Nortel Symposium Call Center Server
1001t Hardware Installation Guide

Product release 1.0   Standard 1.0   May 1998

NORTEL
NORTHERN TELECOM

P0879480

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1001t Hardware Installation Guide

Publication number:	P0879480
Product release:	1.0
Document release:	Standard 1.0
Date:	May 1998

Publication history

May 1998   This document is the standard release of the *Nortel Symposium Call Center Server* 1001t Hardware Installation Guide.

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Procedures

Preface

About this guide

In this preface

Overview

Introduction   This guide provides the procedures for installing the hardware and peripherals for the 1001t Server.

For information on using or administering other tools and features of the Nortel Symposium Call Center Server components, refer to the appropriate document. To find out which document you need, see "Related documents" on page xvi.

Document sets   The following sets of documents are supplied with a Symposium Call Center Server system:

- Symposium Call Center Server guides
- Intel installation and user guide
- RAID controller guide (if installed)
- Ethernet and (if used) Token Ring network card guides
- modem guide

Who should read this guide   This guide is for Nortel (Northern Telecom) installers and distributors responsible for installing or upgrading the Nortel Symposium Call Center Server system.

Assumptions   This guide assumes that you are preparing to install a new Nortel Symposium Call Center Server.

This guide also assumes the following:

- The Meridian 1 switch is correctly installed, operational, and configured for use with Symposium Call Center Server.
- Meridian Mail, if it is used, is correctly installed, operational, and configured for use with Symposium Call Center Server.

- All customer-supplied client PCs are operational and running Windows 95, with the Service Pack supplied by Microsoft, or Windows 95 version 4.00.950B or higher (OSR2).
- The client network is installed and operational.

Skills you need

Introduction	This section describes the skills and knowledge you need to have to use this guide effectively.

Nortel product knowledge   Knowledge of, or experience with, the following Nortel products will be of assistance when installing the Nortel Symposium Call Center Server:

- Meridian Mail
- Meridian 1
- X11 Release 22 and greater

PC experience or knowledge   Knowledge of, or experience with, the following PC products is required before installing the Nortel Symposium Call Center Server:

- Microsoft Windows 95 and Windows NT
- client/server architecture
- TCP/IP

Other experience or knowledge   Other types of experience or knowledge that may be of use include the following:

- networking
- troubleshooting

Inside this guide

Introduction   The *Nortel Symposium Call Center Server 1001t Hardware Installation Guide* is structured as follows:

Chapter 1, "Getting started," provides a product description and introduction to Nortel Symposium Call Center Server. It contains checklists for collecting data required for software installation, and for required customer-supplied data and equipment; unpacking instructions; and procedures for preparing cables.

Chapter 2, "Installing hardware," contains the procedures for installing the hardware and peripherals for the 1001t Server.

The **Glossary** defines terms used in this guide, as well as related terms.

Related documents

Introduction   This section lists the documents in which you can find
                          additional information related to the Nortel Symposium Call
                          Center Server.

Nortel   The following documents contain information on planning your
Symposium Call   Nortel Symposium Call Center Server.
Center Server
planning

If you need information about	Refer to
• determining the size of a Symposium Call Center Server installation • determining your hardware and software requirements • planning your installation	*Nortel Symposium Call Center Server Planning and Engineering Guide*
• using the Capacity Assessment Tool • planning a new Symposium Call Center • hardware requirements for upgrading your current Symposium Call Center Server	*Nortel Symposium Call Center Server Capacity Assessment Tool User Guide*

Nortel   The following documents contain procedures for installing the
Symposium Call   Nortel Symposium Call Center Server hardware and software.
Center Server
installation

If you need information about	Refer to
• performing the initial hardware installation for the 701t platform	*Nortel Symposium Call Center Server 701t Hardware Installation Guide*
• performing the initial hardware installation for the 1000t platform	*Nortel Symposium Call Center Server 1000t Hardware Installation Guide*

• performing the initial hardware installation for the 1001t platform	*Nortel Symposium Call Center Server 1001t Hardware Installation Guide*
• installing your software	*Nortel Symposium Call Center Server Installation Workbook*

Nortel Symposium Call Center Server setup

The following documents pertain to the setup and configuration of the Nortel Symposium Call Center Server and the M1 switch.

If you need information about	**Refer to**
• setting up the Nortel Symposium Call Center Server • logging in and out of the Nortel Symposium Call Center Server • assigning agents to supervisors and to skillsets • managing agents using phonesets	*Nortel Symposium Call Center Server Setup and Configuration Guide* and *Nortel Symposium Call Center Server Setup and Configuration Workbook*
• M1 switch configuration	*Nortel Symposium Call Center Server and the Meridian 1 Guide*

Nortel Symposium Call Center Server administration

The following documents pertain to the administration and maintenance of the Nortel Symposium Call Center Server.

If you need information about	**Refer to**
• administering and maintaining the Symposium Call Center Server	*Nortel Symposium Call Center Server System Administration Guide*
• creating and administering call center scripts	*Nortel Symposium Call Center Server Scripting Guide*

• troubleshooting for the 701t Server • hardware and software upgrades for the 701t Server • maintenance and diagnostics for Nortel support personnel	*Nortel Symposium Call Center Server 701t Maintenance and Diagnostics Guide*

Symposium Call Center Server documents

The following documents pertain to the administration of the Nortel Symposium Call Center Server system.

If you need information about	Refer to
• the support and administration of the Symposium Call Center Server application that runs on client PCs connected to the server	*Nortel Symposium Call Center Server Call Center Management Guide*
• database access • managing reports	*Nortel Symposium Call Center Server Data Access and Report Management Guide*
• collecting historical statistics	*Nortel Symposium Call Center Server Historical Statistics Guide*
• setting up real-time displays • collecting real-time statistics	*Nortel Symposium Call Center Server Real-Time Display and Statistics Guide*

Symbols

Introduction   This section describes the symbols used in this guide.

Symbols   You may encounter the following symbols in this manual.

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

Warning: Warns you of a situation in which you may be injured or equipment may be damaged if instructions are not followed exactly as stated.

Caution: Alerts you to situations where data may be lost or damaged, or when productive time may be lost.

Attention: Provides information essential to the completion of a task.

Note: Describes the secondary results of procedures or commands, or special conditions under which a procedure or command must be used.

The server and the client   The Nortel Symposium Call Center Server consists of three key components: telephony, server, and client. The telephony component includes the Meridian 1 PBX and its telephones. The server component consists of the call center server and network. The client is installed on the supervisor workstations, and accesses the server over the customer's LAN.

The following illustration depicts these components.
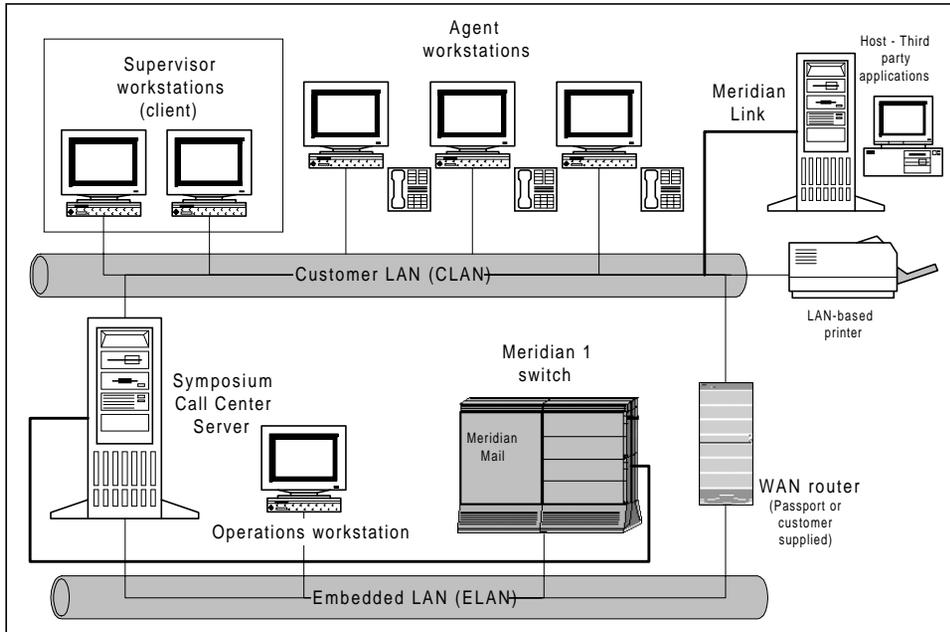
In this guide, the terms "the server" and "the client" refer to these Symposium Call Center components. The term "1001t Server" refers to the 1001t Server hardware.

Chapter 1

Getting started

In this chapter

Overview

Introduction   The Nortel Symposium Call Center Server installation consists
                          of

- the 1001t Server: a PC-based hardware platform and
  peripherals
- an operating system: Windows NT
- base software for server functions
- the clients: customer-supplied PCs running Windows 95
- Symposium Call Center Server client software
- Symposium Call Center Server server software
- common services base software for Meridian
  Administration Tool (MAT) operating on customer-
  supplied PC clients

The1001t Server is an application processor and network server
for Private Branch Exchange (PBX) installations. It is connected
through an ACCESS link to a Meridian Mail system. The 1001t
Server functions as the network server for a client-server
installation consisting of the server and customer-supplied PC
clients operating in a network environment.

Section A: Introduction to Symposium Call Center Server

In this section

Overview of the introduction to Symposium Call Center Server

Introduction   This section provides an introduction to the product and gives an overview of how the Symposium Call Center Server operates.

Product description

Introduction   A Symposium Call Center Server installation consists of these
main elements:

- a 1001t Server: a PC-based hardware platform operating under Windows NT

- customer-supplied PCs, operating under Windows 95, which are used as PC clients running common services from Meridian Administration Tool (MAT). These PC clients are connected by the Customer LAN (CLAN).

- an Embedded or private LAN (ELAN) which connects Nortel equipment: the M1 switch, the 1001t Server, and an optional MAT PC. No PC clients are allowed on the ELAN, to preserve the bandwidth needed for Nortel equipment.

- MAT software to provide Operating, Administration and Maintenance (OA&M) functions for components on the network

- Symposium Call Center Server base software to provide OA&M functions for the 1001t Server

- Symposium Call Center Server application software which runs on the1001t Server and is accessed and controlled by the PC clients. Nortel Symposium Call Center Server requires an M1 switch.

- pcANYWHERE32 on the 1001t Server for support access

How Symposium Call Center Server works
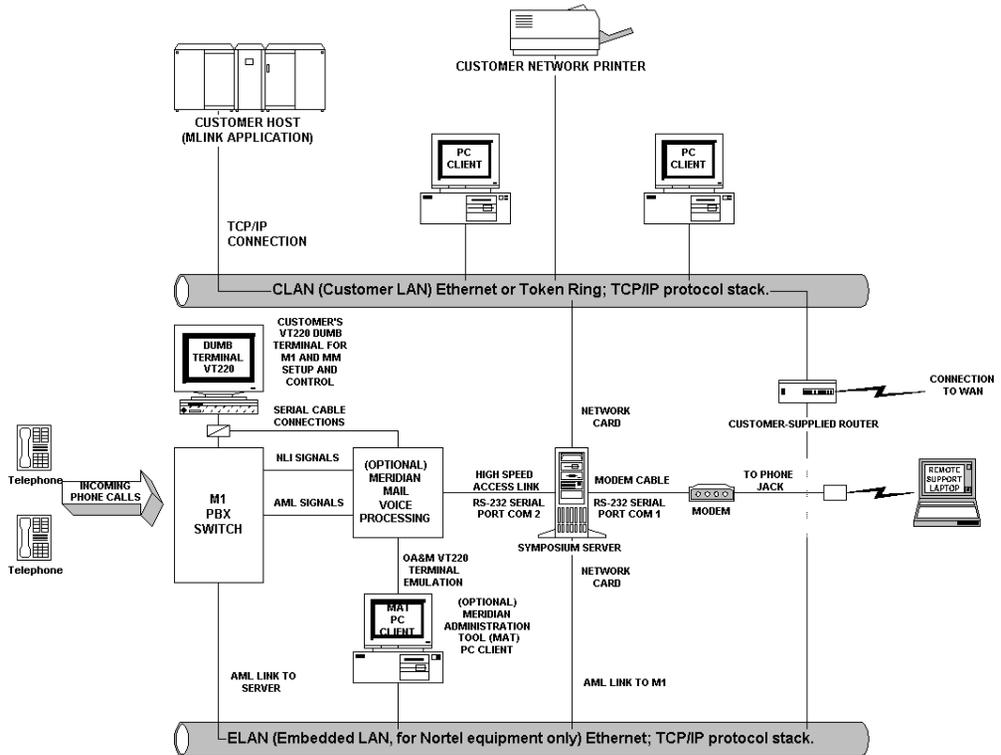
Description   As shown in the diagram of a typical Nortel Symposium Call Center Server network installation on the preceding page, the server operates in a client-server environment.

Customer-supplied PC clients are loaded with Nortel Symposium Call Center application software to provide OA&M control for the Nortel Symposium Call Center Server. The PC clients are connected to the existing customer LAN (CLAN). It operates either with

- Ethernet architecture using NetBios, NetBEUI, and TCP/IP protocol

  or

- Token Ring using TCP/IP protocol

The 1001t Server is connected to both the customer LAN (CLAN) and the embedded LAN (ELAN) for Nortel equipment. Control signals for the M1 switch are sent over the ELAN via the AML link from the 1001t Server. For security and bandwidth reasons, PC clients are not allowed on the ELAN.

An optional MAT PC client, running MAT Release 5, can be connected to Meridian Mail and the M1 switch by a serial link for VT220 terminal emulation. This allows the MAT PC to control Meridian Mail and the M1.

The 1001t Server is connected to Meridian Mail by a high-speed ACCESS link.

The application, Nortel Symposium Call Center Server, runs on the 1001t Server and is accessed and administered by the PC clients.

The ELAN can be connected to a customer-supplied router to allow access to a Wide Area Network (WAN).

The 1001t Server is connected to a modem to allow remote access by a support PC for maintenance and diagnostics.

How it works   The PC clients provide the OA&M interface for all components on the network, using the MAT common services and MAT Navigator. The PC administers and maintains the Symposium Call Center Server installation via the CLAN.

The optional MAT PC communicates with and controls Meridian Mail and the M1 via the serial link and VT220 terminal emulation.

The Nortel Symposium Call Center Server application runs on the 1001t Server. It is controlled and accessed by the PC clients.

In this configuration, the 1001t Server provides the following:

- call processing, data collection, and OA&M services
- network server functions, providing network and communication services to the PC clients, communication and control to the M1 switch, and external access to a remote support PC for remote maintenance and diagnostics

The PC client application provides the following tasks:

- the administrative interface
- real-time displays
- report interface

A customer-supplied VT220 terminal can be used to set up and configure the M1 switch and Meridian Mail, instead of using the optional MAT PC.

Section B: Preparing for installation

In this section

Overview of installation preparation

Introduction   This section describes the installation sequence and provides
pre-installation checklists for the installer.

Installation sequence

Introduction

The diagram on the following page illustrates the installation sequence for a typical Symposium Call Center Server installation.

Assumptions

In order to perform the installation, this guide assumes the following:

- The Meridian 1 switch is correctly installed, operational, and configured for use with Nortel Symposium Call Center Server. Refer to the *Nortel Symposium Call Center Server and M1 Guide*.

- Meridian Mail, if it is used, is correctly installed, operational, and configured for use with Nortel Symposium Call Center Server.

- All customer-supplied client PCs are operational and running Windows 95, with the Service Pack supplied by Microsoft, or have Windows 95 OSR2 installed.

- The client network is installed and operational.

Installation sequence
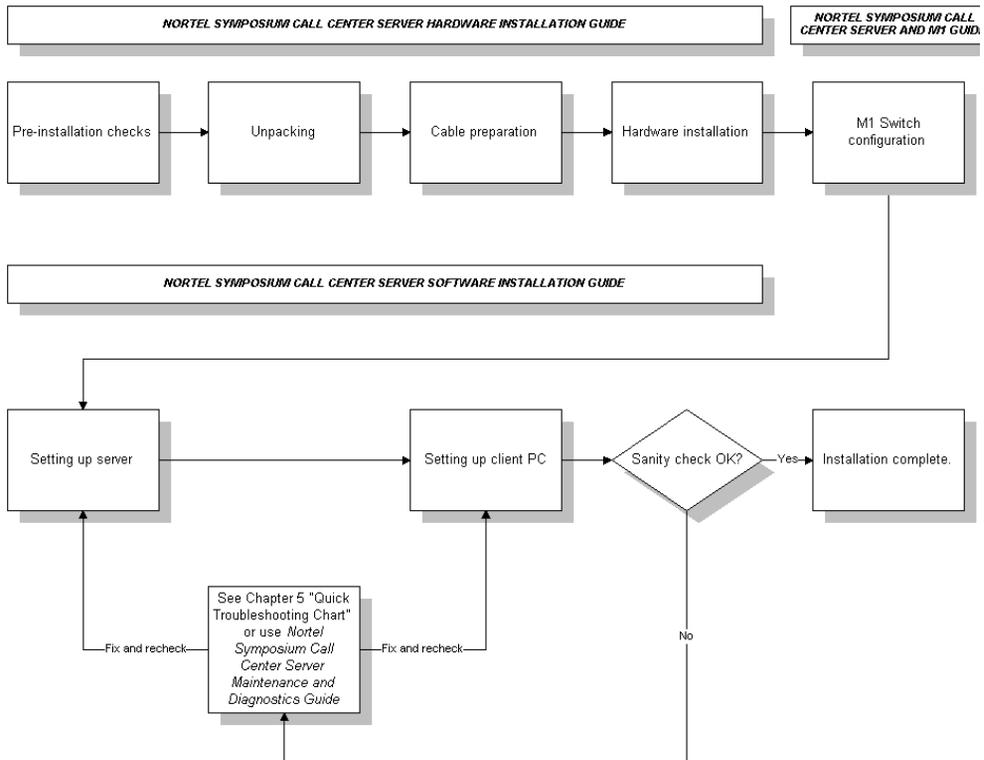
Site inspection checklist

Introduction   Before you get started, you need to ensure that the following
                          items have been checked. Use this checklist to inspect the site
                          for the 1001t Server installation.

Check	Description
	Area clean and clear of any debris
	Adequate space for all equipment
	Desk, shelf, or table space available for server SVGA monitor, keyboard, mouse, and modem
	Room around equipment for adequate air flow for ventilation
	No heat sources near equipment
	Adequate space for access to front, side, and rear panels of server
	Area isolated from strong electromagnetic fields and electrical noise sources (air conditioners, large fans, motors, radio or TV transmitters, or high-frequency security devices)
	Adequate grounded electrical outlets or power bars for all equipment. There should be one outlet for each of the following: • 1001t Server power supplies (3) • monitor • modem power cord • ELAN hub power cord • PC client and monitor
	(Optional) Customer-supplied UPS for the server

Check	Description
	Customer-supplied ELAN hub

Customer-supplied equipment and data checklist

Introduction   Use this checklist to ensure that you have the required equipment and information to be supplied by the customer.

Check	Description
	Each PC client running Symposium Call Center Server client application has the following: • minimum processor type 486DX2 66 (recommended Pentium 90 or better CPU) • minimum memory 24 Mbytes (recommended 32 Mbytes) • minimum free disk space available for Symposium client applications 180 Mbytes (recommended 1 Gbyte with 500 Mbytes free) • SVGA monitor • keyboard • mouse • CD-ROM drive • CLAN connection
	PCs up and running with Windows 95 4.00.950B or higher (OSR2), or Windows 95 with the required Microsoft Service Pack installed (Check under Start, Settings, Control Panel, System.)
	Ethernet connections ready at M1 switch (cables and Ethernet transceivers/MAUs)
	Customer-supplied hub for the ELAN

Check	Description
	(Optional) One MAT PC equipped with VT220 emulation software and serial cable for Meridian Mail connection
	Customer-supplied UPS for the server
	Jacks and cable ready to connect server to the CLAN
	(Optional) Cable ready to connect ELAN to customer WAN
	Modem, power cable, and serial cable available
	User name, password, and Domain name for access to CLAN (See the following checklists.)
	List of unique names and IP addresses for all equipment on both CLAN and ELAN (See the following checklists.)
	Analyze customer LAN bandwidth Existing average bandwidth utilization = _____%

Required setup data

Introduction   The information you record in this section will be used in the initial Windows NT configuration, during the 1001t Server software installation, and during the PC client software installation. Make as many extra copies of the worksheets as required for this installation.

Keycode and serial number   This information is contained in the keycode data supplied for this installation.

General information   Record this information for use during the installation.

Description	Information
1 Keycode	
2 Serial #	
3 Modem phone number for the server	
4 Modem phone number for the M1 switch	
5 Customer's company name	
6 Company representative's name	
7 Computer name (no spaces, standard alphanumeric characters, maximum 10 characters)	
8 Workgroup name	
9 Administrator password	
10 NGenDesign password (default: Nortel)	(record new password here)

Description	Information
11 NGenDist password (default: ntdist)	(record new password here)
12 Type of modem for server	
13 User name (for CLAN access)	
14 Password (for CLAN access)	

IP addresses and names

Record the IP addresses and names supplied for the customer PC clients and (optional) MAT PC, the 1001t Server, the M1 switch, Meridian Mail, and other equipment that will be accessible through the CLAN, and the ELAN for Nortel equipment. Include the name and number for the M1 switch.

The Customer's LAN administrator is the source for addresses, subnet masks, and gateways.

Name	IP address	Subnet mask	Gateway, description, equipment name, or comments
ELAN M1 Primary IP address			
ELAN M1 Secondary IP address *Note*: The Option 11C switch uses only the Primary IP address.			

Required setup data

Name	IP address	Subnet mask	Gateway, description, equipment name, or comments
ELAN server			
ELAN router/ gateway IP address (optional WAN connection)			
CLAN server			
CLAN router/ gateway IP address (if used)			
RAS 1			
RAS 2			
CLAN client			
CLAN client			
CLAN client			
CLAN client			

Note: Add as many CLAN client addresses as required.

Installation tools and materials checklist

Introduction   Use this checklist for the tools and materials you will use for the installation.

Check	Description
	Phillips head screwdriver (Swiss Army knife recommended)
	Slot head screwdriver
	Sidecutters
	Needle-nose pliers for removing loose parts
	Tape measure for determining cable lengths
	Cable terminating tools for 10BaseT
	ESD wrist strap for handling circuit boards
	Pen for notes and for writing down cable lengths and cable identifications
	Flashlight for examining interior of chassis
	Windows NT emergency repair disk
	10BaseT cable for ELAN
	RJ45 connectors for LAN cables
	Cable tie wraps
	Cable identification labels
	Labels for server IP ELAN and CLAN addresses

Required setup media checklist

Required setup media checklist

Installation items

Check	Qty	Description
	1	Nortel Symposium Call Center Release 1 Server Application CD-ROM. This contains the setup program and all software to be installed on the server.
	1	Nortel Symposium Call Center Release 1 Client Application CD-ROM. This contains the setup program and all software to be installed on the client PCs.
	1	The emergency repair diskette which holds the configuration data for Windows NT. This will be updated by the installer during each stage of the software installation on the server.
	3	Nortel Symposium Call Center Server Operating System Setup Diskettes. These are used to update the software drivers if required.
	1	Nortel Symposium Call Center Server Operating System CD-ROM.
	1	Nortel Symposium Call Center Server Capacity Assessment Tool. This is the capacity planning software.
	1	Keycode data. This governs what software features you will be installing.

**Maintenance and
diagnostics media**

Check	Qty	Description
	3	Microsoft DOS 6.20 diskettes. These are used for reinstalling the operating system for maintenance and diagnostics.
	4	Intel PCDIAGS diskettes. These are used for maintenance and diagnostics.
		Driver diskettes for LAN cards, SCU utility
	2	(optional) RAID driver diskette, configuration diskette
	1	If RAID not used, SCSI driver diskette

Section C: Unpacking

In this section

Overview of unpacking

Introduction   This section contains the procedure for unpacking the 1001t
                      Server and related equipment.

Unpacking procedure

Purpose   Follow this procedure to unpack the equipment.

⚠️   *Warning:* Risk of personal injury. The 1001t Server may weigh approximately 34.1 kg (75 lb) as shipped from manufacturing. To prevent personal injury, ensure you have someone to help you unpack and position the server.

Unpacking the equipment   To unpack the equipment, follow these steps.

Step	Action
1	Carefully open the cardboard carton containing the 1001t Server.
2	Remove the server from the carton and set it on the floor.
3	Carefully open the cartons containing the monitor, keyboard, mouse, modem, and ELAN hub (if supplied), and set the peripherals aside.
4	Put all manuals, CD-ROMs, operating system diskettes, any diskettes for peripherals, and the Windows NT emergency repair diskette in a safe place.
5	Save all packing materials and cartons in case any equipment has to be returned to the carrier.
6	Check off each item against the packing list as it is unpacked.

Damaged or missing components

IF	THEN
components are damaged	notify the shipping company and the distributor.
components are missing	notify the distributor.

Section D: **Preparing cables**

In this section

Overview of cable preparation

Introduction   This section provides instructions for preparing cables for the
                         Symposium Call Center Server installation.

Preparing cables

Purpose   Follow this procedure to prepare cables for connecting
                        equipment to

- the ELAN (embedded LAN for Nortel equipment only)
- the CLAN (customer LAN for Symposium client PCs)

What you need   You need the tools and materials listed in the checklist in
                        Section B of this chapter, "Preparing for installation."

Tips   Mark the cable lengths on a copy of the Symposium Call Center
                        Server network diagram from Section A of this chapter,
                        "Introduction to Symposium Call Center Server."

                        Measure and prepare cables in advance, before the installation
                        date.

Cable length chart Use a tape measure to determine the required cable lengths and
                        record them in the chart below. Allow extra length for service
                        loops and trimming for connector preparation.

From	To	Cable type	Length	Maximum length
ELAN hub	M1 (AML link) core 0	10BaseT Class 5		100 m (328 ft) per segment
ELAN hub	M1 (AML link) core 1	10BaseT Class 5		100 m (328 ft) per segment
ELAN hub	Server	10BaseT Class 5		100 m (328 ft) per segment

From	To	Cable type	Length	Maximum length
CLAN	Server ***Note:*** Contingency only. This cable should be customer-prepared and waiting for installation.	Customer cable type: Token Ring: 1, 3, or 6 Ethernet: 10BaseT RJ45, or 10Base2 coaxial cable or 10Base5 coaxial cable		Token Ring 1, 3, or 6: depends on MAU Ethernet: 10BaseT (twisted pair); 100 m (328 ft) per segment 10Base2 (coax): 185 m (607 ft) per segment 10Base5 (coax): 500 m (1640 ft) per segment

Optional cables

From	To	Cable type	Length	Maximum length
(Optional) ELAN hub	MAT PC for VT220 emulation	10BaseT Class 5		100 m (328 ft) per segment
(Optional) ELAN hub	Customer-supplied router for WAN	10BaseT Class 5		100 m (328 ft) per segment

Preparing cables   To make the cables, follow these steps.

Step	Action
1	Cut appropriate lengths of cable according to the cable length chart.
2	Terminate each end with an RJ45 connector. Use BNC connectors if a coaxial cable is required for the CLAN.
3	Fill out and attach a cable identification tag to each completed cable, indicating from and to destinations.
4	Set cables aside for later installation.

Notes

Chapter 2

Installing hardware

In this chapter

Overview

Introduction   This chapter provides procedures for

- setting up the 1001t Server
- adding peripherals to the server
- installing the embedded LAN (ELAN) for Nortel equipment
- connecting the server, the M1 switch, and optional Meridian Mail to the ELAN

Section A: Setting up the 1001t Server hardware

In this section

Overview of setting up the 1001t Server hardware

Introduction   This section contains instructions for setting up the 1001t Server
                     hardware.

Front panel features

Introduction   The following diagram and table identify the controls, indicators, and front panel features of the 1001t Server.

1001t Server front view

This illustration shows the front panel features of the 1001t Server. The illustration for this diagram is on the following page.

Front panel features

This table describes the details shown in the preceding illustration.

Item	Description
1.	Indicator panel

Front panel features

Item	Description
2.	Reset push button
3.	ON/OFF push button
4.	CD-ROM drawer
5.	Drawer push button. Opens and closes CD-ROM drawer.
6.	Floppy drive for 3-1/2" diskettes
7.	Backup tape drive
8.	Tape eject button

Indicators   The following table describes the functions displayed in the indicator panel.

Indicator	Function
Yellow power supply failure LED	Flashes to indicate a power supply failure.
Yellow fan failure LED	Flashes to indicate a cooling fan failure.
Green hard drive activity LED	Lights to indicate hard drive activity.
Green power LED	Lights to indicate server is powered ON.

| Indicator	Function
Ten yellow hard drive failure LEDs	Light to indicate a failure of a specific hard drive in the hot-docking drive bay.

Inspecting the chassis

Purpose   Follow this procedure to perform a visual check for loose boards or foreign matter in the chassis before applying power to the unit.

Interior of 1001t chassis

This illustration shows the internal details of the 1001t chassis. The legend follows on the next page.
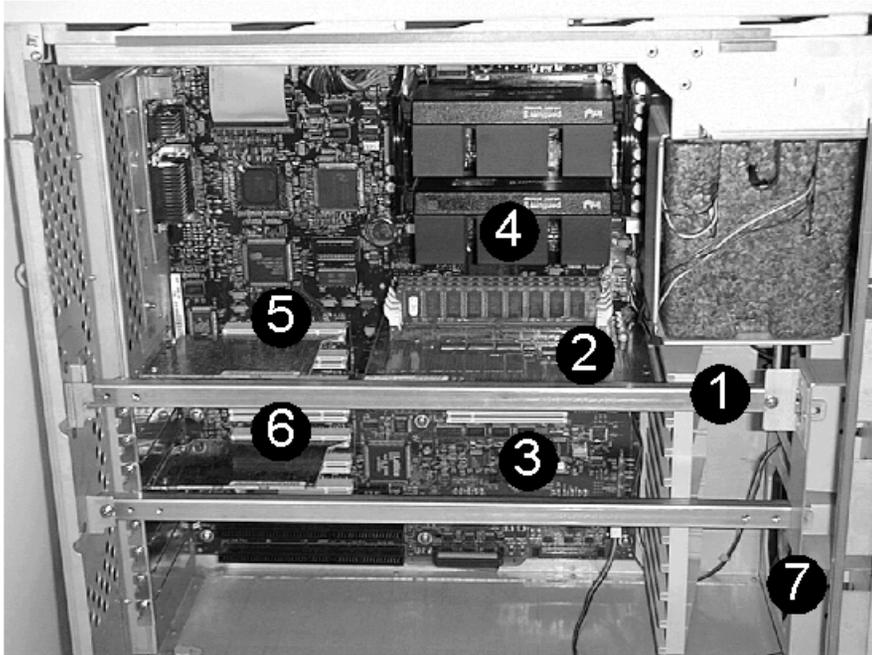
Interior features   This table describes the details shown in the preceding illustration.

Item	Description
1.	Cross bar used to secure memory board
2.	DIMM memory board
3.	Motherboard
4.	CPU board
5.	ELAN Network interface/adapter card
6.	CLAN Network interface/adapter card
7.	Cooling fan

Caution: Risk of equipment damage. Use an ESD strap to protect static-sensitive components.

Warning: Risk of personal injury. Exercise caution in handling the sharp edges of the side panels and chassis to prevent personal injury.

Inspecting the interior   To remove the server chassis cover and inspect the interior, follow these steps.

Step	Action
1	Remove the three screws securing the right side panel cover (on the right as viewed from the back of the server) to the rear of the chassis.
2	Remove the cover.
3	Clip the lead from your ESD wrist strap to an unpainted section of the chassis or an exposed screw.

Step	Action
4	Carefully check the network adapter cards to ensure they are fully seated on the motherboard. Network cards can be identified by their LAN jacks.
5	Check for any loose wires or foreign objects (for example, loose screws) inside the chassis.
6	Check that the crossbar holding the memory board in place is secure.
7	When you finish your inspection, remove the ESD clip and reinstall the cover. Secure it with the screws.

Rear chassis view   This illustration shows the side cover being removed.

Checking the hard drive(s)

Purpose   Follow this procedure to check the hard drive(s) before applying
                       power to the unit.

Bay door   This illustration shows the plastic outer door, metal bay door,
thumbscrews   and thumbscrews.

Opening bay door   To open the bay door, follow these steps.

Step	Action
1	Open the lower front plastic cover on the chassis.
2	Rotate the thumbscrews securing the metal bay door covering the hard drive bay.
3	Swing the metal bay door to the side.

Hard drive check   This illustration shows a hard drive being checked for correct
seating in the hot-docking bay.

Checking hard drives

To check that each hard drive is securely installed, follow these steps.

Step	Action
1	Carefully check that each drive is securely inserted into the bay by tugging gently on the black handle at the front of each drive assembly.
2	If a drive assembly is loose, press down on the lever at the top front of the assembly and pull the unit out of the bay.
3	Position the drive assembly in the guide rails.
4	Gently push the drive assembly into the bay until it docks with the backplane connector and snaps into place.
5	Swing the bay door back into place. Rotate the thumbscrews to secure the door.
6	Install a customer-supplied padlock if required.
7	Close the outer plastic door.

Caution: Risk of equipment damage. Handle hard drive(s) carefully. Avoid even minor shocks to the hard drive to prevent possible internal damage.

Customer-supplied padlocks

Three tabs are provided on the server chassis for customer-supplied padlocks. One is located at the front hard drive bay cover. There are two tabs at the rear of the chassis, one for each side cover.

Notes

Section B: Connecting peripherals to the 1001t Server

In this section

Overview of connecting peripherals to the 1001t Server

Introduction   This section contains instructions for connecting the following
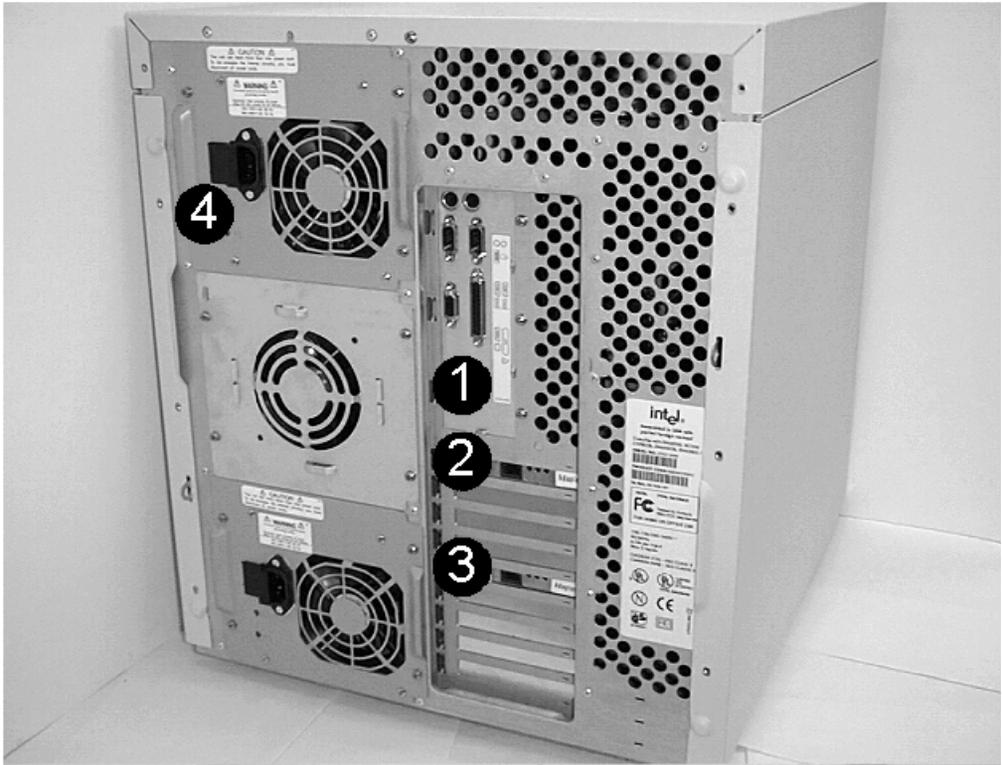   peripherals to the 1001t Server:

- monitor
- keyboard
- mouse
- modem

Connecting peripherals to the 1001t Server

Purpose   Follow this procedure to connect Nortel-supplied peripherals to the 1001t Server.

Tip   A legend is located adjacent to the peripheral connector panel at the back of the server. It shows the symbol for each peripheral and which connector it uses.

Rear panel   The following illustration shows the server connections for the power cords, peripherals, and cables. The legend follows the illustration.

Rear panel connections

This table describes the details shown in the preceding illustration.

Item	Description
1.	Peripheral connection panel
2.	ELAN Network interface/adapter card
3.	CLAN Network interface/adapter card
4.	AC power input *Note:* The illustration shows a prototype server with only two power supplies. Your server will be equipped with three power supplies.

Connecting peripherals

To connect peripherals and power cords to the 1001t Server, follow these steps.

Step	Action
1	Make sure the machine is not plugged in to a power source.
2	Plug the keyboard connector into the keyboard DIN connector at the rear of the chassis.
3	Plug in the mouse connector into its DIN connector. Check the legend for correct connections.
4	Plug in the monitor connector. Tighten the screws on the connector. *Note:* Do not add any other peripherals (for example, a printer). Other peripherals are not supported.
5	Plug the three AC cords into the back of the panel. Plug the other ends into a wall receptacle or power bar. *Note:* The illustration shows a prototype server with only two power supplies. Your server will be equipped with three power supplies. *Note:* Do not turn on the server at this time.

Connecting cables To connect cables to the 1001t Server chassis, follow these steps.

Step	Action
1	If the customer has purchased the optional voice prompt or broadcast announcement features, connect the high speed ACCESS link from Meridian Mail to the COM 2 port at the rear of the server. Tighten the connector screws.
2	Connect the ELAN cable for the M1 AML link to the RJ45 jack on the network card in PCI slot 1 at the rear of the chassis.
3	Connect the CLAN cable to the RJ45 jack on the network card in PCI slot 5 at the rear of the chassis. Use the BNC connector if the CLAN uses a coaxial cable.

Adding a modem for Remote Access Service (RAS)

Purpose   Follow this procedure to add a modem to the 1001t Server. This
                     modem is used for access to the server by a remote service PC.

Adding a modem   To add a modem to the 1001t Server, follow these steps.

Step	Action
1	Make sure the AC cord is not plugged in.
2	Connect the large 25-pin male connector to the back of the modem. Tighten the connector screws.
3	Connect the 9-pin female connector to COM port 1 at the rear of the server. Tighten the connector screws.
4	Connect one end of the telephone cable to the modem RJ-11 jack labeled LINE.
5	Connect the other end of the telephone cable to the RJ-11 jack in the wall.
6	Connect the power cord to the modem and plug the other end into a wall receptacle or power bar. Turn the modem on.

Notes

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Section C: Installing the ELAN

In this section

Standard 1.0   Nortel Symposium Call Center Server   May 1998
                      1001t Hardware Installation Guide

Overview of installing the ELAN

Introduction   This section contains instructions for setting up the embedded
                      LAN (ELAN) used for Nortel equipment.

Hub specification The ELAN hub is customer-supplied equipment defined in the
                      Nortel distributor information package.

                      The main features required are as follows.

Feature	Specification
Data propagation	750 nsec
Link test	Link test function as specified in the 10BaseT standard
Polarity reversal	Polarity is corrected automatically if the waveform is reversed by a wiring error.
Number of jacks	Minimum 6 RJ45 jacks

Installing the ELAN

Purpose   Follow this procedure to install the ELAN for Nortel equipment.
                       The Ethernet hub is supplied by the customer.

Installing the   To install the ELAN, follow these steps.
ELAN

Step	Action
1	Connect all ELAN network cables from Nortel equipment to the Ethernet hub.
2	Plug in the power cord for the hub. Ensure the hub is powered on.

Notes

Section D: Connecting cables

In this section

Overview of connecting cables

Introduction   This section contains instructions for connecting cables to the optional MAT PC, the M1 switch, the optional customer-supplied router for the WAN connection, and Meridian Mail.

(Optional) connecting the MAT PC to ELAN

Introduction   The customer-supplied PC clients are already connected to the CLAN. To connect the optional MAT PC between the ELAN and Meridian Mail, follow the procedure in the MAT documentation supplied with the option.

Connecting the M1 switch

Purpose   Follow these procedures to provide the AML link to the1001t
                               Server by connecting the M1 switch to the ELAN.

M1 switch ELAN   The illustration on the following page shows the cable from the
connections   M1 switch core and the Ethernet transceiver/MAU. The ELAN
                               cable to the ELAN hub is inserted in the RJ45 connector at the
                               bottom of the transceiver/MAU.

Connecting the M1 switch

Connecting the ELAN cable to the M1 switch

To connect the ELAN cable to the M1 switch, follow these steps.

Step	Action
1	Connect the end of the core 0 ELAN hub cable to the transceiver RJ45 jack from core 0.
2	Connect the end of the core 1 ELAN hub cable to the transceiver RJ45 jack from core 1.
	Note: The Option 11 M1 switch uses only a single transceiver cable connection.

(Optional) connecting to the WAN router

Purpose   Follow this procedure to connect the ELAN to the optional customer-supplied router for a WAN connection.

Connecting the ELAN to the WAN router   Connect the cable from the ELAN hub to the appropriate RJ45 jack on the customer-supplied router. For security and bandwidth performance, the router must be configured to isolate CLAN traffic from the ELAN.

Turning the 1001t Server on

Purpose   When all cables are connected for the installation, follow this procedure to turn on the 1001t Server and peripherals.

Turning on the   To turn on the server, follow these steps.
1001t Server

Step	Action
1	Ensure the modem power switch is On.
2	Turn the monitor power switch to On.
3	Turn the power on at each PC client.
4	Press the server power switch On.
5	Observe the Power-On Self-Test (POST) and initialization messages as the server boots up.

Boot sequence   The following is the sequence for the 1001t Server bootup.

Stage	Description
1	POST messages display.
2	SCSI (or RAID) initialization messages display.
3	Server boots to DOS: • runs High Memory Test
4	Server boots to Windows NT and displays the login screen.

Continuing the installation

Troubleshooting   If the 1001t Server does not start up, refer to the "Quick hardware troubleshooting chart" on the following page. If the problem cannot be solved using the chart, refer to the *Nortel Symposium Call Center 1001t Maintenance and Diagnostics Guide* for detailed maintenance and diagnostics procedures.

Next installation steps   If the M1 switch is not already configured, refer to the *Nortel Symposium Call Center Server and Meridian 1 Guide* and set up the M1 switch. When the M1 is configured, go to the *Nortel Symposium Call Center Server Software Installation Guide* and start the 1001t Server software installation.

Quick hardware troubleshooting chart

Introduction   To perform troubleshooting on the hardware, use the following
                       chart. For detailed maintenance and diagnostics procedures,
                       refer to the *Nortel Symposium Call Center 1001t Maintenance
                       and Diagnostics Guide.*

Symptom	Probable cause	Check
Monitor does not come on	No power to monitor	• monitor power switch turned on • monitor power cord plugged into AC source • monitor connector installed at rear of server • server switched on
Server power indicator does not light	No power to server	• server power switch turned on • server power cords plugged into AC source • breaker tripped at power bar • breaker tripped at customer's AC breaker box
Hard drive indicator lights do not come on; server does not boot up	Hard drive(s) not connected or failed	• Open front panel cover and hard drive bay cover door; check that hard drive(s) firmly seated in backplane. • If hard drive(s) failed, use *Nortel Symposium Call Center 1001t Maintenance and Diagnostics Guide* to replace drive and reinstall operating system.

Glossary

A

AC
See alternating current.

adapter
Hardware required to support a particular device. For example, network adapters provide a port for the network wire. Adapters can be expansion boards or part of the computer's main circuitry.

administrator
A user who is responsible for maintaining the Nortel Symposium Call Center Server.

agent
A user who is responsible for accepting incoming calls.

AIP
Advanced I/O Processor

alternating current
AC electrical power, the raw power supplied by all utility companies, must be converted to direct current (DC) for use in computer systems.

API
See application program interface.

application
When used in reference to the Nortel Symposium Call Center Server, applications are used for the purposes of reporting. Information is collected and reported for

applications to give call center managers specific details about call types, callers, or conditions. The master script, and each primary script, has an application with the same name. When the master script is activated, applications are created automatically for the master script and for every primary script that it references.

This term is also used to refer to a program that is run to do various types of work on a computer. Although applications carry out many functions, the user can see (and use) only the graphical user interface (GUI). Common applications include word processors, databases, and multimedia software.

application program interface
A set of routines, protocols, and tools that programmers use to develop software applications. APIs simplify the development process by providing commonly used programming procedures.

associated supervisor
A supervisor who sees the data related to an agent.

B

bandwidth
The amount of data that the network can transmit, usually expressed in megabytes (Mbytes) per second.

baseboard
See motherboard.

Basic Input/Output System
Flash ROM-based code that runs the Power on self test (POST) and bootstrap loader. BIOS contains low-level access routines for hardware that may be called from DOS.

baud rate
Refers to signaling rate. The baud rate indicates the number of bits per second (bps) that are transmitted. For example, a baud rate of 300 means that 300 bits are transmitted each second (300 bps).

BIOS
See Basic Input/Output System.

bits
Short for binary digit, the smallest unit of information on a machine. A single bit can hold only one of two values: 0 or 1. A byte is composed of eight consecutive bits.

bits per second
The standard measure of data transmission speeds. Assuming asynchronous communication, which requires 10 bits per character, a baud rate of 300 bps translates to 30 characters per second (cps).

bps
See bits per second.

bridge
A protocol-independent device that connects two LANs or two segments of the same LAN. Bridges are faster (and less versatile) than routers because they forward packets without analyzing and rerouting messages.

bus
A collection of wires that connects the microprocessor and main memory to internal computer components. All buses consist of an address bus that transfers data, and a data bus that transfers information about where the data should go.

In a network, a bus (also called the backbone) is a main cable that connects all devices on a LAN.

byte
Abbreviation for binary term, a unit of storage capable of holding a single character. On almost all modern computers, a byte is equal to eight bits. Large amounts of memory are indicated in terms of kilobytes (1024 bytes), megabytes (1 048 576 bytes), and gigabytes (1 073 741 824 bytes).

C

cache
A read cache attempts to anticipate and store required data in memory so that it can be retrieved quickly (electronically, rather than mechanically). A write cache electronically holds the data you want to write to disk and slowly writes it to the disk (mechanically).

call source
The node from which an incoming call originates. A call can initially be presented to the local node or to another node on the network.

Calling Line Identification
The telephone number of the person who called.

CDN
See controlled directory number.

CD-ROM
A type of optical disk capable of storing large amounts of data (up to 1Gbyte), although the most common size is 630Mbytes. A single CD-ROM has the storage capacity of 700 floppy disks and is particularly well-suited to information that requires large storage capacity.

central processing unit
Sometimes referred to as the microprocessor, the CPU more often describes the system unit, the box that holds a PC's essential components (except keyboard and monitor).

chip
Typically, a chip refers to the small flake of silicon crystal that makes up the microprocessor or some other type of controller.

CLAN
customer local area network

CLID
See Calling Line Identification.

client
The client part of a client-server architecture. Typically, a client is an application that runs on a personal computer or workstation and relies on a server to perform some operations. For example, an E-mail client is an application that enables you to send and receive E-mail.

COM or COMM
Communications port. Usually refers to the Logical Device name of PC serial ports as defined by DOS.

controlled directory number
Allows incoming calls to be queued into the switch, and messages regarding these calls to be sent to Nortel Symposium Call Center Server.

controller board
A special type of expansion board that contains a controller for a peripheral device. When you attach new devices, such as a disk drive, to a computer, often a controller board must also be added.

CPU
See central processing unit.

crash
A serious computer failure during which the computer itself stops working or a program closes unexpectedly. A crash indicates a hardware malfunction or a serious software bug.

D

DAT
See digital audio tape.

data types
The types of data you can use to create variables.

daughterboard
Usually used as a synonym for an expansion board, a daughterboard is any printed circuit board that connects directly or indirectly to a motherboard.

DBMS
Database Management System

DC
See direct current.

DDS
See digital data storage.

Dialed Number Identification Service
A method by which the system recognizes the phone number dialed by the incoming caller. An agent can receive calls from customers calling in on different DNISs and answer the calls according to the DNIS that appears on his or her phoneset display.

digital audio tape

A type of magnetic tape that uses a helical scan scheme to record data. DDS (digital data storage) is the most common format for DAT cartridges.

digital data storage

DDS is the industry standard for 4 mm helical scan digital audio tape (DAT) cartridges. *See also* DAT.

DIMM

The protective packaging for microprocessor chips that provides a safe and convenient means of installing and removing the chip.

DIP

A type of protective packaging for silicon memory chips that provides a safe and convenient means of installing and removing the chip.

DIP switch

A series of tiny switches built into circuit boards that enables you to configure a circuit board for a particular type of computer or application. DIP switches are always toggle switches, which means they have two possible positions: on or off (or 1 or 0).

direct current

DC, the electrical power used by computers, comes from a single source (such as a battery) which provides a single voltage that stays at a constant level. AC, the power provided by utility companies, must be converted to DC before it can be used in computer systems.

direct memory access

DMA speeds up system performance by moving blocks of memory around inside the computer (typically between I/O

devices and memory). This process enables the microprocessor to spend its time performing other functions.

directory number
The number that identifies a phoneset on a PBX or in the public network. The directory number could be a local PBX extension (local DN), a public network telephone number, or an automatic call distribution directory number (ACD-DN)—the pilot or group number for an ACD queue.

Disk Operating System
Originally developed by Microsoft, DOS is the standard, IBM-compatible, 16-bit operating system. New operating systems (including Windows 95) do not rely on DOS.

display
The device you look at when you work with a computer, for example a CRT monitor (in desktop systems) or a Liquid crystal display (in notebooks).

DMA
See direct memory access.

DN
See directory number.

DNIS
See Dialed Number Identification Service.

DOS
See Disk Operating System.

driver
A program that controls a device. Every device, whether it is a printer, disk drive, or keyboard, must have a driver program. A

driver acts like a translator between the device and programs that use the device.

dual in-line memory module
The protective packaging for microprocessor chips that provides a safe and convenient means of installing and removing the chip.

dual in-line pin
A type of protective packaging for silicon memory chips that provides a safe and convenient means of installing and removing the chip.

dynamic host configuration protocol
A protocol for assigning dynamic IP addresses to devices on a network.

E

ELAN
Embedded local area network

enhanced parallel port
A parallel port standard for PCs that supports bidirectional communication between the PC and attached devices (such as a printer).

EPP
See enhanced parallel port.

Ethernet
A widely used LAN protocol that uses a bus topology and supports data transfer rates of 10 Mbps.

expansion board

Any board that plugs into one of the computer's expansion slots. Expansion boards include controller boards, LAN cards, and video adapters.

expansion bus

Enables expansion boards to access the microprocessor and memory. *See also* bus.

extended capabilities port

A parallel-port standard for PCs that supports bidirectional communication between the PC and attached devices (such as a printer).

G

Gbyte

See gigabyte.

general protection fault

A computer condition that causes a Windows application to crash. GPFs are commonly caused when one application attempts to use memory assigned to another application.

gigabyte

Two to the 30th power (1 073 741 824) bytes. One gigabyte is equal to 1024 megabytes.

GPF

See general protection fault.

H

hub

A common connection point for all 10Base-T cables connected to a small network. A hub enables data to go from one device to another.

I

IDE

Commonly used to describe the AT attachment design, the dominant hard disk interface. IDE is a cost-effective interface technology for mass storage devices in which the controller is integrated into the disk or CD-ROM drive.

Industry Standard Architecture

A 16-bit standard interface for add-in cards.

input/output

Refers to any operation, program, or device that enters data into a computer or extracts data from a computer.

Interactive Voice Response

An application that allows telephone callers to interact with a host computer using prerecorded messages and prompts.

internetwork packet exchange

A networking protocol used by the Novell NetWare operating systems. Like UDP/IP, IPX is a datagram protocol used for connectionless communications. Higher-level protocols, such as SPX and NCP, are used for additional error recovery services.

Interrupt request

Hardware lines used by devices to send interrupt signals to the microprocessor, temporarily shifting program execution to another section of code. When a new device is added to a PC, often the IRQ number must be set to specify which interrupt line the device may use.

I/O

See input/output.

IP address

An identifier for a computer or device on a TCP/IP network. Networks use the TCP/IP protocol to route messages based on

the IP address of the destination. The format of an IP address is a 32-bit numeric address written as four numbers separated by periods. Each number can be 0 to 255. For example, 1.160.10.240 could be an IP address.

IPX
See internetwork packet exchange.

IRQ
See interrupt request.

ISA
See Industry Standard Architecture.

IVR
See Interactive Voice Response.

IVR ACD-DN
A directory number that routes a caller to a specific IVR application. An IVR ACD-DN must be acquired for non-integrated IVR systems.

J

jumper
A metal bridge that closes an electrical circuit. Typically, a jumper consists of a plastic plug that fits over a pair of protruding pins. Jumpers are sometimes used to configure expansion boards. By placing a jumper plug over a different set of pins, you can change a board's parameters.

K

Kbyte
See kilobyte.

kilobyte
When used to describe data storage, a kilobyte represent 1024 bytes. When used to describe data transfer rates, a kilobyte represents 1000 bytes.

L

LAN
See local area network.

LCD
Liquid crystal display

LED
Light emitting diode

local area network
A computer network that spans a relatively small area. Most LANs connect workstations and personal computers, and are confined to a single building or group of buildings. LANs can transmit data at very fast rates, but the distances are limited.

local call
A call that originates at your site. *See also* network skillset.

local skillset
A skillset that can be used on your system only. *See also* network skillset, Small Computer System Interface.

M

M1
Meridian 1 switch

MAT
Meridian Administration Tool

Mbyte
See megabyte.

megabyte
When used to described data storage, a megabyte represents
1 048 576 (2 to the 20th power) bytes. When used to described
data transfer rates, as in Mbps, a megabyte represents one
million bytes.

megahertz
One MHz represents one million cycles per second.

Meridian Mail
A Nortel product that provides voice messaging and other voice
and fax services.

MHz
See megahertz.

MM
See Meridian Mail.

modular test architecture
PCDIAGS is an integrated MTA package of DOS executable
files from Intel that tests the base hardware of the NGEN
machine.

motherboard
The principal board that has connectors for attaching devices to
the bus. Typically, the motherboard contains the CPU, memory,
and basic controllers for the system. On PCs, the motherboard is
often called the system board.

MTA
See modular test architecture.

N

NetBeui
See NetBIOS enhanced user interface.

NetBIOS
See Network Basic Input Output System.

NetBIOS enhanced user interface
An enhanced version of the NetBIOS protocol used by network operating systems such as LAN Manager, LAN Server, Windows for Workgroups, Windows 95, and Windows NT.

Network Basic Input Output System
An application programming interface (API) that augments the DOS BIOS by adding special functions for local-area networks (LANs). Almost all LANs for PCs are based on the NetBIOS. Some LAN manufacturers have even extended it, adding additional network capabilities.

network call
A call that originates at another node on the network. *See also* local call.

network interface card
An expansion board that enables a PC to be connected to a local area network (LAN).

network loop interface
A proprietary digital voice interface into the M1 used by Meridian Mail.

network skillset
A skillset that is common to every site on the network. Network skillsets must be created on the Nortel Symposium Call Center Server.

NIC
See network interface card.

NLI
See network loop interface.

O

OA&M
Operations, administration and maintenance

OEM
Original equipment manufacturer

Open Database Connectivity
A Microsoft-defined database API standard.

P

parallel port
A parallel interface for connecting an external device such as a printer. Most personal computers have both a parallel port and at least one serial port.

parity
The quality of being either odd or even. The fact that all numbers have parity is commonly used in data communications to ensure the validity of data. This is called parity checking.

PBX
See private branch exchange.

PC
See personal computer.

PCEB
PCI to EISA Bus Controller

PCI
See Peripheral Component Interconnect Bus.

PCMCIA
See Personal Computer Memory Card International Association.

PCXB
PCI-to-press-bridge

Peripheral Component Interconnect Bus
A new 32- or 64-bit local bus standard for PCs.

personal computer
A computer having an architecture that is compatible with the IBM PC.

Personal Computer Memory Card International Association
An industry group dedicated to promoting the new PCMCIA/PC Card Standard (credit card-sized peripherals for PCs).

PIIX3
PCI-to-ISA/IDE/USB Subsystem

PMC
PCI and Memory Controller

POST
See Power-On Self-Test.

Power-On Self-Test
Initializes and performs rudimentary tests on baseboard hardware, including CPU, floating point unit, interrupts, memory, real time clock, video, auto-initializing PCI, and EISA bus.

private branch exchange

A telephone switch, typically used by a business to service its internal telephone needs. A PBX usually offers more advanced features than are generally available on the public network. A PBX interfaces with the public network central office using circuits known as trunks.

protocol

An agreed-upon format for transmitting data between two devices. The protocol determines the type of error checking to be used, the data compression method (if any), how the sending device will indicate that it has finished sending a message, and how the receiving device will indicate that it has received a message.

R

RAM

See random access memory.

random access memory

The most common type of memory found in computers and other devices, such as printers. The term RAM is usually synonymous with main memory, the memory available to programs. For example, a computer with 8M RAM has approximately 8 million bytes of memory that programs can use.

read-only memory

Computer memory on which data has been prerecorded and cannot be removed.

ROM

See read-only memory.

route

Defines a group of trunks. Each trunk carries either incoming or outgoing calls to the switch.

router

A device that connects two LANs. Routers are similar to bridges but provide additional functionality, such as the ability to filter messages and forward them to different places based on various criteria.

S

SCA

See single connector architecture.

SCSI

See Small Computer System Interface.

serial port

A general-purpose interface that can be used for almost any type of device, including modems, mice, and printers (although most printers are connected to a parallel port). Most serial ports on personal computers conform to the RS-232C or RS-422 standards.

server

A computer or device on a network that manages network resources. Examples of servers include file servers, print servers, network servers, and database servers.

SIMM

Single In-line Memory Module

Simple Network Management Protocol

A set of protocols for managing complex networks. SNMP works by sending messages called protocol data units (PDUs) to different parts of a network, and then analyzing the responses.

single connector architecture

A method for supplying power and data lines in one connector on hard disks. Provides hot-swap capability.

Small Computer System Interface

A standard for connecting and controlling mass storage devices such as CD-ROMS, tape drives, and hard disks.

Small System Controller

The Small System Controller pack consists of the CPU, memory, network conference, and Ethernet controller.

Software Configuration Utility

A utility used to configure PCI and EISA cards. It can also set BIOS parameters.

switch resource

Devices that are configured on the switch through overlays.

system pack

A logical drive created from two or more physical hard disks using the RAID DAC960 software configuration utility.

T

TCP/IP

See Transport Control Protocol/Internet Protocol.

telephony

The science of translating sound into electrical signals, transmitting them, and then converting them back to sound. The term is used frequently to refer to computer hardware and software that performs functions traditionally performed by telephone equipment.

token ring
A PC network protocol developed by IBM. A token-ring network is a type of computer network in which all the computers are arranged (schematically) in a circle.

Transport Control Protocol/Internet Protocol
The suite of communications protocols used to connect hosts on the Internet. It is the standard for transmitting data over networks.

trunk
A communications link between a PBX and the public central office, or between PBXs. There are various trunk types that provide services such as Direct Inward Dialing (DID trunks), ISDN, and Central Office connectivity.

U

uninterruptible power supply
A power supply that includes a battery to maintain power in the event of a power outage. Typically, a UPS keeps a computer running for several minutes after a power outage, enabling you to save data that is in RAM and shut down the computer safely.

UPS
See uninterruptible power supply.

V

VGA
See video graphics adapter.

video adapter
An expansion board that contains a controller for a graphics monitor.

video graphics adapter
A standard video interface for computers.

voice port

A channel within an IVR system. A voice port is defined as a 2500 phoneset for third-party IVR systems, or an RCS (517 or 2009) phoneset for Meridian Mail.

W

WAN

See wide area network.

wide area network

A computer network that spans a relatively large geographical area. Typically, a WAN consists of two or more local area networks (LANs). The largest WAN in existence is the Internet.

Win32

A 32-bit API used to access the Windows operating system.

X

XBUS

Two parallel bus structures, one for DMA-compatible devices, and one for memory devices that do not support DMA cycles. XBUS connects the real-time clock, flash memory, NVRAM, and keyboard/mouse controller.

Index

Reader Response Form

Nortel Symposium Call Center Server 1.0
1001t Hardware Installation Guide
P0879480

Tell us about yourself:

Name: _____

Company: _____

Address: _____

_____

Occupation: _____ **Phone:** _____

---

1. What is your level of experience with this product?

    ☐ New user   ☐ Intermediate   ☐ Experienced   ☐ Programmer

2. How do you use this book?

    ☐ Learning   ☐ Procedural   ☐ Reference   ☐ Problem solving

3. Did this book meet your needs?

    ☐ Yes   ☐ No

    If you answered No to this question, please answer the following questions.

4. What chapters, sections, or procedures did you find hard to understand?

    _____
    _____
    _____

5. What information (if any) was missing from this book?

    _____
    _____
    _____

6. How could we improve this book?

    _____
    _____
    _____

Please return your comments by fax to (416) 597-7104, or mail your comments to Toronto Information Products, Nortel, 522 University Avenue, 14th Floor, Toronto, ON, Canada, M5G 1W7.

NORTEL

NORTHERN TELECOM

Reader Response Form

Nortel Symposium Call Center Server
1001t Hardware Installation Guide

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