is not relevant for Succession 1000. Remove the label and continue with this procedure.

3 Slide the 201i server into an unoccupied pair of slots.

Ensure that the 201i server is positioned correctly between the slots.

When correctly inserted, the top of the 201i server is on the left. See the following diagram:



G101588b

ATTENTION

Do not push the 201i server into place against the backplane until you are ready to observe the startup cycle.

If the Media Gateway or Media Gateway Expansion is connected to a power source, the 201i server receives power as soon as it makes contact with the backplane.

What's next?

Continue with "Installing the NTRH3502 SCSI cable for Succession 1000" on page 108.

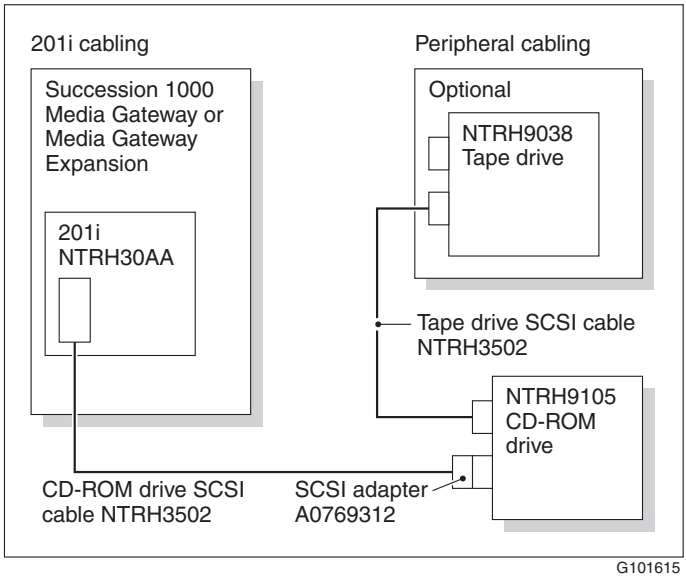
Installing the NTRH3502 SCSI cable for Succession 1000

Introduction

Before you can connect a CD-ROM or tape drive to the 201i server, you must install the NTRH3502 SCSI cable. The NTRH3502 SCSI cable has a low profile right-angle connector that allows the cable to be connected to the 201i server faceplate when the Media Gateway or Media Gateway Expansion cover is installed. This allows the external SCSI device to remain permanently connected to the 201i server.

CD-ROM and tape drive cabling diagram

The following diagram shows how the intermediate SCSI cable, CD-ROM drive, and tape drive are connected to the 201i server. The CD-ROM drive is the first device. The tape drive is the last device:



Note: Alternate connection scenarios are supported, but are not depicted in this guide. If you want to use a connection scenario that is not described in this guide, ensure that you use appropriate cabling for each device.

Before you begin

1. Before you install the SCSI devices in a daisy chain, you must configure the SCSI device IDs and DIP switches. For instructions, see "Preparing peripheral devices," on page 119.

To install the NTRH3502 cable



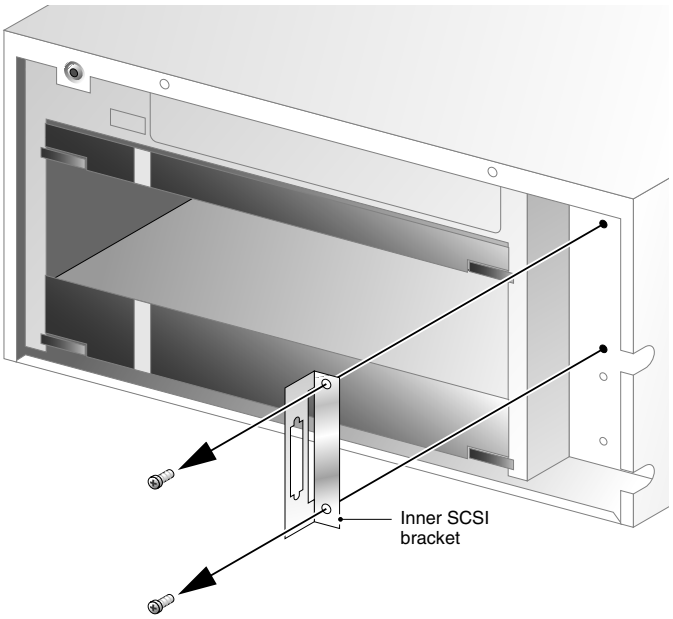
CAUTION

Risk of equipment damage

You must power off the 201i server before connecting or disconnecting SCSI cables.

1 Remove the inner SCSI bracket from the inside of the Media Gateway or Media Gateway Expansion.

See the diagram on page 110.



Note: After you remove the bracket, refasten the screws in their original locations inside the cabinet.

G101587

2 Refasten the inner SCSI bracket screws in their original locations inside the Media Gateway or Media Gateway Expansion.

You will use one of the screws later to fasten the NTRH3502 SCSI cable drain wire.

3 Connect the low profile right-angle SCSI connector on the NTRH3502 cable to the SCSI connector on the 201i server faceplate.

4 Fasten the SCSI cable drain wire to one of the screws that previously held the inner SCSI bracket in place.

Notes:

- Use the screw that is the most convenient.
- Press firmly on the drain wire Y-connector until it snaps into place around the screw post.

5 Replace the inside front cover plate.

For instructions, see “To replace the inside front cover plate” on page 112.

ATTENTION

Ensure that the tabs on the bottom and right side of the inside front cover plate are positioned inside the Media Gateway or Media Gateway Expansion.

6 Replace the front bezel.

For instructions, see “To replace the front bezel” on page 114.

What’s next?

Continue with “Connecting cables to the Succession 1000 system” on page 115.

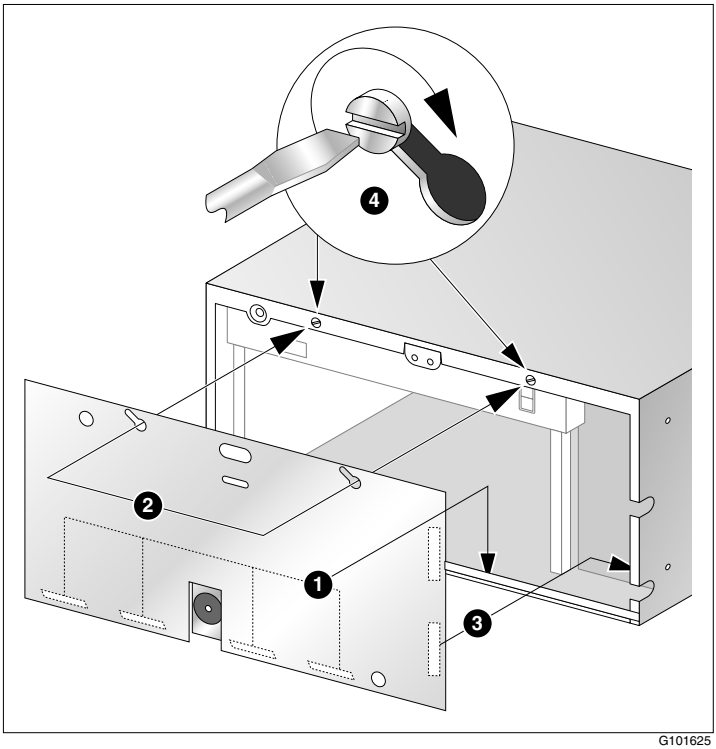
Replacing the Media Gateway or Media Gateway Expansion cover

Introduction

This section describes how to replace the front bezel and inside front cover plate on the Media Gateway or Media Gateway Expansion.

To replace the inside front cover plate

The following diagram provides an overview of how to install the inside front cover plate:



1. Insert the bottom tabs of the front cover plate inside the bottom rail.
2. Align the screw holes on the front cover plate over the screw heads on the Media Gateway or Media Gateway Expansion.
3. Slide the front cover plate downward to the right, ensuring that the side tabs slide behind the side rail.
4. Tighten the screws to secure the front cover plate.
5. Continue with “To replace the front bezel,” below.

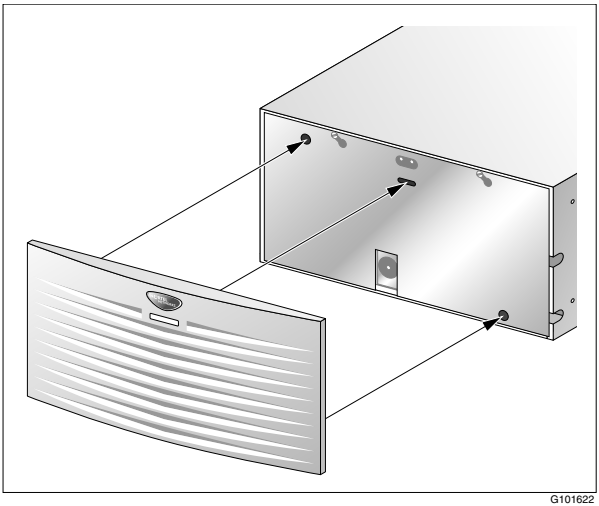
To replace the front bezel

WARNING

Risk of eye injury

Nortel recommends that you operate the Media Gateway and Media Gateway Expansion with their front bezels installed. When the blue LEDs inside these units are lit, they are very bright.

1 Align the two posts and the locking tab on the rear of the front bezel with the slots on the inside front cover plate.



2 Push the bezel toward the Media Gateway or Media Gateway Expansion until it snaps into place.

3 Replace the SUCCESSION label.

What's next?

Continue with "Connecting cables to the Succession 1000 system" on page 115.

Connecting cables to the Succession 1000 system

Introduction

The following items are connected to the back of the Media Gateway or Media Gateway Expansion:

- multi I/O cable (NTRH0912)

  This cable establishes the connection to the modem, ELAN, and CLAN.
- Media Gateway or Media Gateway Expansion power cord with two ferrites

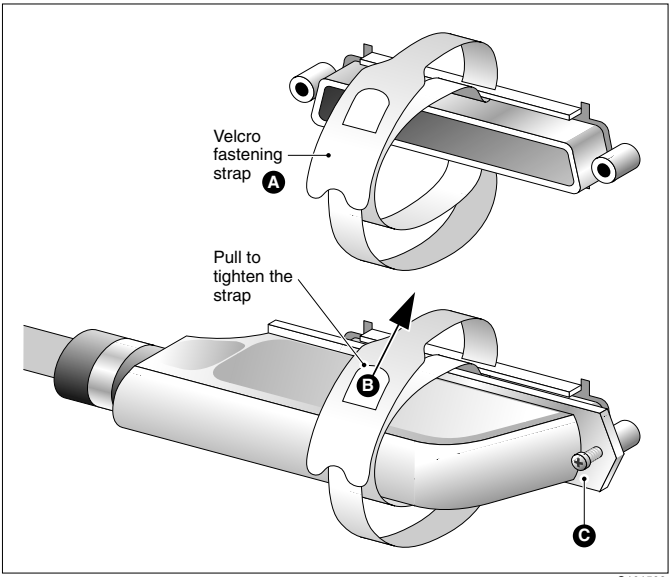
You must connect the multi I/O cable first before connecting the power cord, because the power cord routes above the multi I/O cable connection.

To connect the cables

1. On the rear of the Media Gateway or Media Gateway Expansion, locate the connector associated with the first slot occupied by the 201i server.
2. Connect the NTRH0912 multi I/O cable as follows:
   a. Loosen the connector's Velcro fastening strap.
   b. Connect the amphenol connector on the NTRH0912 multi I/O cable to the connector on the back of the Media Gateway or Media Gateway Expansion.

c. Secure the connection by tightening the retaining screw and Velcro fastening strap of the conductor.

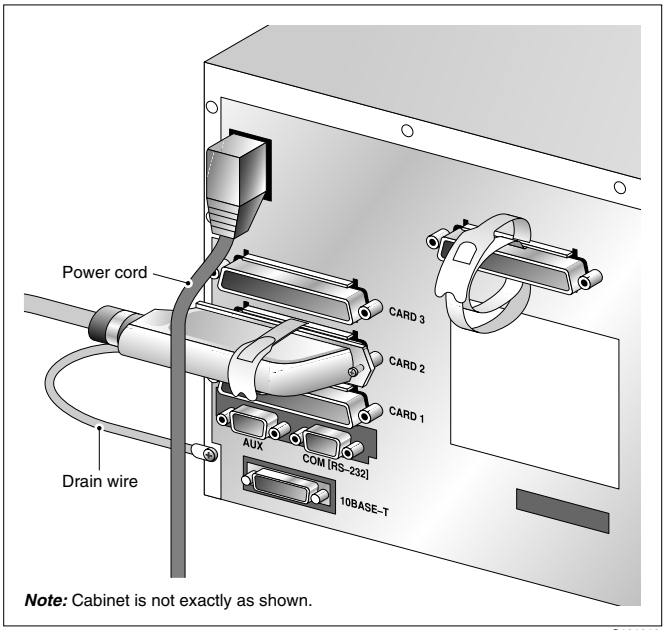
The following diagram shows how to secure the multi I/O cable connection:



3 Attach the multi I/O cable drain wire to a screw on the Media Gateway or Media Gateway Expansion.

See the diagram in step 4.

4 Connect the power cord to the Media Gateway or Media Gateway Expansion.



Note: Cabinet is not exactly as shown.

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What's next?

Prepare the modem, CD-ROM drive, and tape drive for connection to the 201i server. For instructions, see Chapter 7, "Preparing peripheral devices."

Chapter 7

Preparing peripheral devices

In this chapter

Overview 120

Setting the modem DIP switches 122

Setting the CD-ROM drive SCSI ID and DIP switches 124

Setting the tape drive SCSI ID 126

Setting SCSI device termination 128

Overview

Introduction

You can connect a modem and one or more SCSI devices to the 201i server.

The modem is connected to the 201i server by the multi I/O cable.

The SCSI devices are connected to the 201i server by the intermediate SCSI cable. If there is more than one SCSI device, the devices are daisy chained together. Each device on the SCSI bus must have a unique SCSI ID, and only the last device in the chain is terminated.

Supported SCSI devices

You need an external CD-ROM drive to upgrade, reinstall, and configure the 201i server. Since the CD-ROM drive is an external device, it requires its own AC power source.

You can use an external SCSI tape drive to back up and restore data. Since the tape drive is an external device, it also requires its own AC power source.



CAUTION

Risk of equipment damage

The CD-ROM and tape drives are not hot-pluggable. You must power off the 201i server before you connect or disconnect either drive.

Note: You can optionally use the hard drive on an administration PC instead of a tape drive to perform and store backups.

This section discusses the following drives:

- CD-ROM (NTRH9105): external SCSI CD-ROM drive

- tape drive (NTRH9038): Tandberg SLR5 tape drive
  Note: This is currently the only supported tape drive.

DIP switches, SCSI ID, and SCSI device termination settings

For correct operation with the 201i server, you must set the following:

- DIP switches on the modem and CD-ROM drive
- SCSI ID and device termination on the CD-ROM and tape drives

Setting the modem DIP switches

Introduction

Set the modem DIP switches to their default settings. This section describes how to set the modem DIP switches if they have been changed from the default settings.

To set the modem DIP switches

Ensure that the DIP switches are set as described in the following table. Use a pair of tweezers or small screwdriver to set the DIP switches.

Note: The DIP switches are located on the back of the modem. ON is down. OFF is up.

DIP switch	Default setting	Function
1	OFF	Data Terminal Ready (DTR) override ■ OFF: Normal DTR operations (The computer must provide a DTR signal for the modem to accept commands. When DTR is dropped, the call is terminated.) ■ ON: Modem ignores DTR (override)
2	OFF	Verbal/numeric result codes ■ OFF: Displays verbal (word) results ■ ON: Displays numeric results
3	ON	Result code display ■ OFF: Suppresses result codes ■ ON: Enables result codes

DIP switch	Default setting	Function
4	OFF	Command mode local echo suppression ■ OFF: Displays keyboard commands ■ ON: Suppresses echo
5	ON	Auto answer suppression ■ OFF: Modem answers on first ring, or higher if specified in NVRAM ■ ON: Disables auto answer
6	OFF	Carrier Detect (CD) override ■ OFF: Modem sends CD signal when it connects with another modem; drops CD on disconnect ■ ON: CD is always ON (override)
7	OFF	Power-on and ATZ reset software defaults ■ OFF: Loads Y or Y1 configuration from user-defined nonvolatile memory (NVRAM) ■ ON: Loads &F0-Generic template from read-only memory (ROM)
8	ON	AT command set recognition ■ OFF: Disables command recognition (dumb mode) ■ ON: Enables recognition (smart mode)

Setting the CD-ROM drive SCSI ID and DIP switches

Introduction

This section describes how to set the CD-ROM drive SCSI ID and DIP switches.

ATTENTION

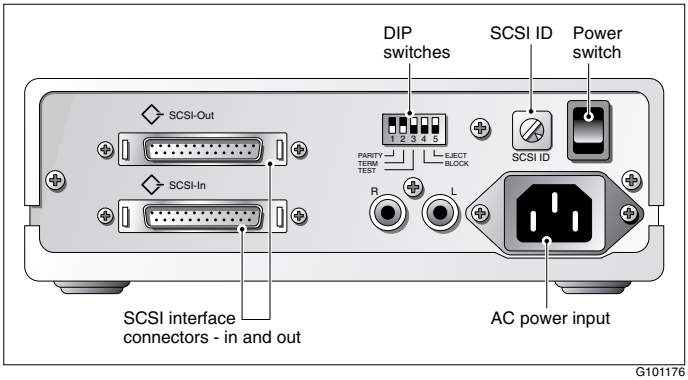
You must power down the CD-ROM drive before changing the SCSI ID and DIP switches.

Note: The CD-ROM drive discussed in this section is the external SCSI CD-ROM drive (NTRH9105).

To set the CD-ROM drive SCSI ID

The SCSI ID setting is located on the back of the CD-ROM drive. (See the diagram that follows.)

To change the SCSI ID, use the blade of a screwdriver to rotate the SCSI ID dial arrow to 3.



To set the CD-ROM drive DIP switches

Set the CD-ROM drive DIP switches as described in the following table:

DIP switch	Description	Setting
1	Parity	ON
2	Termination	**Note:** For more information about daisy chaining SCSI devices, see "Setting SCSI device termination" on page 128. If the CD-ROM drive is the first and only device, set this switch to ON. If the CD-ROM drive is the first device and daisy chained with the tape drive, set this switch to OFF.
3	Test	OFF (for factory use only)
4	Block	OFF
5	Eject	OFF **Note:** If this switch is set to ON, the eject button on the CD-ROM drive is disabled. To eject the CD-ROM from the drive, a software eject command must be sent over the SCSI bus.

What's next?

If you are also installing a tape drive, set the tape drive SCSI ID (see page 126); otherwise, set the CD-ROM drive device termination (see page 128).

Setting the tape drive SCSI ID

Introduction

This section describes how to set the tape drive SCSI ID.

ATTENTION

You must power down the tape drive before changing the SCSI ID.

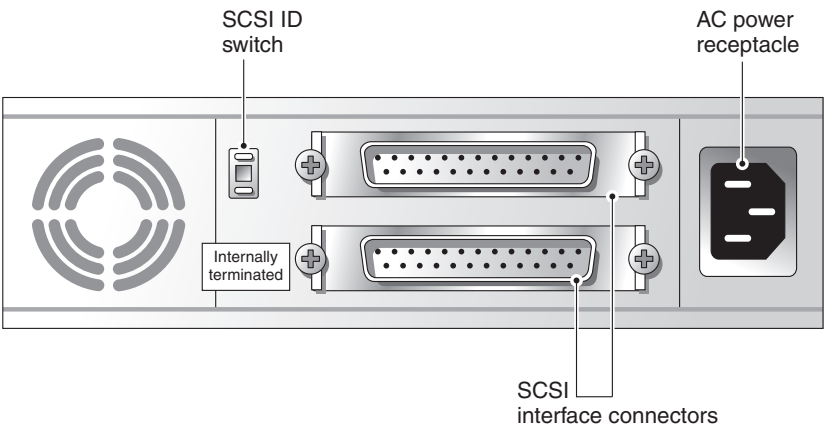
Note: The tape drive discussed in this section is the Tandberg SLR5 tape drive (NTRH9038). This is currently the only supported tape drive.

To set the tape drive SCSI ID

The SCSI ID setting is located on the back of the tape drive. See the diagram on page 127.

Note: The appearance and size of the tape drive cabinet is subject to change. The diagram is an example of the key components.

To change the SCSI ID, use the blade of a screwdriver to press either the plus (+) or minus (–) button on the SCSI ID switch. Set the SCSI ID to 5.



Note: The appearance and size of the tape drive is subject to change. This diagram is an example of the key components on the tape drive's connection panel.

G101183

Setting SCSI device termination

Introduction

If you want to connect SCSI devices in a daisy chain, the last device in the daisy chain must be terminated. This section describes how to terminate the SCSI devices.

ATTENTION

Ensure that the CD-ROM and tape drives are powered down before changing the device termination.

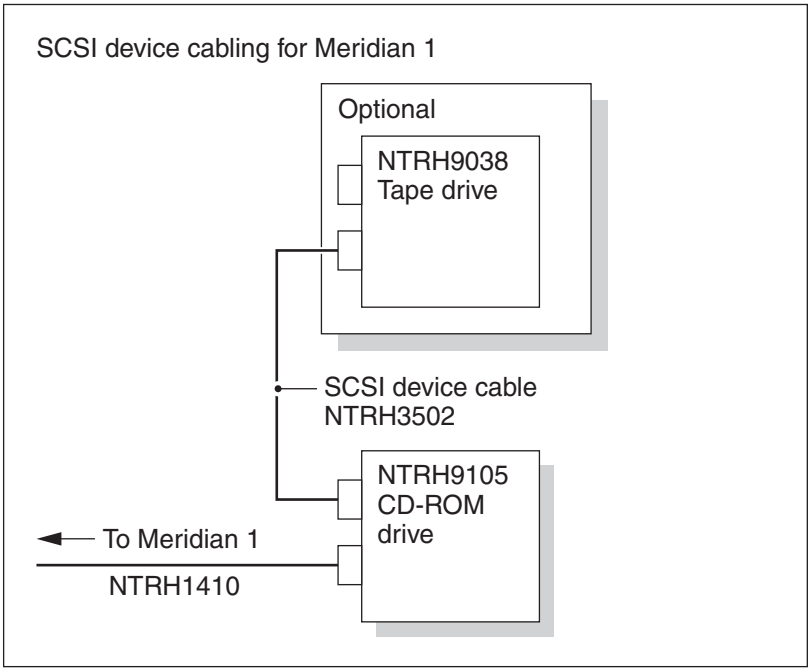
Supported daisy chain connection scenarios

The first device in a SCSI device daisy chain can be either the tape drive or the CD-ROM drive. However, because the Tandberg SLR5 tape drive is already internally terminated at the factory, Nortel recommends that you connect the tape drive as the last device.

The following diagrams show the supported daisy chain and SCSI cable connections for your switch. The CD-ROM drive is the first device in the daisy chain. The tape drive is the last device.

Meridian 1

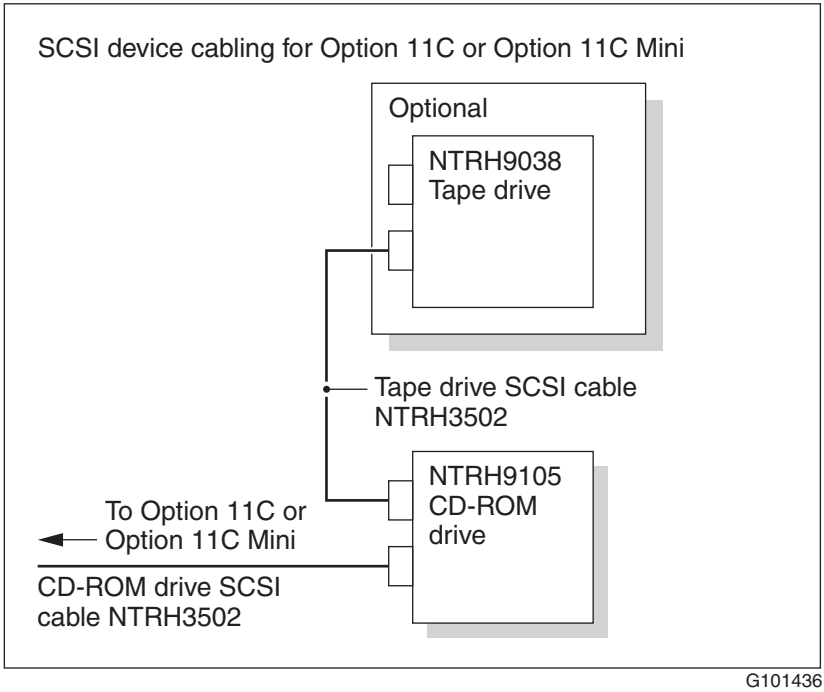
For more information about the cabling requirements, see “Installing the SCSI cables for Meridian 1” on page 63.



Option 11C, Option 11C Mini

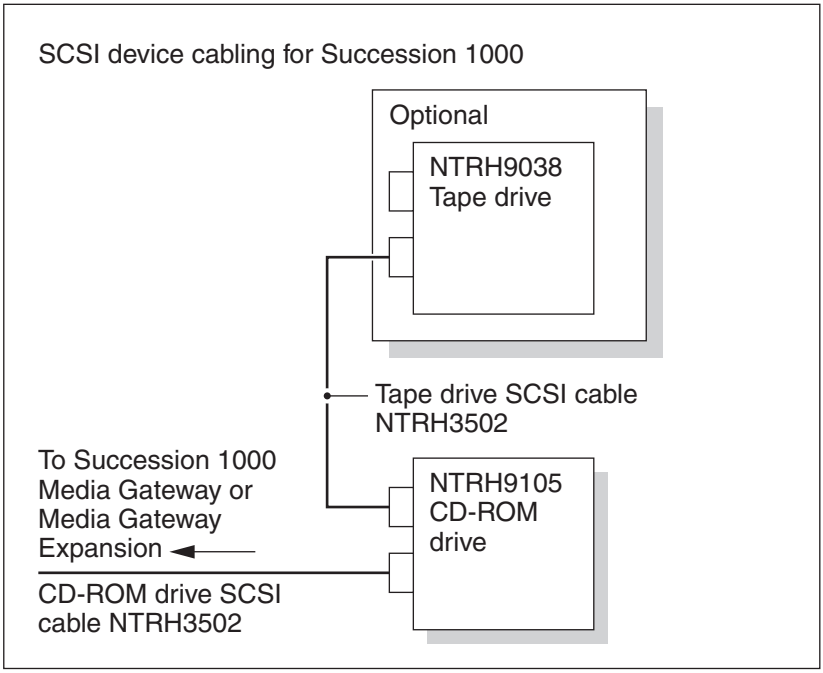
For more information about the cabling requirements, see one of the following:

- “Installing the intermediate SCSI cable for Option 11C” on page 76
- “Installing the NTRH3502 SCSI cable for Option 11C Mini” on page 84



Succession 1000

For more information about the cabling requirements, see “Installing the NTRH3502 SCSI cable for Succession 1000” on page 108.



To set device termination

Terminate the SCSI devices as described in the following table:

IF you are connecting	THEN
a CD-ROM drive only	set DIP switch 2 on the back of the CD-ROM drive to ON. This terminates the drive.

IF you are connecting	THEN
a tape drive only	do nothing. External termination is not required because the drive is already internally terminated. This is indicated by a label on the back or front of the tape drive.
both a CD-ROM drive and a tape drive (the tape drive is the last device)	set DIP switch 2 on the back of the CD-ROM drive to OFF. The tape drive is internally terminated. External termination is not required.

What's next?

Complete the 201i server installation in the switch. See Chapter 8, "Connecting peripheral devices to the 201i server."

Chapter 8

Connecting peripheral devices to the 201i server

In this chapter

Overview 134
Installing the MPCs 138
Installing the monitor, keyboard, and mouse 140
Connecting the CD-ROM and tape drives 142
Connecting the 201i server to the switch, ELAN, and CLAN 151
Connecting the modem 154
Completing the installation 157

Overview

Introduction

This section describes installing the 201i server in the switch, connecting peripheral devices, and starting the 201i server.

Connecting the 201i server to the network

The switch, ELAN, CLAN, and modem connections are established by using the 201i server multi I/O cable.

The switch connector is a 50-pin amphenol connector.

The RJ-45 CLAN and ELAN connectors support the following network protocols:

- ELAN: 10Base-T Ethernet
- CLAN: 10/100Base-T Ethernet

The modem connector is a 9-pin male RS-232 connector. To connect this cable to the modem, you also need a 25-pin male to 9-pin female shielded serial cable (A0601464, supplied with the modem).

Connecting peripheral devices

MPC cards

Two MPC-8 cards are preinstalled at the factory. This section describes how to install additional cards, if required.

CD-ROM and tape drives

Before you connect CD-ROM and tape drives, ensure that you have set the SCSI ID, termination, and DIP switches as described in Chapter 7, “Preparing peripheral devices.”

Monitor, keyboard, and mouse

Connect the monitor, keyboard, and mouse to the 201i server faceplate so that you can:

- observe the 201i server startup process.
- run the Configuration Wizard.
- perform initial administration after installation.

The 201i server is not intended to operate with permanent monitor, keyboard, and mouse connections. Once you have successfully started and configured the 201i server, remove the monitor, keyboard, and mouse. For day-to-day administration, use a web browser on a PC that is connected to the ELAN or CLAN.

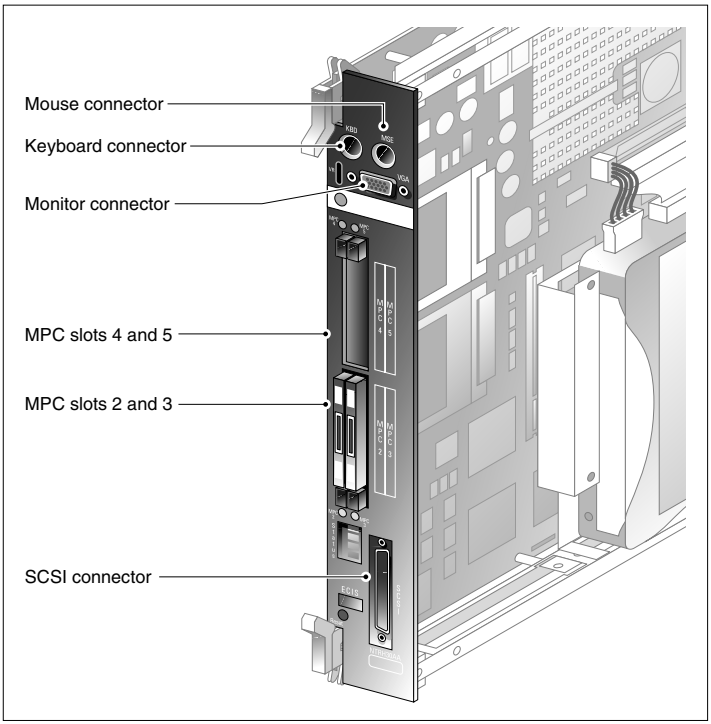
Modem

The modem must be connected to the 201i server if:

- you want to administer the 201i server from a remote location.
- you need assistance from Nortel technical support.

201i server faceplate and peripheral device connectors

The following diagram identifies the peripheral device connectors and slots on the 201i server faceplate:



Starting the 201i server

When you lock the 201i into position against the switch backplane, the server starts automatically. You can observe the startup process on both the monitor and the 201i server faceplate.

ATTENTION

Ensure that all peripheral devices are connected before you lock the 201i server in position against the backplane.

The 201i server receives power and starts when the connection with the backplane is established.

Before you begin

Before you connect the peripheral devices, ensure that you have completed the following tasks:

1. Set the DIP switches on the external fax modem. See page 122.
2. Prepare the SCSI CD-ROM and tape drives. See the following:
   - “Setting the CD-ROM drive SCSI ID and DIP switches” on page 124
   - “Setting the tape drive SCSI ID” on page 126
   - “Setting SCSI device termination” on page 128

Installing the MPCs

Introduction

Two MPCs are preinstalled at the factory. This section describes how to install additional cards, if required.

Correct card insertion

The MPC-8 card is keyed so that it fits only one way into the slot on the 201i server faceplate. If the card is inserted incorrectly, the card does not go all the way into the slot.



CAUTION

Risk of equipment damage

If you force the card into the slot incorrectly, you can damage the MPC-8 card and 201i server.

To install the MPCs

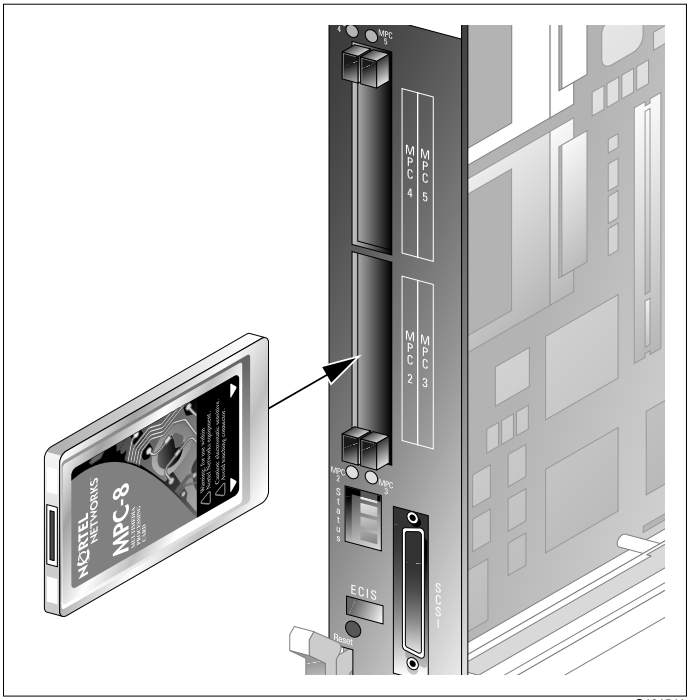
1 Do one of the following:

IF	THEN
MPCs are already installed	ensure that they are firmly seated in their slots.
you want to install additional MPCs	continue with the rest of this procedure.

2 Ensure that the MPC-8 card label is facing one of the following ways:

- facing up if the 201i server is lying horizontally on a flat surface, with the top lock latch on the left

- facing to the right if the 201i server is inserted into the 201i shelf (see the following diagram)



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3 Insert the card into the slot, and gently push it until it is firmly in place and the ejector button pops back out.

Note: Populate MPC slots in numerical order as listed on the 201i server faceplate.

What's next?

Continue with "Installing the monitor, keyboard, and mouse" on page 140.

Installing the monitor, keyboard, and mouse

Introduction

You must connect the monitor, keyboard, and mouse to the 201i server so that you can:

- observe the 201i server startup process.
- run the Configuration Wizard.
- perform initial administration after installation.

Note: The 201i server is not intended to operate with permanent monitor, keyboard, and mouse connections. Once you have successfully started and configured the 201i server, remove the monitor, keyboard, and mouse. For day-to-day administration, use a web browser on a PC that is connected to the ELAN or CLAN.

Hardware requirement



CAUTION

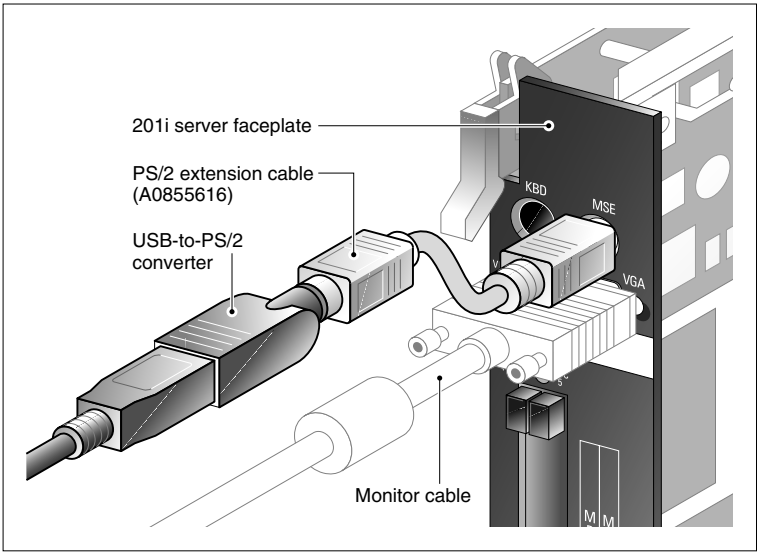
Risk of equipment damage

The mouse connector on the 201i faceplate is a PS/2 connector. If you plan to use a USB mouse with USB-to-PS/2 converter, you must also use the Nortel-supplied 4-inch PS/2 extension cable (A0855616).

Without the extension cable, the USB-to-PS/2 mouse connector is partially blocked by the monitor connector.

PS/2 extension cable

The following diagram shows the PS/2 extension cable connected between the 201i server and the USB mouse with USB-to-PS/2 converter.



To connect the monitor, keyboard, and mouse

1. Connect the monitor to the 201i server faceplate using a DB-15 cable.
2. Connect the monitor power cord, and then power up the monitor.
3. Connect the keyboard and mouse to the 201i server faceplate using standard PS/2 connectors.

What's next?

Continue with "Connecting the CD-ROM and tape drives" on page 142.

Connecting the CD-ROM and tape drives

Introduction

You can connect the CD-ROM, tape drive, or both to the intermediate SCSI cable that you installed earlier.

Before you begin

Before you can connect the CD-ROM or tape drive, ensure that you have completed the following tasks:

1. Install the intermediate SCSI cable.

For	See
Meridian 1	"Installing the SCSI cables for Meridian 1" on page 63.
Option 11C	"Installing the intermediate SCSI cable for Option 11C" on page 76.
Option 11C Mini	"Installing the NTRH3502 SCSI cable for Option 11C Mini" on page 84.
Succession 1000	"Installing the NTRH3502 SCSI cable for Succession 1000" on page 108.

2. Set the SCSI ID and device termination settings as described in
   - "Setting the CD-ROM drive SCSI ID and DIP switches" on page 124
   - "Setting SCSI device termination" on page 128

Selecting the procedure for your switch

IF you are working with	THEN see
a large Meridian 1 switch (such as Option 51)	"To connect the CD-ROM and tape drives to the 201i server (Meridian 1)" on page 143.
Option 11C	"To connect the CD-ROM and tape drives to the 201i server (Option 11C)" on page 145.
Option 11C Mini	"To connect the CD-ROM and tape drives to the 201i server (Option 11C Mini)" on page 147.
Succession 1000	"To connect the CD-ROM and tape drives to the 201i server (Succession 1000)" on page 149.

To connect the CD-ROM and tape drives to the 201i server (Meridian 1)

Note: If you are connecting the SCSI devices to the Option 11C, go to page 145. If you are connecting the SCSI devices to the Option 11C Mini, go to page 147.

1 Connect the first SCSI device.

2 Follow instructions below:

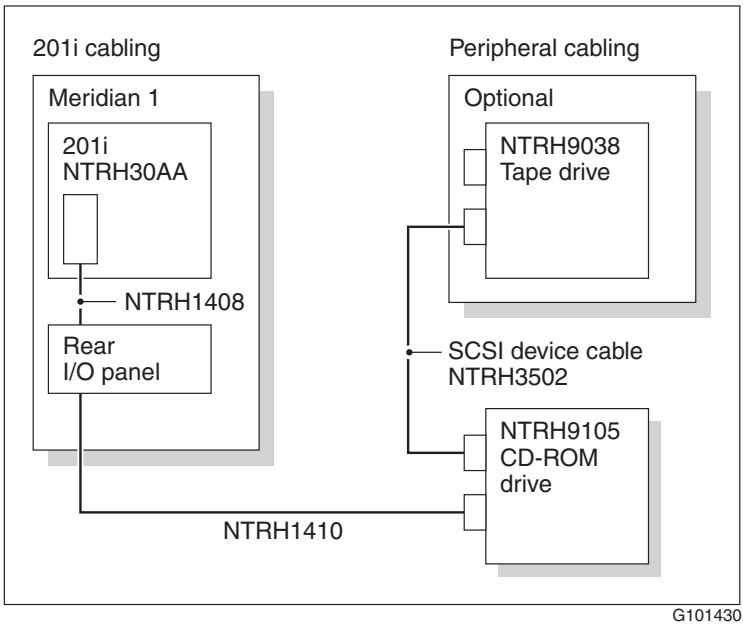
IF the first device is the	THEN
CD-ROM drive	connect the CD-ROM drive to the NTRH1410 cable that you connected earlier to the Meridian 1 I/O panel.

IF the first device is the	THEN
tape drive	do the following: **a.** Attach the A0769312 SCSI adapter to the tape drive. **b.** Connect the SCSI adapter to the NTRH1410 cable that you connected earlier to the Meridian 1 I/O panel.

3 Connect the low-profile right-angle SCSI cable connector to the SCSI connector on the 201i server faceplate.

4 Connect an additional device in a daisy chain, if required, using either the SCSI cable supplied with the device or an NTRH3502 cable.

The following diagram shows cable connections, where the CD-ROM is the first device:



Note: Alternate SCSI device connection scenarios are supported, but are not depicted in this guide. If you want to use a connection scenario

that is not described in this guide, ensure that you use appropriate cabling for each SCSI device.

5 Connect the power cord for each device.

6 Power up the devices.

7 Continue with “What’s next?” on page 150.

To connect the CD-ROM and tape drives to the 201i server (Option 11C)

1 Connect the first SCSI device.

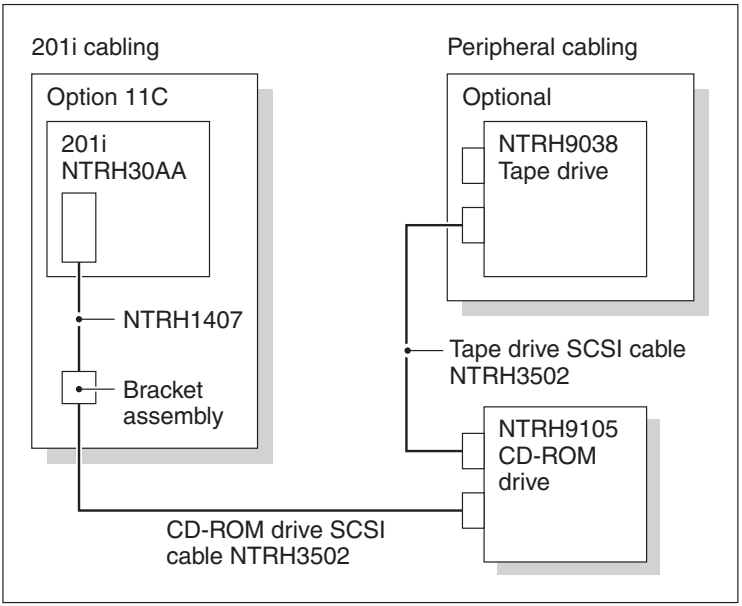
2 Follow instructions below:

IF the first device is the	THEN
CD-ROM drive	connect the NTRH3502 SCSI cable from the CD-ROM drive to the SCSI connector that is located on the intermediate SCSI cable bracket assembly (NTRH1407) on the Option 11C.
tape drive	do the following: **a.** Attach the A0769312 SCSI adapter to the tape drive. **b.** Connect the NTRH3502 SCSI cable from the adapter to the SCSI connector that is located on the intermediate SCSI cable bracket assembly (NTRH1407) on the Option 11C.

3 Connect the low-profile right-angle SCSI cable connector to the SCSI connector on the 201i server faceplate.

4 Connect an additional device in a daisy chain, if required, using either the SCSI cable supplied with the device or an NTRH3502 cable.

The following diagram shows cable connections, where the CD-ROM drive is the first device:



Note: Alternate SCSI device connection scenarios are supported, but are not depicted in this guide. If you want to use a connection scenario that is not described in this guide, ensure that you use appropriate cabling for each SCSI device.

5 Connect the power cord for each device.

6 Power up the devices.

7 Continue with “What’s next?” on page 150.

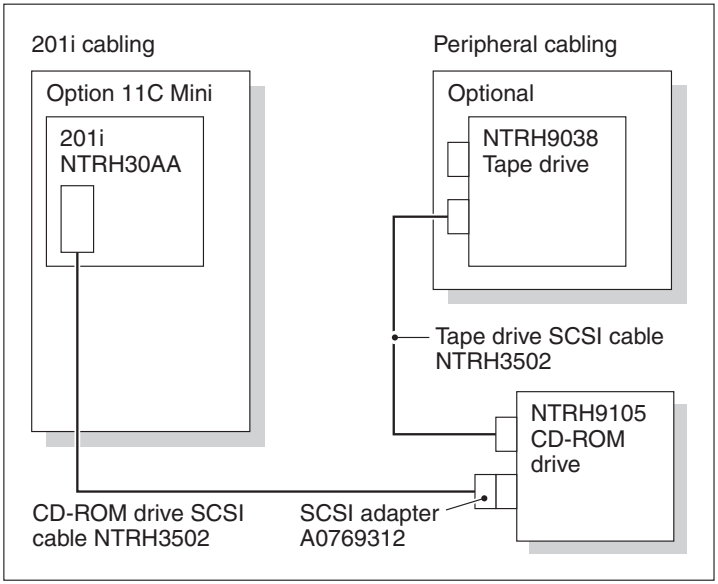
To connect the CD-ROM and tape drives to the 201i server (Option 11C Mini)

1. Connect the first SCSI device.
2. Follow instructions below.

IF the first device is the	THEN
CD-ROM drive	do the following: **a.** Attach the A0769312 SCSI adapter to the CD-ROM drive. **b.** Connect the NTRH3502 SCSI cable that you installed earlier on the Option 11C Mini to the SCSI adapter on the CD-ROM drive.
tape drive	connect the NTRH3502 SCSI cable that you installed earlier on the Option 11C Mini to the tape drive.

3. Connect the low-profile right-angle SCSI cable connector to the SCSI connector on the 201i server faceplate
4. Connect an additional device in a daisy chain, if required, using either the SCSI cable supplied with the device or an NTRH3502 cable.

   The following diagram shows cable connections, where the CD-ROM drive is the first device:



Note: Alternate SCSI device connection scenarios are supported, but are not depicted in this guide. If you want to use a connection scenario that is not described in this guide, ensure that you use appropriate cabling for each SCSI device.

5 Connect the power cord for each device.

6 Power up the devices.

7 Continue with “What’s next?” on page 150.

To connect the CD-ROM and tape drives to the 201i server (Succession 1000)

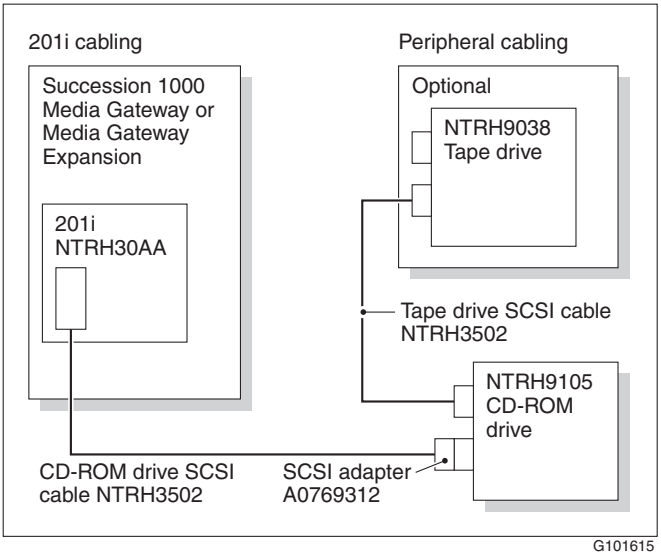
1 Connect the first SCSI device.

2 Follow instructions below:

IF the first device is the	THEN
CD-ROM drive	do the following: **a.** Attach the A0769312 SCSI adapter to the CD-ROM drive. **b.** Connect the NTRH3502 SCSI cable that you installed earlier on the Succession 1000 Media Gateway or Media Gateway Expansion to the SCSI adapter on the CD-ROM drive.
tape drive	connect the NTRH3502 SCSI cable that you installed earlier on the Succession 1000 Media Gateway or Media Gateway Expansion to the tape drive.

3 Connect an additional device in a daisy chain if required, using either the SCSI cable supplied with the device or an NTRH3502 cable.

The following diagram shows cable connections, where the CD-ROM drive is the first device:



Note: Alternate SCSI device connection scenarios are supported, but are not depicted in this guide. If you want to use a connection scenario that is not described in this guide, ensure that you use appropriate cabling for each SCSI device.

4 Connect the power cord for each device.

5 Power up the devices.

What's next?

Continue with "Connecting the 201i server to the switch, ELAN, and CLAN" on page 151.

Connecting the 201i server to the switch, ELAN, and CLAN

Introduction

The CLAN and ELAN connections are established by using the 201i server multi I/O cable.

ATTENTION

For important considerations about using the Embedded LAN (ELAN) in your network, see "About the ELAN" in the *CallPilot Installation and Configuration Task List*.

To establish the switch and network connections

1 Do one of the following:

IF you are installing the 201i server in a	THEN
large Meridian 1 (for example, Option 51C)	ensure that the 50-pin amphenol connector on the multi I/O cable (NTRH0912) is connected to the newly installed backplane cable (NTRH3501) on the I/O panel at the rear of the switch.
Option 11C	connect the 50-pin amphenol connector on the multi I/O cable (NTRH0912) to the high-density connector associated with the left slot occupied by the 201i server.

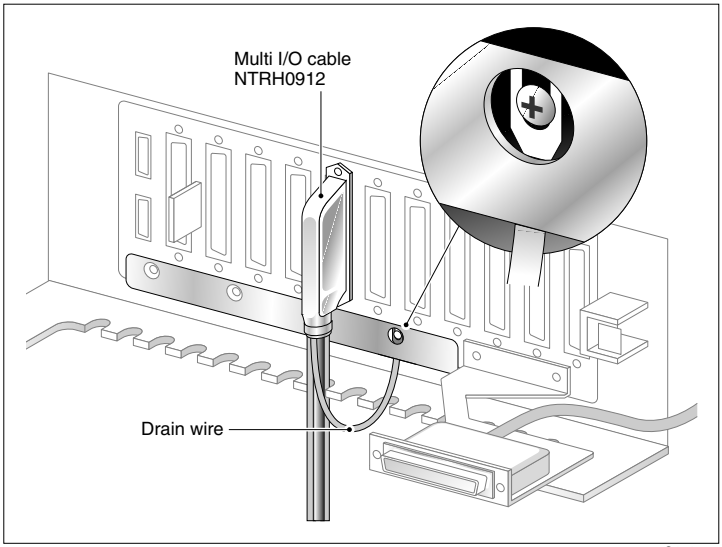
IF you are installing the 201i server in a	THEN
Option 11C Mini or Succession 1000	ensure that the 50-pin amphenol connector on the multi I/O cable (NTRH0912) is connected to the high-density connector associated with the left slot occupied by the 201i server.

Note: Ensure that the cable is securely fastened.

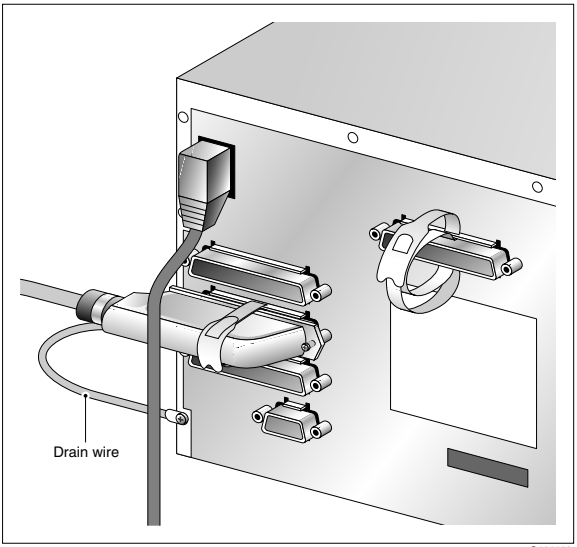
2 If you have not already done so, connect the amphenol connector drain wire as follows:

- Option 11C or Meridian 1 to the nearest backplane grounding bolt on the switch

  The following diagram shows drain wire connection on the Option 11C.



- Option 11C Mini or Succession 1000 to a screw on the back of the cabinet



3 Connect the connector on the multi I/O cable that is labeled as ELAN to the switch network hub.

4 If CLAN is required, connect the connector on the multi I/O cable that is labeled as CLAN to the CLAN 10- or 100Base-T-compliant network hub.

What's next?

Continue with "Connecting the modem" on page 154.

Connecting the modem

Introduction

You must connect the modem to the 201i server if:

- you want to administer the 201i server from a remote location.
- you need assistance from Nortel technical support.

Required equipment

To install the modem, you need the following items:

- analog external modem that includes
  - RJ-11 analog phone cord
  - power adapter cord
  - 56 kbps modem (NTRH9078)
- 25-pin male to 9-pin female shielded serial cable (A0601464)
- two 0.25-inch nuts for installation between the following:
  - RS-232 connector thumbscrews on the multi I/O cable; maximum length 15 m (50 ft)
  - 9-pin connector thumbscrews on the 25-pin male to 9-pin female shielded serial cable
- analog line jack

To connect the modem

1 Ensure that the DIP switches are set as described in “Setting the modem DIP switches” on page 122.

2 Attach the serial cable as follows:

   a. Connect the 25-pin male end of the serial cable to the modem.

   b. Attach the 0.25-inch nuts to the thumbscrews on the 9-pin female connector on the serial cable.

   c. Connect the 9-pin female connector to the RS-232 COM1 connector on the multi I/O cable and tighten the nuts.

3 Connect one end of the RJ-11 phone cord to the line jack on the modem and the other end to an analog jack.



CAUTION

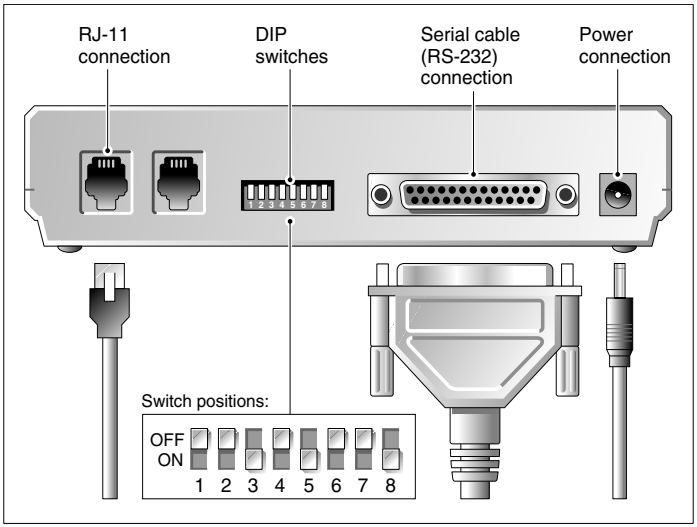
Risk of equipment damage

Connect the modem to an analog line only. The use of a non-analog line (for example, digital or Multiline) can damage the modem.

4 Plug the power cord into an electrical outlet with an isolated ground.

5 Plug the other end of the power cord into the modem power connector.

Result: The back of the modem appears similar to the following:



6 Power on the modem.

Note: Ensure that the modem is receiving power by checking that at least one LED on its front panel is lit.

7 Place the modem in an area where it cannot be accidentally damaged or where people cannot trip over attached cords.

What's next?

Continue with "Completing the installation" on page 157.

Completing the installation

Introduction

To complete the installation of the 201i server, lock the 201i into position. The server starts up automatically.

ATTENTION

When connecting the optional CLAN, do not power up unless your antivirus programs and Nortel security updates are installed first.

To complete the installation and start the 201i server

Note: Ensure that the switch in which the 201i is installed is powered on.

1. Ensure that all peripheral devices are powered up (including the 201i shelf).
2. Push the 201i server gently but firmly until it is flush with the backplane.

   Result: The 201i server beeps for three seconds to indicate that power is being received.
3. Close the lock latches to secure the 201i server to the backplane.
4. Ensure that the power status LED is lit.
5. Watch the HEX display on the 201i server.

   The HEX display shows T:01 through T:08, and then HOST. This takes about 13 seconds.

Result: The operating system boot sequence begins, and communication with the switch occurs. The HEX display shows NT (for about 30 seconds), followed by OK.

Note: The system reboots more than once. The HEX display repeats with each reboot.

Note: Before OK appears, one of the following messages can appear, but not for more than one second: `CDLN`, `C:01`, or `C:02`. This is normal operation.

If OK does not appear, refer to the CallPilot server maintenance and diagnostics guide for your server for troubleshooting instructions.

6 Ensure that the operating system logon window appears on the monitor.

If the logon window does not appear, refer to the *CallPilot <server model> Server Maintenance and Diagnostics* guide for your server for troubleshooting instructions.

What's next?

Proceed with the *CallPilot <switch model> and CallPilot Server Configuration* guide for your switch and server to connect and configure the server and switch.

Appendix A

RoHS part conversion table

In this appendix

RoHS part conversion table 162

RoHS part conversion table

This appendix provides a mapping of RoHS-compliant parts to the equivalent non-RoHS-compliant parts for the 201i server. In the latter part of 2006, Nortel is phasing in RoHS-compliant 201i servers in countries affected by the EUED (European Union Environmental Directives).

Use this table

- during installation, to convert the non-RoHS part numbers used in this guide to their RoHS-compliant equivalent
- when ordering replacement parts for RoHS-compliant 201i servers

Table 1: RoHS part conversion table

Type	RoHS part description *(The non-RoHS part description is included below in parentheses if it is different from the RoHS part description)*	RoHS PEC Code	Non-RoHS PEC Code
Pkg	**201i E5 Server Chassis Sub-Assembly** *(Non-RoHS: CallPilot 4.0 IPE System)*	**NTUB01CAE5**	NTZE80CA
Pkg	**CallPilot 4.0 IPE 201i Migration Server** *(Non-RoHS: CallPilot 4.0 201i Migration Server)*	**NTZE84ABE5**	NTZE84AB
Pkg	**CallPilot 4.0 IPE Unified Messaging Starter Bundle (EMEA Bundle)**	**NTZE46BAE5**	NTZE46BA
Pkg	**CallPilot 4.0 IPE Stand-By System**	**NTZE84BAE5**	NTZE84BA
Pkg	**CallPilot 4.0 IPE 201i 24 MPU Warranty System**	**NTZE35OBE5**	NTZE35OB
Pkg	**CallPilot ELAN IPE Sys - 16 MPU Expansion Kit (MPUs 25 to 40)**	**NTUB91AAE5**	NTUB91AA
Pkg	**IPE H/W Kit for: 11C Mini, 1000M Chassis, Media Gateway 1000B, and CS 1000S**	**NTUB93AAE5**	NTUB93AA
Pkg	**IPE H/W Kit for: Option 11C, 1000M Cabinet, and CS 1000E**	**NTUB93BAE5**	NTUB93BA
Pkg	**IPE H/W Kit for: Option 51C – 81C, 1000M SG, 1000M HG, and 1000 MG**	**NTUB93CAE5**	NTUB93CA
Pkg	**201i Support Modem** *(Non-RoHS: CallPilot Remote Access (RAS) Modem Kit)*	**NTRH9248E6**	NTUB16AB
Pkg	**CallPilot External SCSI Tape Drive Kit**	**NTUB53BAE5**	NTUB53AB

Table 1: RoHS part conversion table (cont'd)

Type	RoHS part description *(The non-RoHS part description is included below in parentheses if it is different from the RoHS part description)*	RoHS PEC Code	Non-RoHS PEC Code
Pkg	**CallPilot External CD-ROM Drive Kit**	**NTUB59ACE5**	NTUB59AC
FRU	**MPC-8**	**NTRH01AAE5**	NTRH01AA
FRU	**H/W Portable Tape Drive Assembly**	**NTRH9236E6**	NTRH9038
FRU	**H/W Assy Portable CD ROM Drive**	**NTRH9105E5**	NTRH9105
FRU	**SCSI Adapter, 50p Centronics to HD**	**NTRH9251E6**	A0769312
FRU	**SCSI-3 Adapter, 68p HD Male to 50p Centronics Female**	**NTRH9258E6**	A0677506
FRU	**Multi I/O w/ Dual Ethernet**	**NTRH0912E6**	NTRH0912
FRU	**M1 Unfiltered R/T Cable**	**NTRH3501E6**	NTRH3501
FRU	**External SCSI Tape Cable**	**NTRH3502E6**	NTRH3502
FRU	**14ft Shielded Ethernet Cable**	**NTRH9250E6**	A0769310
FRU	**SCSI Gender Changer for 11C Mini / CS 1000S**	**NTRH9257E6**	A0882476
FRU	**Cable Assembly for Option 11C SCSI Cabinet**	**NTRH1407E6**	NTRH1407
FRU	**CallPilot Faceplate to Bulkhead SCSI Cable**	**NTRH1408E6**	NTRH1408

Table 1: RoHS part conversion table (cont'd)

Type	RoHS part description *(The non-RoHS part description is included below in parentheses if it is different from the RoHS part description)*	RoHS PEC Code	Non-RoHS PEC Code
FRU	**M1 Bulkhead SCSI Cable**	**NTRH1410E6**	NTRH1410
FRU	**External SCSI Tape Cable**	**NTRH3502E6**	NTRH3502
FRU	**Combo Key/Mouse** *(Non-RoHS: HW Perip 101 Enhanced K/Board)*	**NTRH9234E5**	NTRH9013
FRU	**Combo Key/Mouse** *(Non-RoHS: 3 Button Mouse)*	**NTRH9234E5**	NTRH9014
FRU	**15 Inch LCD Monitor** *(Non-RoHS: 15" Flat-panel LCD Display Monitor)*	**NTRH9235E6**	N0038380
FRU	**Spare Cleaning Cartridge** *(Non-RoHS: Cleaning Cartridge)*	**NTRH9237**	A0677506
FRU	**Spare SLR75 Media** *(Non-RoHS: Data Cartridge 4.0/8.0 Associated with Tandberg)*	**NTRH9238**	A0780247
Ref Only	**Nortel Standard Security Device** *(Non-RoHS: Security Device (Dongle))*	**NTDK57ACE6**	NTDK57AA

Index

Numerics

201i server
  components, diagram 16
  damaged, what to do 40
  faceplate
    connections 29
    description 18–20
    diagram 17, 136
  inspecting 40
  installation
    checklist 35–38
    prerequisites 42
  installing
    large Meridian 1 systems 54
    Option 11C 70
    Option 11C Mini 70
    Succession 1000 106
  motherboard, description 16
  network setup
    Meridian 1 22
    Succession 1000 24
  peripheral device connectors, diagram 136
  primary components 14
  relative humidity 21
  reset button 20
  RoHS compliance 14
  starting 137, 157–159
  Succession 1000 card slots 95–96, 105
  temperatures 21
  unpacking 39

A

administration software 100
attention
  CD-ROM drive and settings 124, 126, 128
  tape drive and settings 124, 126, 128
  telephony equipment and their services 79

B

backplane cable (tip and ring) 47, 60
  establishing connections 62
  removing from Meridian 1 59
backplane connector, secondary
  description 46, 49
  diagram 49
  installing for Meridian 1 50–53
  reason for moving 48
  required tools 50
booting the server 137, 157–159

C

cable, backplane (tip and ring) 47, 60
  establishing connections 62
  removing from Meridian 1 59
cable, multi I/O
  connections, establishing
    modem 154
    network 151
    switch 151

connectors
CLAN 27
ELAN 27
RS-232 28
switch 27
diagram 26
installing
large Meridian 1 system 151
Option 11C 151
Option 11C Mini 90, 152
Succession 1000 152
cable, SCSI 108
Meridian 1 47, 63
connections, establishing 67
installing 66
NTRH1407, diagram 77
Option 11C 76
bracket assembly, installing 80
connections, establishing 81
installing 79
Option 11C Mini 84
installing 86–89
Succession 1000, installing 109–111
cabling, SCSI devices
Meridian 1 129
Option 11C 130
Option 11C Mini 130
Succession 1000 131
card slots
MPC 19
Succession 1000 95–96
configuring 96–98
cards, MPC-8
inserting correctly 138
installing 138–139
cautions
backplane connector 47
modem and telephone line 155
MPC card 138
CD-ROM drive
back panel, diagram 124
connecting
Meridian 1 143
Option 11C 145
Option 11C Mini 147
Succession 1000 149
description 30
device termination, setting 131
DIP switches, setting 125
installation, attention 124, 126, 128
SCSI ID, setting 124
checklist, installation 35–38
CLAN
LED 20
requirements 26, 43
COM1 connector, multi I/O cable 28
connecting 201i server to
CD-ROM drive
Meridian 1 143
Option 11C 145
Option 11C Mini 147
Succession 1000 149
keyboard 141
modem 154
monitor 141
mouse 141
network 151–153
switch 151–153
tape drive
Meridian 1 143
Option 11C 145
Option 11C Mini 147
Succession 1000 149
connection requirements, Meridian 1 43, 46
connector, secondary backplane
description 46, 49
diagram 49
installing for Meridian 1 50–53
reason for moving 48
connectors
201i server faceplate 29
CLAN, multi I/O cable 27
COM1, multi I/O cable 28
ELAN, multi I/O cable 27

keyboard 18, 29
monitor 18, 29
mouse 18, 29
SCSI 30
SCSI device 19
switch, multi I/O cable 27
copyright 2
cover, removing
small Meridian 1 systems 71
Succession 1000 102–104
covers, replacing Succession 1000 112–114

D

daisy chaining SCSI devices
Meridian 1 129
Option 11C 130
Option 11C Mini 130
Succession 1000 131
damaged server, what to do 40
device termination, setting
CD-ROM drive 131
tape drive 132
devices, peripheral
CD-ROM drive 30
Ethernet hub 31
keyboard 31
modem 31
monitor 31
mouse 31
tape drive 31
devices, SCSI
cabling diagrams
large Meridian 1 systems 65, 144
Option 11C 78, 146
Option 11C Mini 85, 148
Succession 1000 108, 150
supported 120
diagrams
201i server
components 16
faceplate 17, 136
backplane (tip and ring) cable 60
connections, establishing 62
removing from Meridian 1 59
cable installation
NTRH1408 66
NTRH1410 66
NTRH3502
Option 11C Mini 88
Succession 1000 111
CD-ROM drive back panel 124
cover removal
small Meridian 1 systems 71
Succession 1000 103, 104
cover replacement, Succession 1000 112, 114
drain wire, connecting
Option 11C 152
Option 11C Mini 153
Succession 1000 153
modem connections 155
mouse, connecting 141
MPC-8 card, correct installation 139
multi I/O cable 26
NTRH3501 cable 60
power cord installation
Succession 1000 117
SCSI cable
large Meridian 1 systems 63, 67
Option 11C 77, 80, 81
Option 11C Mini 88
Succession 1000 111
SCSI device cabling
large Meridian 1 systems 65, 144
Option 11C 78, 146
Option 11C Mini 85, 148
Succession 1000 108, 150
secondary backplane connector 49
Succession 1000 system
Call Server 95
Media Gateway 99
Media Gateway Expansion 99
tape drive, back panel 127
DIP switches, setting

CD-ROM drive 125
modem 122
documentation, Succession 1000 101
drain wire, connecting
Option 11C 152
Option 11C Mini 153
Succession 1000 153

E

ejector buttons, MPCs 19
ELAN
LED 20
requirements 26, 43
environmental specifications
humidity 21
temperatures 21
Ethernet hub 31

F

faceplate, 201i server
connections 29
description 18–20
diagram 17, 136
peripheral device connectors 136
fax modem
connecting 154
DIP switches, setting 122

G

ground, single point 34

H

hard drive LED 20
hexadecimal (HEX) display 19
humidity, 201i server 21

I

IDs, setting SCSI
CD-ROM drive 124
tape drive 126
infrared port 18
inspecting the 201i server 40
installing
201i server
large Meridian 1 systems 54
overview 35–38
prerequisites 42
small Meridian 1 systems 70
Succession 1000 system 106
unpacking 39
MPC cards 138–139
NTRH3501 backplane (tip and ring) cable 61
SCSI cable
Meridian 1 66
Option 11C 79
Option 11C Mini 86–89
Succession 1000 109–111
secondary backplane connector for Meridian 1 50–53
intermediate SCSI cable
diagrams
Meridian 1 connections, establishing 67
Option 11C
bracket assembly, installing 80
connections, establishing 81
installing
on Meridian 1 66
Option 11C 79

K

keyboard 29
connecting 141
connector 18
description 31

L

latches, lock 18
LEDs
  CLAN 20
  ELAN 20
  hard drive 20
  MPC status 18–19
  power status 18
  SCSI drive 20
lock latches 18

M

Media Gateway and Media Gateway Expansion *See* Succession 1000
Meridian 1
  backplane (tip and ring) cable
    existing cables, removing 57
    NTRH3501, installing 61
  connection requirements 43
  I/O panel connections 46
  network setup 22
  SCSI cables, installing 66
  slot requirements 42
modem 31
  connecting 154
  connections diagram 155
  DIP switches, setting 122
monitor 29
  connecting 141
  connector 18
  description 31
motherboard, 201i server
  description 16
mouse 29
  connecting 141
  connection requirements 140
  connector 18
  description 31
MPC
  card slots 19
  ejector buttons 19
  status LEDs 18–19
MPC-8 card 30
  caution 138
  inserting correctly 138
    diagram 139
  installing 138–139
multi I/O cable 26
  connections
    modem 154
    network 151–153
    switch 151–153
  description
    CLAN connector 27
    ELAN connector 27
    RS-232 connector 28
    switch connector 27
  installing
    large Meridian 1 system 151
    Option 11C 151
    Option 11C Mini 90
    Succession 1000 115–116

N

network
  connections, establishing with multi I/O cable 151–153
  protocols, supported 25
  requirements 26, 42
NTRH0912 cable 26
  connections, establishing
    network 151–153
    switch 151–153
  installing 90
    large Meridian 1 system 151
    Option 11C 151
    Succession 1000 115–116
NTRH1407 cable 76
  diagram 77
  installation diagram 80, 81
  installing 79
NTRH1408 cable 56
  diagram 63

installation diagram 66
installing 66
NTRH1410 cable 64
installation diagram 66
installing 66
NTRH3501 cable 56
diagram 60
installing 61
NTRH3502 cable 84, 108
installation diagrams
Option 11C Mini 88
Succession 1000 111
installing
Option 11C Mini 86–89
Succession 1000 109–111

O

Option 11C Mini
multi I/O cable, installing 90
power cable
installing 91
SCSI cable 84
Option 11C, installing intermediate SCSI cable 79

P

part numbers
CD-ROM drive 30
Ethernet hub 31
keyboard 31
modem 31
monitor 31
mouse 31
RoHS mapped to non-RoHS 162
tape drive 31
peripheral devices
CD-ROM drive 30
Ethernet hub 31
keyboard 31
modem 31
monitor 31
mouse 31
tape drive 31
power status LED, description 18
protocols, supported network 25

R

regulatory information 2
relative humidity, 201i server 21
removing the backplane (tip and ring) cables 57
reset button, description 20
RoHS
compliance for the 201i server 14
parts list 162
RS-232 connector, multi I/O cable 28

S

SCSI cable 47, 108
Meridian 1 63
connections, establishing 67
installing 66
NTRH1407, diagram 77
Option 11C 76
bracket assembly, installing 80
connections, establishing 81
installing 79
Option 11C Mini 84
installing 86–89
Succession 1000 109–111
SCSI connectors 19, 30
SCSI devices
cabling diagrams
large Meridian 1 systems 65, 144
Option 11C 78, 146
Option 11C Mini 85, 148
Succession 1000 108, 150

daisy chain scenarios
Meridian 1 129
Option 11C 130
Option 11C Mini 130
Succession 1000 131
installation, attention 124, 126, 128
supported 120
SCSI drive LED 20
SCSI IDs, setting
CD-ROM drive 124
tape drive 126
secondary backplane connector
description 46, 49
diagram 49
installing for Meridian 1 50–53
reason for moving 48
required tools 50
server, 201i
components, diagram 16
damaged, what to do 40
faceplate 17, 136
inspecting 40
installation
checklist 35–38
prerequisites 42
installing
large Meridian 1 systems 54
Option 11C 70
Option 11C Mini 70
Succession 1000 106
network setup
Meridian 1 22
Succession 1000 24
peripheral device connectors, diagram 136
primary components 14
starting 137, 157–159
unpacking 39
setting
CD-ROM drive DIP switches 125
device termination
CD-ROM drive 131
tape drive 132
modem DIP switches 122
SCSI IDs
CD-ROM 124
tape drive 126
single-point ground 34
slot configuration, Succession 1000 96–98
slot requirements 42
small Meridian 1 systems 70
Succession 1000 95–96, 105
software
administration 100
Succession 1000 requirements 100
Succession 1000
card slots 105
configuring 96–98
covers, replacing 112–114
documentation 101
multi I/O cable, installing 115–116
network setup 24
power cable
installing 117
SCSI cable 108
slot requirements 42
system description 94
Call Server 94
Media Gateway 95
Media Gateway Expansion 95
software requirements 100
switch
connection, establishing with multi I/O cable 151–153
connector, multi I/O cable 27
requirements 42
switches, setting DIP
CD-ROM drive 125
modem 122

T

tape drive
back panel, diagram 127

connecting
Meridian 1 143
Option 11C 145
Option 11C Mini 147
Succession 1000 149
description 31
device termination, setting 132
installation, attention 124, 126, 128
setting SCSI ID 126
temperatures, 201i server 21
tip and ring cable 47, 60
establishing connections 62
installing NTRH3501 61
removing 57
removing from Meridian 1 59
trademarks 2

W

warning, working with the switch backplane 56

201i Server Hardware Installation

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