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# **Nortel Networks Symposium Call Center Server**

## **Installation and Maintenance Guide**

Product release 4.2

Standard 3.0

January 2003

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# **Nortel Networks Symposium Call Center Server**

## **Installation and Maintenance Guide**

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# Chapter 1

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## Getting started

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# Overview

## Introduction

The *Symposium Call Center Server Installation and Maintenance Guide* provides information and procedures to help you complete the following tasks:

- understanding the requirements for a Platform Vendor Independence (PVI) server platform
- connecting external or peripheral hardware components
- configuring the Windows 2000 Server or Windows 2000 Advanced Server operating system
- installing the server software on a Platform Vendor Independence platform
- installing and configuring the pcAnywhere software
- installing the client software
- converting from Symposium Call Center Server Release 1.5, 3.0, or 4.0 to Release 4.2
- converting from earlier releases of the client software to Release 4.0
- reinstalling the server and client software
- uninstalling the server and client software
- installing and uninstalling Performance Enhancement Packages (PEPs) and Service Update packs
- starting and stopping the server
- managing security on the server
- monitoring events on the server
- backing up and restoring data
- using server utilities
- troubleshooting server problems

This chapter introduces Symposium Call Center Server and describes how the call center components interact with each other.

## Who should read this guide

This guide is intended for

- Nortel Networks installers and distributors who are responsible for installing and maintaining Symposium Call Center Server, or converting from an earlier release of Symposium Call Center Server to Release 4.2
- administrators who are responsible for monitoring and maintaining the server

## Access rights

This guide assumes that you have the privileges and access rights required to perform the procedures in this guide. For more information, refer to the *Administrator's Guide*.

## Optional features

Some of the features described in this guide are optional. To give you access to features, Nortel Networks supplies a keycode, which you use when you install the Symposium Call Center Server software. Fields and commands for features that you did not purchase are not available.

# About Symposium Call Center Server

## What is Symposium Call Center Server?

Symposium Call Center Server provides a call center solution for varied and changing business requirements by offering a suite of applications that includes

- call processing
- agent handling
- management and reporting
- networking (for Meridian 1/CSE 1000 systems only)
- third-party application interfaces

Symposium Call Center Server uses a client/server architecture, which distributes call routing and management capabilities among processors to make the best use of system resources.

## The components of Symposium Call Center Server

Symposium Call Center Server uses a client/server architecture, with functionality distributed among various components. The major components of Symposium Call Center Server include

- **the server PC**—Responsible for functions such as the logic for call processing, call treatment, call handling, call presentation, and the accumulation of data into historical and real-time databases. This PC runs under Windows 2000 Server or Windows 2000 Advanced Server.
- **the client PC**—A graphical user interface to the server. Client PCs run the Symposium Call Center Server client application. They are used to administer the server and to monitor call center performance. You connect client PCs to the customer LAN (CLAN).

**Note:** The optional Symposium Call Center Server Web Client application provides an additional means to configure the server and monitor call center performance through a web-based interface; however, you cannot perform certain administrative functions using Web Client, such as backing up and restoring the server, using the Voice Prompt Editor, and viewing the Event Browser. Therefore, you need at least one client PC installed with the existing Symposium Call Center Server client.

- **the switch**—Provides telephony services and voice network connectivity.
- **front-end IVR system**—(Optional) Provides voice processing capabilities.
- **third-party applications**—(Optional) Use information from the server to provide information on screens (“screen pops”) or produce customized reports.

## Switches supported by Symposium Call Center Server

Symposium Call Center Server supports the following switches:

- Meridian 1 (M1) nodal and networking
- Succession Communication Server for Enterprise 1000 (CSE 1000) nodal and networking
- Digital Multiplex Switch (DMS)
- Meridian Stored Logic 100 switch (MSL-100)

### Notes:

- In all instances in this guide, the M1 switch refers to both the Meridian 1 switch and Meridian 1 Internet Enabled switch, unless otherwise noted.
- Release 1.1 of the CSE 1000 switch only supports networking over ISDN trunks.

# How to use this guide and where to start

## Introduction

This guide contains many chapters, covering topics such as installing the server, performing conversions, backing up and restoring data, and server maintenance. This section provides some guidelines to help you figure out where to start in this guide, depending on what you want to do. Certain tasks, such as performing a new installation of Symposium Call Center Server, require you to use more than one chapter, so it is important that you start in the right place.

Keep in mind, this guide includes a detailed table of contents and an index to help you find specific information or procedures related to server installation and maintenance. This section focuses only on the most common tasks. If the task you want to perform is not listed here, use the table of contents or index to find the information you need.

## Where to start in this guide for common procedures

The following table provides some pointers on where to start for common procedures that may involve more than one chapter:

| <b>If you want to do this</b>                                                    | <b>Start here</b>                                                                                                                                                                                                                                                                                                                                      |
|----------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Find out the server requirements for Release 4.2 of Symposium Call Center Server | Chapter 2, “Performing the base configuration of the server”<br>This chapter explains the requirements for and configuration of a third-party server running Windows 2000 Server or Windows 2000 Advanced Server for Release 4.2 of Symposium Call Center Server. For a list of specific server requirements, see “Equipment requirements” on page 30. |
| Perform a new installation of Symposium Call Center Server                       | Chapter 3, “Installing the server software”<br>For a list of steps that you must complete to install a new Symposium Call Center Server, see “Installation steps checklist” on page 115.                                                                                                                                                               |



---

| <b>If you want to do this</b>                                        | <b>Start here</b>                                                                                                                                                                                                  |
|----------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Convert a server from Release 3.0 or 4.0 to Release 4.2              | Chapter 7, “Converting from server Release 3.0 or Release 4.0 to Release 4.2”<br><br>For a list of steps that you must complete to perform these types of conversions, see the “Conversion checklist” on page 237. |
| Convert a server from Release 1.5 to Release 4.2                     | Chapter 8, “Converting from server Release 1.5 to Release 4.2”<br><br>For a list of steps you must complete to perform this type of conversion, see the “Conversion checklist” on page 347.                        |
| Perform a platform migration on a server already running Release 4.2 | This procedure is covered in a different guide—the Release 4.2 <i>Platform Migration Guide</i> for Symposium Call Center Server. However, you also need to refer to some procedures from this guide.               |
| Back up your server’s database                                       | Chapter 14, “Backing up data”                                                                                                                                                                                      |
| Recover your server                                                  | Chapter 15, “Restoring data”<br><br>This chapter provides several options for recovering your server when you encounter problems.                                                                                  |

---

# Related documents

## Introduction

This section lists the documents in which you can find additional information about Symposium Call Center Server.

| <b>If you need information about</b>             | <b>Refer to</b>                                                                                                    |
|--------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|
| ■ the Meridian 1 switch                          | <i>Nortel Networks Symposium Call Center Server Symposium, M1/CSE 1000, and Voice Processing Guide</i>             |
| ■ installing Product Enhancement Packages (PEPs) | <i>Nortel Networks Symposium Call Center Server Installation and Upgrade Guides for Releases 1.5, 3.0, and 4.0</i> |
| ■ detailed historical reports                    | <i>Nortel Networks Symposium Call Center Server Historical Reporting and Data Dictionary</i>                       |
| ■ scripting                                      | <i>Nortel Networks Symposium Call Center Server Scripting Guide</i>                                                |
| ■ administering the Network Control Center       | <i>Nortel Networks Symposium Call Center Server Network Control Center Administrator's Guide</i>                   |
| ■ planning and engineering guidelines            | <i>Nortel Networks Symposium Call Center Server Planning and Engineering Guide</i>                                 |

# Part 1

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## Installation



## Chapter 2

---

# Performing the base configuration of the server

### In this chapter

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# Overview

## Introduction

This chapter provides information and instructions for preparing a third-party server running Windows 2000 Server or Windows 2000 Advanced Server for installation of Symposium Call Center Server Release 4.2.

## Who should read this chapter

This chapter is intended for planners, administrators, technicians, and engineers responsible for installing and maintaining the server. It assumes that the reader has basic computing skills, is familiar with necessary safety procedures, and has the hardware documentation provided by the manufacturer available as a reference.

## Using this chapter to configure a Network Control Center server

When Symposium Call Center Server sites are connected together in a Wide Area Network (WAN), they require a central, non-call-processing computer to control the network. This computer is known as the Network Control Center (NCC) server. All servers in Symposium Call Center Server are connected to the NCC server, which may be in the same physical location as one of the servers in the network.

This chapter explains the configuration of a third-party server running Windows 2000 Server or Windows 2000 Advanced Server for Release 4.2 of Symposium Call Center Server. If you are configuring an NCC server, you can use the procedures in this chapter to install and configure the NCC server. However, the NCC server does not have an Embedded LAN (ELAN) card installed. Ignore all references to ELAN installation and configuration in this chapter.

# Section A: Getting started with the server's base configuration

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# Skills you need

## Introduction

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

## Required experience or knowledge

You require detailed knowledge of, and experience with, the applicable Microsoft Windows 2000 operating system, since step-by-step procedures for operating system installation and configuration are not provided in this guide.

Other types of experience or knowledge that may be useful include

- client/server architecture
- Internet Protocol (IP)
- database management
- programming



# Installation safety precautions

## Introduction

Before you install the server, take safety precautions to avoid injury or damage to you and the server. Precautions made now make the task of installing or maintaining the server much easier.

## Site safety

Prior to installing your server, verify that

- the area is clean and clear of debris
- there is adequate space for all equipment
- a desk, shelf, or table space is available for the server, monitor, keyboard, mouse, and modem
- there is adequate air flow and ventilation around the equipment
- no heat sources are located near equipment
- there is space for access to the front, side, and rear panels of the server
- the area is isolated from strong electromagnetic fields and electrical noise sources, including
  - air conditioners
  - large fans
  - motors
  - radio or TV transmitters
  - high-frequency security devices
- there are adequate grounded electrical outlets or power bars for all equipment. Have one outlet for each
  - server
  - monitor
  - modem power cord
  - Embedded LAN (ELAN) hub power cord
  - Customer LAN (CLAN) hub power cord
  - PC client

# Equipment requirements

## Introduction

The Platform Vendor Independence (PVI) solution for Symposium Call Center Server Release 4.2 is a software-only product. The customer supplies the server and all hardware.

## Hardware platforms

Symposium Call Center Server Release 4.2 as a Platform Vendor Independence solution supports hardware that meets the minimum requirements described in this chapter, regardless of the manufacturer. The server must also meet the requirements of Microsoft's Hardware Compatibility List for the applicable Windows 2000 operating system. See the Microsoft web site for details.

### Platform Compliance Check

To check whether a particular server meets these basic requirements for Platform Vendor Independence, run the Platform Compliance Check utility on that server after the operating system is installed and the drives are partitioned according to the specifications in this chapter (for detailed instructions, see "Performing a platform compliance check on your server" on page 123). This utility is included on the Server Application CD. It generates warnings and suggestions when the server under test does not satisfy the minimum or suggested requirement.

**Note:** The Platform Compliance Check utility does not check all requirements for Platform Vendor Independence. You must ensure that the server meets all requirements in "Minimum hardware requirements" on page 33.

### Supported Nortel Networks platforms

The Platform Vendor Independence solution is also supported on two Nortel Networks platforms, if they are configured as Platform Vendor Independence servers according to information in this chapter. These platforms are

- 1003t servers
- certain 702t servers

**Note:** Only certain 702t models can be used as platforms for Release 4.2. For details, see Appendix B, “Determining whether a 702t server can be used with Release 4.2,” on page 709.

### **Driver CD-ROM for Nortel Networks-supplied platforms**

If you are planning to use a 702t or 1003t server to run Release 4.2, you may need the latest version (version 1.0 or higher) of the Application Server Driver CD (NTRH8102). This CD contains drivers for the Tandberg tape drive that are compatible with Windows 2000. For 702t and 1003t servers, it also contains the version of the BIOS firmware that is compatible with the operating system. You can order this CD from Nortel Networks. Any 702t servers marked “Windows 2000 Compatible, Nortel Networks” on the front panel have been shipped with the updated CD and the BIOS and Tandberg drivers already installed. For more information about required drivers and upgrade procedures, see “Required drivers for 702t and 1003t PVI servers used as platforms for Release 4.2” on page 723.

**Note:** You must upgrade the drivers on your existing Symposium Call Center Server before migrating to Symposium Call Center Server Release 4.2.

### **High Availability platforms**

Symposium Call Center Server is also supported on any High Availability platform that has undergone compatibility testing with Symposium Call Center Server as part of Nortel Networks’ Compatibility Test Program. (For more details on this compatibility test program, see [www.nortelnetworks.com/prd/dpp/](http://www.nortelnetworks.com/prd/dpp/).)

Currently, Nortel Networks has successfully completed testing on some of the High Availability platforms offered by Stratus. Specific details of the high availability platforms that are compatible with Symposium Call Center Server are available on request from Nortel Networks in a platform-specific product bulletin.

For more information on Stratus, go to [www.stratus.com](http://www.stratus.com).

### **Tested third-party platforms**

Nortel Networks has performed tests on the following servers from major platform vendors:

- IBM eServer x240
- HP netserver e800
- Proliant ML350, ML370, ML380

Although the specifications and components of the servers tested may change throughout their life cycle, Nortel Networks will not be performing ongoing testing of these platforms. Nortel Networks' testing did not include any vendor-specific utilities or diagnostic tools that may be delivered with these platforms.

### **Unsupported Nortel Networks platforms**

You cannot use the following Nortel Networks platforms for Release 4.2 of Symposium Call Center Server because they cannot meet the minimum requirements for Platform Vendor Independence:

- 701t servers
- 702t servers (MAS models)
- 1000t servers
- 1001t servers

## **Backup and disaster recovery**

To maximize Symposium Call Center Server uptime, ensure that your hardware platform supports your disaster recovery program. Regular system backups are critical to a disaster recovery program. (For more information about system backups, see Chapter 14, “Backing up data.”) By provisioning your platform with fault-tolerant hardware (that is, RAID), you can provide additional security to your system (see “Redundant Array of Independent Disks” on page 54).

## Minimum hardware requirements

For the Release 4.2 Platform Vendor Independence solution to run properly, the customer-supplied server must meet the following minimum requirements:

**Note:** The following specifications are minimum requirements. You can achieve enhanced performance by adding RAM or using faster dual processors. You can achieve higher fault tolerance with RAID-1 hotswap drives, and redundant and hotswap power supplies and fans.

- Intel-based CPU—Pentium II 300 MHz

**Notes:**

- Supported processors include Pentium II, Pentium III, Pentium IV, Intel Xeon, and Intel Xeon DP. Intel Celeron, Intel Itanium (IA 64) and Intel Xeon XP are not supported.
- Symposium Call Center Server Release 4.2 can operate on single or dual processors at this time. Quad processors are not supported.
- 256 Mbytes of RAM

**Note:** The preceding values for CPU and RAM are minimum requirements. Be sure to check the specific requirements for your call center using the *Planning and Engineering Guide* and the Capacity Assessment Tool for Release 4.2 of Symposium Call Center Server.
- one floppy drive

The drive letter must be A.
- SCSI bus for hard drive

**Note:** IDE hard drives are not supported.
- (Recommended) RAID 1 hardware to be used for all disks on the shared SCSI bus to eliminate disk drives as a potential single source for hardware failures. For more information on RAID hardware, see “Redundant Array of Independent Disks” on page 54.
- hard drive speed of 7200 rpm (minimum) from manufacturer’s specification

**Note:** Release 4.2 supports Windows basic disk partitioning, not dynamic disk volumes. When partitioning your drives, do not use the Windows option to upgrade to dynamic disks.

- first partition (to contain the Windows 2000 operating system)
  - The disk partition letter must be C.
  - The minimum partition size is 2 Gbytes (2048 Mbytes).
  - The recommended partition size is 4 Gbytes (4096 Mbytes).
  - The file system type is NT file system (NTFS).
- second partition (to contain Symposium Call Center Server Release 4.2 software)
  - The disk partition letter must be D.
  - The minimum partition size is 2 Gbytes (2048 Mbytes).
  - The recommended partition size is 4 Gbytes (4096 Mbytes).
  - The file system type is NTFS.
- one CD-ROM drive
  - The drive letter must be E.
  - Minimum speed is 24X.
- first database partition

**Note:** Nortel Networks recommends that this partition and all subsequent database partitions be located on a different physical drive from partitions C and D. Additional database disk drive partitions can be located on separate physical disks, or on the same disk, based on your hardware configuration.

  - The disk partition letter must be F.
  - Minimum partition size is 4 Gbytes (4096 Mbytes).
  - Maximum partition size is 16 Gbytes (16 384 Mbytes).
  - Increases to the partition size must be in 1 Gbyte (1024 Mbyte) increments.
  - The file system type is NTFS.
- additional database partitions
  - The disk partition letters are G to U.
  - Minimum partition size is 4 Gbytes (4096 Mbytes).
  - Maximum partition size is 16 Gbytes (16 384 Mbytes).
  - Increases to the partition size must be in 1 Gbyte (1024 Mbyte) increments.
  - Maximum combined size of hard disk space for database partitions is 64 Gbytes (65 536 Mbytes).

- Maximum number of 16-Gbyte database partitions is 4.
- The file system type is NTFS.

**Note:** All database partitions must be of equal size (for example, all partitions must be *X* Gbytes in size, where *X* can be from 4 Gbytes to 16 Gbytes in 1 Gbyte increments). For additional partitioning information, see “Disk partitioning for new installations” on page 49.

- one serial port, configured as COM1, to be used for remote support using pcAnywhere
- (for Symposium Voice Services on Meridian Mail), one serial port, configured as COM2

**Notes:**

- If you do not have a serial port configured as COM2, you must perform a workaround after installing the server and the latest SUs. For detailed instructions, see “Installing the latest Service Update pack and any required PEPs” on page 151.
- If you use a smart UPS that requires an additional serial port on the server platform, you also need the additional serial port.
- (for DMS/MSL-100) one parallel port (must be physically configured on the server and enabled through the BIOS)
- one network interface card for the ELAN (10/100 Mbps Ethernet)
- one Ethernet (or Token Ring) network interface card for the CLAN
- video card and monitor (800x600 minimum resolution)
- keyboard
- mouse
- external modem (33.6 kbits/sec minimum, compatible with the US Robotics Sportster 33.6 modem) for remote technical support
- backup system for database backup (either tape drive or remote directory)

**Tape drive option:**

- Use a SCSI tape drive listed on the Microsoft Compatibility List for Windows 2000 on the Microsoft web site. Ensure that the SCSI ID for the tape drive does not conflict with existing SCSI IDs configured for other server devices.

You can use 1/4-inch cartridge and 4-mm and 8-mm digital audio (DAT) formats drives.

The drive can be internal or external to the server.

- The drive must be large enough to hold all the backup data for the complete database on a single backup tape. (Hardware compression techniques can be used if necessary.) To calculate backup space requirements, see “Calculating the capacity requirements for database backups” on page 513.
- The tape driver must be Sybase-compatible.
- capability of operating under Windows 2000 Server or Windows 2000 Advanced Server. All hardware devices must be on the Microsoft Hardware Compatibility List for the applicable Windows 2000 operating system. For a complete list of compatible hardware devices, see the Microsoft web site.

**Note:** If you configure additional hardware on your server, such as COM ports 3 and 4, ensure that it is configured correctly (for instance, make sure that IRQs do not conflict with existing IRQs). Any further troubleshooting and hardware diagnostics are the responsibility of the hardware vendor.



## Required setup data

When you configure the operating system, you require certain data about the customer's site, such as the company name, computer name, and network IP addresses.

Appendix A of this guide provides worksheets for gathering this type of information before you begin installation procedures. Complete the worksheet in "Operating system configuration information" on page 704 before configuring the operating system.

## Preparing for hardware activities

Hardware activities include installing the server according to the manufacturer's manuals and connecting it to peripheral equipment. Before you begin any of these activities, collect the tools you need and follow recommended safety precautions.

You need the materials and precautions covered in this section for the hardware connection and server configuration.

# Required materials and safety precautions

## Materials checklist

Use this checklist to ensure that you have the materials you need to perform maintenance and diagnostic tasks.

| Description                                                                                                                                           | ✓ |
|-------------------------------------------------------------------------------------------------------------------------------------------------------|---|
| Antistatic ESD wrist strap (recommended)                                                                                                              |   |
| Pen or pencil for writing notes, cable lengths, and cable identifications                                                                             |   |
| Cable tie wraps                                                                                                                                       |   |
| (Optional) Blank tape for database backup procedures (used with Symposium Call Center Server procedures)                                              |   |
| Tape head-cleaning kit (if optional tape drive is installed)                                                                                          |   |
| Cable identification labels                                                                                                                           |   |
| Equipment log (records the model and serial number of the system, all installed options, and other information)                                       |   |
| Blank floppy disk to create a Windows 2000 repair disk (to contain backup configuration data for Windows 2000 Server or Windows 2000 Advanced Server) |   |
| Microsoft Windows 2000 Server or Windows 2000 Advanced Server CD-ROM                                                                                  |   |
| pcAnywhere software version 10.5—supplied (provides remote access by Nortel Networks service)                                                         |   |

## General safety

Nortel Networks recommends that you observe these safety guidelines as you work on your server:

- Plug the computer and peripheral devices into properly grounded power sources to prevent electric shock.
- Use surge protection and an uninterruptible power supply to protect your system from sudden increases and decreases in electrical power.
- Ensure that nothing rests on your server's cables and that cables cannot be tripped over or stepped on.
- Do not handle food or liquid around the server.
- Do not push any objects into the openings of your server.

## Safety precautions for working with your server

Follow the manufacturer's recommendations and observe these safety guidelines before removing the cover of your server:

1. Turn off all peripheral devices connected to the server.
2. Turn off the system by using the push-button on/off power switch. Unplug the AC power cord from the system or wall outlet.
3. Label and disconnect all peripheral cables and all telecommunication lines connected to the I/O connectors or ports on the back of the system.
4. Provide electrostatic discharge (ESD) protection by wearing an antistatic wrist strap attached to the chassis ground of the system when handling components. Attach your wrist strap to any unpainted metal surface.

## Cooling and airflow

Check the manufacturer's instructions for proper cooling and airflow. Always install the chassis cover before turning on the system. You may risk damaging system parts if you operate the system without the cover in place.

# Uninterruptible Power Supply

## Introduction

Nortel Networks recommends the use of an Uninterruptible Power Supply (UPS) with Symposium Call Center Server.

## Benefits

A UPS provides the following benefits:

- reduction in data loss—A UPS shuts down the server gracefully if an interruption in AC power occurs. A graceful shutdown prevents data corruption and reduces the risk of data loss.
- reduction in power dips and spikes—The UPS regulates AC power supplied to the server.

**Note:** Data backups that are running at the time of shutdown are unusable.

## Requirements

A UPS used with Symposium Call Center Server must meet the following requirements:

| Requirement                                                                           | ✓ |
|---------------------------------------------------------------------------------------|---|
| Provides at least 10 minutes of power to stop all services and shut down the server.  |   |
| Physically fits within the workplace.                                                 |   |
| Has minimal environmental impact.                                                     |   |
| Applies power to the server when line voltage reaches a stable state.                 |   |
| If the server has been down for a long time, recharges before powering up the server. |   |
| Is compatible with Windows 2000.                                                      |   |

| Requirement                                                                                                                                                                                                                                                                                                                                          | ✓ |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|
| Meets all local regulatory requirements.<br><b>Note:</b> For the European market, the UPS must generate a pure sine wave AC waveform.                                                                                                                                                                                                                |   |
| Has hot-swappable batteries.<br><b>Note:</b> Replacement or capacity upgrades of the batteries must not interrupt service.                                                                                                                                                                                                                           |   |
| Connects to the server through a serial port (not COM1 or COM2) on the server platform or through a network card, depending on the implementation.                                                                                                                                                                                                   |   |
| Does not affect the Symposium Call Center Server software. UPS software must not replace software or drivers installed on the server with different versions.<br><b>Note:</b> Install only the basic software functions necessary for UPS operation. Do not install advanced features, as they can impact the Symposium Call Center Server software. |   |

**Note:** If you install Smart UPS software on the server, it must conform to the guidelines listed in this guide for third-party utilities. For more information, see “Third-party software on the server” on page 54. Nortel Networks only supports the manual shutdown and startup of the server. The documentation, testing, and support of Symposium Call Center Server shutdown and startup with UPS software must be carried out by the provider of the UPS solution.

# Avoiding electrostatic discharge

## Introduction

Electrostatic discharge (ESD) can seriously damage component parts such as disk drives and boards. Nortel Networks recommends that you perform the procedures described in this section at an ESD workstation.

## Antistatic wrist strap

If an ESD workstation is not available, you can wear an antistatic wrist strap for ESD protection. Ground the ESD wrist strap by attaching it to any unpainted metal surface on your system's chassis.

## Conductive foam pads

Expansion cards are extremely sensitive to ESD. After removing a card from its protective wrapper or from the system, place it component-side up on a conductive foam pad. If possible, use antistatic floor pads and workbench pads.





## Section B: About the server

### **In this section**

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# Overview

## Introduction

This section provides a summary of the server's configuration and software components.

It includes descriptions of the following elements:

- approved peripherals
- operating system
- pcAnywhere
- disk partitioning
- requirements for troubleshooting and maintenance
- RAID controller
- dependencies and compliance

# Server configuration

## Approved peripherals

The following peripherals are necessary to allow the server to work properly:

### **Keyboard, monitor, and mouse**

The server does not support headless operation; therefore, a keyboard, monitor, and mouse must be connected to the server.

### **Floppy drive**

One floppy drive is required in the server. You need the floppy drive for some software installation and related procedures.

### **CD-ROM drive**

One CD-ROM drive is a minimum standard requirement for the server. You need this drive for software installation and configuration procedures.

### **Tape drive**

If you plan to back up the database to tape rather than to a remote directory, one tape drive is required for the server. You need this drive to save and store the database backup.

### **SCSI drives**

SCSI hard drives in primary and secondary hot-pluggable drive bays are recommended for redundancy. A Redundant Array of Independent Disks (RAID) arrangement combines two or more drives for fault tolerance and performance.

### **Modem**

A dial-up modem must be connected to the server through a serial port at the rear of the chassis.

**Network interface cards**

Two Ethernet network interface cards are required—one for connection to the Embedded Local Area Network (ELAN), and the other for connection to the Customer Local Area Network (CLAN).

**Note:** An ELAN card is not required for an NCC.

**Operating system**

The Symposium Call Center Server Release 4.2 Platform Vendor Independence solution requires the Microsoft Windows 2000 Server or Windows 2000 Advanced Server operating system.

**ATTENTION**

---

Other versions of the Windows 2000 operating system software, such as Windows 2000 Datacenter Server and Windows 2000 Professional, are not supported.

**pcAnywhere**

Nortel Networks requires that pcAnywhere 10.5 be installed on the server to provide Symposium Call Center Server support through a dial-in modem.

# Disk partitioning

## Disk partitioning for new installations

The table below provides detailed information on partitioning a server to meet the requirements of Platform Vendor Independence. The minimum and recommended partition sizes are based on the following:

2 Gbytes = 2048 Mbytes

4 Gbytes = 4096 Mbytes

For 702t and 1003t servers, see “Disk partitioning for 702t server installations” on page 51, and “Disk partitioning for 1003t server installations” on page 52.

### Basic disk partitioning versus dynamic disk volumes

Release 4.2 supports Windows basic disk partitioning, not dynamic disk volumes. When partitioning your drives, do not use the Windows option to upgrade to dynamic disks. Refer to the documentation provided with the operating system for details.

### Primary and Extended partitions

The operating system resides on the C partition. This must be the only Primary partition. All other partitions (D, F, G, and so on) must be Logical drives within Extended partitions. Pay close attention to this when partitioning your drives. Refer to the documentation provided with the operating system for details.

| Drive letter | Minimum size | Recommended size | Maximum size | Notes                                                                                                                                             |
|--------------|--------------|------------------|--------------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| A            | 1.44 Mbytes  | 1.44 Mbytes      | N/A          | Floppy drive A                                                                                                                                    |
| C            | 2 Gbytes     | 4 Gbytes         | N/A          | NTFS partition on disk 0. This must be partitioned as the Primary partition. The Windows 2000 operating system and pcAnywhere are installed here. |

| Drive letter | Minimum size | Recommended size                     | Maximum size              | Notes                                                                                                                                                                                                                                                 |
|--------------|--------------|--------------------------------------|---------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| D            | 2 Gbytes     | 4 Gbytes                             | N/A                       | Additional NTFS partition on disk 0 or an NTFS partition on a different disk. This must be partitioned as a Logical drive within an Extended partition, since this partition is not used for booting. Symposium Call Center Server is installed here. |
| E            | N/A          | N/A                                  | N/A                       | CD-ROM drive                                                                                                                                                                                                                                          |
| F–U          | 4 Gbytes     | Dependent upon capacity requirements | 16 Gbytes (16 384 Mbytes) | Drive F and any additional drives are used to store the database. They are located on a different physical drive from partitions C and D. At a minimum, there must be an F drive where database information is stored.                                |

#### Notes:

- The minimum total system disk space for the database is 4 Gbytes. This is critical for the F partition.
- Additional database disk drive partitions can be on separate physical disks or on the same disk, depending on the customer's preference and hardware configuration.
- Partitioned sizes on all database drives should be in increments of 1 Gbyte (equivalent to 1024 Mbytes).
- Drives F–U must be partitioned as Logical drives within Extended partitions, since these partitions are not used for booting.
- The maximum size of the hard disk space for database partitions is 64 Gbytes (65 536 Mbytes).
- The maximum number of 16 Gbyte database partitions is 4.
- All database partitions must be of equal size (for example, all partitions must be X Gbytes in size, where X can be from 4 Gbytes to 16 Gbytes in 1 Gbyte increments).

## Disk partitioning for 702t server installations

The following table shows the recommended disk partitioning for a 702t Platform Vendor Independence server for Release 4.2:

**Note:** All partitions use NTFS formatting.

| Disk number | Drive letter | Partition type | Partition size |
|-------------|--------------|----------------|----------------|
| 0           | C            | Primary        | 4 Gbytes       |
| 0           | D            | Extended       | 4 Gbytes       |
| 1           | F            | Extended       | 4 Gbytes       |
| 1           | G            | Extended       | 4 Gbytes       |
| 2           | H            | Extended       | 4 Gbytes       |
| 2           | I            | Extended       | 4 Gbytes       |

## Disk partitioning for 1003t server installations

Use the following disk partitioning information for rebuilding a Nortel Networks 1003t MAS server as a Platform Vendor Independence server.

The table below provides detailed information on partitioning a server to meet the requirements of Platform Vendor Independence. The partition sizes are based on the following:

2 Gbytes = 2048 Mbytes

4 Gbytes = 4096 Mbytes

**Note:** All partitions use NTFS formatting.

| Disk number | Drive letter | Partition type | Partition size |
|-------------|--------------|----------------|----------------|
| 0           | C            | Primary        | 2 Gbytes       |
| 0           | D            | Extended       | 2 Gbytes       |
| 0           | F            | Extended       | 4 Gbytes       |
| 1           | G            | Extended       | 4 Gbytes       |
| 1           | H            | Extended       | 4 Gbytes       |
| 2           | I            | Extended       | 4 Gbytes       |
| 2           | J            | Extended       | 4 Gbytes       |



# Base and optional system components

## Included software components

The Symposium Call Center Server Release 4.2 Platform Vendor Independence solution is packaged as a software solution only; no hardware platforms are included. The package includes the following software:

- Release 4.2 Server Application CD-ROM containing
  - Symposium Call Center Server installation software
  - Platform Compliance Check utility
- Release 4.2 Server Supplementary CD-ROM containing any additional software components required for Symposium Call Center Server to operate, such as performance enhancement packages (PEPs) or Service Update packs
- Release 4.0 Client Application CD-ROM (which includes Adobe Acrobat Reader)
- Release 4.2 Documentation CD-ROM
- Release 10.5 pcAnywhere Host-Only CD (NTJK08AA)

**Note:** In addition to the included software components, you need the Microsoft Windows 2000 Server or Windows 2000 Advanced Server operating system.

## Requirements for troubleshooting and maintenance

The following components are essential to perform diagnostics, installation, and maintenance procedures:

- Windows 2000 Server or Windows 2000 Advanced Server CD-ROM
- manufacturer's RAID controller driver disk, if a RAID controller is used
- manufacturer's diagnostics software
- (optional) blank backup tape for execution of tape diagnostics
- manufacturer's documentation for installing, maintaining, and troubleshooting the platform and peripherals

## Redundant Array of Independent Disks

For maximum security and mission-critical systems, Nortel Networks recommends that the server contain a RAID 1 (type 1) controller. The Redundant Array of Independent Disks (RAID) technology provides disk data redundancy as well as error detection and correction. With the RAID controller, you can configure your linked drives into a RAID subsystem.

**Note:** Microsoft Software-RAID is not supported.

RAID 1, also known as disk mirroring, involves at least two drives duplicating the storage of data. There is no striping. Read performance is improved since either disk can be read at the same time. Write performance is the same as for single-disk storage. RAID 1 provides the best performance and the best fault-tolerance in a multi-user system, but at a higher cost.

**Note:** RAID 5, on the other hand, involves a rotating parity array, addressing the write limitation in RAID 4. All read and write operations can be overlapped. RAID 5 stores parity information but not redundant data. However, parity information can be used to reconstruct data. RAID 5 requires a minimum of three and usually five disks for the array. It is best for multi-user systems in which performance is not critical or which involve few write operations.

The implementation of RAID levels other than RAID 1 (for example, RAID 5) is possible, provided the distributor has tested the configuration prior to placing the server into live operation. RAID implementation issues must be addressed by the RAID vendor.

## Third-party software on the server

Due to the mission-critical, real-time processing performed by Symposium Call Center Server, you must not install any other application class software on the server. You can install certain utility class software on the server, providing it conforms to the guidelines listed in the following section.

- Application class software generally requires a certain amount of system resources and, therefore, must not be installed on any server running Symposium Call Center Server. The installation of application class third-party applications may cause a real-time system, such as Symposium Call Center Server, to operate outside of the known engineering limits and,

therefore, create potential unknown system problems (for example, CPU contentions, increased network traffic loading, disk access degradations, and so on).

- Certain third-party utility class software applications, such as hardware diagnostics, generally require less system resources during the normal operation of Symposium Call Center Server and, therefore, are permitted. Exceptions are utilities such as screen savers, which may cause system problems and degrade performance. Antivirus software is classified as a utility and is subject to the generic guidelines listed below, as well as a specific series of recommendations detailed in “Additional guidelines for use of antivirus software” on page 56.

**Note:** Nortel Networks does not support connection to Symposium Call Center Server through a Citrix environment.

### **Guidelines for utility-class software applications**

- The utility must not reduce the hard disk space available to Symposium Call Center Server and the Windows 2000 operating system below the minimum required.
- The installation or uninstallation of the third-party software should not impact or conflict with the Symposium Call Center Server software (for example, it must not cause .DLL conflicts). If such conflicts are discovered, a rebuild of the server may be necessary.
- If the utility has its own database, it must not impact the Symposium Call Center Server Sybase database.
- The utility must not interfere with Symposium Call Center Server services in any way. (Third-party server management and monitoring utilities, for example, must not be used to shut down or restart Symposium Call Center Server services).
- The utility must not administer the Symposium Call Center Server software.
- During run-time, the utility must not degrade the Symposium Call Center Server system beyond an average 50 percent CPU utilization.
- Disk compression utilities must not be used.
- Memory tweaking utilities (for example, WinRAM Turbo, Memory Zipper, and so on), used to reclaim memory that is unused by Microsoft, should not be used.

Before putting the server into production, implementation personnel must test to ensure these conditions and recommendations are met. Nortel Networks support personnel may ask for the results of the testing during fault diagnosis. As part of the fault diagnosis process, the distributor or end-user may be asked to remove third-party software.

**Note:** If performance or functionality issues are raised to Nortel Networks support personnel, as part of the fault diagnosis process, the customer/distributor may be asked to remove third-party software.

### **Additional guidelines for use of third-party backup software**

Symposium Call Center Server does not provide a full backup facility. You can use third-party backup software to create a full backup of your server. If you do, additional guidelines apply. For more information, see “Guidelines for third-party backup software” on page 547.

**Note:** Even if you create a full backup, you must continue to perform regular Symposium Call Center Server database backups. Due to the proprietary functions called during backup of the database, you must use the backup utility provided with Symposium Call Center Server to perform database backups. For more information, see Chapter 14, “Backing up data.”

### **Additional guidelines for use of antivirus software**

The risk of virus infection on the server in Symposium Call Center Server is minimal due to the limited access required for support of the server. Typically, only maintenance personnel have local access to the servers or remote access through pcAnywhere connections. However, Nortel Networks acknowledges that some customers’ security policies may require the installation of antivirus software on the server in Symposium Call Center Server.

Nortel Networks has tested a representative sample of antivirus software packages (The Norton Antivirus, McAfee VirusScan, and Innoculate) to determine the following generic guidelines for the use of antivirus software:

- The Symposium Call Center Server software must be installed before installing the antivirus software. When the antivirus software is installed, it is the implementation personnel’s responsibility to perform testing with the antivirus software, in accordance with the guidelines for utility-class implementations outlined above.

- During PEP installations on both the client and server, all antivirus functionality should be disabled (for example, firewalls, [passive] scanning, auto updates, and so on), and should not start up automatically until the entire Symposium Call Center Server installation procedure is complete. Reenable antivirus functionality afterwards, as required.
- If personal firewalls are enabled on the Symposium Call Center Server client PC, then the Report Listener may be flagged as trying to access the Internet. The properties must be configured to allow the Report Listener to have access to Symposium Call Center Server through the firewall.
- Virus scans must be set to run on the server during off-peak hours, and not to start on the hour.

**Note:** Several maintenance tasks are automatically activated on Symposium Call Center Server at midnight, so an off-midnight time must be ensured. Similarly, active virus scans must be disabled when running diagnostic traces or logs on the server.

- The antivirus software must not be configured to deal automatically with suspected infected files. In the event of infected files being located, do not attempt to replace or remove them. Contact your local Nortel Networks support representative for assistance in determining if the files are part of the Symposium Call Center Server application or a critical system file.
- Nortel Networks recommends that you exclude from scanning the files located in the following folders:

**For MAS platforms:**

- D:\Nortel\Database\
- F:\Nortel\Database\
- <additional database drives>\Nortel\Database\

**For PVI platforms:**

- F:\Nortel\Database\
- <additional database drive>\Nortel\Database\

In addition, the following file must be excluded:

- D:\Nortel\ICCM\BIN\Tools2.exe

**Note:** You will encounter file access errors in the Scan Activity log if you do not exclude this latter file from scanning.

- You must not connect Symposium Call Center Server directly to the Internet to download virus definitions or updated files. Furthermore, Nortel

Networks recommends that you do not use the Symposium Call Center Server client to connect to the Internet. Instead, you must download virus definitions and updated files to another location on the customer network, and manually load them on the server in Symposium Call Center Server. This is the same recommended procedure for downloading Symposium PEPs. This method limits access to the Internet, and thus reduces the risk of downloading infected files.

- Nortel Networks recommends that you scan all PEP files, CD-ROMs, and floppy disks prior to installation or uploading to the server. This practice minimizes any exposure to infected files from outside sources.
- Nortel Networks has not tested SNMP alerting on virus confirmation, and is unable to ascertain any potential impact on Symposium Call Center Server. Nortel Networks does not recommend, therefore, that you activate this feature.
- Virus scan software can place an additional load on Symposium Call Center Server. It is the implementation personnel's responsibility to run the performance monitor tool on the server to gauge CPU utilization. If the antivirus software scan causes Symposium Call Center Server average CPU utilization to exceed 50 percent for longer than 20 minutes, then the antivirus software must not be loaded onto the server in Symposium Call Center Server.

**Notes:**

- Nortel Networks does not provide support on the configuration of antivirus software, but it tries to offer guidance where possible. Questions or problems on antivirus software should be directed to the appropriate vendor.
- The above recommendations are intended as guidelines only, and do not constitute a guarantee of compatibility. Nortel Networks does not plan to perform ongoing compatibility testing, or testing on other antivirus packages.

# Dependencies and compliance

## BIOS and hardware dependency

The Platform Vendor Independence solution does not have any dependencies on the server's BIOS or hardware.

## Operating system service pack dependency

At a minimum, Nortel Networks requires installation of the Windows 2000 Service Pack 2 (SP2) on the server in Symposium Call Center Server. This service pack contains important security fixes and performance improvements for the operating system.

**Note:** Nortel Networks normally supports the currently available service pack. To find out which service packs have been verified for use with Symposium Call Center Server, contact your Nortel Networks customer service representative.

## Platform Compliance Check utility

The Platform Compliance Check utility checks the server for the following:

- The operating system and Service Pack levels are adequate. The utility also identifies the location where the operating system is installed.
- Disks are partitioned correctly.
- Sufficient RAM is installed.
- The computer name and host name match and meet the server's requirements.
- Administrator is logged on.
- Sybase is not installed.
- SNMP is installed.
- IIS is not installed.
- The required parallel and serial ports are installed.

This utility is on the Server Application CD that contains the server software for Symposium Call Center Server.



## Section C: Installing the server hardware

### In this section

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# Overview

## Introduction

This section describes how to connect external and peripheral hardware components to the server. Before you can connect these components, you must install the server hardware according to the manufacturer's instructions and recommendations.

You require the following external connections:

- a network connection to the Meridian 1/CSE 1000 or DMS/MSL-100 switch
- a network connection to the Symposium Call Center Server Release 4.0 client
- a feature key adapter (dongle) installed on the parallel port. The feature key adapter is supplied by Nortel Networks for servers connected to a DMS/MSL-100 switch.
- a serial connection with Meridian Mail (if you are using Symposium Voice Services on Meridian Mail, or if you are using Meridian Mail as your IVR system)
- a serial connection to a modem for remote support

This section provides information about

- connecting the ELAN
- connecting the CLAN
- installing the software feature key adapter
- connecting Meridian Mail with a serial port (if you are using Meridian Mail)
- connecting the modem

# Connecting the ELAN

## Introduction

A network card for the Embedded Local Area Network (ELAN) is a system requirement. The ELAN is the private LAN used to connect Nortel Networks equipment at the customer site. The Ethernet hub is supplied by the customer.

**Note:** The ELAN card is not required for an NCC.

## To connect the ELAN

- 1 Locate the slot assigned to the ELAN card for the server. Make a note of the slot. See the “MAC address table” on page 706.
- 2 Write the MAC address of the card on a small label. Attach the label to the back of the card or the chassis slot position.
- 3 Connect the ELAN network cables from the Nortel Networks equipment to the Ethernet hub.
- 4 Connect the LAN cable from the ELAN card in the server to the hub.
- 5 Plug in the power cord for the hub.

# Connecting the CLAN

## Introduction

A network card for the Customer Local Area Network (CLAN) connects Nortel Networks systems to the customer's internal Ethernet LAN.

## To connect the CLAN

- 1 Locate the slot assigned to the CLAN card for the server. Make a note of the slot. See the "MAC address table" on page 706.
- 2 Write the MAC address of the card on a small label. Attach the label to the back of the card or the chassis slot position.
- 3 Connect the cable from the CLAN to the CLAN card in the server in accordance with customer site networking guidelines.
- 4 Plug in the power cord for the hub.

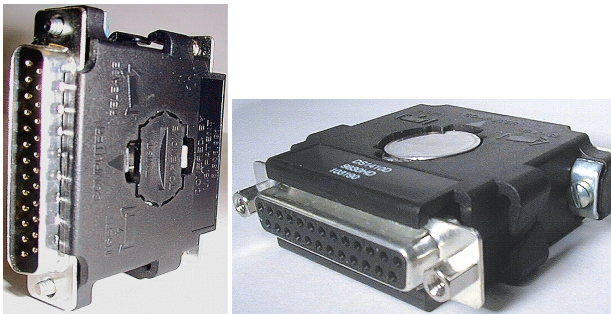
# Connecting the software feature key adapter

## Introduction

**Note:** The feature key adapter is used only for Symposium Call Center Server applications when the server is connected to a DMS/MSL-100 switch.

The Symposium Call Center Server installation package includes a software feature key adapter containing a feature key or dongle. This device verifies that you have the software package that was purchased for this system. You can set up and test Symposium Call Center Server without the adapter. However, before you connect to the switch to go live, you must ensure that the adapter and dongle are attached to the parallel port. Without the dongle, the switch and the server cannot communicate.

The software feature key is a security device that stores the server's unique serial number. The serial number is embedded in the dongle, which is fitted into the feature key adapter, and plugs into the parallel port.



## Tools required

- Phillips No. 1 screwdriver

## To install the software feature key adapter

- 1 Ensure that there is no cable connected to the parallel port.  
**Note:** The parallel port is also known as the printer port or LPT1.
- 2 Plug the male end of the adapter into the parallel port.

# Connecting Meridian Mail with a serial port

## Introduction

If you are using Meridian Mail to provide voice processing or IVR services, you must connect the server to Meridian Mail.

## To connect Meridian Mail

- 1 Plug the null modem adapter and RS-232 serial cable from the Meridian Mail COM port into the COM2 port on the server.
- 2 When the operating system is installed, ensure that COM2 is set to 9600 bps.

**Result:** The connection to Meridian Mail is complete.

# Connecting a modem

## Introduction

An external modem connected to a serial port on the server provides connectivity for technical support personnel. Use this procedure to connect the modem. The modem must have a minimum capability of 33.6 kbits/sec and be compatible with the US Robotics Sportster 33.6 modem.

## To connect the modem

- 1 Ensure that the AC cord of the modem is not plugged in.
- 2 Connect the large 25-pin male connector to the back of the modem. Tighten the connector screws.
- 3 Connect the 9-pin female connector to COM1 at the rear of the server. Tighten the connector screws.
- 4 Check that the modem switches are set as follows:

**Note:** The following table shows switch settings for the US Robotics Sportster 33.6 modem. Use these settings as a guide to the features required if you are installing a different type of modem.

| Switch position | Up (OFF) | Down (ON) | Function                                                                                                                                                            |
|-----------------|----------|-----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1               | ✓        |           | Normal DTR operation (The computer must provide a DTR signal for the modem to accept commands. Dropping DTR terminates a call.)<br><br>Modem ignores DTR (override) |
| 2               | ✓        |           | Verbal (word) results<br><br>Numeric results                                                                                                                        |
| 3               |          | ✓         | Suppresses results codes<br><br>Enables results codes                                                                                                               |

| Switch position | Up (OFF) | Down (ON) | Function                                                                                                                                     |
|-----------------|----------|-----------|----------------------------------------------------------------------------------------------------------------------------------------------|
| 4               |          | ✓         | Echoes keyboard commands<br>Suppresses echo of keyboard commands                                                                             |
| 5               |          | ✓         | Modem answers on first ring, or higher if specified in NVRAM<br>Disables auto answer                                                         |
| 6               | ✓        |           | Modem sends Carrier Detect when it connects with another modem; drops Carrier Detect on disconnect<br>Carrier Detect is always on (override) |
| 7               | ✓        |           | Loads Y or Y1 configuration from user-defined nonvolatile memory (NVRAM)<br>Loads &F0-Generic template from read-only memory (ROM)           |
| 8               |          | ✓         | Disables command recognition (dumb mode)<br>Enables command recognition (smart mode)                                                         |

- 5 Connect one end of the telephone cable to the modem RJ-11 jack labeled LINE.
- 6 Connect the other end of the telephone cable to the RJ-11 jack in the wall.
- 7 Connect the power cord to the modem, and plug the other end into a wall receptacle or power bar. Turn on the modem.



# Section D: Configuring the operating system

## In this section

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# Overview of operating system configuration

## Introduction

This chapter describes how to configure the operating system on your PVI server in preparation for the installation of the Release 4.2 Symposium Call Center Server software. It identifies any features of Windows 2000 Server or Windows 2000 Advanced Server that are required or recommended for Symposium Call Center Server. This guide does not provide detailed steps for installing and configuring the Windows 2000 operating system. For detailed procedures, see the documentation provided by Microsoft for installation and maintenance of the operating system.

You may have a server on which the operating system is already installed. Alternatively, you may need to do a fresh installation of the operating system on your server. For both cases, this section provides guidelines for setting up the operating system for Symposium Call Center Server.

## Windows 2000 versions supported

The Symposium Call Center Server Release 4.2 Platform Vendor Independence solution requires the Microsoft Windows 2000 Server or Windows 2000 Advanced Server operating system.

### ATTENTION

Other versions of the Windows 2000 operating system software, such as Windows 2000 Datacenter Server and Windows 2000 Professional, are not supported.

## Overview of configuration requirements

### Disk partitioning requirements for the operating system

The operating system must reside on drive C of your server on an NTFS partition with a minimum size of 2 Gbytes. The recommended size is 4 Gbytes. For details on disk partitioning requirements for additional drives, see “Disk partitioning for new installations” on page 49.

**Note:** If your server is a 702t or a 1003t, partition drive C as specified in “Disk partitioning for 702t server installations” on page 51, or “Disk partitioning for 1003t server installations” on page 52.

### Services required for Symposium Call Center Server

Symposium Call Center Server runs on the Windows Components installed by default when you install Windows 2000 Server or Windows 2000 Advanced Server as a stand-alone server, with the following exceptions:

- The Simple Network Management Protocol (SNMP) service must be installed on your server. This allows you to use an SNMP management system for remote monitoring. This service is not installed by default, so you must select it while installing or configuring the operating system.
- The Internet Information Service (IIS) must not be installed. If it is installed, it will degrade the server’s performance. This service is installed by default, so you must remove it while installing or configuring the operating system.

Do not install any additional services on your server that are not installed by default or listed above.

### Service Packs

Nortel Networks requires installation of the Windows 2000 Service Pack 2 (SP2). This service pack contains important security fixes and performance improvements for the operating system.

**Note:** Nortel Networks normally supports the currently available service pack. To find out which service packs have been verified for use with Symposium Call Center Server, contact your Nortel Networks customer service representative.

**To upgrade your service pack**

- 1 Ensure that Nortel Networks has approved the use of the new service pack.
- 2 Determine a time when the upgrade can take place.
- 3 Back up the Symposium Call Center Server. See Chapter 14, “Backing up data.”
- 4 Shut down Symposium Call Center Server.
- 5 Upgrade the service pack following the instructions released with the service pack.
- 6 Restart the server.

**Windows repair disk**

Create a repair disk for your operating system installation. The disk contains the files you need to repair the operating system in case of corruption. For more information on creating and using this disk, refer to the instructions provided with the operating system.

Nortel Networks recommends that you create this disk

- after all software has been installed and configured, and the server is running in a stable condition
- on a regular basis after any maintenance activities are performed on the server, or any time the server configuration changes

# Configuring Windows 2000

## Introduction

This section provides two options for configuring Windows 2000 Server or Windows 2000 Advanced Server for use with Release 4.2 of Symposium Call Center Server.

- If you are installing a fresh copy of the operating system, follow the procedures in “Installing a fresh copy of Windows 2000” below.
- If you are configuring the operating system after it is installed, follow the procedures in “Configuring Windows 2000 if it is already installed” on page 86.



### CAUTION

---

#### **Risk of conversion failure**

If your server has Windows NT installed, Nortel Networks does not recommend that you upgrade from Windows NT to the Windows 2000 operating system. Instead, you must install a new copy of Windows 2000 Server or Windows 2000 Advanced Server. This eliminates the possibility of carrying over incorrect settings from the previous installation.

If you have a Meridian 1/CSE 1000 switch, ensure that the switch host name, IP name, and net mask are the same as those displayed by the STAT ELNK command in LD 137. Ensure that the switch serial number matches the one delivered with the Symposium Call Center Server keycode. The serial number must match exactly, including uppercase and lowercase letters.

## Installing a fresh copy of Windows 2000

If you are installing a fresh copy of Windows 2000, use the checklists in this section to configure the operating system correctly. The first checklist lists each window in the Setup wizard for the Windows 2000 operating system and provides guidelines for completing any windows that have required or recommended settings for Release 4.2 of Symposium Call Center Server. The second checklist lists some additional configuration steps you must carry out. When you finish the checklists, the configuration of the operating system is complete.

### Before you start the checklists

- 1 Complete the worksheet titled "Operating system configuration information" on page 704 in Appendix A. Verify all of the IP addresses and host names. The IP addresses and host names must be unique within the network.
- 2 If your server uses RAID, make sure that the RAID configuration is set up according to the manufacturer's instructions.
- 3 Obtain a CD-ROM containing Windows 2000 Server or Windows 2000 Advanced Server. You may also require boot disks.

### ATTENTION

Other versions of the Windows 2000 operating system software, such as Windows 2000 Datacenter Server and Windows 2000 Professional, are not supported.

- 4 Start the installation of Windows 2000 Server or Windows 2000 Advanced Server according to the instructions supplied with the operating system. Follow the on-screen instructions to create a partition for the operating system. This partition must reside on drive C of your server on an NTFS partition with a minimum size of 2 Gbytes (2048 Mbytes). The recommended size is 4 Gbytes (4096 Mbytes).

**Note:** For 1003t servers, this partition must be 2 Gbytes (2048 Mbytes). For more information, see "Reconfiguring an existing 1003t MAS server as a Release 4.2 PVI server" on page 248.

**Result:** Setup copies the operating system files to the installation folders on the new partition. When the copy process is complete, the system restarts. The Windows 2000 Setup wizard appears.

- 5 Use the following checklist to complete the windows in the wizard.

### Checklist for completing the Windows 2000 Setup wizard

Use the following checklist as you move through each window of the Windows 2000 Setup wizard:

| Window in the Windows 2000 Setup wizard         | Guidelines for completing this window                                                                                                                                                                                                                                                                        | ✓ |
|-------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|
| Installing Devices window                       | Setup detects and installs devices automatically.                                                                                                                                                                                                                                                            |   |
| Regional Settings window                        | Complete this window as required for your site.                                                                                                                                                                                                                                                              |   |
| Personalize Your Software window                | Complete this window as required for your site.                                                                                                                                                                                                                                                              |   |
| Your Product Key window                         | Complete this window as required for your site.                                                                                                                                                                                                                                                              |   |
| Licensing Modes window                          | Nortel Networks recommends that you use the “Per server” licensing mode and that you have a minimum of five concurrent connections. This is the default.                                                                                                                                                     |   |
| Computer Name and Administrator Password window | Type the computer name and administrator password, as recorded in the worksheet titled “Operating system configuration information” on page 704.<br><br><b>Note:</b> Pay close attention to the naming rules for the computer name as described in the worksheet (no spaces, hyphens or dashes are allowed). |   |

|                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |   |
|------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|
| <b>Window in the Windows 2000 Setup wizard</b> | <b>Guidelines for completing this window</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | ✓ |
| Windows 2000 Components window                 | <p>Make the following changes to the default Windows components:</p> <ul style="list-style-type: none"> <li>■ Uncheck Internet Information Services (IIS). Do not install this component or it will degrade the performance of the server.</li> <li>■ Double-click Management and Monitoring Tools, and then check Simple Network Management Protocol to install it. Click OK.</li> </ul> <p>Do not make changes to additional components.</p>                                                                                                                                                                                                                                                                                                                                                                   |   |
| Modem Dialing Information window               | <p>Complete this window as required for your site.</p> <p><b>Note:</b> This window appears if you have a modem attached to the server. If this window does not appear, proceed to the Date and Time Settings window.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |   |
| Date and Time Settings window                  | <p>Complete this window as required for your site. Make sure the correct time zone is set for the server.</p> <p>For the check box Automatically adjust clock for daylight saving changes, do one of the following:</p> <ul style="list-style-type: none"> <li>■ If you are using a Meridian 1/CSE 1000 switch, ensure that Automatically adjust clock for daylight saving changes is unchecked.</li> <li>■ If you are using a DMS/MSL-100 switch, ensure that Automatically adjust clock for daylight saving changes is checked for regions using daylight saving time.</li> <li>■ If you have purchased the Network Skill-Based Routing feature and are setting the time zone for the Network Control Center server, ensure that Automatically adjust clock for daylight saving changes is checked.</li> </ul> |   |
| Networking Settings window                     | After the system has installed the networking components and the status bar has finished scrolling, select Custom settings.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |   |



| Window in the Windows 2000 Setup wizard | Guidelines for completing this window                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | ✓ |
|-----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|
| Networking Components window            | <p>Use this window to select networking components and set up the TCP/IP parameters for the CLAN and ELAN network interface cards. Refer to your entries in the IP address table in the worksheet “Operating system configuration information” on page 704.</p> <p><b>Networking components selection</b></p> <p>After detecting the first network card, the Windows 2000 Setup wizard displays a list of networking components for that card. For each network card, the following three components are selected by default. Do not deselect any of these default networking components:</p> <ul style="list-style-type: none"> <li>■ Client for Microsoft Networks</li> <li>■ File and Printer Sharing for Microsoft Networks</li> <li>■ Internet Protocol (TCP/IP)</li> </ul> <p><b>TCP/IP parameters for CLAN and ELAN cards</b></p> <p>Complete the following steps for each card that the Setup wizard detects on your server:</p> <ol style="list-style-type: none"> <li><b>1</b> Click Internet Protocol (TCP/IP), and then click Properties.</li> <li><b>2</b> In the General tab, type the IP information required for the card (for example, IP address, subnet mask, and default gateway). Consult with the network administrator for the site.</li> </ol> <p><b>Note:</b> To complete the installation successfully, you must type an IP address for each network interface card. If you do not yet have the correct IP addresses for the cards, then type “dummy” IP addresses now. Remember to reconfigure the cards with the correct addresses later.</p> <ol style="list-style-type: none"> <li><b>3</b> From the General tab, click Advanced. Use the DNS and WINS tabs to type information about DNS and WINS servers. Consult with the network administrator for the site.</li> </ol> |   |

| Window in the Windows 2000 Setup wizard | Guidelines for completing this window                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | ✓ |
|-----------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|
| Workgroup or Computer Domain window     | <p>Select “No, this computer is not on a network, or is on a network without a domain.” Nortel Networks recommends that your server be part of a workgroup rather than a domain. It should be a stand-alone server with static IP addresses.</p> <p>In the “Workgroup or computer domain” box type the workgroup name, as per your entry in the worksheet titled “Operating system configuration information” on page 704.</p> <p><b>Note:</b> Installation of Symposium Call Center Server in its own workgroup rather than in a Microsoft domain reduces the following:</p> <ul style="list-style-type: none"> <li>■ potential performance impacts on Symposium Call Center Server</li> <li>■ unnecessary network traffic caused by the use of the Microsoft domain</li> <li>■ potential security openings into Symposium Call Center Server through the Microsoft domain</li> </ul> <p>Symposium Call Center Server does not need to be within a Microsoft domain for the following reasons:</p> <ul style="list-style-type: none"> <li>■ The only network O/S dependency for Symposium Call Center Server is TCP/IP.</li> <li>■ Symposium Call Center Server does not use any of the Microsoft networking resources offered by the Microsoft domain.</li> <li>■ Symposium Call Center Server does not share any of its resources with domain members.</li> </ul> |   |

Once the Windows 2000 Setup wizard completes the installation of the operating system, you must perform some additional configuration steps to prepare for the installation of Symposium Call Center Server. Remove the boot disk or CD-ROM and complete the next checklist. Before you continue with the

following configuration steps, you must log on to Windows 2000 for the first time. This causes the Windows 2000 Configure Your Server wizard to appear. This wizard is not necessary for Symposium Call Center Server functionality. Perform the following steps:

- 1 In the first window, select I will configure this server later.
- 2 Click Next.
- Result:** The Configure Your Server window appears.
- 3 Uncheck Show this screen on startup.
- 4 Close the window to save your changes.

**Note:** Each time you log on to Windows 2000 as a new user for the first time, the Windows 2000 Configure Your Server wizard appears. Perform the above steps each time you see this wizard.

### Checklist for configuring Windows 2000 following a fresh installation

| Step                                         | Details                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | ✓ |
|----------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|
| 1 Verify that the SNMP service is installed. | <p>Ensure that the Simple Network Management Protocol (SNMP) service is installed. If not, install it.</p> <p><b>TIP:</b></p> <ol style="list-style-type: none"> <li>1 From the Start menu, choose Settings → Control Panel.</li> <li>2 Double-click Add/Remove Programs.</li> <li>3 Click Add/Remove Windows Components to view a list of the installed components.</li> <li>4 Select Management and Monitoring Tools, and then click Details.</li> <li>5 Make sure the check box beside SNMP is checked. If it is checked, then SNMP is installed.</li> <li>6 Click OK to return to the Add/Remove Windows Components property page.</li> </ol> <p><b>Note:</b> You may also choose to configure the SNMP service to forward traps to your Network Management System. For details, see “Configuring SNMP on the server” on page 489.</p> |   |

| Step                                                           | Details                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | ✓ |
|----------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|
| <b>2</b> Verify that the IIS service is not installed.         | <p>Ensure that Internet Information Services (IIS) is not installed. If it is installed, remove it.</p> <p><b>TIP:</b></p> <p>On the Add/Remove Windows Components property page, make sure that the check box beside Internet Information Services is not checked.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |   |
| <b>3</b> Check the virtual memory settings.                    | <p>Verify that the virtual memory on the server is RAM size times 1.5. Set both the initial and maximum size to this value. If the virtual memory is smaller, increase it to this amount. The paging file should be on drive C.</p> <p><b>TIP:</b></p> <ol style="list-style-type: none"> <li><b>1</b> From the Start menu, choose Settings → Control Panel.</li> <li><b>2</b> Double-click System.</li> <li><b>3</b> On the General tab, take note of the server's RAM size.</li> <li><b>4</b> Click the Advanced tab, and then click Performance Options.</li> <li><b>5</b> Click Change to view and make changes to the virtual memory settings.</li> <li><b>6</b> Reboot the server if prompted.</li> </ol> <p><b>Note:</b> The maximum paging file size per volume is 4 Mbytes. If you require more space, you can distribute your paging files across several volumes. Alternatively, you can create paging files in separate folders on the same volume. For more information, see Article number Q237740 in the Microsoft Knowledge Base.</p> |   |
| <b>4</b> Check that the computer name and DNS host name match. | <p>You must ensure that the Windows computer name and TCP/IP DNS host name are identical, including uppercase and lowercase letters. For instructions, see "Making sure the computer name and DNS host name match" on page 96.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |   |

| Step                                                           | Details                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | ✓ |
|----------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|
| <b>5</b> Configure the modem connection for remote access.     | <p>Configure a direct serial connection for the modem hardware connected to your server. The modem uses COM 1.</p> <p><b>TIP:</b></p> <ol style="list-style-type: none"> <li>1 From the Start menu, choose Settings → Control Panel.</li> <li>2 Double-click Phone and Modem Options.</li> <li>3 Click the Modems tab, and then click Add.</li> <li>4 Follow the instructions in the Add/Remove Hardware Wizard to detect the modem and install the driver.</li> </ol>                                                                                                                                            |   |
| <b>6</b> Configure the operating system for remote access.     | <p>Configure an incoming connection on the server to allow for remote support through the dial-up modem. For instructions, see “Configuring the operating system for remote access” on page 100.</p>                                                                                                                                                                                                                                                                                                                                                                                                              |   |
| <b>7</b> Check the bindings order for the CLAN and ELAN cards. | <p>You must configure the bindings order of the network interface cards so that the CLAN card comes first, then the ELAN card, then the virtual adapters for remote access.</p> <p><b>TIP:</b></p> <ol style="list-style-type: none"> <li>1 From the Start menu, choose Settings → Control Panel.</li> <li>2 Double-click Network and Dial-up Connections.</li> <li>3 Click either the CLAN or ELAN connection, and then from the Advanced menu, click Advanced Settings.</li> <li>4 In the Connections box, make sure that the CLAN connection is listed first. If it is not first, adjust the order.</li> </ol> |   |

| Step                                          | Details                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | ✓ |
|-----------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|
| <b>8</b> Check the serial port configuration. | <p>Use the Windows Device Manager to check that the required serial ports exist. You require COM1 to provide remote support, and you require COM2 for Symposium Voice Services on Meridian Mail.</p> <p><b>TIP:</b></p> <ol style="list-style-type: none"><li>1 From the Start menu, choose Settings → Control Panel.</li><li>2 Double-click System, and then click the Hardware tab.</li><li>3 Click Device Manager, and then double-click Ports (COM &amp; LPT) to view the communications ports.</li></ol> <p>If a required port does not exist:</p> <ol style="list-style-type: none"><li>1 Ensure that the port is installed.</li><li>2 Go to the BIOS and correct the address of the missing port.</li></ol> |   |

| Step                             | Details                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | ✓ |
|----------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|
| <b>9</b> Format all disk drives. | <p>Ensure that the disk drives on the server are formatted as per the requirements for a Platform Vendor Independence (PVI) server. For details, see “Disk partitioning for new installations” on page 49, “Disk partitioning for 702t server installations” on page 51, or “Disk partitioning for 1003t server installations” on page 52.</p> <p><b>Notes:</b></p> <ul style="list-style-type: none"> <li>■ If the Welcome to the Write Signature and Upgrade Disk wizard appears, click Cancel. This wizard is only for configuring dynamic disk partitioning. Release 4.2 supports Windows basic disk partitioning, not dynamic disk volumes. When partitioning your drives, do not use the Windows option to upgrade to dynamic disks.</li> <li>■ If you are performing a conversion or migration, make sure you fully understand the partition requirements on your new server. Refer to the section on disk partitioning requirements in your conversion or migration procedure. Note that file and folder compression is not supported.</li> </ul> <p><b>TIP:</b></p> <ol style="list-style-type: none"> <li><b>1</b> From the Start menu, choose Programs → Administrative Tools → Computer Management.</li> <li><b>2</b> Under Storage, click Disk Management to view and change disk partitioning.</li> <li><b>3</b> The operating system resides on the C partition. This must be the only Primary partition. You must configure all other partitions (D, F, G, and so on) as Logical drives within Extended partitions on basic disks. The following steps offer some guidelines on creating extended partitions and logical drives:</li> </ol> |   |

| Step                                                                        | Details                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | ✓ |
|-----------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|
| Format all disk drives (continued).                                         | <ol style="list-style-type: none"> <li>Right-click each disk that you want to configure.</li> <li>In the resulting menu, choose Create Partition.</li> <li>Follow the prompts in the Create Partition Wizard to create an extended partition for each disk.</li> <li>When you have created the extended partitions, you must create the logical drives by specifying their size and drive letters. Right-click each disk.</li> <li>In the resulting pop-up menu, choose Create Logical Drive.</li> <li>Follow the prompts in the Create Partition Wizard to create logical drives for each disk.</li> </ol> <p><b>Note:</b> When you right-click a disk, if you see Write Signature in the pop-up menu, then you must choose this option to write a disk signature before you proceed with creating partitions and logical drives.</p> |   |
| 10 Install any additional drivers required for your hardware configuration. | <p>If your server requires any additional drivers for your hardware configuration, install them.</p> <p><b>Note:</b> If you are installing Release 4.2 on a 1003t or 702t PVI server, refer to Appendix C, “Required drivers for 702t and 1003t PVI servers used as platforms for Release 4.2,” for information on where to obtain drivers that are not automatically installed with Windows 2000.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                 |   |
| 11 Test the network connection.                                             | <p>Use the ping command to test both the CLAN and ELAN network connections.</p> <p><b>Note:</b> If you are in the process of converting a Release 1.5/3.0/4.0 server to a Release 4.2 server, Nortel Networks recommends that you test your network connection before you remotely restore the database from the original server, or when you prepare your server for full service. To avoid network conflict, ensure that the new server is disconnected from the original server's network (both CLAN and ELAN). Then, test the network drivers and TCP/IP stack. For more information, see the tip on checking your TCP/IP stack in “To resolve the failed ping” on page 682.</p>                                                                                                                                                   |   |



| Step                                      | Details                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | ✓ |
|-------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|
| 12 Install the Windows 2000 service pack. | <p>Nortel Networks requires installation of the Windows 2000 Service Pack 2 (SP2).</p> <p><b>Note:</b> For a 1003t PVI server, Nortel Networks does not recommend that you keep the backup files when installing the service pack.</p>                                                                                                                                                                                                                                                                                                         |   |
| 13 Update the emergency repair disk.      | <p>Nortel Networks recommends that you restart the computer and update the emergency repair disk to record the latest configuration data for the server. Do this every time you change the server configuration (for example, if you change the computer name or IP address).</p> <p><b>TIP:</b></p> <ol style="list-style-type: none"> <li>1 From the Start menu, choose Programs → Accessories → System Tools → Backup.</li> <li>2 On the Welcome tab, click Emergency Repair Disk.</li> <li>3 Follow the on-screen instructions.</li> </ol> |   |

### What's next?

The operating system configuration is now complete. Next, follow the instructions listed in Chapter 3, “Installing the server software” to install the Symposium Call Center Server.

## Configuring Windows 2000 if it is already installed

If you have purchased a server on which the Windows 2000 Server or Windows 2000 Advanced Server operating system is already installed, this section provides a checklist of items you must configure before installing Release 4.2 of Symposium Call Center Server. Refer to the documentation supplied with the operating system for step-by-step instructions.

### Checklist for configuring Windows 2000 if it is already installed

| Step                                                                                               | Details                                                                                                                                                                                                                                                                                                                                                                                | ✓ |
|----------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|
| <b>1</b> Complete the worksheet titled "Operating system configuration information" on page 704.   | Make sure you have gathered the required information on this worksheet, such as the computer name and network card IP addresses, before you start the operating system configuration. This way, you have the data on hand during configuration.                                                                                                                                        |   |
| <b>2</b> Complete the tasks in "Making sure the computer name and DNS host name match" on page 96. | Perform these verification steps before you start the operating system configuration.                                                                                                                                                                                                                                                                                                  |   |
| <b>3</b> Change the Administrator password.                                                        | To ensure server security, change the default Administrator password for Windows as soon as possible.<br><br><b>TIP:</b><br><ul style="list-style-type: none"> <li>■ Press Ctrl+Alt+Delete, and then click Change Password.</li> </ul>                                                                                                                                                 |   |
| <b>4</b> Check the licensing mode.                                                                 | Nortel Networks recommends that you use the Per server licensing mode, and that you have a minimum of five concurrent connections. This is the default setting.<br><br><b>TIP:</b><br><ol style="list-style-type: none"> <li><b>1</b> From the Start menu, choose Settings → Control Panel.</li> <li><b>2</b> Double-click Licensing to view and change the licensing mode.</li> </ol> |   |

| Step                                                   | Details                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | ✓ |
|--------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|
| <b>5</b> Verify that the SNMP service is installed.    | <p>Ensure that the Simple Network Management Protocol (SNMP) service is installed. If not, install it.</p> <p><b>TIP:</b></p> <ol style="list-style-type: none"><li>1 From the Start menu, choose Settings → Control Panel.</li><li>2 Double-click Add/Remove Programs.</li><li>3 Click Add/Remove Windows Components to view a list of the installed components.</li><li>4 Select Management and Monitoring Tools, and then click Details.</li><li>5 Make sure the check box beside SNMP is checked.</li><li>6 Click OK to return to the Add/Remove Windows Components property page.</li></ol> <p><b>Note:</b> You may also choose to configure the SNMP service to forward traps to your Network Management System. For details, see “Configuring SNMP on the server” on page 489.</p> |   |
| <b>6</b> Verify that the IIS service is not installed. | <p>Ensure that Internet Information Services (IIS) is not installed. If it is installed, remove it.</p> <p><b>TIP:</b></p> <p>On the Add/Remove Windows Components property page, make sure that the check box beside Internet Information Services is not checked.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |   |

| Step                                        | Details                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | ✓ |
|---------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|
| <b>7</b> Check the virtual memory settings. | <p>Verify that the virtual memory on the server is RAM size times 1.5. Set both the initial and maximum size to this value. If the virtual memory is smaller, increase it to this amount. The paging file should be on drive C.</p> <p><b>TIP:</b></p> <ol style="list-style-type: none"> <li>1 From the Start menu, choose Settings → Control Panel.</li> <li>2 Double-click System.</li> <li>3 On the General tab, take note of the server's RAM size.</li> <li>4 Click the Advanced tab, and then click Performance Options.</li> <li>5 Click Change to view and make changes to the virtual memory settings.</li> <li>6 Reboot the server if prompted.</li> </ol> <p><b>Note:</b> The maximum paging file size per volume is 4 Mbytes. If you require more space, you can distribute your paging files across several volumes. Alternatively, you can create paging files in separate folders on the same volume. For more information, see Article number Q237740 in the Microsoft Knowledge Base.</p> |   |
| <b>8</b> Set the date and time.             | <p>Set the server date and time to help with analysis of system events that occur in the event logs during installation.</p> <p><b>Note:</b> For the Meridian 1/CSE 1000 switch, after the server is fully operational and connected to the switch, the switch controls the date and time.</p> <p><b>TIP:</b></p> <ol style="list-style-type: none"> <li>1 From the Start menu, choose Settings → Control Panel.</li> <li>2 Double-click Date/Time to view and change these settings.</li> </ol>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |   |

| Step                                       | Details                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | ✓ |
|--------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|
| <b>9</b> Set the Time Zone for the server. | <p>Make sure the correct time zone is set for the server.</p> <ul style="list-style-type: none"> <li>■ If you are using a Meridian 1/CSE 1000 switch, ensure that Automatically adjust clock for daylight saving changes is unchecked.</li> <li>■ If you are using a DMS/MSL-100 switch, ensure that Automatically adjust clock for daylight saving changes is checked for regions using daylight saving time.</li> <li>■ If you have purchased the Network Skill-Based Routing feature and are setting the time zone for the Network Control Center server, ensure that Automatically adjust clock for daylight saving changes is checked.</li> </ul> <p><b>TIP:</b></p> <ol style="list-style-type: none"> <li>1 From the Start menu, choose Settings → Control Panel.</li> <li>2 Double-click Date/Time, and then click the Time Zone tab to view and change these settings.</li> </ol> |   |
| <b>10</b> Check the computer name.         | <p>Ensure that the computer name for your server is entered correctly according to the worksheet you filled out in step 1. Be sure to adhere to the naming rules described in the worksheet (no spaces, hyphens, or dashes are allowed).</p> <p><b>TIP:</b></p> <ol style="list-style-type: none"> <li>1 From the Start menu, choose Settings → Control Panel.</li> <li>2 Double-click System, and then click the Network Identification tab.</li> <li>3 To make changes, click Properties.</li> </ol> <p><b>Note:</b> You must ensure that the Windows computer name and TCP/IP DNS host name are identical, including uppercase and lowercase letters. For instructions, see “Making sure the computer name and DNS host name match” on page 96.</p>                                                                                                                                     |   |

| Step                                              | Details                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | ✓ |
|---------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|
| <b>11</b> Check the workgroup name.               | <p>Ensure that the workgroup name for your server is entered correctly according to the worksheets that you filled out in step 1. Nortel Networks recommends that your server be part of a workgroup rather than a domain. It should be a stand-alone server with static IP addresses.</p> <p><b>TIP:</b><br/>(Same as tip above.)</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |   |
| <b>12</b> Configure TCP/IP for the ELAN and CLAN. | <p>Use the worksheets that you filled out in step 1 to configure TCP/IP for the ELAN and CLAN network interface cards. For each card, enter the TCP/IP parameters (that is, IP address, subnet mask, default gateway). Consult with the network administrator at the customer's site.</p> <p>If your client PCs use Dynamic Host Control Protocol (DHCP) to communicate with the server, you must also configure the DNS and WINS options.</p> <p><b>TIP:</b></p> <ol style="list-style-type: none"> <li><b>1</b> From the Start menu, choose Settings → Control Panel.</li> <li><b>2</b> Double-click Network and Dial-up Connections.</li> <li><b>3</b> Right-click the connection icon for the CLAN, and then click Properties.</li> <li><b>4</b> Click Internet Protocol (TCP/IP), and then click Properties.</li> <li><b>5</b> Use the General tab to enter TCP/IP parameters.</li> <li><b>6</b> Click Advanced and use the DNS and WINS tabs for additional entries.</li> <li><b>7</b> Repeat the steps above for the ELAN connection.</li> </ol> |   |

| Step                                                            | Details                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | ✓ |
|-----------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|
| <b>13</b> Configure the modem connection for remote access.     | <p>Configure a direct serial connection for the modem hardware connected to your server. The modem uses COM 1.</p> <p><b>TIP:</b></p> <ol style="list-style-type: none"> <li>1 From the Start menu, choose Settings → Control Panel.</li> <li>2 Double-click Phone and Modem Options.</li> <li>3 Click the Modems tab, and then click Add.</li> <li>4 Follow the instructions in the Add/Remove Hardware Wizard to detect the modem and install the driver.</li> </ol>                                                                                                                                                |   |
| <b>14</b> Configure the operating system for remote access.     | <p>Configure an incoming connection on the server to allow for remote support through the dial-up modem. For instructions, see “Configuring the operating system for remote access” on page 100.</p>                                                                                                                                                                                                                                                                                                                                                                                                                  |   |
| <b>15</b> Check the bindings order for the CLAN and ELAN cards. | <p>You must configure the bindings order of the network interface cards so that the CLAN card comes first, then the ELAN card, and then the virtual adapters for remote access.</p> <p><b>TIP:</b></p> <ol style="list-style-type: none"> <li>1 From the Start menu, choose Settings → Control Panel.</li> <li>2 Double-click Network and Dial-up Connections.</li> <li>3 Click either the CLAN or ELAN connection, and then from the Advanced menu, click Advanced Settings.</li> <li>4 In the Connections box, make sure that the CLAN connection is listed first. If it is not first, adjust the order.</li> </ol> |   |

| Step                                           | Details                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | ✓ |
|------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|
| <b>16</b> Check the serial port configuration. | <p>Use the Windows Device Manager to check that the required serial ports exist. You require COM1 to provide remote support, and you require COM2 for Symposium Voice Services on Meridian Mail.</p> <p><b>TIP:</b></p> <ol style="list-style-type: none"><li>1 From the Start menu, choose Settings → Control Panel.</li><li>2 Double-click System, and then click the Hardware tab.</li><li>3 Click Device Manager, and then double-click Ports (COM &amp; LPT) to view the communications ports.</li></ol> <p>If a required port does not exist:</p> <ol style="list-style-type: none"><li>1 Ensure that the port is installed.</li><li>2 Go to the BIOS and correct the address of the missing port.</li></ol> |   |



| Step                       | Details                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | ✓ |
|----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|
| 17 Format all disk drives. | <p>Ensure that the disk drives on the server are formatted as per the requirements for a Platform Vendor Independence (PVI) server. For details, see “Disk partitioning for new installations” on page 49, “Disk partitioning for 702t server installations” on page 51, or “Disk partitioning for 1003t server installations” on page 52.</p> <p><b>Note:</b> If you are performing a conversion or migration, make sure you fully understand the partition requirements on your new server. Refer to the section on disk partitioning requirements in your conversion or migration procedure. Release 4.2 supports Windows basic disk partitioning; dynamic disk volumes are not supported. Note that file and folder compression are not supported either.</p> <p><b>TIP:</b></p> <ol style="list-style-type: none"><li>1 From the Start menu, choose Programs → Administrative Tools → Computer Management.</li><li>2 Under Storage, click Disk Management to view and change disk partitioning.</li><li>3 The operating system resides on the C partition. This must be the only Primary partition. You must configure all other partitions (D, F, G, and so on) as Logical drives within Extended partitions on basic disks.</li></ol> |   |

| Step                                                                        | Details                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | ✓ |
|-----------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|
| Format all disk drives (continued).                                         | <ol style="list-style-type: none"> <li>Right-click each disk that you want to configure.</li> <li>In the resulting pop-up menu, choose Create Partition.</li> <li>Follow the prompts in the Create Partition Wizard to create an extended partition for each disk.</li> <li>When you have created the extended partitions, you must create the logical drives by specifying their size and drive letters. Right-click each disk.</li> <li>In the resulting menu, choose Create Logical Drive.</li> <li>Follow the prompts in the Create Partition Wizard to create logical drives for each disk.</li> </ol> <p><b>Note:</b> When you right-click a disk, if you see Write Signature in the pop-up menu, then you must choose this option to write a disk signature before you proceed with creating partitions and logical drives.</p> |   |
| 18 Install any additional drivers required for your hardware configuration. | <p>If your server requires any additional drivers for your hardware configuration, install them.</p> <p><b>Note:</b> If you are installing Release 4.2 on a 1003t or 702t PVI server, refer to Appendix C, “Required drivers for 702t and 1003t PVI servers used as platforms for Release 4.2,” for information on where to obtain drivers that are not automatically installed with Windows 2000.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                 |   |
| 19 Test the network connection.                                             | <p>Use the ping command to test both the CLAN and ELAN network connections.</p> <p><b>Note:</b> If you are in the process of converting a Release 1.5/3.0/4.0 server to a Release 4.2 server, Nortel Networks recommends that you test your network connection before you remotely restore the database from the original server, or when you prepare your server for full service. To avoid network conflict, ensure that the new server is disconnected from the original server’s network (both CLAN and ELAN). Then, test the network drivers and TCP/IP stack. For more information, see the tip on checking your TCP/IP stack in “To resolve the failed ping” on page 682.</p>                                                                                                                                                   |   |

| Step                                             | Details                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | ✓ |
|--------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|
| <b>20</b> Install the Windows 2000 service pack. | <p>Nortel Networks requires installation of the Windows 2000 Service Pack 2 (SP2).</p> <p><b>Notes:</b></p> <ul style="list-style-type: none"> <li>■ If you have added SNMP or removed IIS (according to steps 5 and 6 of this checklist), then you must reapply Windows 2000 Service Pack 2 (SP2).</li> <li>■ For a 1003t PVI server, Nortel Networks does not recommend that you keep the backup files when installing the service pack.</li> </ul>                                                          |   |
| <b>21</b> Update the emergency repair disk.      | <p>Nortel Networks recommends that you restart the computer and update the emergency repair disk to record the latest configuration data for the server. Do this every time you change the server configuration (for example, if you change the computer name or IP address).</p> <p><b>TIP:</b></p> <ol style="list-style-type: none"> <li><b>1</b> From the Start menu, choose Programs → Accessories → System Tools → Backup.</li> <li><b>2</b> On the Welcome tab, click Emergency Repair Disk.</li> </ol> |   |

### What's next?

The operating system configuration is now complete. Next, follow the instructions listed in Chapter 3, “Installing the server software” to install the Symposium Call Center Server.

# Making sure the computer name and DNS host name match

## Introduction

You must make sure that your server's computer name and DNS host name match exactly, including uppercase and lowercase letters. If these names do not match, you cannot install the Symposium Call Center Server database software.

A mismatch in these names can occur, for example, if you do a fresh installation of the operating system and enter the computer name in uppercase letters. Windows uses your entry to set both the computer name and the DNS host name. However, once the operating system installation is complete, you may find that Windows has set the DNS host name in uppercase letters as you entered it, but that the computer name is set in all lowercase letters. Use the procedures below to check the names and, if necessary, change them.

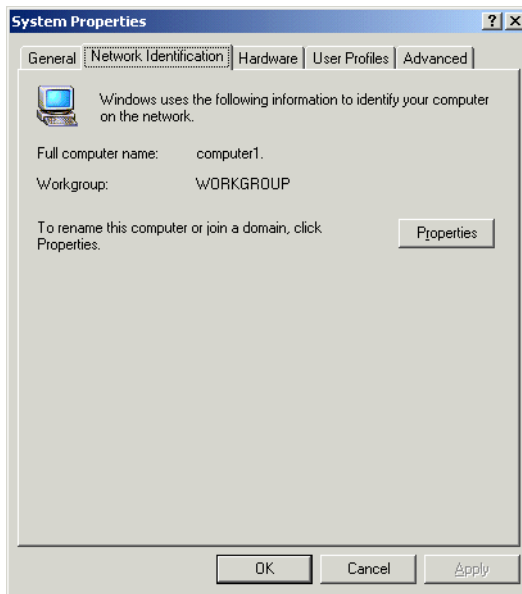
## To make sure the names match

- 1 Once you have installed the operating system, log on to the server as **Administrator**.
- 2 From the Start menu, choose Settings → Control Panel, and then double-click the System icon.

**Result:** The System Properties window appears.

- 3 Click the Network Identification tab.

**Result:** The Network Identification information appears.



- 4 Write down the Full computer name exactly as it appears, including case.

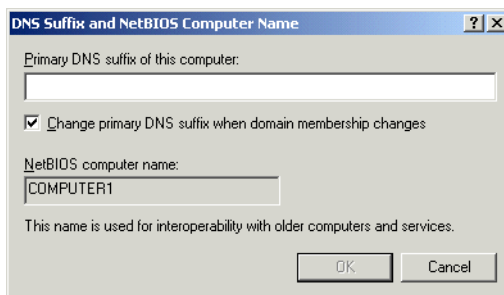
**Note:** Ignore the period at the end of the Full computer name.

- 5 Click Properties.

**Result:** The Identification Changes window appears.

- 6 Click More.

**Result:** The DNS Suffix and NetBIOS Computer Name window appears.



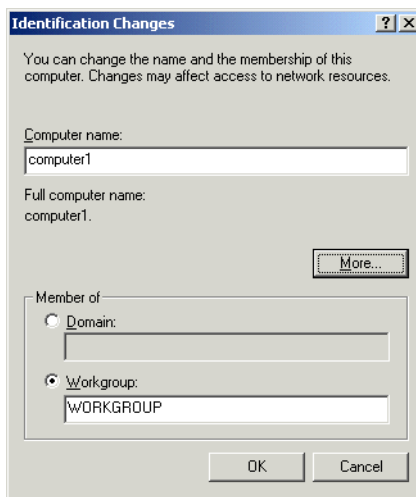
- 7 Compare the NetBIOS computer name on this window with the Full computer name that you wrote down to determine whether the names match exactly, including case.
- 8 Do one of the following:
  - If the names match, close the windows you opened and continue with the configuration of your server.
  - If the names do not match, follow the procedure below.

## To update the computer name to match the DNS Host Name

**Note:** This procedure is a continuation of the previous procedure.

- 1 Write down the NetBIOS computer name exactly as it appears.
- 2 From the DNS Suffix and NetBIOS Computer Name window, click Cancel.

**Result:** The Identification Changes window appears.



- 3 In the Computer name box, type the NetBIOS computer name exactly as you wrote it down in step 1. Then click OK.

**Note:** If the only difference between the two names is the case (uppercase or lowercase letters), you cannot click OK to register the change because Windows does not recognize changes to case. In this situation, perform the following workaround:

- a. Type any character at the end of the Computer name to enable the OK button.
- b. Click OK.
- c. When the system prompts you to restart, click OK, but do not reboot the server.

**Result:** The System Properties window appears.

- d. Click Properties.
- e. Go back to step 3 above.

**Result:** The system prompts you to restart.

- 4 Click OK.
- 5 Click OK to close the System Properties window.

**Result:** The system prompts you to restart the server.

- 6 Click Yes.
- 7 When the system has restarted, log on to the server as **Administrator**.
- 8 To make sure the names match now, repeat the procedure "To make sure the names match" on page 96.

If you have skipped to this procedure from the Windows 2000 configuration checklist, then you must return to the checklist and finish the remaining steps. See step 5 on page 81.

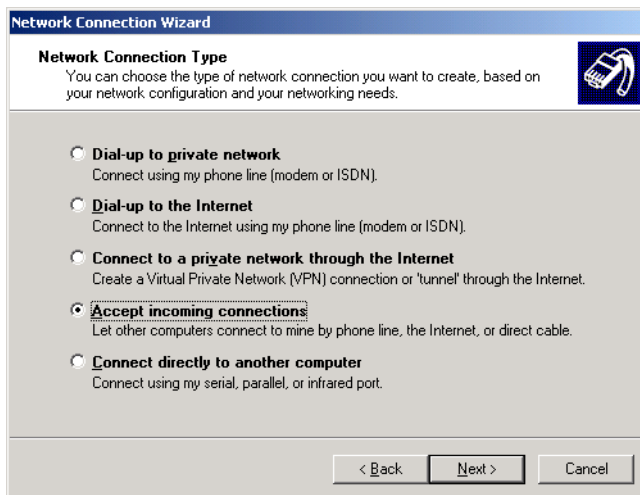
# Configuring the operating system for remote access

## Introduction

To enable support personnel to connect to the server remotely, you must configure remote access on the server.

## To configure remote access

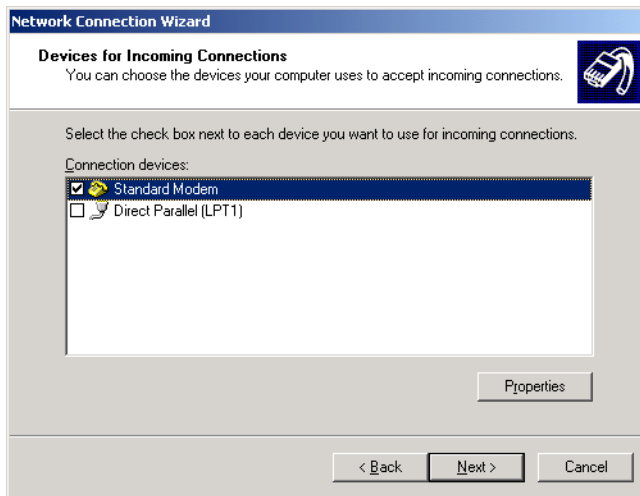
- 1 From the Start menu, click Settings → Control Panel.  
**Result:** The Control Panel window appears.
- 2 Double-click Network and Dial-up Connections.
- 3 Double-click Make New Connection.  
**Result:** The Welcome to the Network Connection Wizard appears.
- 4 Click Next.  
**Result:** The Network Connection Type window appears.





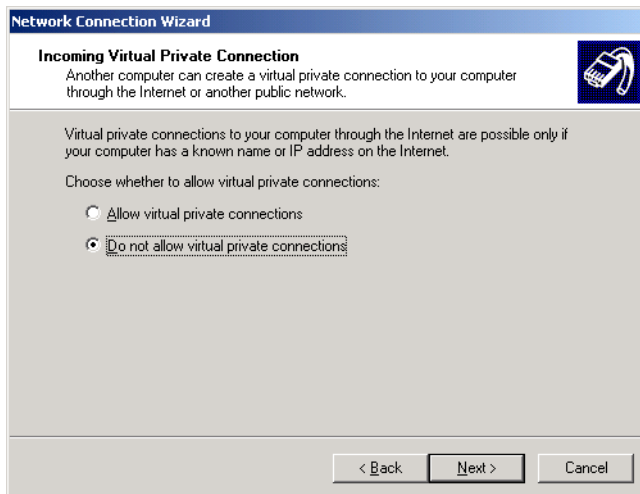
- 5 Click Accept incoming connections, and then click Next.

**Result:** The Devices for Incoming Connections window appears.



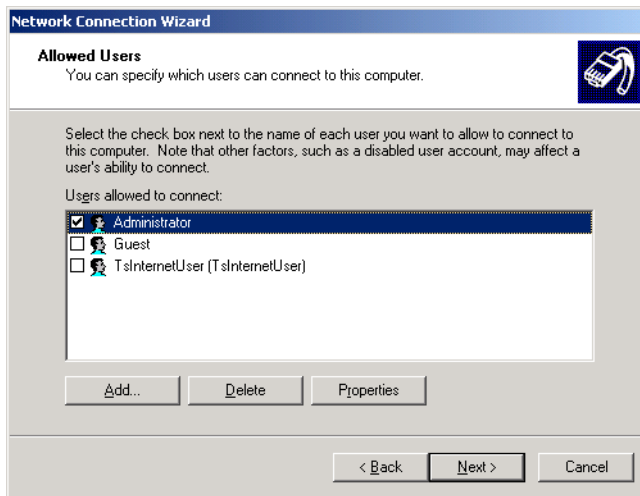
- 6 Ensure that the server's modem appears in the Connection devices box with a check mark beside it, and then click Next.

**Result:** The Incoming Virtual Private Connection window appears.



- 7 Click Do not allow virtual private connections, and then click Next.

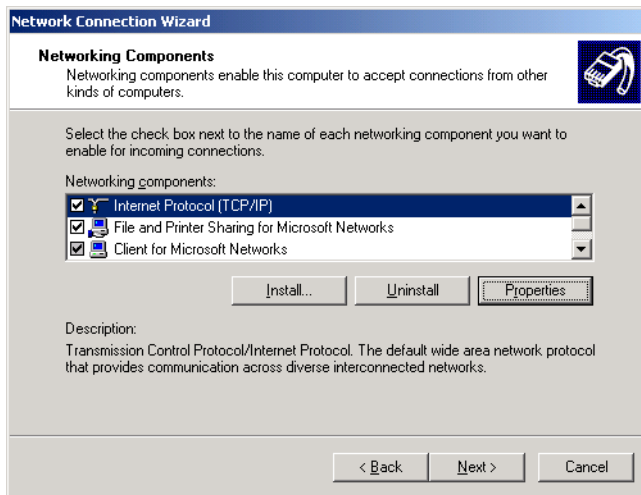
**Result:** The Allowed Users window appears.



- 8 Click the box to place a check mark beside the user Administrator, and then click Next.

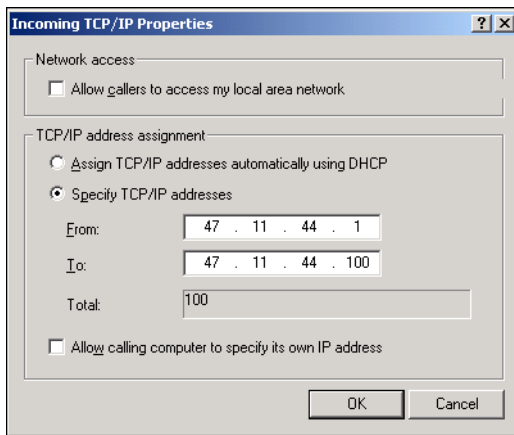
**Note:** After you install the Symposium Call Center Server software, three additional users appear in this box: NGenSys, NGenDesign, and NGenDist. You must ensure that there are check marks beside these names as well to enable these users to connect to the server remotely. For more information, see "To configure NGenSys, NGenDesign, and NGenDist for remote access" on page 105.

**Result:** The Networking Components window appears.



- 9 Ensure that there are default check marks beside the three components, as shown in the preceding illustration.
- 10 In the Networking components box, highlight Internet Protocol (TCP/IP), and then click Properties.

**Result:** The Incoming TCP/IP Properties window appears.



- 11 Ensure that the check box beside Allow callers to access my local area network is *not* checked.

- 12 Click Specify TCP/IP addresses.
- 13 In the From and To boxes, you must specify a range of IP addresses in the same subnet as the CLAN IP address. This range must include at least two available IP addresses.  
**Note:** Obtain the range of addresses from your network administrator. Remote access uses the first IP address. The remaining IP addresses are loaned to each dial-in client. Your administrator must select the range carefully.
- 14 Ensure that the check box beside Allow calling computer to specify its own IP address is *not* checked.
- 15 Click OK.
- 16 In the Networking Components window, click Next.

**Result:** The Completing the Network Connection Wizard appears.



- 17 Type the name of the incoming connection as you want it to appear in the Network and Dial-up Connections folder.
- 18 Click Finish.

**Result:** The new connection appears in the Network and Dial-up Connections folder.

## To configure NGenSys, NGenDesign, and NGenDist for remote access

When you install the Symposium Call Center Server software, the system creates three users: NGenSys, NGenDesign, and NGenDist. To allow support personnel to access the server remotely with these user accounts, you need to enable these accounts for remote access according to the following procedure.

- 1 From the Start menu, click Settings → Control Panel.

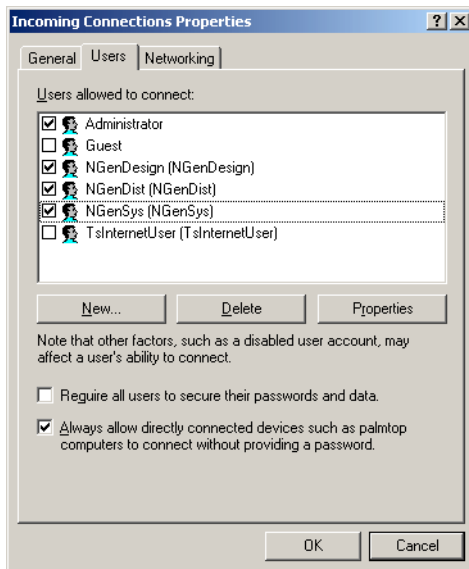
**Result:** The Control Panel window appears.

- 2 Double-click Network and Dial-up Connections.

**Result:** The Network and Dial-up Connections window appears.

- 3 Right-click the incoming connection that you created in “To configure remote access” on page 100, and then choose Properties.

**Result:** The Properties dialog box for your connection appears.



- 4 Click the Users tab.
- 5 Place a check mark in the check box beside each of the users, NGenDesign, NgenDist, and NGenSys.
- 6 Click OK to close the window.
- 7 Close the Network and Dial-up Connections window.



# Chapter 3

---

## Installing the server software

### In this chapter

|                                                                        |     |
|------------------------------------------------------------------------|-----|
| Overview                                                               | 108 |
| Section A: Checklists                                                  | 111 |
| Section B: Installing and configuring the server software and database | 117 |

# Overview

## Introduction

This chapter provides instructions for installing the Symposium Call Center Server application software on a Platform Vendor Independence (PVI) platform. Use the Symposium Call Center Server Release 4.2 Server Application CD to install the following:

- a server in Symposium Call Center Server
- a Network Control Center server
- a Meridian Link stand-alone server

## Assumptions

This chapter assumes the following:

- Your hardware platform is a PVI server that has been installed and is operational.
- The switch is correctly installed, operational, and configured for use with Symposium Call Center Server.
- All client PCs are operational and running one of the following versions of Windows:
  - Microsoft Windows 95, with the Service Pack supplied by Microsoft
  - Microsoft Windows 98, version 4.00.950B or higher
  - Windows NT 4.0 Workstation with Service Pack 5 or higher
  - Windows 2000 Professional
  - Windows XP

### Notes:

- Windows 95 is not supported on Rev. 5 of the Client CD.
- Windows XP is only supported on Rev. 5 of the Client CD.
- All client PCs are using Microsoft TCP/IP.
- The customer local area network (CLAN) and the embedded local area network (ELAN) are installed and operational.



## Installing Symposium Call Center Server networking (for Meridian 1/CSE 1000 only)

If you are installing networking, plan the server installation information for all servers. Refer to the *Network Control Center Administrator's Guide* for networking requirements and planning information.

### Methods of server installation

How you install the server software depends upon the environment in which you are working.

| Method                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Requirements                                                                                                                                                                                               |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Run the installation program from the Symposium Call Center Server Application CD-ROM. Use the CD-ROM drive that is part of the hardware platform.                                                                                                                                                                                                                                                                                                      | keyboard, mouse, and monitor attached to the server                                                                                                                                                        |
| Run the installation program from Symposium Call Center Server. Use a remote CD-ROM drive that is accessible over the LAN.<br><b>Note:</b> This method is not recommended, as network traffic can interfere with proper installation.                                                                                                                                                                                                                   | keyboard, mouse, and monitor attached to the server                                                                                                                                                        |
| Use pcAnywhere on a remote PC to log on to the server in Symposium Call Center Server and run the installation program. This may be necessary if you do not have a keyboard and monitor connected to the server, or if the server is in a remote location.<br>Use the CD-ROM drive on the server in Symposium Call Center Server, or use a CD-ROM drive on a remote PC that is accessible from the server in Symposium Call Center Server over the LAN. | pcAnywhere installed and configured on both the server in Symposium Call Center Server (see Chapter 5, "Installing and configuring pcAnywhere"), and the remote PC (see the <i>Administrator's Guide</i> ) |

| Method                                                                                                                                                                                        | Requirements                                                                                                                                                                                                      |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Run the installation program from a remote hard disk copy of the installation CDs.<br><b>Note:</b> This method is not recommended, as network traffic can interfere with proper installation. | a copy of the CDs on a remote hard disk (accessible over the LAN from the server in Symposium Call Center Server).<br><br>The path name of the directory that contains the copy of the CDs cannot contain spaces. |

**ATTENTION**

Installation from a remote CD-ROM drive is supported only if the remote PC is running Windows NT, Windows 2000 Server or Professional, or Windows XP. Installation from a remote CD-ROM drive mounted on a PC running Windows NT 3.51, Windows 95, or Windows 98 may fail (Windows NT 3.51 does not support long file names).

**Event logging**

The SysOps Event log (D:\sysops.log) tracks events associated with any install, reinstall, upgrade, or uninstallation operation. It also tracks any fatal errors that interrupt these operations.

Use any text editor (for example, Notepad) to view the SysOps Event log.

# Section A: Checklists

## In this section

|                                      |     |
|--------------------------------------|-----|
| Customer-supplied equipment and data | 112 |
| Server installation software         | 114 |
| Installation steps checklist         | 115 |

# Customer-supplied equipment and data

## Introduction

Use this checklist to ensure that the customer has supplied the required equipment and information.

## Equipment and data required for the server installation

**Note:** You must perform the server installation on a Platform Vendor Independence (PVI) platform.

| Description                                                                                                            | ✓ |
|------------------------------------------------------------------------------------------------------------------------|---|
| Ethernet connections ready at the switch<br>(cable and transceiver/Multistation Access Unit)                           |   |
| Hub for the ELAN                                                                                                       |   |
| Jacks and cable ready to connect the server to the CLAN                                                                |   |
| (Optional) Cable ready to connect the ELAN to the customer WAN                                                         |   |
| List of unique names and IP addresses for all equipment on both the CLAN and ELAN                                      |   |
| Use the Capacity Assessment Tool to analyze customer LAN bandwidth.<br>Existing average bandwidth utilization = _____% |   |
| (Recommended) Uninterrupted Power Supply (UPS). (See the <i>Planning and Engineering Guide</i> .)                      |   |
| Worksheets from Appendix A, “Worksheets,” completed                                                                    |   |

### Notes:

- RAM times 1.5 is the recommended minimum virtual memory size setting on the server. For example, if your server has 256 Mbytes of RAM, your

virtual memory size setting should be 384 Mbytes (256 x 1.5). Set both the initial and maximum size to this value.

The maximum paging file size per volume is 4 Mbytes. If you require more space, you can distribute your paging files across several volumes.

Alternatively, you can create paging files in separate folders on the same volume. For more information, see Article number Q237740 in the Microsoft Knowledge Base.

- For a list of requirements for the client PC, see Chapter 6, “Installing the client software.”

## Server installation software

| Qty | Description                                                                                                                                                                                                                                                                                                     | ✓ |
|-----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|
| 1   | Nortel Networks Symposium Call Center Server Release 4.2 Server Application CD-ROM                                                                                                                                                                                                                              |   |
| 1   | (If supplied with this installation) Nortel Networks Symposium Call Center Server Supplementary CD-ROM. This CD contains product enhancement packages (PEPs) and Service Update packs.<br><br><b>Note:</b> The Meridian PEP Library web site contains the latest versions of all PEPs and Service Update packs. |   |
| 1   | pcAnywhere 10.5 Host-Only CD-ROM                                                                                                                                                                                                                                                                                |   |
| 1   | Documentation CD-ROM. This CD contains all Symposium Call Center Server documents in PDF format.                                                                                                                                                                                                                |   |
| 1   | Keycode data. This data governs the software features you install. This data is usually contained on a disk. However, if you do not have the disk but you know your keycode data, you can enter the information manually during the installation.                                                               |   |
| 1   | (For DMS/MSL-100 systems only) Dongle                                                                                                                                                                                                                                                                           |   |

# Installation steps checklist

## Introduction

This checklist provides an overview of the steps required to install a complete system, including a server and one client PC.

The server installation time depends on the server's CPU speed and database size.

**Note:** As an example, one installation of a 1003t server reconfigured as a PVI server (256 Mbytes RAM, dual Pentium III Xeon 500 MHz processors, five database partitions of 4 Gbytes each) took approximately 6 hours. This included operating system installation, disk partitioning, Symposium Call Center Server software installation and configuration, pcAnywhere installation, and the installation of one client PC. This did not include time required for pre-installation planning, switch configuration, or post-installation setup and configuration, such as adding agents or configuring agent to skillset assignments.

## Installation steps

| Steps                                                                                                                                                                             | ✓ |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|
| 1 Ensure that the switch has been properly configured. Refer to your switch documentation for instructions.                                                                       |   |
| 2 Complete the worksheets in Appendix A, "Worksheets."                                                                                                                            |   |
| 3 Make sure that the base configuration of your server is complete. Follow the instructions in Chapter 2, "Performing the base configuration of the server."                      |   |
| 4 Install the server software and database, and configure them. Follow the instructions in Section B: "Installing and configuring the server software and database," on page 117. |   |
| 5 Install and configure pcAnywhere 10.5. For more information, see Chapter 5, "Installing and configuring pcAnywhere."                                                            |   |

| Steps                                                                                                         | ✓ |
|---------------------------------------------------------------------------------------------------------------|---|
| <b>6</b> Install the client software. Follow the instructions in Chapter 6, “Installing the client software.” |   |
| <b>7</b> Optionally, install the Symposium Call Center Server client on additional PCs as required.           |   |



## **Section B: Installing and configuring the server software and database**

### **In this section**

|                                                |     |
|------------------------------------------------|-----|
| Checklist for installing the server software   | 118 |
| Preparing for installation                     | 119 |
| Installing the server software                 | 121 |
| Changing the NGenDist and NGenDesign passwords | 152 |
| Post-installation tasks                        | 153 |

# Checklist for installing the server software

| Step                                                                                                                                                                                                                                                                                                                                                                                                           | ✓ |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|
| 1 Complete the worksheets in Appendix A, "Worksheets."                                                                                                                                                                                                                                                                                                                                                         |   |
| 2 Prepare for installation (see page 119).                                                                                                                                                                                                                                                                                                                                                                     |   |
| 3 Perform a platform compliance check (see page 123).                                                                                                                                                                                                                                                                                                                                                          |   |
| 4 Install the product software (phase 1) (see page 126).                                                                                                                                                                                                                                                                                                                                                       |   |
| 5 Apply the latest Install-time PEP (see page 129).                                                                                                                                                                                                                                                                                                                                                            |   |
| 6 Install the product database (phase 2) (see page 130).<br><b>Note:</b> If you are installing a non-English version of Symposium Call Center Server, install the appropriate language PEP before proceeding. Follow the instructions in "Installing PEPs or Service Update packs on the server" on page 160. For a list of server language PEPs, see "Server language PEPs" on page 746.                      |   |
| 7 Configure the server and database (phase 3) (see page 136).                                                                                                                                                                                                                                                                                                                                                  |   |
| 8 Install the latest Service Update pack and any required PEPs (see Chapter 4, "Installing/uninstalling PEPs and Service Update packs").                                                                                                                                                                                                                                                                       |   |
| 9 Install the Symposium Call Center Server software on the client PC (see Chapter 6, "Installing the client software").<br><b>Note:</b> Even if you are using Web Client, you must still have at least one Release 4.0 Symposium Call Center Server client installed. Web Client does not provide all the necessary administration functions, such as scheduling database backups and using the Event Browser. |   |
| 10 Create a database backup (see Chapter 14, "Backing up data").                                                                                                                                                                                                                                                                                                                                               |   |
| 11 Complete the post-installation tasks (see page 153).                                                                                                                                                                                                                                                                                                                                                        |   |

# Preparing for installation

## Introduction

This section lists tasks that must be completed before installing the server software.

## Check for Installation Addenda or updated documentation

Before performing an installation, check for any Installation Addenda or updated customer documentation on the Nortel Networks web site ([www.nortelnetworks.com](http://www.nortelnetworks.com)), or the Partner Information Center web site.

## Be aware of the steps in the server software installation checklist

See “Checklist for installing the server software” on page 118.

## For DMS/MSL-100 systems, ensure that the dongle is attached properly

The Symposium Call Center Server installation package includes a dongle. This device verifies that you have the software package that was purchased for this system. You can set up and test Symposium Call Center Server without the dongle. However, before you connect to the switch to go live, you must ensure that the dongle is attached to the parallel port on the back of the server. Without the dongle, the switch and the server cannot communicate.

## Check the location of the mapped CD-ROM drive

If you are installing the software from a mapped CD-ROM drive, ensure that the drive is on a local network, not across a WAN or dial-up connection. After some restarts, you must remap the drive.

**Note:** This method is not recommended, as network traffic can interfere with proper installation.

## **Make sure no third-party software is installed**

Nortel Networks recommends that you do not install any third-party software on your Symposium Call Center Server. This can compromise system performance.

Exceptions are pcAnywhere software, which is required for remote support, and antivirus software, which is required for security purposes. For more information on third-party software, see “Third-party software on the server” on page 54.

## **Running Setup.exe from the Explorer window**

If you run Setup.exe from a window (for example, Windows Explorer), the window can appear on top and hide the installation windows. If this happens, minimize the Explorer window or click on the main installation window to regain focus. To avoid this problem, close all windows and run Setup.exe by inserting the CD, which automatically displays the Setup main menu.

## **Installing software for a Network Control Center server**

The procedures in this chapter also apply to Network Control Center servers. The steps are the same, with the following exceptions:

- During the database installation, the setup program prompts you to select the type of database you want to install. You must select a Network Control Center database.
- During the configuration of the server and database, the configuration utility does not prompt you for ELAN networking information, since a Network Control Center server does not use an ELAN. The configuration utility does not prompt you for switch information either.

# Installing the server software

## Introduction

The installation procedure has three phases:

- Installing the product software (phase 1)
- Installing the product database (phase 2)
- Configuring the server and database (phase 3)

Before you start the installation, Nortel Networks highly recommends that you run the Platform Compliance Check utility, included with the Server Application CD, to ensure that your server meets the minimum requirements for this release of the Symposium Call Center Server software.

Procedures for the platform compliance check and each of the three phases listed above are included in the following sections.

**Note:** Before you install the server software, ensure that you have applied the latest applicable Product Enhancement Packages (PEPs) to your switch.

## Starting the Setup.exe program to begin installation

To use the Server Application CD and its installation programs, you must run the Setup.exe program. Once it is running, you can do any of the following tasks:

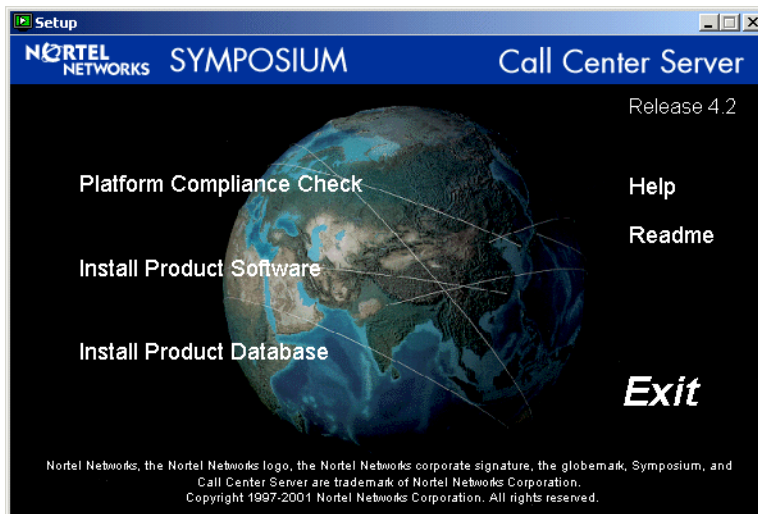
- Perform a platform compliance check.
- Install the Symposium Call Center Server product software.
- Install and initialize the Symposium Call Center Server product database.

### To start the Setup.exe program

- 1 Log on to the server as **Administrator**.
- 2 Exit all applications and close all windows.
- 3 Insert the Server Application CD.

**Note:** If you are installing from a remote CD or a network share drive, map the CD to a drive letter on the server. Then navigate to the Setup.exe program and double-click it.

**Result:** The Setup main menu appears.



## Performing a platform compliance check on your server

Before installing the Symposium Call Center Server software, you must ensure that your server meets the requirements for a Platform Vendor Independence (PVI) server, as defined in Chapter 2, “Performing the base configuration of the server.”

The Server Application CD includes a program that you can run to check your server’s basic compliance and identify any problems, such as the wrong operating system or incorrect disk partitioning. Not all requirements for Platform Vendor Independence are checked.

### To perform a platform compliance check

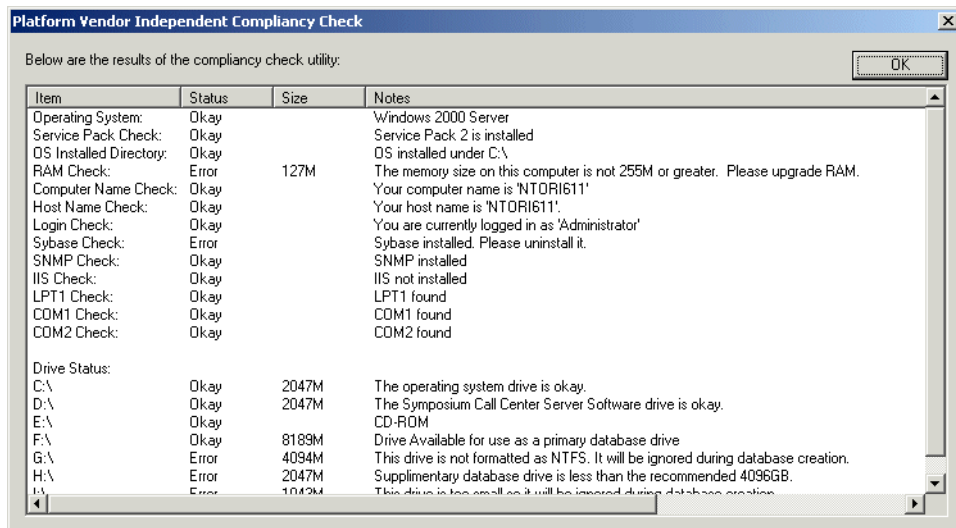
- 1 Log on to the server as **Administrator**.
- 2 Insert the Server Application CD and wait for it to autorun.

**Result:** The Setup main menu appears.



### 3 Click Platform Compliance Check.

**Result:** The system checks your server to ensure it meets certain requirements for a PVI server. The results appear in a window similar to the following one. If your server is compliant, the Status column shows Okay beside all items listed. For any non-compliant items, the Status column shows Error, and the Notes column provides information about the PVI requirement.



### 4 Refer to the following table to determine the action to take:

| IF Status is   | THEN do this                                                                                                                                                                                                                      |
|----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| All items Okay | Click OK, and continue with the following procedure.                                                                                                                                                                              |
| LPT1 Error     | <p>If you are connecting to a Meridian 1/CSE 1000 switch, click OK and continue with the following procedure.</p> <p>If you are connecting to a DMS/MSL-100 switch, click OK. Then configure the server with a parallel port.</p> |
| COM1 Error     | Click OK, and then configure the server with COM1 to allow remote support of the server.                                                                                                                                          |



| <b>IF Status is</b> | <b>THEN do this</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|---------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| COM2 Error          | <p>If you are using Symposium Voice Services on Meridian Mail, click OK. Then configure COM2. (It is required for the ACCESS link.)</p> <p>If you are not using Meridian Mail, click OK and continue with the following procedure. During the server and database configuration, you must set the voice connection type to TCP, and enter a dummy IP address and port number (see “Configuring the server and database (phase 3)” on page 136).</p>                                                                                                                                                              |
| Any other Error     | <p><b>a.</b> Take note of the non-compliant items and the related information in the Notes column.</p> <p><b>b.</b> Click OK to exit from the Platform Vendor Independence Compliancy Check dialog box.</p> <p><b>c.</b> Correct the problems so that the server is compliant. For more details about the minimum requirements for a PVI server, see Chapter 2, “Performing the base configuration of the server.”</p> <p><b>d.</b> Rerun the platform compliance check. If you had to restart the server to correct a non-compliance, go back to Step 1. If you did not have to restart, go back to Step 3.</p> |

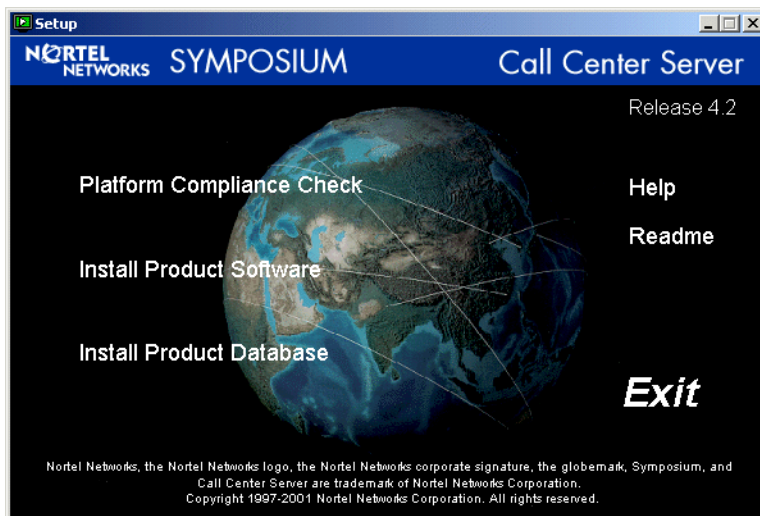
## Installing the product software (phase 1)

This procedure installs all Symposium Call Center Server features and components on the server.

### To install the product software

- 1 Log on to the server as **Administrator**.
- 2 If the Server Application CD is not already running, insert the CD and wait for it to autorun.

**Result:** The Setup main menu appears.

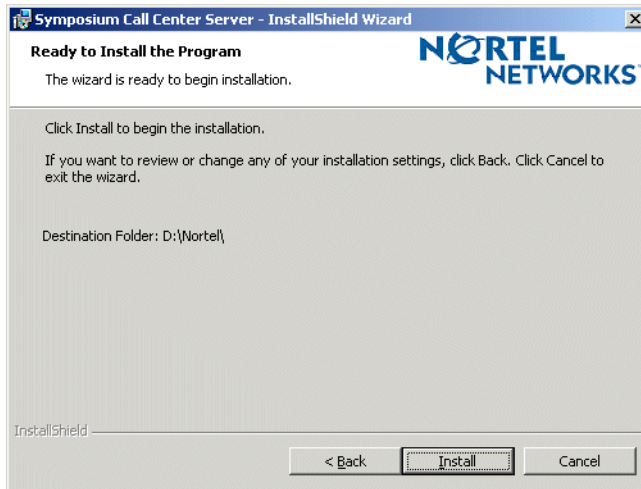


- 3 Click Install Product Software.

**Result:** The welcome window for Symposium Call Center Server - InstallShield Wizard appears.

#### 4 Click Next.

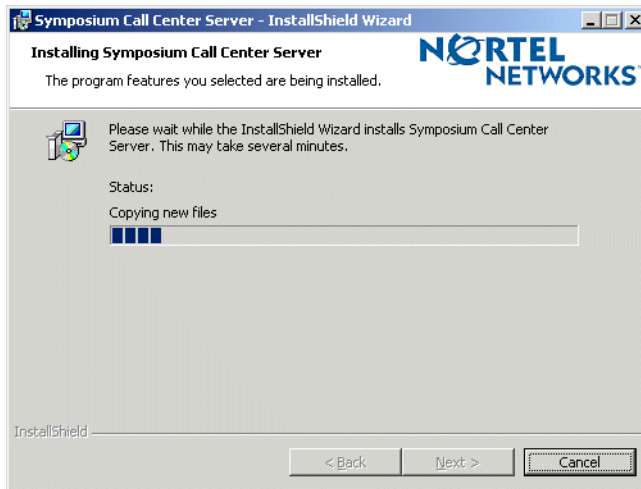
**Result:** The Ready to Install the Program window appears.



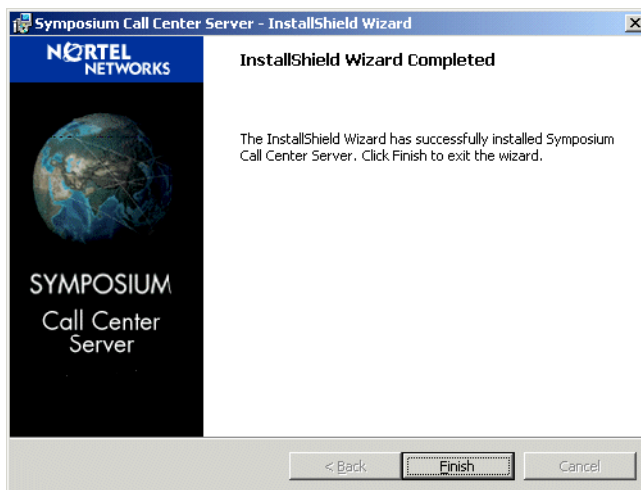
**Note:** If you click Cancel at any time during the product software installation, the InstallShield Wizard Completed window appears. The text on this window warns you that the software was not successfully installed.

5 Click Install.

**Result:** The system installs the Symposium Call Center Server software on the server's drive D. This takes several minutes.



6 Wait until the following window appears:



**7** Click Finish.

**Result:** The product software is installed.

**Note:** If you completed this procedure as part of a server recovery scenario or a platform migration, return now to the chapter that referenced this procedure. That chapter tells you what procedure to perform next.

## Applying the latest Install-time PEP

Apply the latest Install-time PEP. Install-time PEPs update the server software to take care of any known issues with the installation or configuration before you continue through the next steps.

The latest Install-time PEP is available on the Supplementary CD-ROM and from the Meridian PEP Library web site.

You can distinguish Install-time PEPs from General PEPs by the PEP ID as follows:

- For Install-time PEPs, the ninth character is a U (for example, NI040206U007S).
- For General PEPs, the ninth character is a G (for example, NS040206G004S).

For instructions on installing PEPs, see Chapter 4, “Installing/uninstalling PEPs and Service Update packs.”

## Installing the product database (phase 2)

This procedure installs the Sybase ASE 12.0 software, and then creates and initializes the database for Symposium Call Center Server.

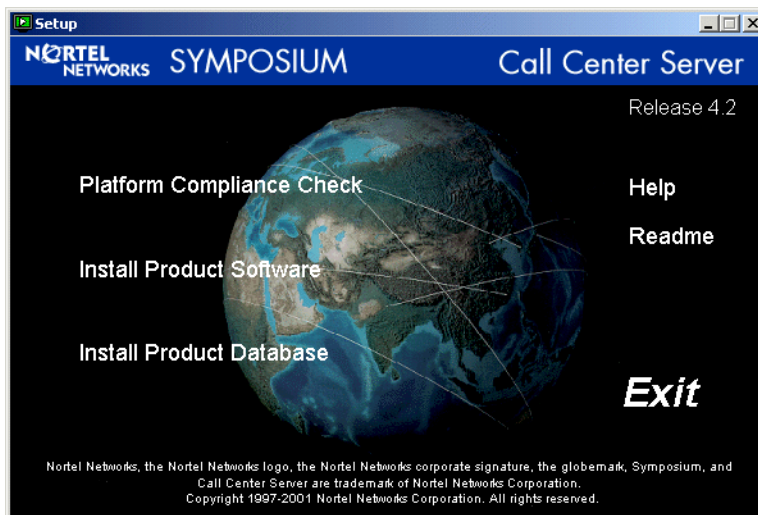
During the database installation, do not close any windows that appear unless the on-screen instructions tell you to do so.

**Note:** The server restarts automatically several times during this procedure, and you must log back on to the server as **Administrator**. At this time, the next window of the installation program appears, but the Windows desktop does not appear in the background. This is normal. The Windows desktop reappears when the next window of the installation program appears.

### To install the product database

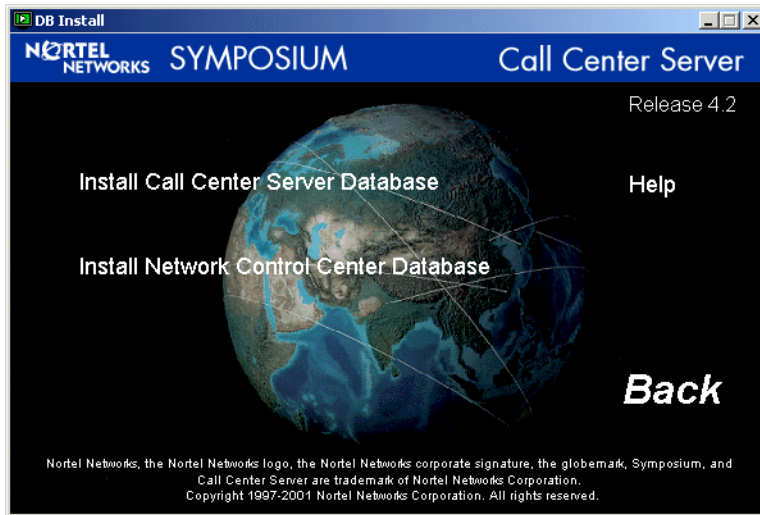
- 1 Log on to the server as **Administrator**.
- 2 If the Server Application CD is not already running, insert the CD and wait for it to autorun.

**Result:** The Setup main menu appears.



- 3 Click Install Product Database.

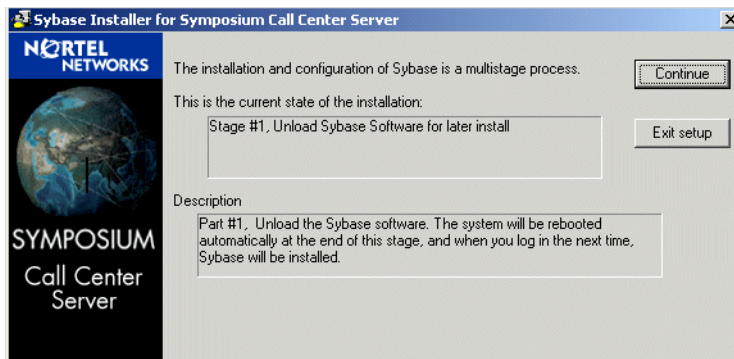
**Result:** A submenu appears, listing the database types you can install.



- 4 Do one of the following:

- If your server is *not* a Network Control Center (NCC) server, select Install Call Center Server Database.
- If your server *is* a Network Control Center server, select Install Network Control Center Database.

**Result:** The Sybase Installer for Symposium Call Center Server window appears.



This window shows the status of the installation in stages and parts. There are six stages to the database installation and configuration; some stages are broken into parts. Stages appear in the top status box, and parts appear in the Description box.

**ATTENTION**

Before you proceed to step 5, ensure that the Symposium Call Center Server Installation CD is in the CD-ROM drive. The installation CD must be in the CD-ROM drive during the entire database installation process. Do not create a shortcut to the installation CD. To access the Symposium Call Center Server setup wizard if autorun does not launch, from Windows Explorer, double-click Setup.exe under the CD-ROM directory.

- 5 Click Continue.

**Note:** When the installation begins, you can view the progress of each stage in a progress bar that appears at the bottom of the window.

**Result:** The system proceeds with Stage 1, Part 1. When Part 1 is complete, the server automatically restarts.

- 6 Log on as **Administrator**.

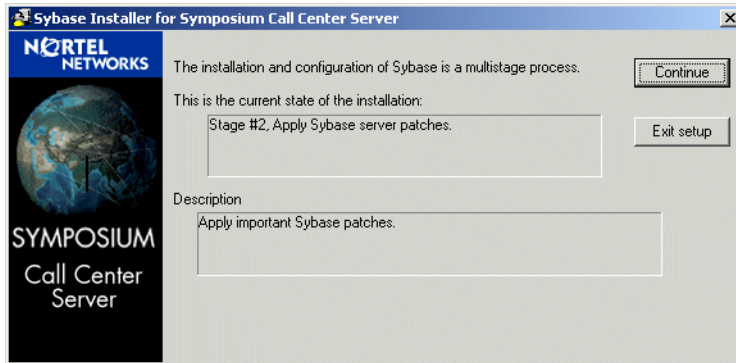
**Result:** The Sybase Installer for Symposium Call Center Server window reappears, showing the status as Stage 1, Part 2.

**Note:** In rare cases, an MS-DOS window appears, instead of the Sybase Installer for Symposium Call Center Server window. When this happens, the database installation still continues. Wait until the MS-DOS window completes its processes (do not close it), and the Sybase Installer for Symposium Call Center Server window reappears, as shown in the Result below step 7. When this window appears, proceed to step 8.



7 Click Continue.

**Result:** Stage 1, Part 2 proceeds to completion. When it is finished, the desktop reappears, followed by the next installation window, as shown:



8 Click Continue.

**Result:** The installation proceeds through Stage 2, and Stage 3, Part 1. When Part 1 is complete, the server automatically restarts.

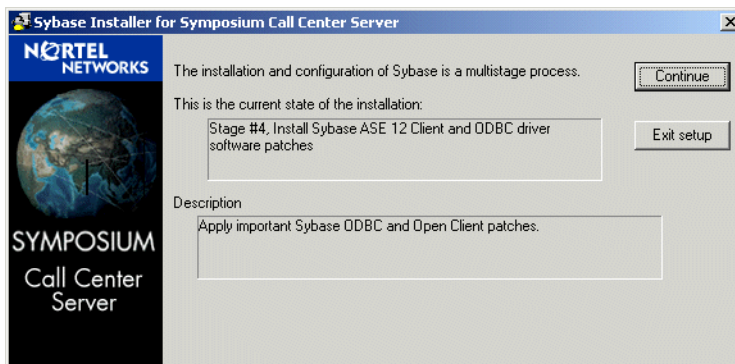
9 Log on as **Administrator**.

**Result:** The Sybase Installer for Symposium Call Center Server window reappears, showing the status as Stage 3, Part 2.

**Note:** In rare cases, an MS-DOS window appears, instead of the Sybase Installer for Symposium Call Center Server window. When this happens, the database installation still continues. Wait until the MS-DOS window completes its processes (do not close it), and the Sybase Installer for Symposium Call Center Server window reappears, as shown in the Result below step 10. When this window appears, proceed to step 11.

- 10 Click Continue.

**Result:** Stage 3, Part 2 proceeds to completion. When it is finished, the desktop reappears, followed by the next installation window, as shown:

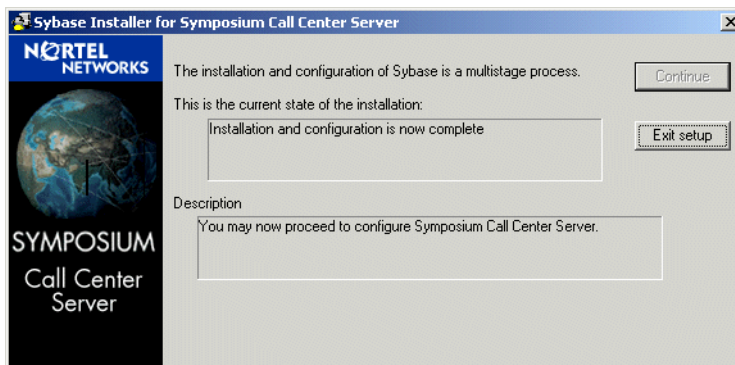


- 11 Click Continue.

**Result:** The installation proceeds through Stages 4, 5, and 6.

**Note:** These stages can take from 1 to 3 hours to complete, depending on your CPU speed, and the size and number of database partitions that you have.

- 12 Wait until the following window appears:



- 13 Click Exit setup. Do not reboot the server.

- 14 Remove the CD from the drive.

**Result:** The database is installed.

**Note:** If you completed this procedure as part of a server recovery scenario or a platform migration, return to the chapter that referenced this procedure now. That chapter tells you what procedure to perform next.

**Note:** If you are installing a non-English version of Symposium Call Center Server, install the appropriate language PEP before proceeding. Follow the instructions in “Installing PEPs or Service Update packs on the server” on page 160. For a list of server language PEPs, see “Server language PEPs” on page 746.

## Configuring the server and database (phase 3)

If the Symposium Call Center Server software and database software is installed on your server, you can proceed to configure the server and database. In this procedure, a configuration utility presents a series of dialog boxes where you enter information about your server and your call center site. Before you start, you should have the following information ready:

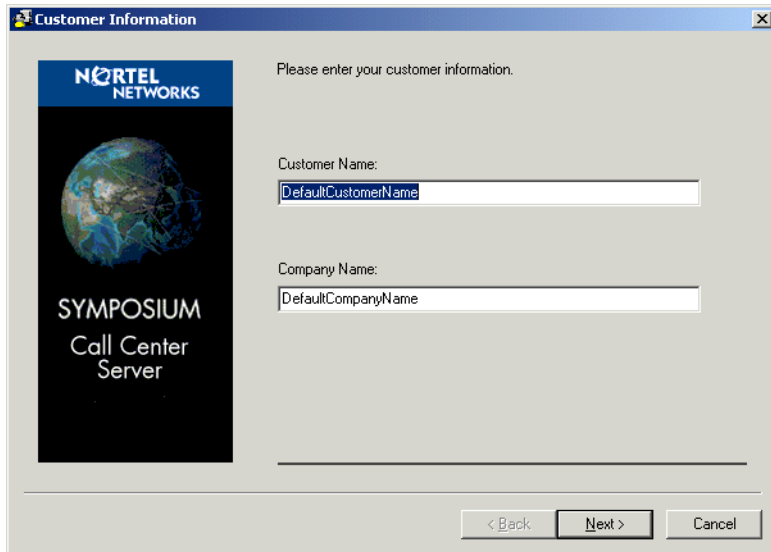
- customer and company name
- the serial number (or dongle number for DMS/MSL-100 switches) and keycode for your Symposium Call Center Server software
- your switch name and IP address (not applicable to NCC servers)
- your CLAN and ELAN IP addresses (ELAN is not applicable to NCC servers.)
- if you are using the Real-time Statistic Multicast (RSM) feature, the RSM IP address
- the site name for your Symposium Call Center Server

**Note:** Before you configure your server in the following procedure, Nortel Networks recommends that you install a stand-alone PEP that addresses the Microsoft Media Sensing feature. If you disconnect the CLAN cable on the new server from the network, all Symposium Call Center Server services may be shut down immediately, causing your Symposium Call Center Server installation to fail. This event occurs because the Windows 2000 Network Media Sensing feature temporarily removes all network binding of a network card if the physical connection of this network card to the network is removed (similar to a NIC hardware indicator). You can avoid this problem by installing a stand-alone PEP that disables the Media Sensing feature (PEP number NS040206G004S).

## To configure the server and database (phase 3)

- 1 Log on to the server as **Administrator**.
- 2 From the Start menu, choose Programs → Symposium Call Center Server → Server Setup Configuration.

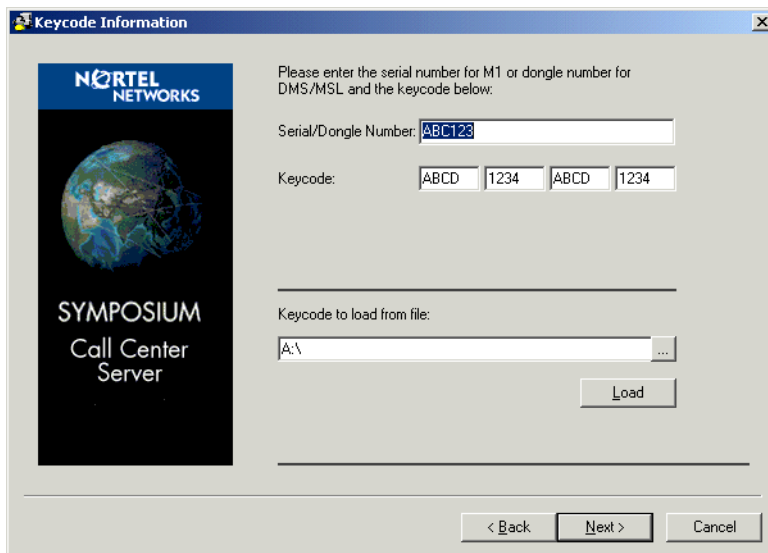
**Result:** The Customer Information dialog box of the configuration utility appears.



- 3 Enter the customer and company names.

- 4 Click Next.

**Result:** The Keycode Information dialog box appears.



- 5 Type your serial number (for M1/CSE 1000 switches) or dongle number (for DMS/MSL-100 switches), and the keycode in the appropriate boxes.

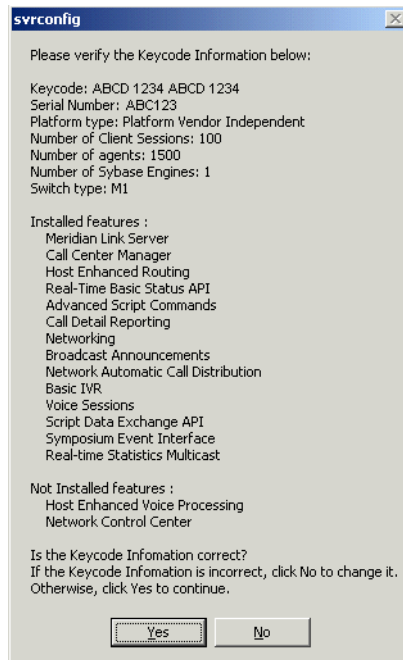
**Note:** The serial/dongle number is used in the generation of the keycode. Make sure you enter the correct keycode for the serial/dongle number that you have.

- 6 Click Next.

**Note:** If the system cannot validate your entries, it displays an error message. Do the following:

- Click OK on the error message(s).
- Check your entries in the Keycode Information dialog box, and make any corrections.
- Click Next.

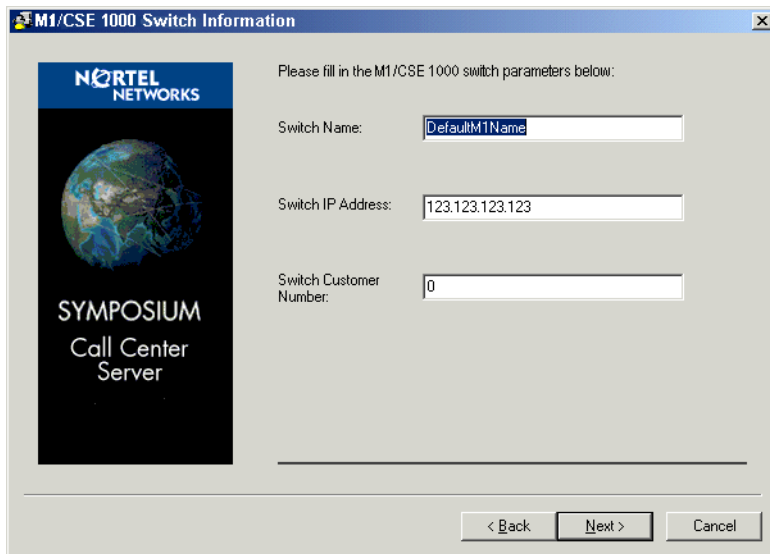
**Result:** If you entered a valid keycode and serial/dongle number, the system displays a dialog box similar to the following one:



- 7 Check that the features listed match the product you purchased, and then do one of the following:
- If the information is not correct, you may have entered the keycode and serial/dongle number incorrectly. Click No and go back to Step 5.
  - If the information is correct, click Yes to continue.

**Result:** The Switch Information dialog box appears for the type of switch identified by your keycode. This can be either the M1/CSE 1000 Switch Information dialog box or the DMS/MSL Switch Configuration dialog box. The M1/CSE 1000 Switch Information box is shown below.

**Note:** If you are installing a Network Control Center (NCC) server, a switch information dialog box does not appear.

The image shows a Windows-style dialog box titled "M1/CSE 1000 Switch Information". On the left side, there is a logo for "NORTEL NETWORKS" above a graphic of a globe, and below that, the text "SYMPOSIUM Call Center Server". On the right side, the text "Please fill in the M1/CSE 1000 switch parameters below:" is followed by three input fields: "Switch Name:" with the text "DefaultM1Name", "Switch IP Address:" with the text "123.123.123.123", and "Switch Customer Number:" with the text "0". At the bottom right, there are three buttons: "< Back", "Next >", and "Cancel".

- 8 Enter the appropriate information for your switch.

**Note:** The following restrictions apply to switch names:

**ATTENTION**

For a DMS/MSL-100 switch, the Linkset Name *must* be entered in uppercase only.

- Valid characters for switch names are A–Z, a–z, 0–9, \_ (underscore), and . (period).
- Switch names must begin with an alphabetic character and cannot contain spaces.
- The last character must not be an underscore or a period.
- Switch names must not exceed 80 characters in length.

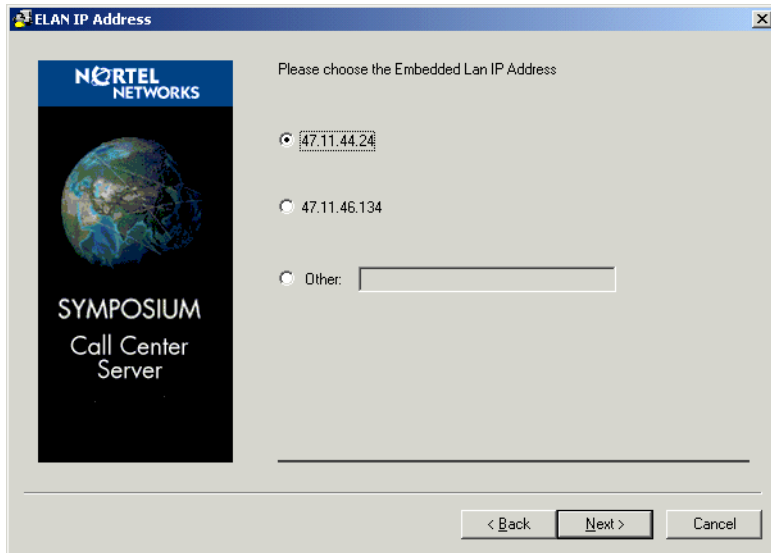
**Tip:** If you are unsure of the correct information or if you make a mistake, you can change the switch information after you finish the installation (see “Feature Report” on page 625).



- 9 Click Next.

**Result:** The ELAN IP Address dialog box appears.

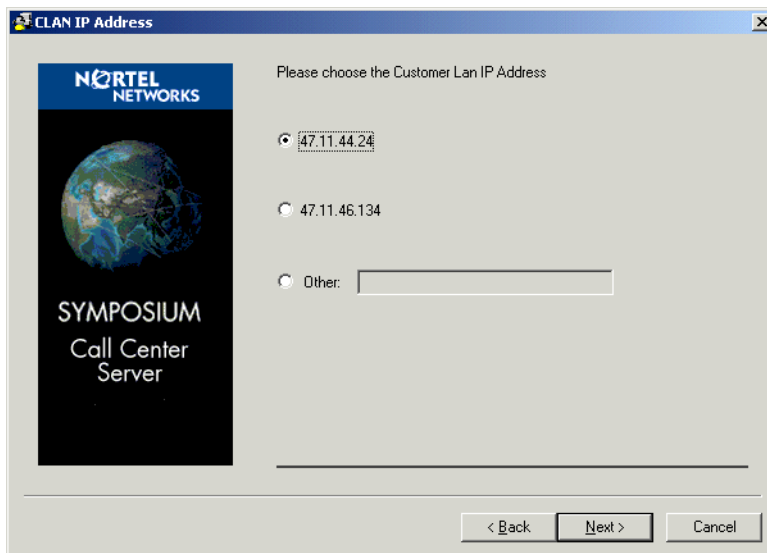
**Note:** If you are installing a Network Control Center server, the configuration utility bypasses this dialog box and displays the CLAN IP Address dialog box. Go to Step 12.



- 10 Click the radio button beside the correct IP address for your ELAN. If none of the addresses are correct, click Other, and then type the IP address.

- 11 Click Next.

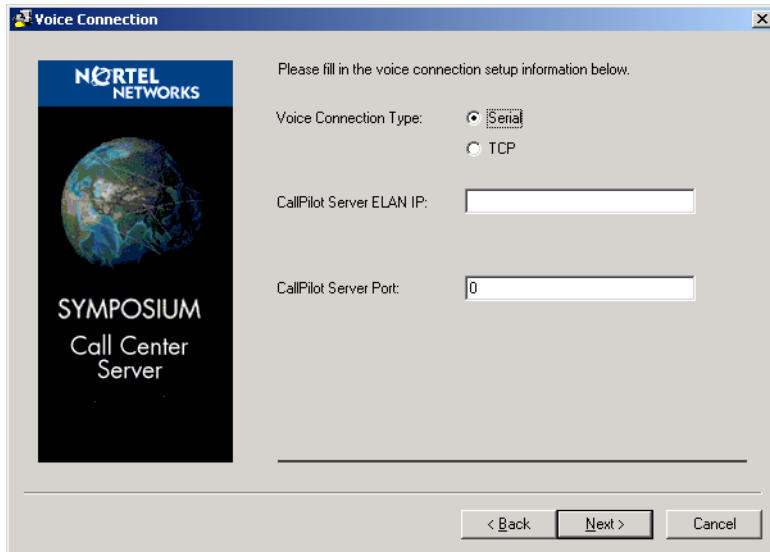
**Result:** The CLAN IP Address dialog box appears.



- 12 Click the radio button beside the correct IP address for your CLAN. If none of the addresses are correct, click Other, and then type the IP address.

**13** Click Next.

**Result:** The Voice Connection dialog box appears.

**14** Based on the voice processing system you are using, complete this page as follows:

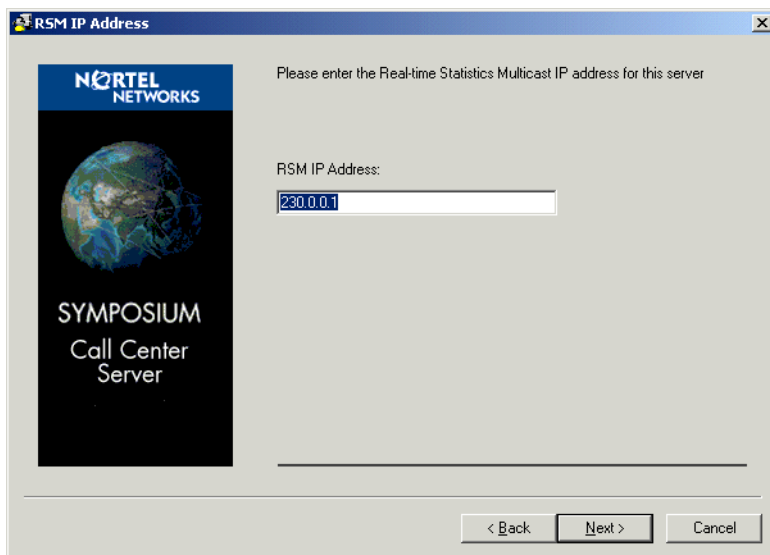
- If you are not using an integrated voice processing system (Meridian Mail or CallPilot), for Voice Connection Type, select Serial, and click Next.

**Note:** If your computer is not configured with COM2, for Voice Connection Type, select TCP, enter a dummy IP address and port number, and click Next.

- If you are using Meridian Mail as your voice processing system, for Voice Connection Type, select Serial and click Next.
- If you are using CallPilot, for Voice Connection Type select TCP. Specify the ELAN IP address of the CallPilot server, and set the CallPilot Server Port to 10008. Then click Next.

**Result:** If the optional Real-time Statistics Multicast feature is

- enabled for your server, the RSM IP Address dialog box appears. Continue with the following step.
- not enabled, the Site Name dialog box appears. Go to Step 17.

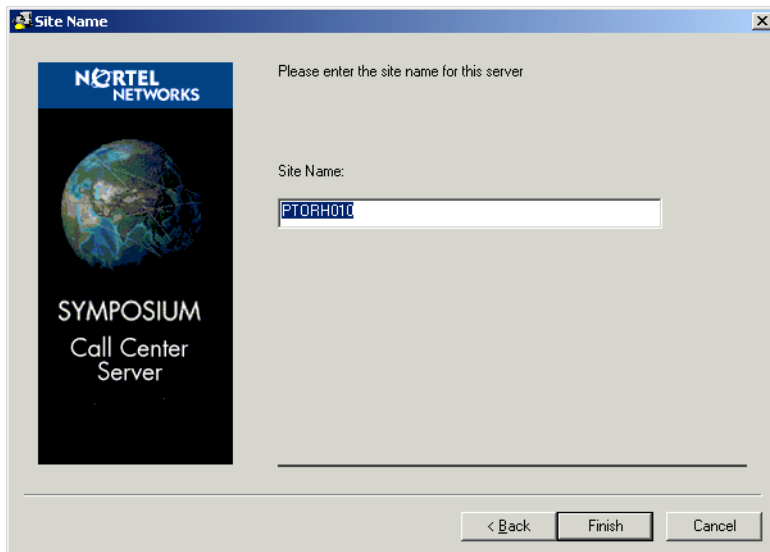


- 15** Enter the RSM IP address that you want to associate with the sending of real-time statistical data. This address is referenced by other applications, such as Symposium Web Client, that need access to real-time statistical data. The default RSM address is 230.0.0.1. You can use a different address, provided that it is within the range of valid RSM IP addresses. For more information, see Chapter 17, "Installing and configuring Real-time Statistics Multicast."

**Note:** The RSM IP address should not be confused with and is separate from your server's CLAN or ELAN addresses.

- 16 Click Next.

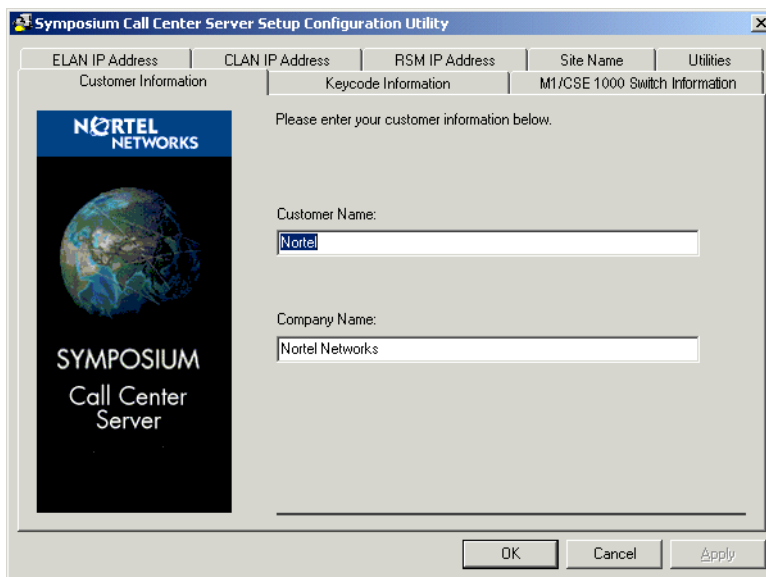
**Result:** The Site Name dialog box appears.



- 17 Enter a site name for the server, and then click Finish.

**Tip:** The site name must be unique and can consist of any combination of up to 15 characters. Do not use spaces or the backslash (\) character.

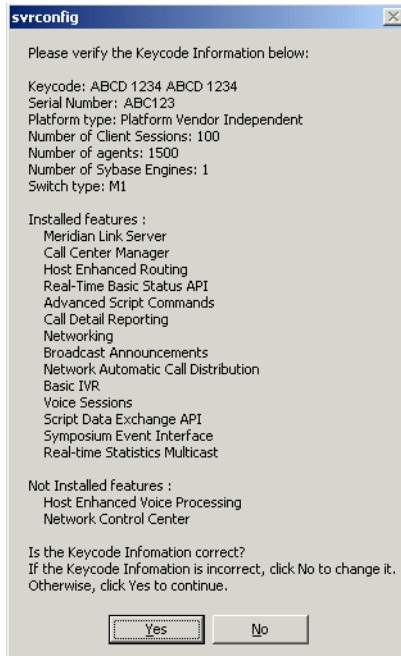
**Result:** The Symposium Call Center Server Setup Configuration Utility window appears. It contains a tab for each of the dialog boxes in which you entered information during the configuration. (It also contains a Utilities tab, which you can use to import and export configuration data and to create a Platform Recovery Disk.)



- 18 Click each tab and check that the information is correct. Make any necessary corrections.

- 19 Click OK to save your changes.

**Result:** A dialog box appears, similar to the one shown below, asking you to verify your keycode information again:



- 20 Click Yes.

**Result:** The Server Configuration Utility configures your server using the data you entered. It displays a status of each stage that the configuration passes through.

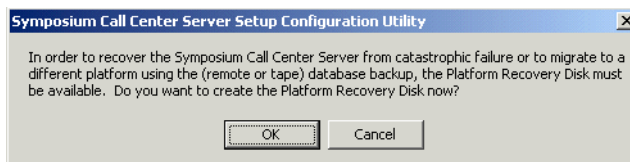
**Note:** This process can take 20 to 30 minutes to complete, depending on your server's CPU and database size. Do not close any windows during the configuration.

- 21 Wait until you see the following message:



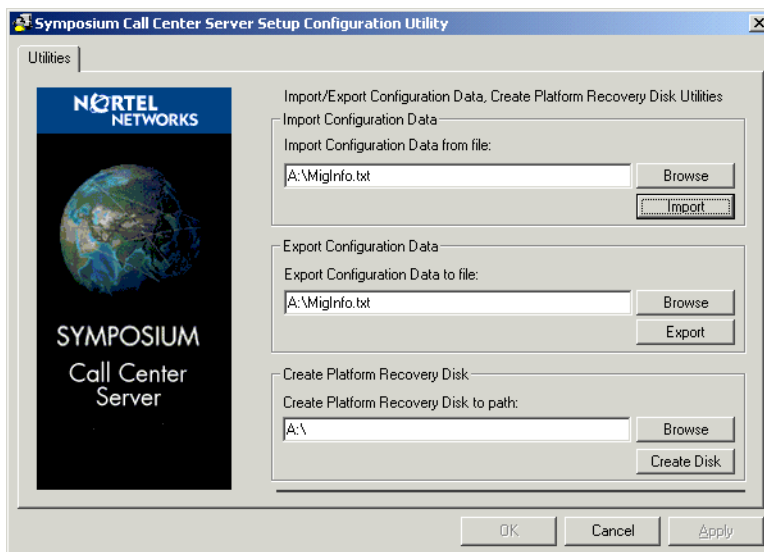
**22** Click OK.

**Result:** The following message appears:

**23** Click OK.

**Note:** If you click Cancel, remember to use the Migration utility to create a Platform Recovery Disk when the installation is complete. Skip to the Result in Step 28.

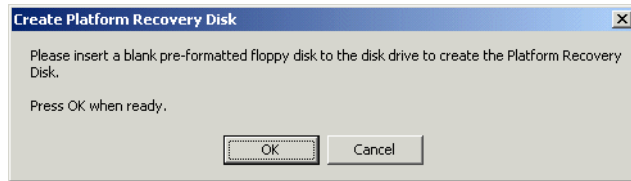
**Result:** The Utilities tab appears.

**24** In the Create Platform Recovery Disk section, do one of the following:

- To save the Platform Recovery Disk to a floppy disk:
  - a. Insert a blank floppy disk in drive A.
  - b. Click Create Disk.

**Result:** The following message appears:



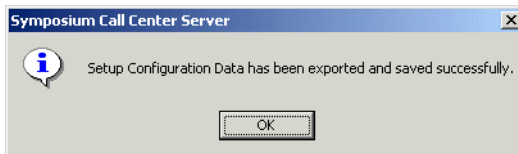


- c. Click OK.
- To save the Platform Recovery Disk to a remote directory:
  - a. Map a network drive to the remote directory.

**Note:** The name of the remote directory into which you save the Platform Recovery Disk must not contain any spaces. Spaces in the remote directory name cause errors.
  - b. Click Browse, and then navigate to the mapped network drive.
  - c. Select the drive, and then click OK.
  - d. Click Create Disk.

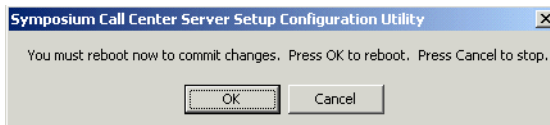
**Result:** The system creates the Platform Recovery Disk.

- 25 Wait until the following message appears:



- 26 Click OK.
- 27 If you used a floppy disk, remove it from the drive. Make sure the Platform Recovery Disk is labeled appropriately and stored in a safe place.
- 28 Click OK to close the Symposium Call Center Server Setup Configuration Utility dialog box.

**Result:** The following message appears:



**29** Click OK.

**Result:** The server automatically restarts.

**30** Log on as **NGenSys**.

**ATTENTION**

---

You must log on as NGenSys to perform many server management functions, such as installing PEPs. If you log on to the server as Administrator to perform Windows management functions, when you finish, always remember to log off and log on again as NGenSys.

**Note:** It may take several minutes for the desktop to appear.

**Result:** The MAS Trace Window appears. The server and database configuration is complete, and the Symposium Call Center Server software is ready for use.

**Note:** If you completed this procedure as part of a server recovery scenario or a platform migration, return now to the chapter that referenced this procedure. That chapter tells you what procedure to perform next.

**To check that the server services start up successfully**

From the Start menu, choose Programs → Symposium Call Center Server → System Monitor.

**Result:** The SMonW window appears and Symposium Call Center Server services begin the startup process. The services take approximately 15 to 20 minutes to start up. For more information about the services and their statuses, see “Troubleshooting problems with Symposium Call Center Server services” on page 686.

## **Installing the latest Service Update pack and any required PEPs**

Extract and install the latest Service Update pack and any required PEPs now. For more information, see Chapter 4, “Installing/uninstalling PEPs and Service Update packs.”

## **Installing the client software**

Install a copy of the client software on a PC so you can administer the server and create a database backup. For more information, see Chapter 6, “Installing the client software.”

## **Backing up the server**

Create full, database, and (if applicable) RAID backups of the server. For instructions, refer to Chapter 14, “Backing up data.”

## **What’s next?**

Continue with “Changing the NGenDist and NGenDesign passwords” on page 152.

# Changing the NGenDist and NGenDesign passwords

## Introduction

To protect your system from unauthorized access, change the passwords for the Nortel Networks user accounts as soon as you finish the installation.

## NGenDist and NGenDesign

NGenDist and NGenDesign are Windows remote access accounts that enable the distributor or Nortel Networks customer support to remotely log on to the server if requested by the customer. These accounts are created during the server software installation. To ensure server security, change the NGenDist and NGenDesign passwords.

## Assigning new passwords

To assign new passwords, you do not need to know the default passwords for NGenDist and NGenDesign. For detailed instructions, see “To change the NGenDist, NGenDesign, or NGenSys passwords” on page 478, and “To change the NGenSys password for MAS Backup/Restore service” on page 479.

## Password security

Write down the new passwords you create, and store them in a safe, secure place away from the server. Give the passwords only to those who need them.

## What's next?

Continue with “Post-installation tasks” on page 153.

# Post-installation tasks

## To verify the success of the installation

### On the server PC

- 1 Make sure that you are logged on to the server as **NGenSys**.
- 2 From the Start menu, choose Programs → Symposium Call Center Server → System Monitor.

**Result:** The System Monitor window appears showing the state of each Symposium Call Center Server service.

- 3 Check that all services are in the UP state.

**Note:** It can take 15 minutes or more for the system to come up and for all of the services to start. If all services do not start, refer to “Troubleshooting problems with Symposium Call Center Server services” on page 686.

- 4 Check the Windows Event Viewer again to be sure that no errors occurred during the restart.

### On the client PC

After a successful installation, log on from a client PC and verify that the historical statistics configuration matches the installed disk space and customer requirements.

## To update the emergency repair disk

After you make changes to the server, update the emergency repair disk to record the latest configuration data.

## To enable RSM (optional)

If you installed RSM on your server, you must enable the RSM service to provide moving window and interval-to-date statistics for multicast real-time displays. For instructions on enabling RSM, see Chapter 17, “Installing and configuring Real-time Statistics Multicast.”

## Configuring SNMP (optional)

If you are using the Windows SNMP service to forward traps to an NMS, you must perform these tasks, if you have not already done so:

- Configure the Windows SNMP service on the server.
- Select the types of events to be forwarded to the NMS.
- Configure the NMS.

For more information, see “Configuring SNMP on the server” on page 489.

## Changing your Event Viewer settings

Based on the size of your call center, you may want to change the size of your Windows Application Log that hold events produced by the Symposium Call Center Server application. For information, see “Changing the Windows EventLog size” on page 486.

## What's next

Install and configure pcAnywhere. For more information, see Chapter 5, “Installing and configuring pcAnywhere.”

## Chapter 4

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# Installing/uninstalling PEPs and Service Update packs

### In this chapter

|                                                                         |     |
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| Overview                                                                | 156 |
| Section A: Installing/uninstalling server PEPs and Service Update packs | 159 |
| Section B: Installing/uninstalling client PEPs and Service Update packs | 171 |

# Overview

## Introduction

Product Enhancement Packages (PEPs) are small software updates that are installed on the server or client for Symposium Call Center Server. PEPs contain product enhancements and bug fixes, and may be required to ensure smooth operation of your system.

## Types of PEPs

There are two types of server PEPs: Install-time PEPs and General PEPs. Install-time PEPs must be installed after the product software is installed but before the product database is installed. General PEPs must be installed after the server software and database have been installed and configured.

You can distinguish Install-time PEPs from General PEPs by the PEP ID as follows:

- For Install-time PEPs, the ninth character is a U (for example, NI040206U007S).
- For General PEPs, the ninth character is a G (for example, NS040206G004S).

## Install-time PEPs

Install-time PEPs update the server software to take care of any known issues with the installation or configuration before you continue.

**Note:** The latest Install-time PEP is critical for a conversion from Release 1.5 to Release 4.2; this PEP updates the configuration utility to allow the conversion to proceed.

The latest Install-time PEP is available on the Supplementary CD-ROM and from Meridian PEP Library web site.



## Service Update packs

Periodically, individual PEPs are consolidated into Service Update packs or “super PEPs.” Service Update packs are installed in the same way as PEPs, although they can take longer to download because they are larger. There are normally two Service Update packs: one for the client and one for the server.

When you install the software (or convert to a new version), you should install the latest Service Update pack on the server and on the client. If no Service Update pack is available, check with your Nortel Networks customer support representative.

## How to obtain Service Update packs and PEPs

You can obtain PEPs and Service Update packs as follows:

- All Service Update packs and PEPs are available on the Meridian PEP Library web sites, located at
  - <https://www21.nortelnetworks.com/MPL> (Europe)
  - <https://www43.nortelnetworks.com/MPL> (North America)
- **Note:** To register for either of these web sites, follow the instructions provided at <http://nortelnetworks.com/register>.
- Any Service Update packs and PEPs that are available at the time of shipping are included on the Symposium Call Center Server Supplementary CD shipped with your software.

## Before you begin

If you are not installing PEPs from a CD, download them from the web site or obtain them from your Nortel Networks customer support representative.



# **Section A: Installing/uninstalling server PEPs and Service Update packs**

## **In this section**

|                                                           |     |
|-----------------------------------------------------------|-----|
| Installing PEPs or Service Update packs on the server     | 160 |
| Uninstalling PEPs or Service Update packs from the server | 167 |

# Installing PEPs or Service Update packs on the server

## Introduction

When you install a PEP or a Service Update pack, the installation automatically shuts down all services on your system. You should plan your installation for a time when you can shut down the call center.

You can install two types of PEPs: Install-Time PEPs and General PEPs. Install-Time PEPs must be installed immediately after the Symposium Call Center Server product software installation has completed (before the product database is installed and the server is configured). General PEPs can be installed at any time. Use the following procedure to install either type of PEP.

## Prerequisites

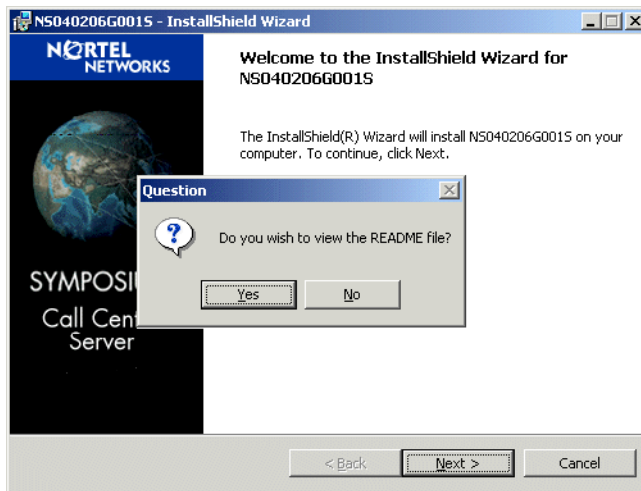
You must be logged on to the server as NGenSys.

## To install a PEP on the server

- 1 Use the PEP Viewer utility to ensure that the PEP has not already been installed. For more information, refer to “PEP Viewer” on page 638.
- 2 Ensure that you have closed all applications.
- 3 To install PEPs from CD-ROM, insert the Supplementary CD into the CD-ROM drive.
- 4 Locate the PEP directory on the CD, or the directory into which you downloaded the PEP from the Web.

- 5 Double-click the <PEP ID>.msi file associated with the PEP.

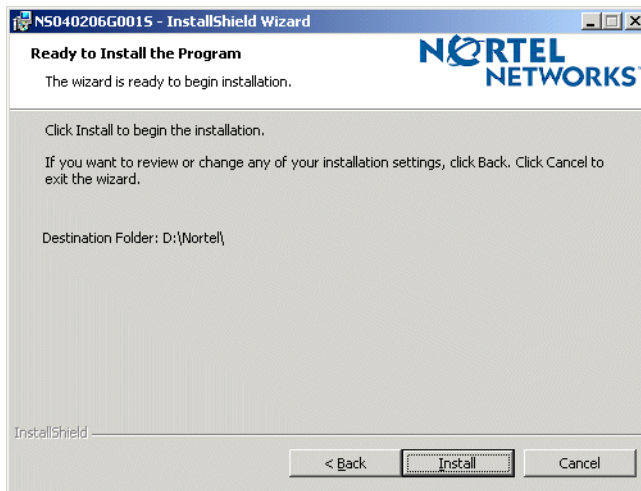
**Result:** The following window appears:



- 6 Click Yes to read the information in the readme file.  
**Note:** If you do not want to read it, click No and go to step 8.  
**Result:** The contents of the readme file appear.
- 7 When you are finished reading, close the readme file window.

- 8 Click Next to proceed.

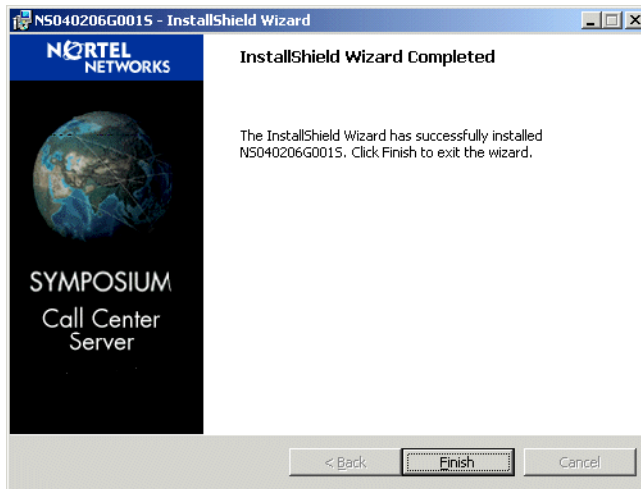
**Result:** The following window appears:



9 Click Install.

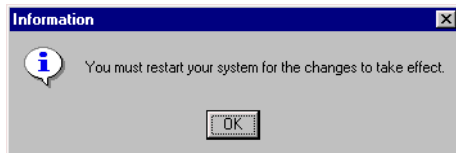
**Note:** When you install an Install-time PEP, the server is not active, so there are no services running that must be shut down.

**Result:** The system displays messages as it brings down each of the server's services. It then installs the PEP on the server. When installation is complete, the following window appears:



10 Click Finish.

**Result:** If the PEP requires a server reboot, the following dialog box appears:



If this dialog box appears, continue with the following step. If it does not appear, skip to step 12.

11 Click OK.

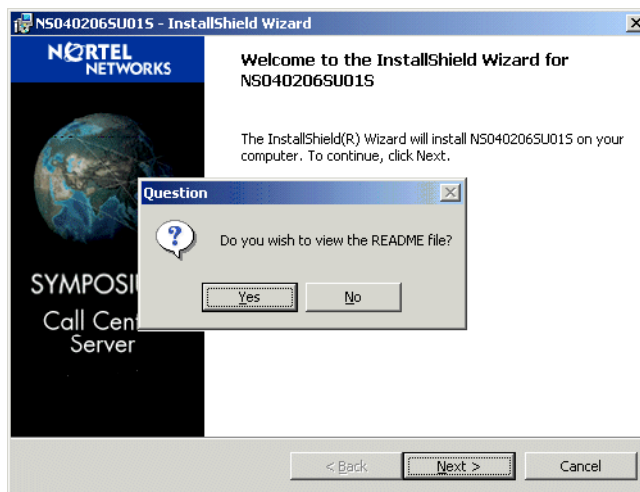
12 You can use the PEP Viewer utility to confirm that the PEP has been installed on the server. For more information, refer to "PEP Viewer" on page 638.

## To install a Service Update pack on the server

- 1 Use the PEP Viewer utility to ensure that the Service Update (SU) pack has not already been installed. For more information, refer to “PEP Viewer” on page 638.
- 2 Ensure that you have closed all applications.
- 3 To install Service Update packs from a CD-ROM, insert the Supplementary CD into the CD-ROM drive.
- 4 Locate the SU directory on the CD, or the directory into which you downloaded the SU from the Web.
- 5 Double-click the <SUID>.msi file associated with the Service Update pack.

**Note:** If the required build for the Service Update is not detected, the Symposium Call Center Server Server Build Version Not Matched dialog box appears, and you must cancel the installation.

**Result:** The following window appears:



- 6 Click Yes to read the information in the readme file.  
**Note:** If you do not want to read it, click No and go to step 8.  
**Result:** The contents of the readme file appear.
- 7 When you are finished reading, close the readme file window.

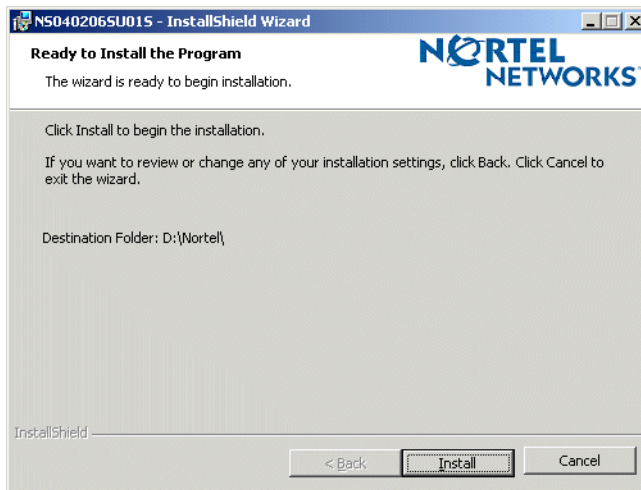


**8** Click Next to proceed.

**Result:** If the SU installer wizard detects an SU or PEPs on the system, it notifies you, as follows:

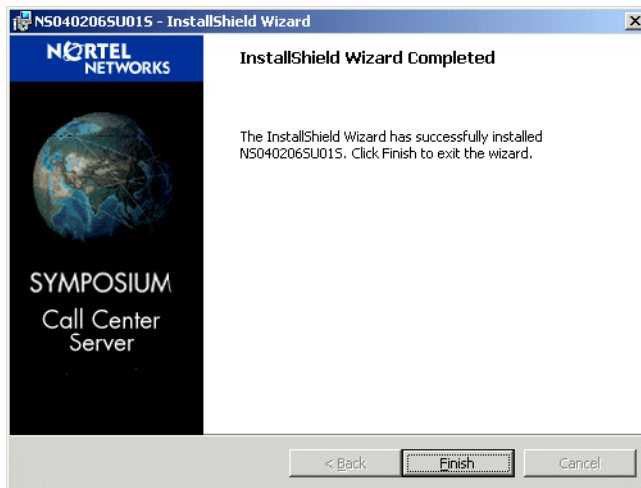
- If an old SU or old PEPs are installed on the system, a window appears indicating that the obsolete SU and PEPs will be automatically uninstalled before the new SU is installed. Click Next to continue.
- If any co-resident PEPs are installed, a window appears to notify you that they will remain on the system after the new SU is installed. (For example, Install-time PEPs are often designed to be co-resident with SUs.) Click Next to continue.
- If the installer detects any unrecognized PEPs, it warns you that the install of the new SU cannot proceed. Click Cancel, and remove the PEP using the PEP Viewer utility. (For more information, refer to “PEP Viewer” on page 638.) After removing the PEP, return to step 1 of this procedure to install the new SU.

The following window appears:



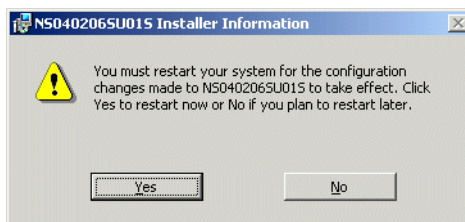
9 Click Install.

**Result:** The system displays messages as it brings down each of the server's services. It then installs the SU on the server. When installation is complete, the following window appears:



10 Click Finish to complete installing the SU.

**Result:** The following window appears:



11 Click Yes to restart your system, or click No if you will be restarting your system later.

**Note:** You must restart the system at some point to ensure that all the changes are applied.

12 You can use the PEP Viewer utility to confirm that the Service Update has been installed on the server. For more information, refer to "PEP Viewer" on page 638.

# Uninstalling PEPs or Service Update packs from the server

## Introduction

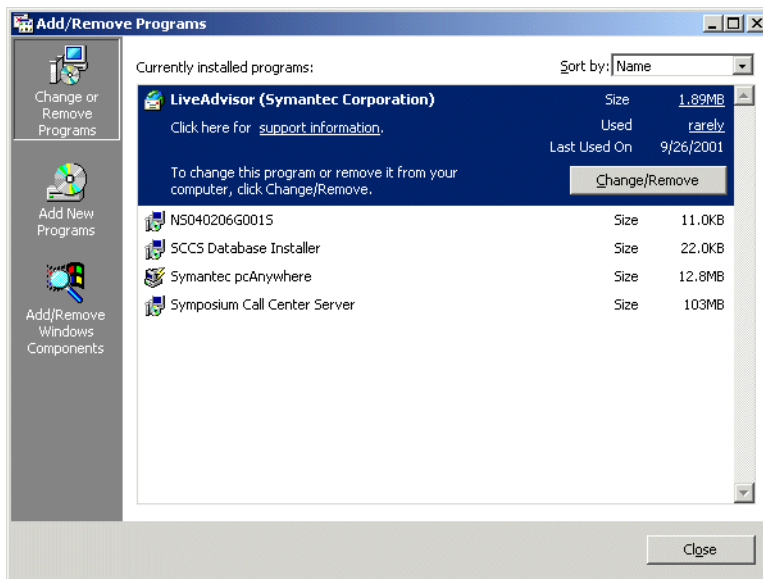
If you want to remove all PEPs and all SUs from the server, you can use the PEP Viewer utility to remove them. For more information, refer to “PEP Viewer” on page 638.

If you want to remove individual PEPs or SUs, use the Add/Remove programs method detailed below.

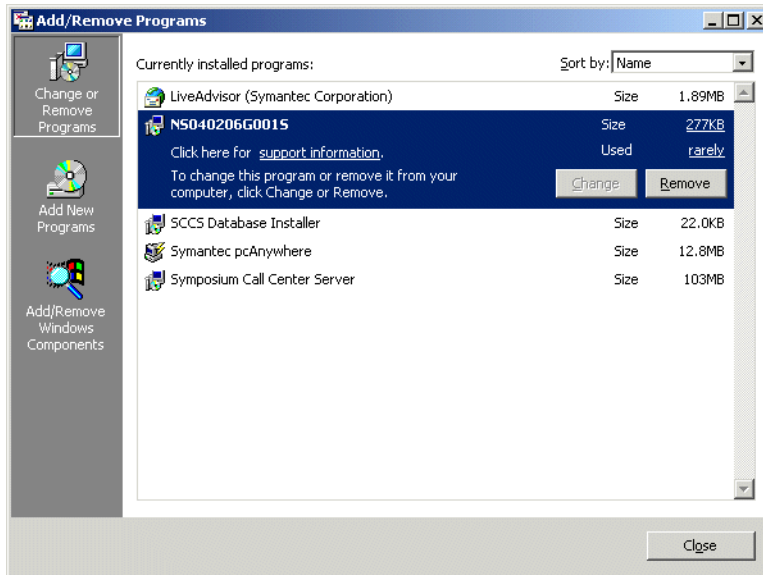
## To uninstall a PEP from the server

- 1 From the Windows Start menu, choose Settings → Control Panel.
- 2 Double-click Add/Remove Programs.

**Result:** The following window appears:



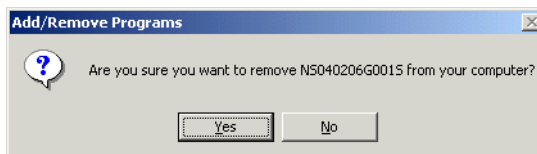
- 3 From the list, select the PEP that you want to uninstall, as shown in the example below:



**Note:** If more than one PEP is installed, you must uninstall the PEPs in the proper sequence (beginning with the most recent PEP); otherwise, the uninstall fails.

- 4 Click Remove.

**Result:** The following window appears:



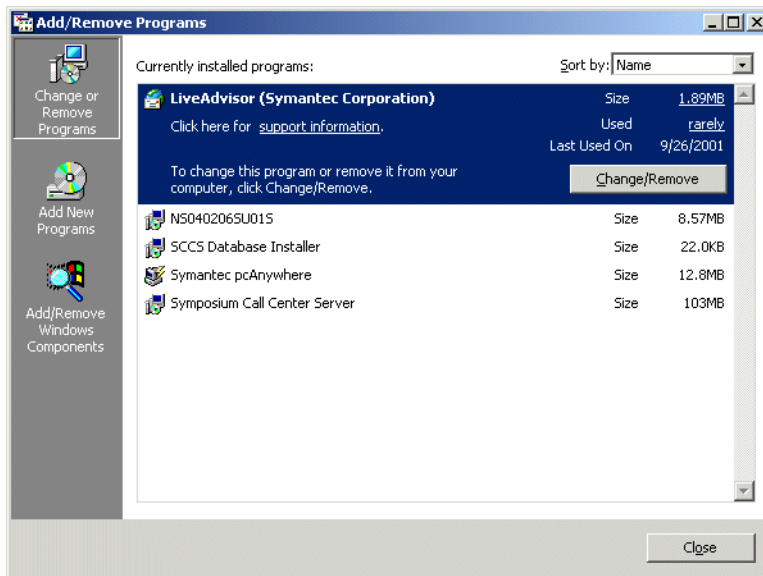
- 5 Click Yes.

**Result:** The PEP is uninstalled. If a server reboot is required, a dialog box appears to notify you. If you wish to uninstall additional PEPs, click No and continue uninstalling. (Be sure to restart the server computer before starting Symposium Call Center Server.) If you are ready to restart the server now, click Yes.

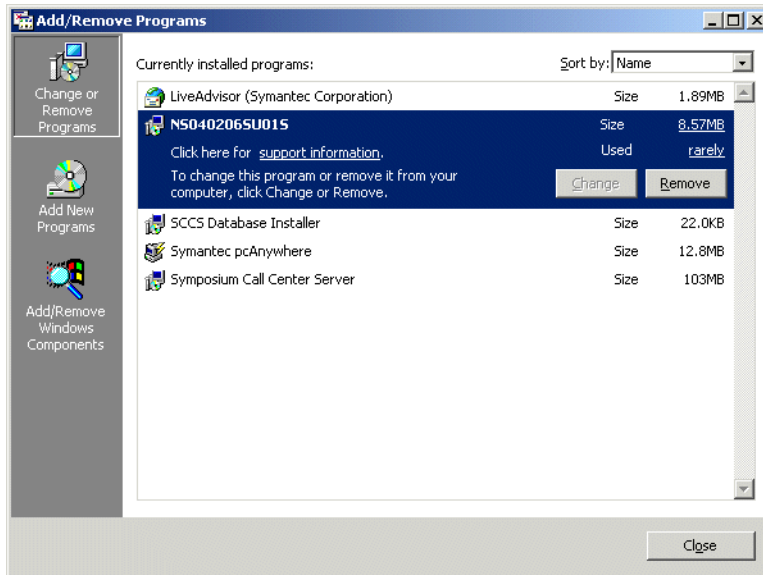
## To uninstall a Service Update pack from the server

- 1 From the Windows Start menu, choose Settings → Control Panel.
- 2 Double-click Add/Remove Programs.

**Result:** The following window appears:

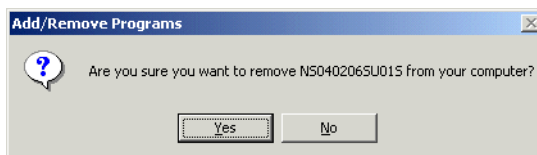


- 3 From the list, select the SU that you want to uninstall, as shown in the example below:



- 4 Click Remove.

**Result:** The following window appears:



- 5 Click Yes.

**Result:** The SU is uninstalled.

- 6 If the system prompts you to restart the server, click Yes.
- 7 Restart the system to ensure that all the changes are applied.

## **Section B: Installing/uninstalling client PEPs and Service Update packs**

### **In this section**

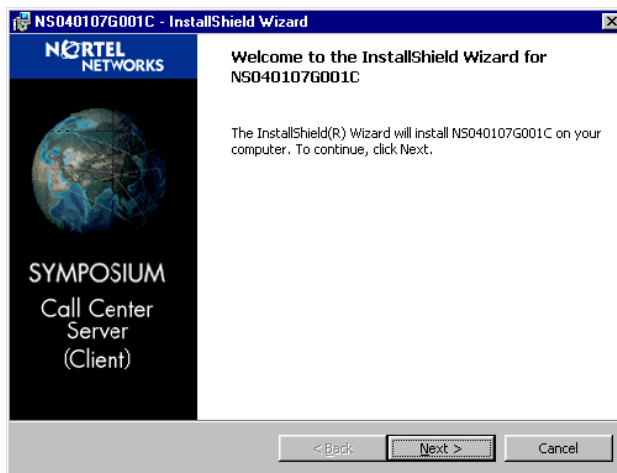
|                                                           |     |
|-----------------------------------------------------------|-----|
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| Uninstalling a PEP or Service Update pack from the client | 177 |

# Installing PEPs and Service Update packs on the client

## To install a PEP on the client

- 1 Before installing a PEP, ensure that you have closed all applications.
- 2 To install PEPs from CD-ROM, insert the Supplementary CD into the CD-ROM drive.
- 3 Locate the PEP directory on the CD, or the directory into which you downloaded the PEPs from the Web.
- 4 Check the readme file in the PEP directory for any special instructions or dependencies before installing the PEP.
- 5 Double-click the <PEP ID>.msi file associated with the PEP.

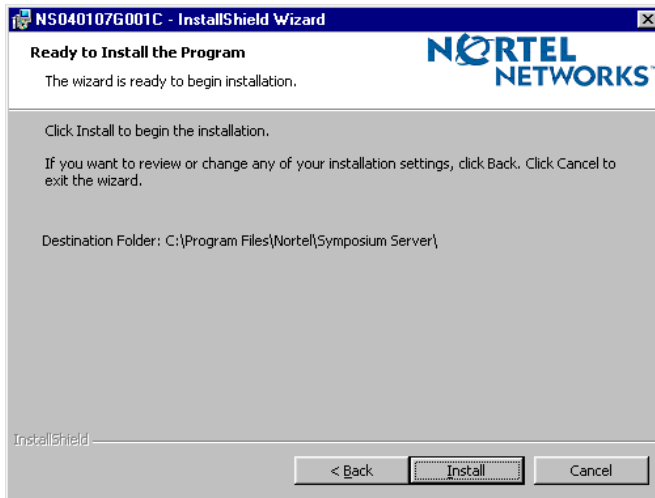
**Result:** The following window appears:





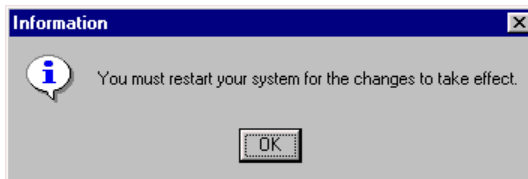
- 6 Click Next to proceed.

**Result:** The following window appears:



- 7 Click Install.

**Result:** The PEP is installed on the client PC, you are prompted to view the README file, and then the installation completes. If a restart is required, the following window appears:

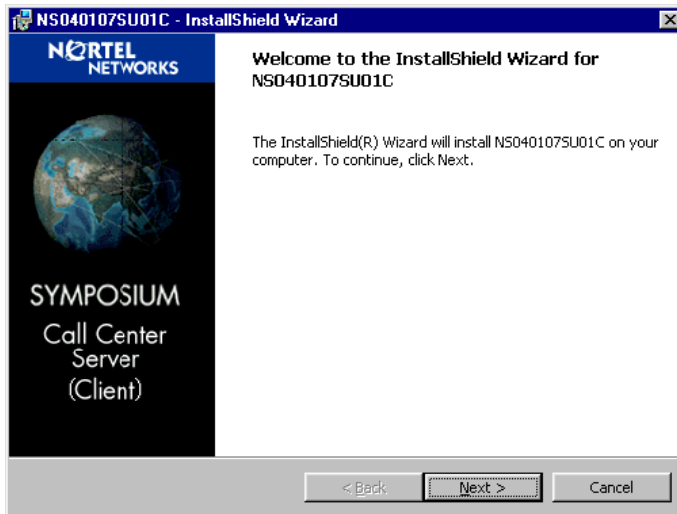


- 8 After the restart or when prompted, click Finish to complete the installation.

## To install a Service Update pack on the client

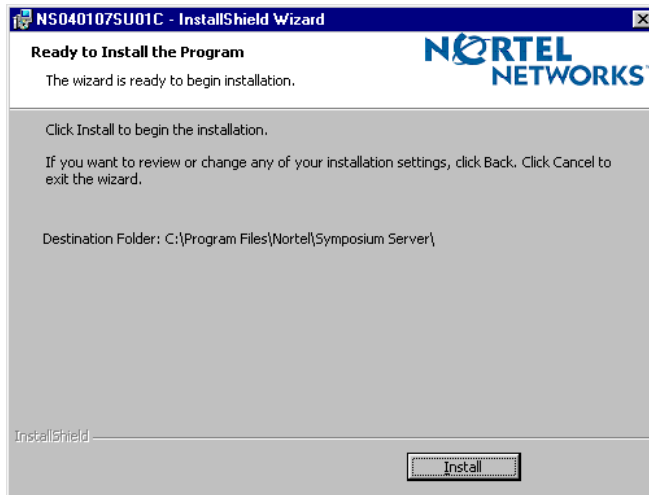
- 1 Before installing a Service Update (SU) pack, ensure that you have closed all applications.
- 2 To install SUs from CD-ROM, insert the Supplementary CD into the CD-ROM drive.
- 3 Locate the SU directory on the CD, or the directory into which you downloaded the SUs from the Web.
- 4 Check the readme file in the SU directory for any special instructions or dependencies before installing the SU.
- 5 Double-click the <SUID>.msi file associated with the PEP.

**Result:** The following window appears:



- 6 Click Next to proceed.

**Result:** The following window appears:

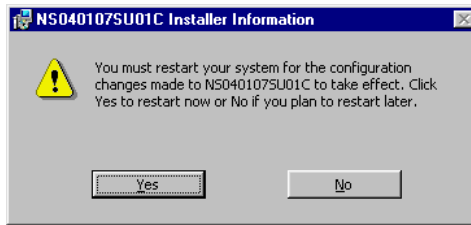


- 7 Click Install.

**Note:**

- If known Client PEPs are installed on the system, the Known PEPs Found dialog box appears. To uninstall the known PEPs, click Next. (To exit the installation, click Cancel.)
- If an older version of a Client SU is installed on the system, the Older Version of SU Found dialog box appears. Installation of the current SU automatically uninstalls older SUs. To uninstall the older SU, click Next. (To exit the installation, click Cancel.)
- If known PEPs and an older version of an SU are installed on the client, the Known SU and PEPs Found dialog box appears. To uninstall the old PEPs and SU, click Next. (To exit the installation, click Cancel.)

**Result:** The SU is installed on the client PC, you are prompted to view the README file, and then the installation completes. If a restart is required, the following window appears:



- 8 After the restart or when prompted, click Finish to complete the installation.

# Uninstalling a PEP or Service Update pack from the client

## To uninstall a PEP from the client

- 1 Open the Control Panel in one of the following ways:
  - In Windows NT, Windows 9x, or Windows 2000, from the Windows Start menu, choose Settings → Control Panel.
  - In Windows XP, from the Windows Start menu, choose Control Panel.
- 2 In Windows NT, Windows 9x, or Windows 2000 Professional, double-click Add/Remove Programs.
- 3 In Windows XP, double-click Add or Remove Programs.
- 4 In Windows 2000 or Windows XP, follow these steps:
  - a. Click Change or Remove Programs.
  - b. From the list, select the PEP that you want to uninstall.

**Note:** If there is more than one PEP installed, the PEPs must be uninstalled in the proper sequence (beginning with the most recent PEP); otherwise, the uninstall fails.
  - c. Click Remove.

**Result:** A confirmation dialog box appears.
- 5 In Windows NT or Windows 9x, follow these steps:
  - a. From the list, select the PEP that you want to uninstall.

**Note:** If there is more than one PEP installed, the PEPs must be uninstalled in the proper sequence (beginning with the most recent PEP); otherwise, the uninstall fails.
  - b. Click Add/Remove.

**Result:** A WARNING dialog box appears.
- 6 Click Yes.
- 7 The PEP is uninstalled.

## To uninstall a Service Update pack from the client

- 1 Open the Control Panel in one of the following ways:
  - In Windows NT, Windows 9x, or Windows 2000, from the Windows Start menu, choose Settings → Control Panel.
  - In Windows XP, from the Windows Start menu, choose Control Panel.
- 2 In Windows NT, Windows 9x, or Windows 2000 Professional, double-click Add/Remove Programs.
- 3 In Windows XP, double-click Add or Remove Programs.
- 4 In Windows 2000 or Windows XP, follow these steps:
  - a. Click Change or Remove Programs.
  - b. From the list, select the SU that you want to uninstall.
  - c. Click Remove.

**Result:** A confirmation dialog box appears.
- 5 In Windows NT or Windows 9x, follow these steps:
  - a. From the list, select the SU that you want to uninstall.
  - b. Click Add/Remove.

**Result:** A WARNING dialog box appears.
- 6 Click Yes.
- 7 The SU is uninstalled.

## Chapter 5

---

# Installing and configuring pcAnywhere

### In this chapter

|                                                    |     |
|----------------------------------------------------|-----|
| Overview                                           | 180 |
| Installing pcAnywhere version 10.5                 | 181 |
| Configuring pcAnywhere                             | 184 |
| Establishing a pcAnywhere connection using dial-up | 194 |
| Uninstalling pcAnywhere 10.5                       | 196 |

# Overview

## Introduction

With pcAnywhere, you can perform advanced administrative tasks on the server from a remote PC and control the server as though you were directly connected to it.

### Notes:

- Remote access allows your distributor or Nortel Networks customer support to log on to your server remotely to provide support.
- To use pcAnywhere for remote access, your server must have a serial port configured as COM1, as well as a modem.



# Installing pcAnywhere version 10.5

## Introduction

One licensed copy of pcAnywhere version 10.5 for host computers only is provided for the server on the NTJK08AA pcAnywhere Host-Only CD. This software license enables you to configure the server as the host computer in remote control sessions (that is, the computer to which remote computers connect).

1. To install the remote format of pcAnywhere version 10.5 on the server, you must purchase a remote license for the server. Since most users only require that the server act as a host computer, this chapter outlines the installation and configuration of only the host format of the pcAnywhere software. For information on the installation and configuration of the remote format, consult the pcAnywhere web site at [www.symantec.com/pcanywhere](http://www.symantec.com/pcanywhere).
2. To install pcAnywhere version 10.5 on the client PC, you must purchase a separate license for the client PC.



### CAUTION

---

#### Risk of system failure

Before you install pcAnywhere version 10.5, ensure that the video drivers on the server PC are current by consulting the driver manufacturers' web sites for any available updates. Failure to do so can result in the appearance of a blue screen after pcAnywhere installation or after use of pcAnywhere for operations such as file transfer. For more information, refer to the pcAnywhere web site at [www.symantec.com/pcanywhere](http://www.symantec.com/pcanywhere).

## To install pcAnywhere version 10.5

**Note:** You do not have to manually uninstall previous versions of pcAnywhere before installing pcAnywhere 10.5; the pcAnywhere 10.5 installation wizard automatically uninstalls previous versions of pcAnywhere before continuing with the installation. If the installation wizard asks if you want to preserve configuration data from a previous version after the uninstall, select No. Configuration data from previous versions of pcAnywhere is incompatible with pcAnywhere version 10.5.

### 1 Log on to the server as **Administrator**.

**Note:** If you have already installed the Symposium Call Center Server software and you are now reinstalling pcAnywhere, then before you proceed with the installation, you must shut down all the services on the server. From the Start menu, choose Programs → Symposium Call Center Server → Shutdown. To shut down the services, perform the following procedure:

- a. From the Start menu, click Programs → Symposium Call Center Server → Shutdown.

**Result:** The Symposium Call Center Server Shutdown window appears.

- b. Click OK to confirm.

**Result:** The Symposium Call Center Server services shut down. This may take several minutes.

- c. When the Service Status log window appears, click Accept to exit the utility.

### 2 Insert the NTJK08AA pcAnywhere Host-Only CD into the CD-ROM drive.

**Result:** Autorun starts and the Symantec pcAnywhere Setup wizard window appears.

**Note:** If Autorun does not start when you insert the CD, perform the following steps:

- a. In Windows Explorer, browse to E:\pcAnywhere.exe (where E: is your CD-ROM drive).
- b. Double-click the file pcAnywhere.exe.

**Result:** The Symantec pcAnywhere Setup wizard window appears.

- 3 Click Next.

**Result:** The License Agreement window appears.

- 4 Select I accept the terms in the license agreement, and then click Next.

**Result:** The Customer Information window appears.

- 5 Enter your User Name and Organization, and then click Next.

**Result:** The Ready to Install the Program window appears.

- 6 Click Install.

**Result:** The Installing Symantec pcAnywhere window appears, showing a status of the installation. When the installation is complete, the Support Solutions window appears.

- 7 Click Next.

**Result:** The Windows Solutions window appears.

- 8 Click Next.

**Result:** The How To Reach Us Online window appears.

- 9 Click Next.

**Result:** The Completing the Symantec pcAnywhere Setup wizard window appears, notifying you that the software was successfully installed.

- 10 Click Finish.

**Result:** The system prompts you to restart the server PC.

- 11 Click Yes to restart the server PC at the prompt.

**Note:** If the server hangs, restart it manually.

# Configuring pcAnywhere

## Introduction

This section describes how to configure pcAnywhere to accept remote connections. When you first receive your server, pcAnywhere may already be configured. If so, go through the following procedures to ensure that the network properties and remote caller settings are correct.

## To start pcAnywhere for the first time

**Tip:** To ensure optimum speed when using pcAnywhere, before starting the program, configure the Active Desktop settings on the server as follows:

- a. Right-click anywhere on the server desktop.
  - b. On the resulting pop-up menu, highlight Active Desktop until another pop-up menu appears.
  - c. On this pop-up menu, ensure that Show Web Content is not selected.
- 1 Log on to Windows as **Administrator**.
  - 2 From the Windows Start menu, choose Programs → Symantec pcAnywhere.

**Note:** If the system asks you to register pcAnywhere, select Skip, and then choose Yes when asked to confirm.

## ATTENTION

---

If the following message appears, it indicates that your video driver is incompatible with pcAnywhere: pcAnywhere detected and fixed a display driver problem. Please restart your computer to allow the change to take effect. In this case, you must uninstall pcAnywhere, update your video driver, and then reinstall pcAnywhere. For more information, see “Blue screen appears after installing pcAnywhere while working in third-party program” on page 677.

**Result:** If you are going to use networking for pcAnywhere connections, or if you are going to use a modem that you have already configured, then the pcAnywhere Manager window appears. In this window, you can configure and start to use pcAnywhere. However, if you are going to use a modem for pcAnywhere connections, and did *not* configure the modem during the operating system installation, then the Smart Setup Wizard window appears, prompting you for the modem device. Continue to step 3.

- 3 In the Smart Setup Wizard window, choose the entry that matches your modem, and then click Next.

**Result:** The system prompts you to select the network device.

- 4 Ensure that only TCP/IP is selected, and then click Next.

**Result:** The system prompts you to select a port.

- 5 Select COM1, and then click Next.

- 6 Click Finish.

**Result:** The pcAnywhere Manager window appears.

## To configure pcAnywhere user access rights

Configuration of pcAnywhere sets up a secure caller account to access the server. You can add a caller account for each remote PC. These caller accounts restrict usage of pcAnywhere to appropriate users (for example Nortel Networks support personnel and distributors).

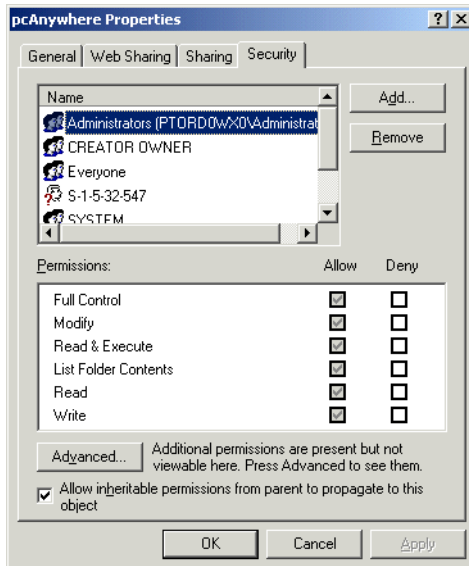
If, during the pcAnywhere configuration, you get a message indicating that you do not have the rights to modify a setting or create a new caller, follow the procedure below to change the Windows User access rights for pcAnywhere files.

- 1 Exit pcAnywhere.

**Tip:** This procedure requires you to browse to a hidden directory. To view hidden directories, follow these steps:

- a. Open My Computer.
- b. Choose Tools → Folder Options.
- c. Click the View tab.
- d. Scroll down until you see Show Hidden Files and Folders, and select this option.

- e. Click OK.
- 2 In Windows Explorer, navigate to the following folder:  
c:\Documents and Settings\All Users\Application  
Data\Symantec\pcAnywhere  
where c: is the drive on which pcAnywhere is installed.
- 3 Right-click the pcAnywhere folder icon.  
**Result:** A pop-up menu appears.
- 4 From the pop-up menu, click Properties.  
**Result:** The pcAnywhere Properties window appears.
- 5 Click the Security tab.



- 6 In the Name box, highlight Administrators.
- 7 To grant administrators full access to the pcAnywhere folder, in the Permissions box, ensure that there is an Allow check mark beside Full Control.
- 8 Click OK to save your changes and close the Properties window.

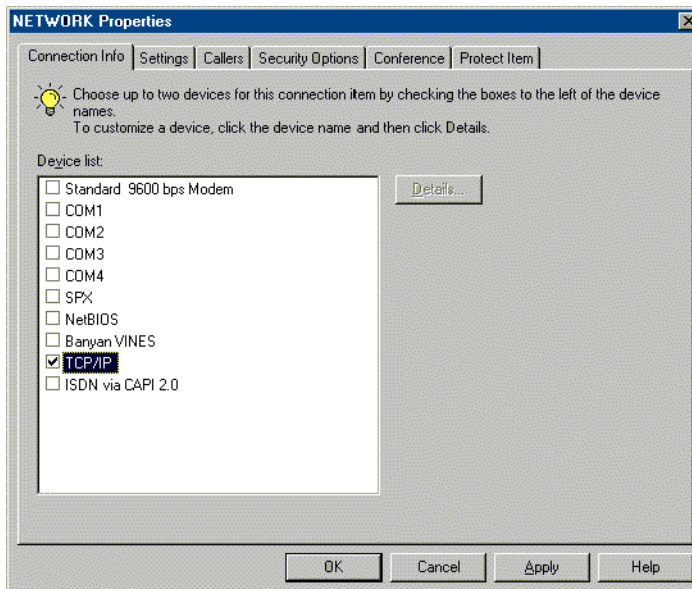
## To set the video mode

- 1 Start pcAnywhere.  
**Result:** The pcAnywhere Manager window appears.
- 2 Click Tools → Options.  
**Result:** The pcAnywhere Options window appears.
- 3 Click the Host Operation tab.
- 4 From the drop-down list in the Video mode selection area, ensure that the *Default (accelerator enabled)* option is selected.
- 5 Click OK to save your changes and exit the window.

## To configure pcAnywhere as a host PC

- 1 Start pcAnywhere.  
**Result:** The pcAnywhere Manager window appears.
- 2 In the pcAnywhere Manager window, right-click the Network, Cable, DSL icon, and then choose Properties.  
**Result:** The pcAnywhere Host Properties: Network, Cable, DSL window appears.
- 3 Click the Connection Info tab.

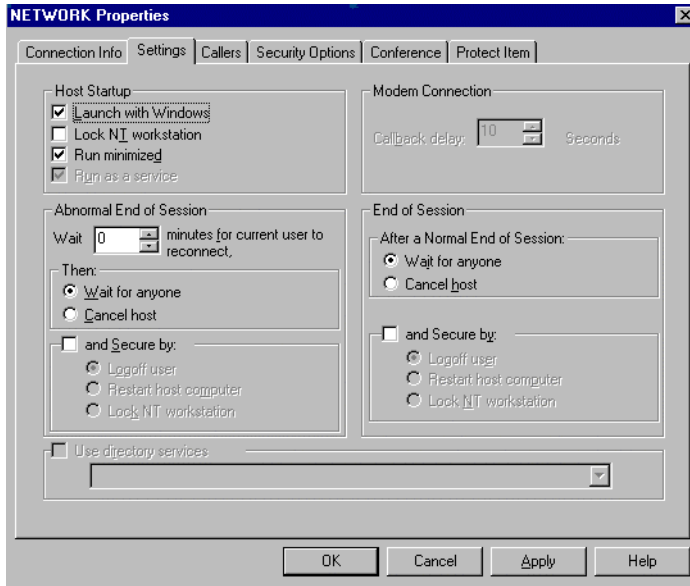
- 4 Ensure that only TCP/IP is checked, as in the following example:



- 5 Click Apply to save your changes.
- 6 Click the Settings tab.



- 7 Ensure that the Launch with Windows and Run minimized settings are selected, as shown in the following example:



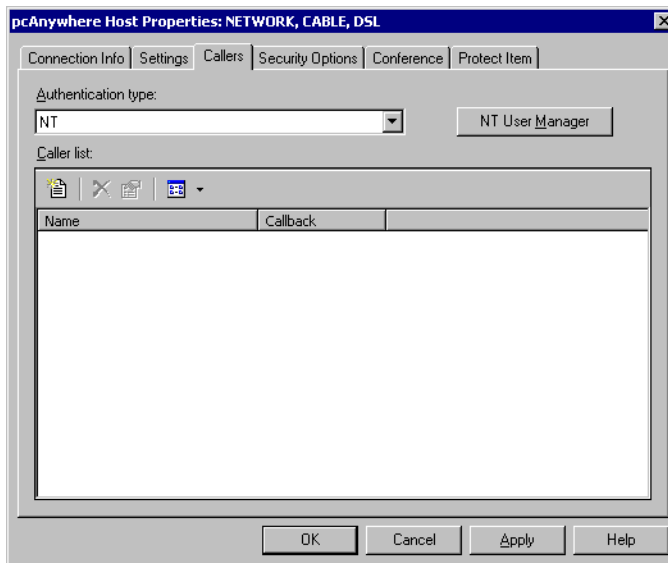
- 8 Click Apply to save your changes.

### ATTENTION

If you have not yet installed Symposium Call Center Server, skip to step 23 of this procedure. When you complete this procedure, install the Symposium Call Center Server Release 4.2 software on the server (see “Installing the server software” on page 121). After you install the Symposium Call Center Server Release 4.2, return to this procedure, and complete steps 9 to 22.

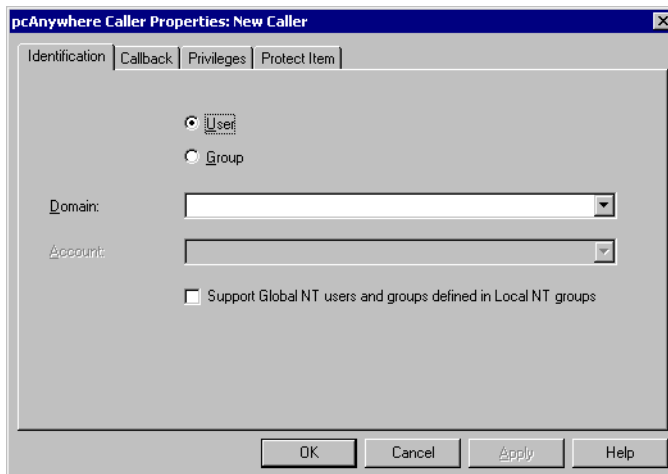
- 9 Click the Callers tab.

- 10 From the Authentication type drop-down list, select NT.



- 11 Below the Caller list heading, click the New item icon (  ).

**Result:** The pcAnywhere Caller Properties: New Caller window appears.

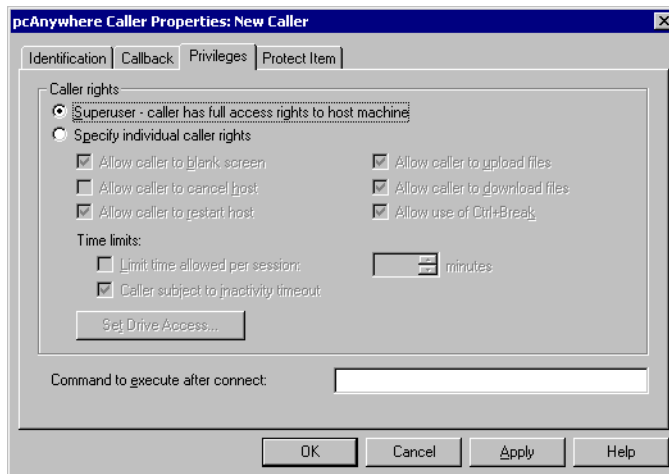


- 12 On the Identification tab, ensure that the User radio button is selected.
- 13 From the Domain drop-down list, select the computer name of the server in Symposium Call Center Server.

- 14 From the Account drop-down list, select NGenDist.

**Note:** The NGenDist and NGenDesign user accounts are automatically created on the server as Windows user accounts when you install the Symposium Call Center Server software. To allow authorized remote personnel to use pcAnywhere to log on to and administer the server with either of these accounts, you must designate these Windows accounts as valid pcAnywhere caller accounts. By creating this link between Windows and pcAnywhere, you never have to change the passwords for these accounts in pcAnywhere; when you change the passwords in Windows, the information is automatically updated in pcAnywhere to match.

- 15 Click Apply.
- 16 Click the Callback tab.
- 17 Ensure that the check box beside Callback the remote user is not checked.
- 18 Click the Privileges tab.
- 19 Click the Superuser radio button.

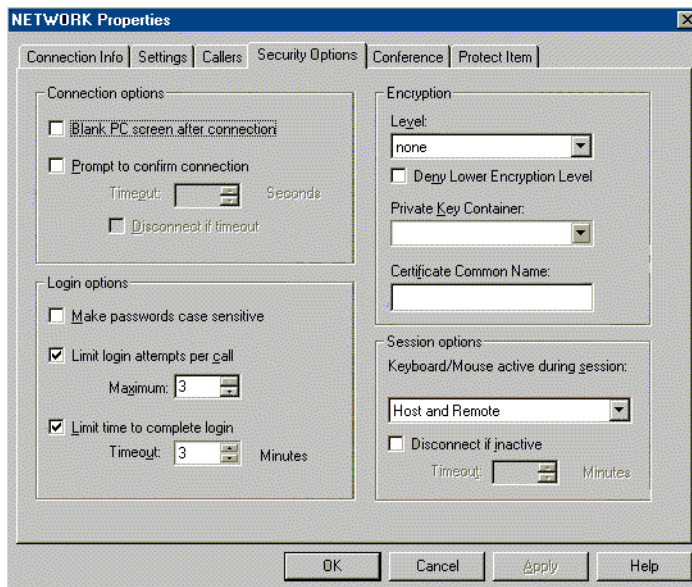


- 20 Click Apply.
- 21 Click OK to save the NGenDist caller account settings.

**Result:** The Callers tab in the pcAnywhere Host Properties: Network, Cable, DSL window reappears.

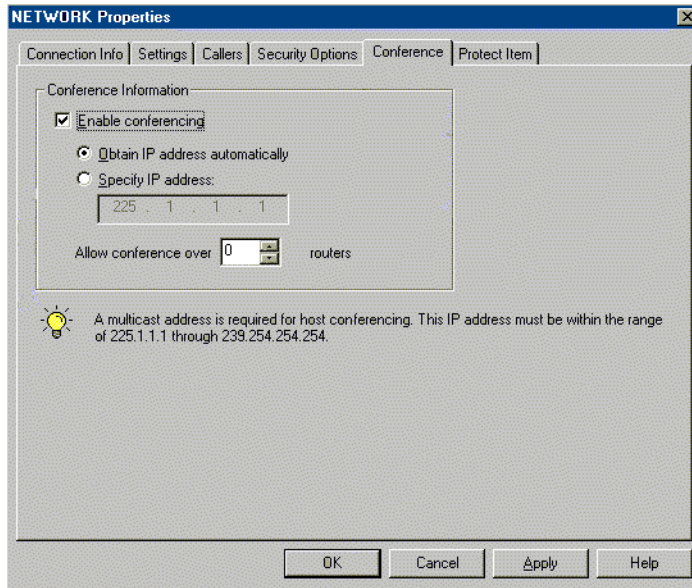
- 22 Perform steps 11 to 21 again to add the NGenDesign caller account.
- 23 Click the Security Options tab.

- 24 Ensure that the settings are as shown in the following example:



- 25 Click Apply if you have made any changes.
- 26 Click the Conference tab.

- 27 Ensure that Enable conferencing and Obtain IP address automatically are selected, as shown in the following graphic:



- 28 Click Apply if you have made any changes.
- 29 Click the Protect Item tab if you want to protect the settings for this caller account by assigning a password to control access to the settings. If you don't want to assign a password, skip to step 32.
- 30 In the Password box, type the password you want to use to protect the Network icon settings.
- 31 In the Confirm password box, type the password again.

#### ATTENTION

If you select the Required option to modify properties, you must enter the password each time a setting is changed. You should record the password and keep a copy of it in a safe place. If you forget the password, you cannot change any settings.

- 32 Click OK to apply all pcAnywhere Host PC settings.
- 33 Click Exit to close the pcAnywhere Manager window.

# Establishing a pcAnywhere connection using dial-up

## Introduction

This section offers an overview of how to configure a connection profile on the client PC that is used to connect with the server. Since client PCs are not limited to running one particular operating system, the steps below include general guidelines for accessing the Windows utilities that are required for configuring the connection. For specific instructions on accessing these utilities, consult the Windows online Help on the client PC.

## To create a server connection profile on the client PC

- 1 On the client PC, open the Network and Dial-up Connections utility (or the Dial-up Networking utility).  
**Note:** The name of this utility differs according to the operating system installed on the client PC. For specific instructions on accessing either of these utilities, consult the Windows online Help on the client PC.
- 2 In the Network and Dial-up Connections window (or the Dial-up Networking window), click Make New Connection to open the new connection wizard.
- 3 Select your modem.
- 4 Enter a name for the connection.
- 5 Enter the server telephone number.
- 6 When you have finished following all the wizard prompts, click Finish.
- 7 Continue with the following procedure.

## To configure a connection profile

- 1 Right-click the icon for the server connection that you created in “To create a server connection profile on the client PC” above, and then select Properties.
- 2 Verify the information on the General property page, and correct it if necessary.

- 3 Click Configure.
- 4 In the property pages, configure the settings for your connection. Ensure that you configure the following properties as shown:
  - For the dial-up server type, select PPP.
  - For the network protocols, select only TCP/IP and NETBEUI.
  - Select the option to specify the IP address of the server, and type the server's IP address.
  - Ensure that the option to use a default gateway on a remote network is *not* selected.
- 5 The remaining boxes are optional. Fill them in as required for your network.
- 6 Click OK to save your changes.

# Uninstalling pcAnywhere 10.5

## To uninstall pcAnywhere 10.5

Follow this procedure if you experience problems with pcAnywhere that require reinstallation of the software. For more information, see “Troubleshooting installation problems” on page 676.

**Note:** Before uninstalling pcAnywhere, ensure there is no pcAnywhere Waiting icon in the taskbar on your desktop. If the icon is on your desktop, right-click it and select Cancel Host.

- 1 From the Windows Start menu, choose Settings → Control Panel.
- 2 Double-click Add/Remove Programs.
- 3 Select Symantec pcAnywhere, and then click Remove.
- 4 When prompted to confirm, click Yes.

**Result:** The Symantec pcAnywhere window appears. pcAnywhere is uninstalled.

- 5 The system prompts you to restart the server PC.
- 6 Click Yes.

**Result:** The server restarts.

**Note:** If the server hangs, restart it manually.



# Chapter 6

---

## Installing the client software

### In this chapter

|                                                                       |     |
|-----------------------------------------------------------------------|-----|
| Overview                                                              | 198 |
| Checklist for installing Symposium Call Center Server client software | 199 |
| Customer-supplied equipment and data checklist                        | 200 |
| Installation software checklist                                       | 202 |
| Limitations and coresidency                                           | 203 |
| Uninstalling the Software Development Kit                             | 205 |
| Checking the temp directory size                                      | 207 |
| Installing the client from the distribution CD                        | 209 |
| Installing the client over the network                                | 221 |
| Adding an SMI system                                                  | 228 |
| Testing the client-server connection                                  | 231 |
| Installing the Software Development Kit                               | 232 |

# Overview

## Introduction

You use the Symposium Call Center Server Client application to administer and monitor your server. To connect to a Release 4.2 Symposium Call Center Server, you use Release 4.0 of the Client application. This chapter provides instructions for installing the Release 4.0 Client application.

**Note:** You can also use the Web Client to perform many administrative and monitoring tasks. However, some functions, such as scheduling of database backups and Event Browser, are not available in Web Client. Therefore, you must install at least one Symposium Call Center Server Client application.

# Checklist for installing Symposium Call Center Server client software

| Step                                                                                                                                                                                                  | ✓ |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|
| 1 Obtain the user ID and password that you need to log on to the client PC. On a Windows NT, Windows 2000, or Windows XP client PC, you need an account that has local administrative privileges.     |   |
| 2 Review the requirements in the checklist on page 200.                                                                                                                                               |   |
| 3 Review the limitations on page 203.                                                                                                                                                                 |   |
| 4 Uninstall the Software Development Kit (SDK), if it is installed. See page 205.                                                                                                                     |   |
| 5 Ensure that the temp directory has enough space. See page 207.                                                                                                                                      |   |
| 6 Check the “Things to remember” section on page 209.                                                                                                                                                 |   |
| 7 If you are installing across a network, create a virtual CD. See page 222.                                                                                                                          |   |
| 8 Install the Symposium Call Center Server client software. If you are installing from a CD, see page 209. If you are installing across a network, see page 221.                                      |   |
| 9 If a Supplementary CD was provided, install PEPs. See page 156.                                                                                                                                     |   |
| 10 Optionally, if you are using Symposium Voice Services on CallPilot, install CallPilot Application Builder on the client PC. See the <i>CallPilot Application Builder Guide</i> (NTP 555-7171-325). |   |

**Note:** If a version other than OC12 of Sybase Open Client is installed on the client PC, you must uninstall it before installing the client software.

# Customer-supplied equipment and data checklist

## Introduction

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

| Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | ✓ |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|
| <p><b>Client PC hardware</b></p> <p>Each client PC running the Symposium Call Center Server Client application has the following elements:</p> <ul style="list-style-type: none"> <li>■ Intel Pentium 90 MHz (or faster) CPU</li> <li>■ RAM               <ul style="list-style-type: none"> <li>■ at least 32 Mbytes for Windows 98</li> <li>■ at least 64 Mbytes for Windows NT 4.0 Workstation, Windows 2000 Professional, Windows XP</li> </ul> </li> <li>■ disk space               <ul style="list-style-type: none"> <li>■ at least 2 Gbytes for Windows 98, Windows NT 4.0 Workstation, Windows 2000 Professional</li> <li>■ at least 4 Gbytes for Windows XP</li> </ul> </li> <li>■ 1.44 Mbyte floppy drive</li> <li>■ VGA color monitor</li> <li>■ keyboard</li> <li>■ Microsoft-compatible mouse</li> <li>■ Network interface card (Token Ring or Ethernet)</li> <li>■ CLAN connection running Microsoft TCP/IP</li> <li>■ 4-speed or higher CD-ROM drive</li> <li>■ (optional) parallel printer port</li> <li>■ (optional) serial port (16550 UART)</li> </ul> |   |

| Description                                                                                                                                                                                                                                                                                   | ✓ |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|
| <b>Client PC software</b><br>PCs up and running with one of the following operating systems installed: <ul style="list-style-type: none"><li>■ Windows 98</li><li>■ Windows NT 4.0 Workstation (Service Pack 5 or greater)</li><li>■ Windows 2000 Professional</li><li>■ Windows XP</li></ul> |   |

**Notes:**

- Windows XP is only supported on Rev. 5 of the Client CD.
- This checklist indicates the minimum required hardware for the client. If you are generating large reports on the client PC, a faster processor and increased memory improve performance.

## Installation software checklist

| Qty | Description                                                                                                                                                                          | ✓ |
|-----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|
| 1   | Nortel Networks Symposium Call Center Server Release 4.2 Client Application CD                                                                                                       |   |
|     | Nortel Networks Symposium Call Center Server Supplementary CD (optional). If supplied with this installation, this CD contains product enhancement files.                            |   |
| 1   | Documentation CD. This CD contains all Symposium Call Center Server documents in PDF format.                                                                                         |   |
| 1   | (Optional) Capacity Assessment Tool (CapTool) disks (3). This is the capacity planning software. For installation instructions, refer to the <i>Planning and Engineering Guide</i> . |   |
| 1   | (Optional, if you are using Symposium Voice Services on CallPilot) CallPilot Release 2.0 Server CD (NTUB40ACD/A0887359) containing the Application Builder software.                 |   |

# Limitations and coresidency

## Number of clients

The server keycode determines the number of clients that can simultaneously connect to the server. The number of installed clients can exceed the number of licensed clients, although only the licensed number can connect to the server at any one time.

## Coexistence with Meridian Administration Terminal

### Supported combinations

The Symposium Call Center Server Client application, Release 4.0, can reside on the same PC as Meridian Administration Terminal (MAT) 6.53 or MAT 6.6.

If you install the Symposium Call Center Server Client on the same PC as MAT, be sure to install it in a different directory than MAT. For example, if you installed MAT in C:\Nortel, do not install any of the client components in C:\Nortel or any subdirectory of C:\Nortel.

### Notes:

- If you have installed the client in the same directory as MAT, you must uninstall the client, reinstall MAT, and install the client in a different directory.
- When you uninstall MAT, the installation program replaces ODBC files with an older version and removes required registry entries. To be able to use the Symposium Call Center Server Client on the PC after uninstalling MAT, you must reinstall the client after uninstalling MAT.

### Unsupported combinations

The Symposium Call Center Server Client application cannot reside on the same PC as

- earlier versions of MAT
- earlier versions of the Symposium Call Center Server Client application
- Symposium Express Call Center Server Client application

**Note:** If you must use the same PC for more than one of these applications, you can use a third-party application to partition the PC hard disk and install multiple copies of Microsoft Windows. Install a separate application on each partition. When you want to use an application, start with the appropriate partition.

## **Coexistence with Optivity Telephony Manager**

The Symposium Call Center Server Client application, Release 4.0, can reside on the same PC as Optivity Telephony Manager (OTM) 1.0.

## **Coexistence with Application Builder**

If you are using Symposium Voice Services on CallPilot, you use CallPilot Application Builder to create and manage the voice prompts for your voice processing system. You can install Application Builder on the same PC as the Symposium Call Center Server Client application.

## **Coexistence with Sybase Open Client**

The Symposium Call Center Server Client application uses its own version of the Sybase Open Client software (Sybase OC12). If you install Symposium Call Center Server client on a PC that has an earlier version of Sybase installed, the system warns you that the client software installs a version of Sybase that can conflict with your earlier version and cause other applications to stop. You then have the option to continue and install the client with Sybase or cancel the installation.

## **Downgrades**

A downgrade from Symposium Call Center Server Release 4.0 to an earlier version of Symposium Call Center Server is not supported.



# Uninstalling the Software Development Kit

## Introduction

Before you install client software, you must ensure that a Software Development Kit (SDK) is not installed on the client PC. SDK and Symposium Call Center Server are not compatible. Use the procedures in this section to check whether SDK is installed, and then to uninstall it if it is present.

## To uninstall SDK

- 1 Ensure that all applications on the client PC are closed.
- 2 Open the Control Panel in one of the following ways:
  - In Windows NT, Windows 9x, or Windows 2000, from the Windows Start menu, choose Settings → Control Panel.
  - In Windows XP, from the Windows Start menu, choose Control Panel.
- 3 In Windows NT, Windows 9x, or Windows 2000 Professional, double-click Add/Remove Programs.
- 4 In Windows XP, double-click Add or Remove Programs.
- 5 In Windows 2000 or Windows XP, follow these steps:
  - a. Click Change or Remove Programs.
  - b. Scroll through the list, looking for Symposium Call Center Runtime. If this program appears in the list, continue with the following steps to uninstall it.
  - c. Click Remove.

**Result:** A confirmation dialog box appears.

- 6 In Windows NT or Windows 9x, follow these steps:
  - a. Scroll through the list, looking for Symposium Call Center Runtime. If this program appears in the list, continue with the following steps to uninstall it.
  - b. Click Add/Remove.

**Result:** A WARNING dialog box appears.

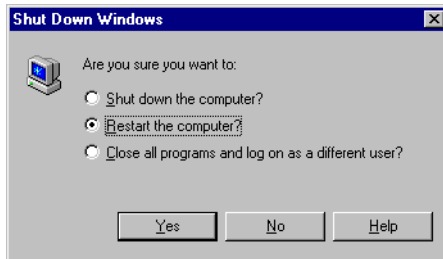
- 7 Click Yes.

**Result:** The system prompts Uninstall Finished. Please reboot your system.

- 8 Click OK.

- 9 From the Windows Start menu, choose Shut Down.

**Result:** The Shut Down Windows dialog box appears.



- 10 Select Restart the computer?, and then click Yes.

**Result:** The computer restarts.

# Checking the temp directory size

## Purpose

Use this procedure to ensure that you have at least 100 Mbytes of free space on the hard drive containing your Windows Temp directory. (This directory is usually located in the path C:\WINDOWS\TEMP.) The client software requires 100 Mbytes of free space.

If you have insufficient space, you can delete files from your Windows Temp directory.

## To check the amount of free space in the temp directory

- 1 Log on to the client PC.
- 2 In Windows NT/9x, from the Windows Start menu, choose Programs → Command Prompt.
- 3 In Windows 2000 or Windows XP, follow these steps:
  - a. From the Windows Start menu, choose Run.
  - b. In the text box, type **cmd**.
  - c. Click OK.
- 4 Navigate to the path where the temp directory is stored.

**Tip:** Use the DOS Change Directory (CD) command.
- 5 At the prompt, type **dir** and press <Enter>. 

**Result:** The contents of the current directory appear, along with a summary of free disk space.
- 6 Check the amount of free disk space that appears on the last line:
  - If the free disk space summary shows more than 50 Mbytes, then you can proceed with installing the client software.
  - If the free disk space summary shows less than 50 Mbytes of free disk space, then remove unnecessary data or programs from the PC until you have at least 50 Mbytes of free disk space.

## To delete temporary files

Delete temporary files on a regular basis to avoid potential disk space problems.

- 1** In Windows Explorer or My Computer, navigate to your system's temporary directory.
- 2** Select and then delete all files in the temporary directory.
- 3** Navigate to the Recycle Bin and choose File → Empty Recycle Bin.

# Installing the client from the distribution CD

## Introduction

Follow the procedure in this section to install the Symposium Call Center Server Client software from the distribution CD. To install from a virtual CD, see “Installing the client over the network” on page 221.

## Timing

The procedures in this chapter take approximately 1 hour to complete.

## Before you begin

- This procedure assumes that you are installing a new copy of Symposium Call Center Server client Release 4.0 from scratch. If you are updating an older version or reinstalling Release 4.0, see “Upgrading the Client” on page 455.
- If the Software Development Kit (SDK) is installed on the client PC, uninstall it following the instructions in “Uninstalling the Software Development Kit” on page 205.
- If a version other than OC12 of Sybase Open Client is installed on the client PC, you must uninstall it before installing the client software.
- Close all applications on the client computer, including pcAnywhere.

## Things to remember

### Follow the steps in the installation checklist

See “Checklist for installing Symposium Call Center Server client software” on page 199.

### Update DLL files

During the installation, you may see dialog boxes that offer to update system DLL files with newer versions. Write down the names of these DLL files. If the files being installed are newer than the existing versions, click Yes. If they are older, click No. Provide the list of replaced DLLs to the system administrator.

### Install Acrobat Reader 4.0 with search plug-in

To read the documentation, you must install Acrobat Reader on the client PC. A copy of Acrobat Reader 4.0 is included in the Acrobat folder on the Client CD-ROM. (Acrobat Reader is not installed during the client installation.)

**Note:** If Acrobat Reader 3.0 or higher is already installed on the client PC, and you already have the search plug-in (Asrch32.api) installed, you do not need to replace it.

### Uninstall client software to change the switch type

An installed Symposium Call Center Server client PC can connect to only one type of switch—Meridian 1/CSE 1000 or DMS/MSL-100. To change to another switch type, you must completely uninstall the client system software, and then reinstall it with the correct switch type.

## To start the client installation

### ATTENTION

During the installation, there are points where the setup program performs automatic installation steps between wizard setup dialog boxes. Do not close any windows that appear during these steps. Wait for the next wizard setup dialog box before you use the mouse or keyboard.

If you abort the installation at any time, you must uninstall all of the components before you reinstall.

- 1 Log on to the client PC.

**Note:** If the client PC is running Windows NT Workstation or Windows 2000 Professional, log on as **Administrator**. You must be logged on with local administrative privileges to install, upgrade, or convert Symposium Call Center Server Client software.

- 2 Exit all applications, including screen savers, and close all windows.

- 3 Insert the Client installation CD or, if you are installing from a remote CD-ROM, map the client installation CD to a drive letter on the client PC and select Reconnect at Logon.
- 4 From the Windows Start menu, choose Run.
- 5 Click Browse and browse Setup.exe on the CD.

**ATTENTION**

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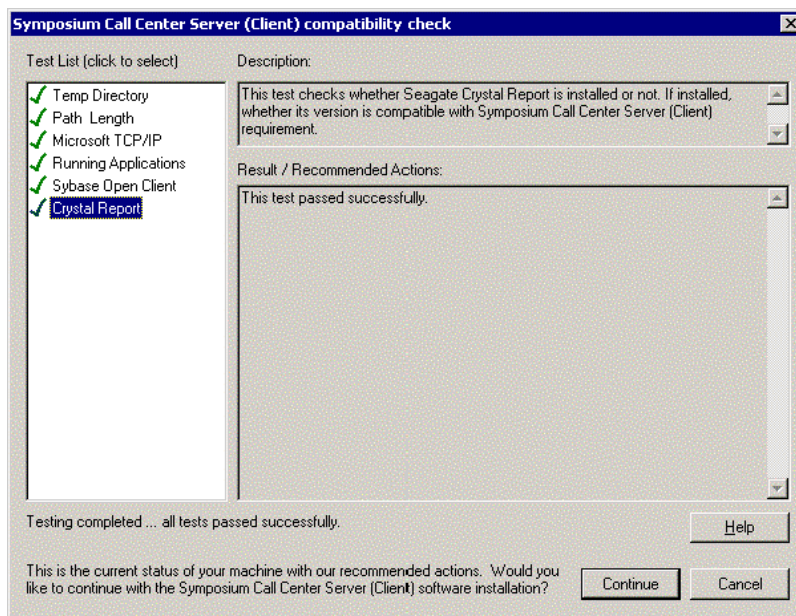
If you encounter the error `Internal Error 2755.1631, E:\Symposium Call Center Server (Client).msi` during this step, you must delete any keys with a null value from the following registry: `HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Control\Session Manager\Environment`. When finished, restart the system and begin the installation again.

- 6 Click OK to run.

**Result:** The InstallShield Wizard and Windows Installer screens appear. Windows Installer checks the system configuration.

- If the system is configured properly, the Symposium Call Center Server Client Compatibility Check dialog box appears.
- If the Windows Installer must reconfigure the system, you may be asked to restart the computer. If you are installing from a CD, remove the CD from the CD-ROM drive. Then, follow the prompt to restart the computer, and begin again at step 1.

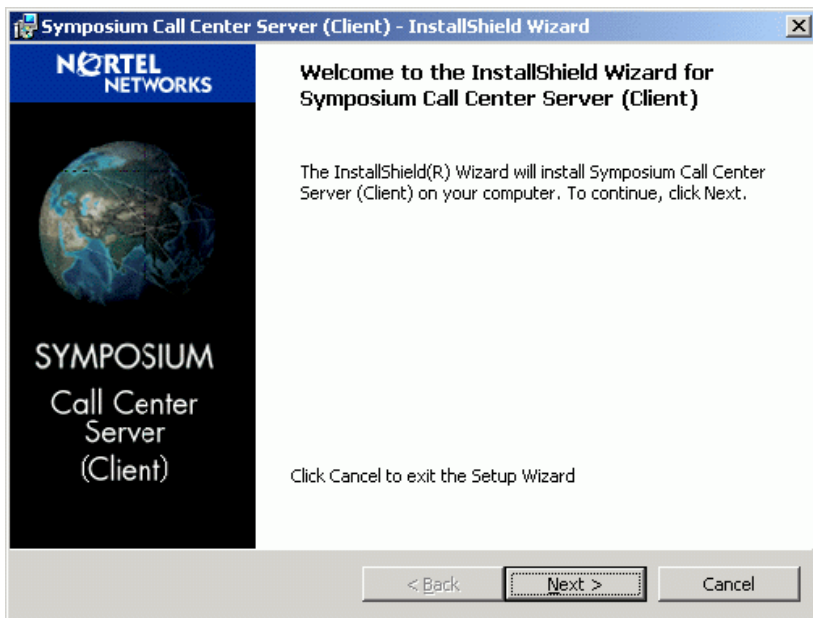
**Result:** The Symposium Call Center Server (Client) compatibility check dialog box appears, and the program checks the client PC for conflicting software and software versions. When the check is complete, the program reports any detected problems. If a problem is detected, refer to the log file in C:\cltprep.log for recommended actions.





- 7 If all tests pass successfully, click Continue.

**Result:** The Symposium Call Center Server (Client) - InstallShield Wizard window appears with a welcome message.



- 8 Click Next.

**Result:** The Customer Information dialog box appears.

**Symposium Call Center Server (Client) - InstallShield Wizard**

**Customer Information**  
Please enter your information.

**NORTEL NETWORKS™**

User Name:

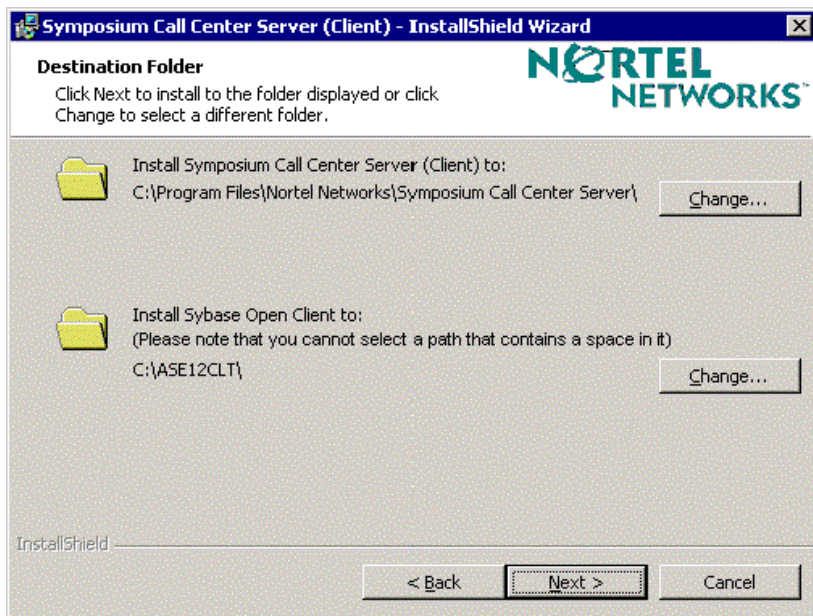
Organization:

InstallShield

< Back    Next >    Cancel

- 9 Type or confirm the User Name and the Organization, and then click Next.

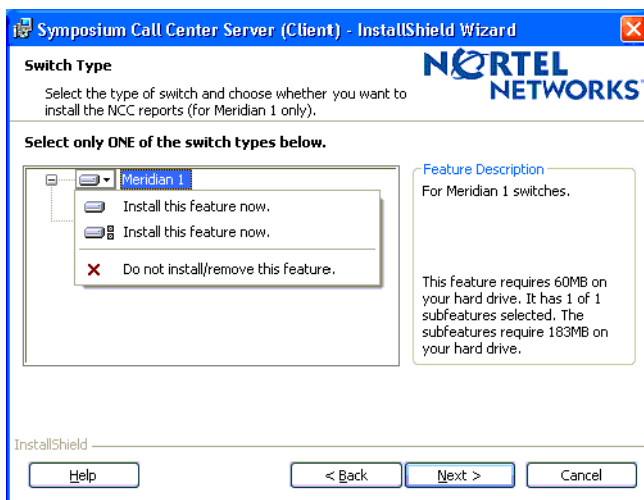
**Result:** The Destination Folder dialog box appears.



- 10 If you do not want to install the Symposium Call Center Server Client or the Sybase Open Client in their default paths, click the related Change button and select the new path. (The default path for the client software is not the same as in previous versions.)

**11** Click Next.

**Result:** The Switch Type dialog box appears.

**12** Click the down arrow beside the type of switch to which you are connecting your client (either Meridian 1 or DMS/MSL-100).

**Note:** If you are connecting to a CSE 1000 switch, click the arrow beside Meridian 1.

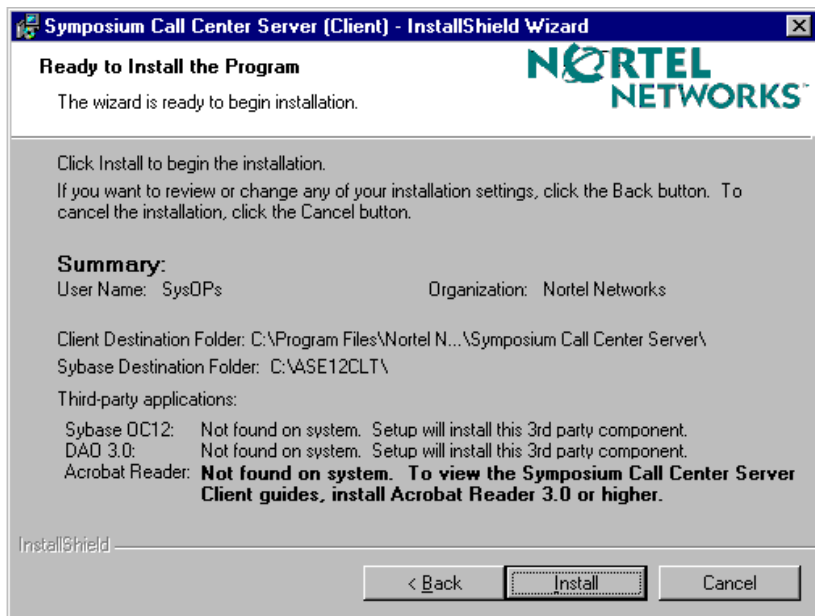
**13** Select Install this feature now to install the appropriate client software.

**Note:** If you are connecting to a Meridian 1 or CSE 1000 switch, choose the first option to install just the client software. Choose the second option to install both the client software and the NCC reports. If you choose not to install NCC reports at this time, you can install NCC reports later as described in “Reinstalling NCC reports” on page 444.

If you select both Meridian 1/CSE 1000 and DMS/MSL-100, an error message informs you that only one switch type is allowed.

- 14 Click Next.

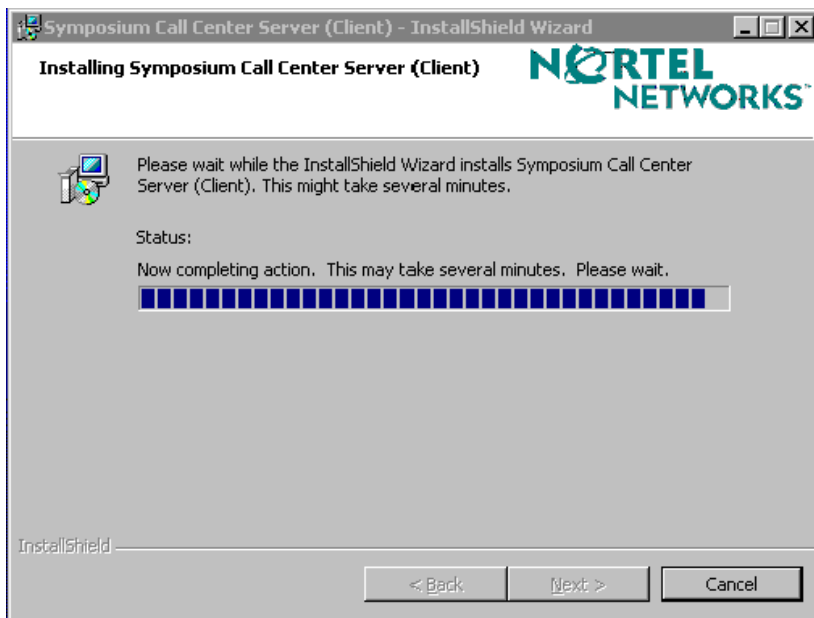
**Result:** The Verification dialog box appears.



- 15 Verify that all of the options showing in the Verification dialog box are correct. If any errors appear, click Back, make the necessary corrections, and then click Next.

- 16 Click Install.

**Result:** The Installing Symposium Call Center Server (Client) window appears. The system installs Symposium Call Center Server Client software.



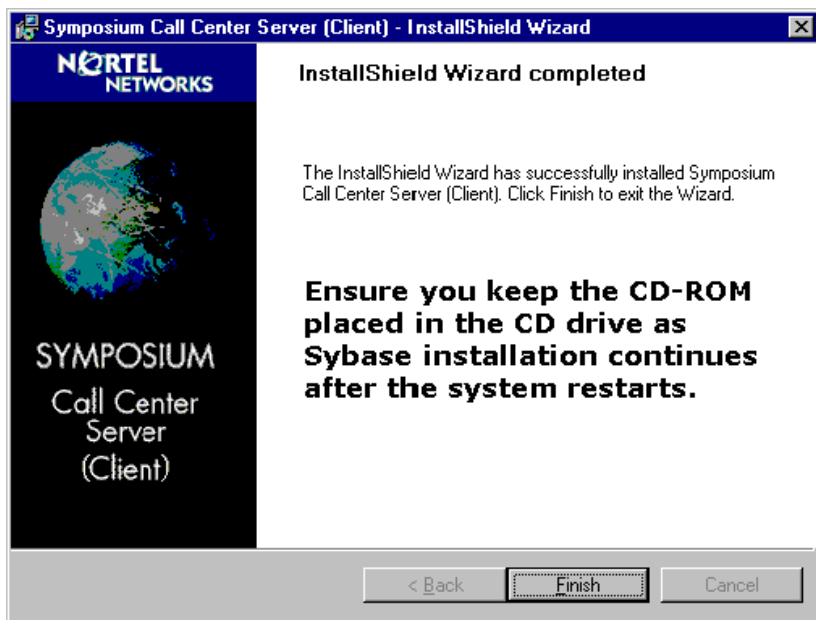
**Note:** The installation may take several minutes.

**Result:** When this section is complete, a dialog box appears asking if you want to read the readme file.

- 17 If you are using Windows XP, you may be prompted to restore replaced Windows XP files to their original state. If this prompt appears, follow the instructions to restore the files.

- 18 Choose whether you want to read the readme file. If you click Yes, then click File → Exit when you are finished.

**Result:** When the client installation is complete, the InstallShield Wizard completed message appears.



- 19 Click Finish.

**Result:** The program prompts you to restart.

- 20 Keep the CD in the CD-ROM drive and click Yes to restart the computer.

**Note:** Be sure to keep the CD-ROM in the CD-ROM drive so that Sybase can continue its installation after the system restarts.

**Result:** The computer restarts. The system configures and populates the Symposium Call Center Server Client database.

**Note:** If you are using Windows 2000 Professional, once the installation is complete, add any user accounts wanting to use the client software so that the user has Power User security access.

## What's next?

If you did not receive a Supplementary CD, then continue with “Adding an SMI system” on page 228. If you received a Supplementary CD, then install the PEP as described in “Installing PEPs and Service Update packs on the client” on page 172.

If you are using Symposium Voice Services on CallPilot, you may want to install Application Builder on the client PC at this time. For detailed instructions, refer to the *CallPilot Application Builder Guide* (NTP 555-7171-325).



# Installing the client over the network

## Introduction

If you are installing client software on several clients, it may be easier to create a virtual CD on one source PC to host the installation. You can then map a network drive for the source PC to allow each user to run the installation program from the mapped drive.

### ATTENTION

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To avoid installation errors caused by excessive network loading, do not perform the network installation during peak network traffic hours.

## Virtual CD

A virtual CD is a complete copy of the Symposium Call Center Server Client installation CD that resides on a shared directory on the network. This CD functions in the same way as a real CD inserted into the CD drive on a client PC. It allows you to install other client PCs without a physical CD. The virtual CD is useful if you are installing in networked sites (Meridian 1/CSE 1000 only).

## Requirements

You must meet the following requirements for this type of installation:

- The source PC has
  - Pentium 90 CPU or higher
  - a minimum of 32 Mbytes of RAM
  - a minimum of 250 Mbytes of continuous space available on its hard drive
  - Windows NT 4.0, Windows 2000 Server, Windows 2000 Professional, or Windows XP, and the latest service pack
  - a working network connection
  - file-sharing capabilities under Microsoft Network

The source PC must be dedicated to this activity (not used for other tasks during the network installation).

- The customer LAN (CLAN) connecting the source and client PCs must be running Microsoft Network.
- The CLAN must be stable, with moderate traffic volume during the network installation process.

## Before you begin

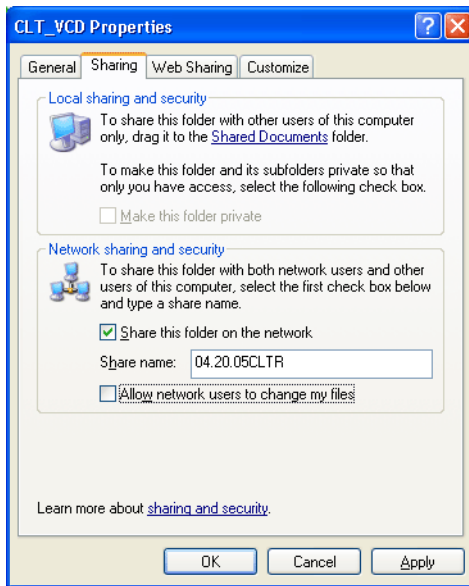
- If the Software Development Kit (SDK) is installed on the client PC, uninstall it following the instructions in “Uninstalling the Software Development Kit” on page 205.
- If a version other than OC12 of Sybase Open Client is installed on the client PC, you must uninstall it before installing the client software.

## To create a virtual CD (Windows XP)

- 1 In My Computer, double-click the drive on which you want to create the virtual CD (in this example, K).
- 2 From the System Tasks menu, choose Show the contents of this drive.
- 3 Choose File → New → Folder, and create a new folder called CLT\_VCD.
- 4 Insert the Nortel Networks Symposium Call Center Server Client Application CD in the CD-ROM drive (in this example, drive E).
- 5 Select the root directory of the CD, and then select all of the files in the CD.
- 6 Choose File → Copy, and copy the entire CD to the new folder (in this example, K:\CLT\_VCD).
- 7 When the copy is complete, select the directory K:\CLT\_VCD.

- 8 Choose File → Sharing and Security.

**Result:** The CLT\_vcd (Client Virtual CD) Properties property sheet appears.



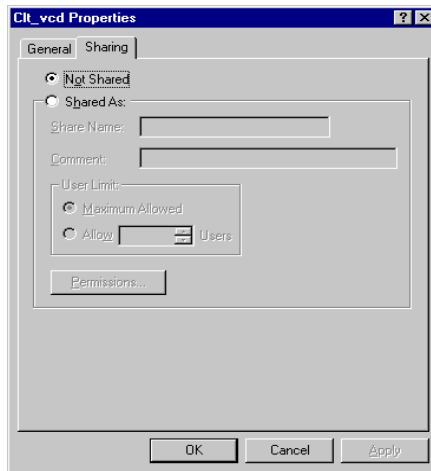
- 9 Click Share this folder on the network.
- 10 Change the Share Name from CLT\_VCD to the version number of the software (for example, 04.01.05CLTR).
- 11 Clear the check box for Allow network users to change my files.
- 12 Click Apply.

## To create a virtual CD (Windows NT, Windows 98, Windows 2000)

- 1 In Windows Explorer, select the drive on which you want to create the virtual CD (in this example, K).
- 2 Choose File → New → Folder, and create a new folder called CLT\_VCD.
- 3 Insert the Nortel Networks Symposium Call Center Server Client Application CD in the CD-ROM drive (in this example, drive E).
- 4 Select the root directory of the CD, and then select all of the files in the CD.
- 5 Choose File → Copy, and copy the entire CD to the new folder (in this example, K:\CLT\_VCD).

- 6 When the copy is complete, select the directory K:\CLT\_VCD.
- 7 Choose File → Sharing.

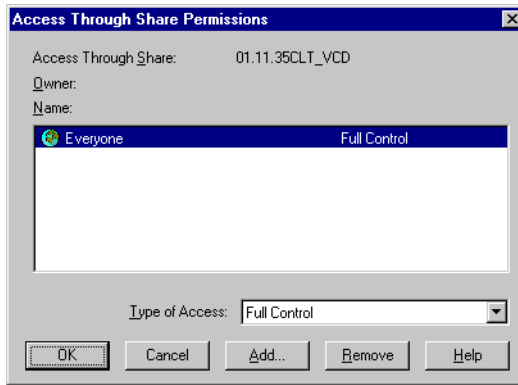
**Result:** The Clt\_vcd (Client Virtual CD) Properties property sheet appears.



- 8 Click Shared As.
- 9 The Share Name and User Limit dialog boxes become active.
- 10 Change the Share Name from CLT\_VCD to the version number of the software (for example, 04.01.05CLTR).
- 11 For user limits, click Allow and allow no more than three users to connect at a time. You must limit the number of concurrent installation copies to ensure reasonable performance over the network.

- 12 To grant other users access to this directory, click Permissions.

**Result:** The Access Through Share Permissions dialog box appears.



- 13 Click Remove to remove the Everyone group.
- 14 To add names to the list, click Add and select the groups or individual users to whom you want to grant access to the virtual CD.
- 15 To remove names from the list, click Remove.
- 16 From the Type of Access list, select Read.



### CAUTION

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#### Risk of data loss

If you share with Read/Write access, other users can delete or corrupt the virtual CD.

- 17 Click OK.
- 18 Click Yes in the Windows message dialog box, indicating that the share name is not accessible from some MS-DOS workstations.
- 19 Click OK.

## To start installation from a virtual CD

### ATTENTION

The network installation uses the same recovery process as a regular installation from a physical CD. If you see an error message, click Resume to continue the installation, or click Abort and reinstall the client application.

You must map a network drive to the server and virtual CD directory, as shown in the following procedure.

- 1 Log on to the client PC.

**Note:** If the client PC is running Windows NT Workstation, Windows 2000 Professional, or Windows XP, log on as **Administrator**. You must be logged on with administrative privileges to install, upgrade, or convert Symposium Call Center Server software.

- 2 Exit all applications, including screen savers, and close all windows.

- 3 If you are using Windows 98 or Windows NT, follow these steps:

- a. In Windows Explorer, choose Tools → Map Network Drive.
- b. For Path, type \\<**source PC computer name**>\<**Share Name of the virtual CD directory**>.

**Example:** \\TOR658\04.01.01CLTR

- c. Check Reconnect at Logon, and then click OK.

**Result:** The virtual CD directory is mapped as a network drive in the Windows Explorer.

- d. Continue with step 4 on page 211.

- 4 If you are using Windows 2000 or Windows XP, follow these steps:

- a. In My Network Places, choose Tools → Map Network Drive.
- b. For Folder, type \\<**source PC computer name**>\<**Share Name of the virtual CD directory**>.
- c. For Drive, specify the drive letter to which you want to map this folder.
- d. Check Reconnect at Logon, and then click Finish.

**Result:** The virtual CD directory is mapped as a network drive on your PC.

- e. Continue with step 4 on page 211.

When you finish the client installation, choose Tools → Disconnect Network Drive to disconnect the virtual CD drive. This allows another client PC to connect for a network installation.

# Adding an SMI system

## Introduction

Use the SMI Workbench to add an SMI system for each server to which you want to connect from the client PC. When you double-click that system, the SMI Workbench initiates a connection to the server. When the connection is established, the SMI window opens. The SMI window contains programs for administering and monitoring the Symposium Call Center Server.

## Using a dial-up connection to the server

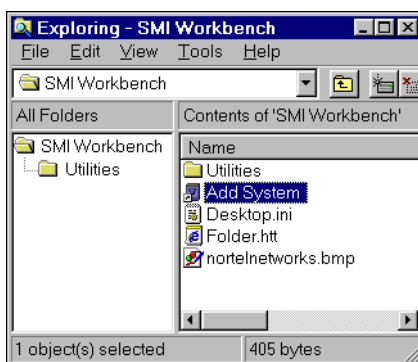
Client PCs that are not on the same LAN as the server must use Dial-Up Networking to establish a network connection. For information about using a dial-up connection, refer to the *Administrator's Guide*.

**Note:** You cannot generate reports across a dial-up (PPP) connection.

## To add an SMI system

- 1 From the Windows Start menu, choose Programs → SMI Workbench.

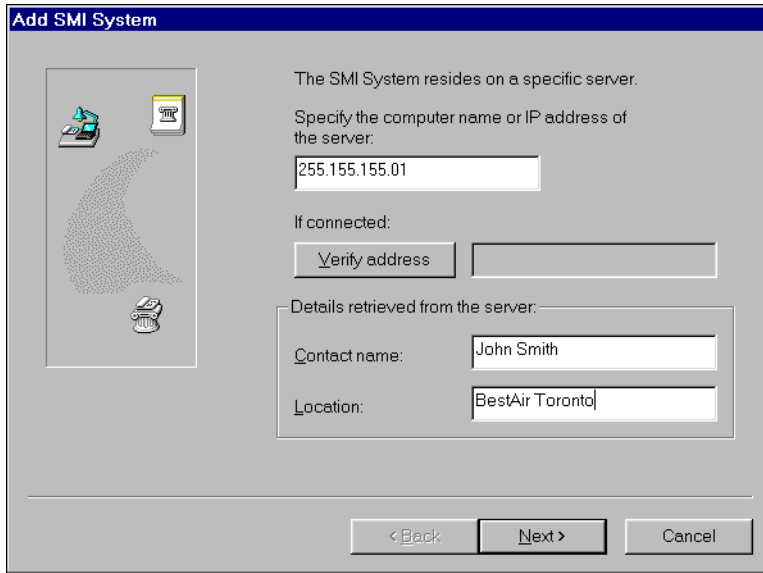
**Note:** In Windows XP, choose All Programs → SMI Workbench.





- 2 Double-click Add System.

**Result:** The Add SMI System dialog box appears.

The image shows a Windows-style dialog box titled "Add SMI System". On the left is a vertical panel with a network diagram showing a server and a client connected by a cloud. The main area contains the text "The SMI System resides on a specific server." followed by "Specify the computer name or IP address of the server:" and a text box containing "255.155.155.01". Below this is "If connected:" with a "Verify address" button and an empty text box. A section titled "Details retrieved from the server:" contains two fields: "Contact name:" with "John Smith" and "Location:" with "BestAir Toronto". At the bottom are three buttons: "< Back", "Next >", and "Cancel".

**Add SMI System**

The SMI System resides on a specific server.

Specify the computer name or IP address of the server:

255.155.155.01

If connected:

Verify address

Details retrieved from the server:

Contact name: John Smith

Location: BestAir Toronto

< Back Next > Cancel

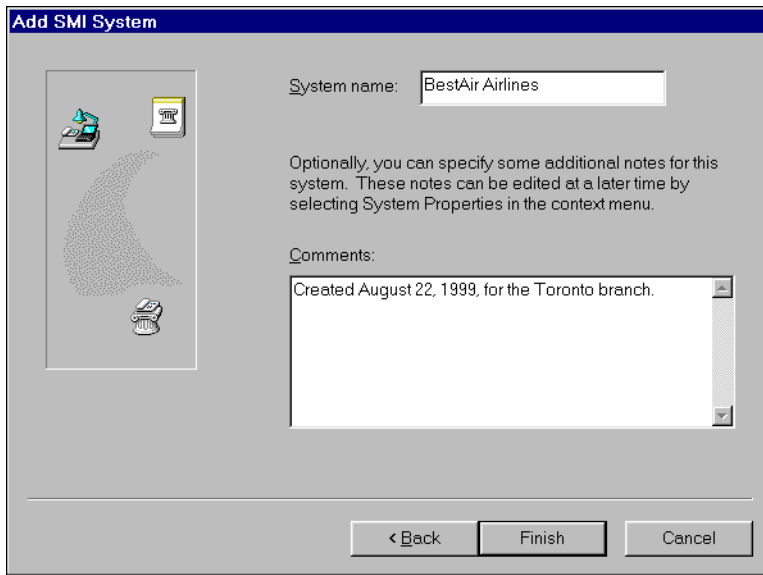
- 3 Enter the computer name or CLAN IP address of the server you want to access.

**Note:** If you are using a dial-up connection to the server, then enter the CLAN IP address and not the computer name.

- 4 If the client PC has a network connection established with the server, then click Verify Address to verify that the computer name or IP address is correct.

- 5 Click Next.

**Result:** The Add SMI System window appears.



- 6 Optionally, enter notes or comments that describe this SMI system.
- 7 Click Finish.

**Result:** An SMI system is added to the SMI Workbench folder.

## To group SMI systems by site (Meridian 1/CSE 1000 only)

If the client PC is administering servers that are located in different locations, group SMI systems by site.

- 1 To group SMI systems, create subfolders in the SMI Workbench folder.
- 2 Name the subfolders by the site names.
- 3 Click and drag the SMI systems into the appropriate folders.

## What's next?

Continue with “Testing the client-server connection” on page 231.

# Testing the client-server connection

## Introduction

If you can log on to the server, then the connection between the server and client is configured correctly.

## To log on to the server for the first time

- 1 Log on to the client PC.

**Note:** If the client PC is running Windows NT Workstation, Windows 2000 Professional, or Windows XP, log on as **Administrator**. Only the Administrator can accept the End-User License Agreement that appears when you connect to the server for the first time.

- 2 Double-click the icon for the server in Symposium Call Center Server to which you want to connect.

**Result:** The Symposium Login dialog box appears.

- 3 In the User ID box, type **sysadmin**. Use only lowercase letters.

- 4 In the Password box, type **nortel**. Use only lowercase letters.

**Result:** The End User Licence Agreement screen appears.

- 5 Click Accept.

**Result:** The system prompts you to change the password.

- 6 Follow the instructions to change the sysadmin password.

**Result:** The SMI window appears. If this window does not appear, see Chapter 18, "Troubleshooting and support."

- 7 If you plan to configure the server at this time, do this now using the programs in the SMI window. Refer to the *Administrator's Guide*.

# Installing the Software Development Kit

## Restrictions

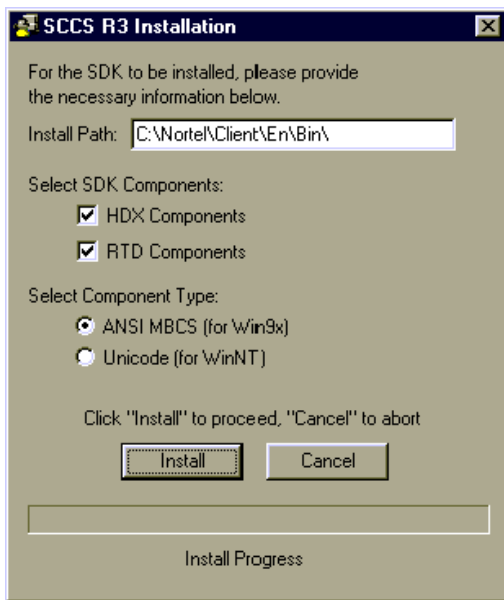
The Software Development Kit (SDK) is not compatible with the Symposium Call Center Server Client software. Do not install the SDK on a PC that has the client software installed.

## To install the SDK

- 1 Log on to the PC.  
**Note:** If the PC is running Windows NT Workstation or Windows 2000 Professional log on as **Administrator**. You must be logged on with administrative privileges to install software.
- 2 Exit all applications, including screen savers, and close all windows.
- 3 Insert the Symposium Call Center Server Release 4.0 Client Application CD or, if you are installing from a remote CD-ROM, map the CD to a drive letter on the client PC.
- 4 From the Windows Start menu, choose Run.
- 5 Click Browse, and then select setup.exe from the iccmsdk folder on the CD.

- 6 Click OK.

**Result:** The Installation dialog box opens.

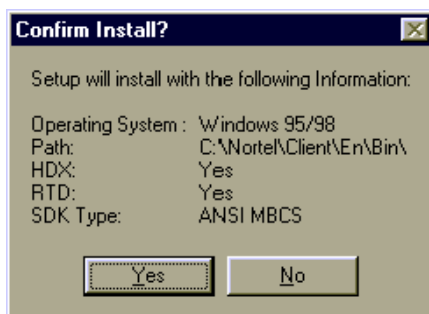


- 7 In the Install Path box, type the full path to the location where you want to install the SDK or use the default path.
- 8 Select the components you want to install, and choose the component type.

**Note:** If you are using Windows 9x, you must choose ANSI. If you are using Windows NT or Windows 2000 Professional, you can choose either ANSI or Unicode.

- 9 Click Install.

**Result:** A confirmation dialog box appears.



- 10 Verify that all of the options shown in the Verification dialog box are correct. If any errors appear, click No, make the necessary corrections, and then click Install.

- 11 Click Yes.

**Note:** If the path you selected does not exist, you are prompted to create it. Click Yes.

**Result:** The following message appears: SDK Setup Complete. Please exit all applications and reboot your computer now.

- 12 Click OK.
- 13 Restart the PC.

## Chapter 7

---

# Converting from server Release 3.0 or Release 4.0 to Release 4.2

### In this chapter

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# Using this chapter

## Introduction

This chapter explains how to convert from Release 3.0 or Release 4.0 of Symposium Call Center Server to Release 4.2. This involves moving all your setup configuration, call center configuration, and call statistics to a Release 4.2 PVI platform. The procedures in this chapter also apply to servers in a networking environment and Network Control Center servers.



### CAUTION

---

#### **Risk of conversion failure. Use the Conversion checklist!**

To complete a conversion correctly, you must follow the conversion checklist that is included in this chapter (see “Conversion checklist” on page 237). It provides an overview of each step that you must perform, and the order in which you must perform the steps. Some of the procedures you must complete are referenced from other chapters in this guide, and the checklist provides the correct page references.

**Important:** Make a photocopy of the checklist and review it thoroughly before you start. During the conversion procedure, check off each item in the checklist as you complete it to ensure that you stay on track.

This chapter references the following chapters in this guide:

- Chapter 2, “Performing the base configuration of the server”
- Chapter 5, “Installing and configuring pcAnywhere”
- Chapter 4, “Installing/uninstalling PEPs and Service Update packs”
- Chapter 14, “Backing up data”
- Chapter 15, “Restoring data”
- Chapter 16, “Using server utilities”



# Conversion checklist

## Introduction

Use the following checklist throughout this procedure to ensure that you perform all the required steps for conversion. Make a photocopy of the checklist and keep it with you while you work.

The checklist is broken into several parts; each part corresponds to a different section in this chapter:

1. Preparing for conversion (perform these steps in advance of the conversion date)
2. Collecting information from the original server
3. Preparing the new server or reconfiguring the existing server
4. Completing the conversion

## How to use the checklist

Here are some important points to keep in mind when using this checklist:

- The checklist contains each main step you must perform to prepare for and complete a conversion. The order in which you complete certain steps is critical, so do not change the order of the steps unless the instructions in this chapter provide you with that option.
- Each step in the checklist provides a page reference to the procedure you need to complete that step. Most of these procedures are in this chapter, and they appear in chronological order according to the checklist. However, a few of the procedures are in other chapters in this guide.

**Important:** When you complete a procedure that is documented in another chapter, return to the checklist to check off the item and determine the next step in the conversion process.

## Preparing for conversion

**Note:** Perform these steps in advance of the scheduled conversion date.



|                                                                                                                             |  |
|-----------------------------------------------------------------------------------------------------------------------------|--|
| <b>Step 1. Read the “Overview of conversion”</b><br>See “Overview of conversion” starting on page 242 of this chapter.      |  |
| <b>Step 2. Check for Installation Addenda.</b><br>For instructions, see page 255.                                           |  |
| <b>Step 3. Make sure you have the required Windows 2000 knowledge and documentation.</b><br>For instructions, see page 256. |  |
| <b>Step 4. Gather the materials required for conversion.</b><br>For instructions, see page 256.                             |  |
| <b>Step 5. Upgrade any Release 3.0 Client PCs to Release 4.0 software.</b><br>For instructions, see page 259.               |  |
| <b>Step 6. Update your Release 3.0 scripts (when converting from Release 3.0 only).</b><br>For instructions, see page 260.  |  |
| <b>Step 7. Investigate and resolve any tape drive compatibility issues.</b><br>For instructions, see page 261.              |  |

## Collecting information from the original server



|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| <p><b>Step 8. Install the latest Service Update pack and any required PEPs on the original server.</b></p> <p><b>Note:</b> If you are converting within the same server and your server is equipped with RAID drives, then you have the option of splitting the RAID drives before installing the latest Service Update pack or PEP (instead of splitting the drives in Step 14 when you are configuring the operating system and drives on the server). If you choose to split the RAID drives now, then you must continue from Step 8 onward after you are finished.</p> <p>For instructions, see page 267.</p> |  |
| <p><b>Step 9. Perform a database integrity check on the original server.</b></p> <p>For instructions, see page 269.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  |
| <p><b>Step 10. Create a Platform Recovery Disk on the original server.</b></p> <p>For instructions, see page 272.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |
| <p><b>Step 11. Create a backup of the original server's database.</b></p> <p>For instructions, see page 276.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |  |
| <p><b>Step 12. Check the disk partition configuration on the original server.</b></p> <p>For instructions, see page 289.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |  |
| <p><b>Step 13. Check the RAM size on the original server.</b></p> <p>For instructions, see page 290.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |

## ATTENTION

If you are converting a Network Control Center (NCC) server, Nortel Networks recommends that you write down the IP addresses of all the sites in the network before proceeding with the remaining conversion steps. After you finish the conversion process on the NCC, this list of IP addresses will enable you to re-add the network sites more efficiently. On the original NCC, open the Nbconfig utility and use the Site Table tab to view and note the list of IP addresses.

## Preparing the new server or reconfiguring the existing server ✓

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| <p><b>Step 14. Configure the operating system and drives on the new or reconfigured server.</b></p> <p>For instructions, refer to one of the two procedures below.</p> <p>See either</p> <ul style="list-style-type: none"> <li>■ “To reconfigure the existing server (for conversions within the same server)” on page 295</li> </ul> <p>or</p> <ul style="list-style-type: none"> <li>■ “To configure the new server (when migrating to a different server)” on page 296</li> </ul> |  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|

## Completing the conversion



|                                                                                                                                                                               |  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| <p><b>Step 15. Perform a platform compliance check on the new server.</b></p> <p>For instructions, see page 300.</p>                                                          |  |
| <p><b>Step 16. Install the Symposium Call Center Server software on the new server.</b></p> <p>For instructions, see page 303.</p>                                            |  |
| <p><b>Step 17. Apply the latest Install-time PEPs on the new server.</b></p> <p>For instructions, see Chapter 4, “Installing/uninstalling PEPs and Service Update packs.”</p> |  |

**Completing the conversion (continued)**

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| <b>Step 18. Import database information from the Platform Recovery Disk.</b><br>For instructions, see page 307.                                                                                                                                                                                                                                                                                                                                                       |  |
| <b>Step 19. Install the Symposium Call Center Server database software on the new server.</b><br>For instructions, see page 309.<br><br><b>Note:</b> If you are converting a non-English version of Symposium Call Center Server, install the appropriate language PEP before proceeding. Follow the instructions in “Installing PEPs or Service Update packs on the server” on page 160. For a list of server language PEPs, see “Server language PEPs” on page 746. |  |
| <b>Step 20. Restore the original server’s database to the new server.</b><br>For instructions, see page 314.                                                                                                                                                                                                                                                                                                                                                          |  |
| <b>Step 21. Perform a database integrity check on the new server.</b><br>For instructions, see page 319.                                                                                                                                                                                                                                                                                                                                                              |  |
| <b>Step 22. Configure the new server’s software and database.</b><br>For instructions, see page 321.                                                                                                                                                                                                                                                                                                                                                                  |  |
| <b>Step 23. Apply the latest Service Update pack and any required PEPs to the new server.</b><br>Follow the instructions in Chapter 4, “Installing/uninstalling PEPs and Service Update packs.”                                                                                                                                                                                                                                                                       |  |
| <b>Step 24. Install pcAnywhere on the new server</b><br>Follow the instructions in Chapter 5, “Installing and configuring pcAnywhere.”                                                                                                                                                                                                                                                                                                                                |  |
| <b>Step 25. Prepare the new server for full service.</b><br>For instructions, see page 342.                                                                                                                                                                                                                                                                                                                                                                           |  |

# Overview of conversion

Conversion from Release 3.0 or 4.0 to 4.2 involves a series of procedures you must complete before the Release 4.2 server is ready for service. In simple terms, the conversion has four main steps:

1. Prepare for conversion, which involves preparing yourself and the site prior to the conversion date.
2. Collect information from the original server, which includes creating a database backup and a Platform Recovery Disk.
3. Configure the new server or reconfigure the existing server as a Release 4.2 PVI server, which involves installing and configuring the Windows 2000 operating system and partitioning the drives according to PVI requirements.
4. Install and configure Release 4.2 of Symposium Call Center Server on the new or reconfigured server, which also involves importing database information from the Platform Recovery Disk and restoring the database.

**Note:** If you are also migrating from Symposium Voice Services on Meridian Mail to Symposium Voice Services on CallPilot, perform and verify the server conversion before migrating your voice processing system.

## Server conversion paths supported in Release 4.2

You can perform any of the following conversions using the instructions in this chapter:

- from Release 3.0 on a MAS platform to Release 4.2 on a PVI platform
- from Release 4.0 on a MAS platform to Release 4.2 on a PVI platform
- from Release 4.0 on a PVI platform to Release 4.2 on a PVI platform

Release 4.2 also supports conversions from Release 1.5 to Release 4.2. For instructions, see Chapter 8, “Converting from server Release 1.5 to Release 4.2.”

**Note:** If you are already running Release 4.2 and you want to migrate to a new server, see the Release 4.2 *Platform Migration Guide*.

## Converting within the same server versus migrating to a new server

The procedures in this chapter apply to

- **conversions on the same server:** These are conversions performed within the same server (for example, converting from Release 4.0 to Release 4.2 on the same server). The server must be reconfigured as a Release 4.2 PVI server.
- **conversions to a different server:** These are conversions to Release 4.2 that also involve migrating from an existing hardware platform to a new hardware platform (for example, migrating from a 701t MAS server running Release 3.0 to a new PVI server running Release 4.2).

Whether you are converting within the same server or to a different server, the procedures are basically the same. Any differences are described in this chapter in the relevant section.

## Understanding server requirements for conversion to Release 4.2

Release 4.2 of Symposium Call Center Server runs only on the PVI platform. Before you attempt a conversion, you must make sure that the server you plan to use for Release 4.2 meets the requirements for a Release 4.2 PVI server. For information on these requirements, see Chapter 2, “Performing the base configuration of the server.”

If you want to convert to Release 4.2 on the same server, your existing platform must meet the requirements of a Release 4.2 PVI server. If it does not, or cannot be reconfigured as such, you must choose a different server that does meet the PVI requirements.

**Note:** Symposium Call Center Server is also supported on any High Availability Platform that has undergone compatibility testing with Symposium Call Center Server as part of Nortel Networks’ Compatibility Test Program (for more information, see “High Availability platforms” on page 31).

Use the information in the following table to determine whether you can convert within the same server or whether you must migrate to a different server:

| <b>If you are running this release</b> | <b>on this platform</b>        | <b>your platform options for conversion to Release 4.2 are</b>                                                                                                                                                                                                                                                                                                                                       |
|----------------------------------------|--------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Release 3.0                            | MAS (701t, 702t, 1000t, 1001t) | <ul style="list-style-type: none"> <li>■ conversion to a different server<br/>These MAS platforms cannot be converted to Release 4.2 PVI servers; you must migrate to a PVI server.</li> </ul>                                                                                                                                                                                                       |
| Release 3.0                            | MAS (1003t)                    | <ul style="list-style-type: none"> <li>■ conversion on the same server<br/>This MAS platform can be reconfigured as a Release 4.2 PVI server.</li> <li>■ conversion to a different server</li> </ul>                                                                                                                                                                                                 |
| Release 4.0                            | MAS (701t, 702t, 1000t, 1001t) | <ul style="list-style-type: none"> <li>■ conversion to a different server<br/>These MAS platforms cannot be converted to Release 4.2 PVI servers; you must migrate to a PVI server.</li> </ul>                                                                                                                                                                                                       |
| Release 4.0                            | MAS (1003t)                    | <ul style="list-style-type: none"> <li>■ conversion on the same server<br/>This MAS platform can be reconfigured as a Release 4.2 PVI server.</li> <li>■ conversion to a different server</li> </ul>                                                                                                                                                                                                 |
| Release 4.0                            | PVI                            | <ul style="list-style-type: none"> <li>■ conversion on the same server<br/>Ensure that the server meets the requirements for a Release 4.2 PVI server.<br/><b>Note:</b> Certain 702t models can be used as platforms for Release 4.2. For more information, see “Determining whether a 702t server can be used with Release 4.2” on page 709.</li> <li>■ conversion to a different server</li> </ul> |



## **Understanding disk partitioning requirements on the new or reconfigured server**

The following list describes requirements for the disk partitions on your new or reconfigured server:

- The number of database drive partitions on the new or reconfigured server must be the same as or greater than the number on the original server.
- The drive partitions must be the same size or larger than those on the original server.
- The drive partitions must meet the minimum size requirements for a Release 4.2 PVI server. For details, see Chapter 2, “Performing the base configuration of the server.”
- If your existing server is a MAS platform, you must create at least one additional partition on your new or reconfigured PVI server. On a MAS platform, the database begins on the D partition and may expand into additional partitions. On a PVI platform, the database begins on the F partition and may expand into additional partitions. Due to this difference, you need one additional partition for the database on your Release 4.2 PVI server.

How you actually partition your disks depends on the hardware configuration of the server on which you are going to run your Release 4.2 system. Use the disk partitioning examples in the next section as a guideline.

### **Disk partitioning for reconfigured 1003t MAS servers**

1003t PVI servers require specific disk partitioning. See “Reconfiguring an existing 1003t MAS server as a Release 4.2 PVI server” on page 248.

All other MAS platforms (701t, 702t, 1000t, 1001t) cannot be converted to Release 4.2 PVI servers.

# Disk partitioning examples

Use the examples below to understand the disk partitioning requirements.

## Example 1: MAS server to PVI server

If the original MAS server has only drive C and drive D, the original database is located in drive D. The new PVI server must have the database beginning in drive F, so you require partitions C, D, and an additional drive F. You can use additional new database partitions.

| Original MAS drives | New Platform Vendor Independence drives and partitions |
|---------------------|--------------------------------------------------------|
| C                   | C (operating system and pcAnywhere)                    |
| D (database)        | D (Symposium Call Center Server)                       |
|                     | F (database)                                           |

## Example 2: MAS server to PVI server

If the original MAS server has drives C, D, F, and G, the original database is located in drives D, F, and G (three database partitions). The new PVI server must have the database beginning in drive F, so you require drives C, D, F, G, and an additional partition H. (The database partitions are for drives F, G, and H). You can use additional new database partitions.

| Original MAS drives | New Platform Vendor Independence drives and partitions |
|---------------------|--------------------------------------------------------|
| C                   | C (operating system and pcAnywhere)                    |
| D (database)        | D (Symposium Call Center Server)                       |
| F (database)        | F (database)                                           |
| G (database)        | G (database)                                           |
|                     | H (database)                                           |

### Example 3: PVI server to PVI server

In the case of a migration from an existing PVI server to a new PVI server, the new PVI server should have at least as many partitions as the original server. If the original PVI server has partitions C, D, F, and G, then the new PVI server must have at least partitions C, D, F, and G. You can use additional new database partitions.

| <b>Original Platform Vendor<br/>Independence drives and partitions</b> | <b>New Platform Vendor Independence<br/>drives and partitions</b> |
|------------------------------------------------------------------------|-------------------------------------------------------------------|
| C (operating system and pcAnywhere)                                    | C (operating system and pcAnywhere)                               |
| D (Symposium Call Center Server)                                       | D (Symposium Call Center Server)                                  |
| F (database)                                                           | F (database)                                                      |
| G (database)                                                           | G (database)                                                      |

The logical disk drive letter assignment of partitioned disks on the new or reconfigured server depends on the server type. For drive letters, see the appropriate installation or configuration guide for the type of server to which you are migrating.

### Database size and database expansion

When you migrate from your original server to a new or reconfigured server, the database on the new server will be exactly the same size as the database on the original server, even if you create additional or larger database partitions. Release 4.2 of Symposium Call Center Server does not automatically expand your database into additional or larger database partitions during conversion and platform migration, as in earlier releases.

For example, if your original server has two database partitions (D and F), and your new server has three database partitions (F, G, and H), you must use the Database Expansion Utility to make use of the additional partition (H). Also, if any of the partitions on your new server are larger than those on the original server, you must use the Database Expansion utility to make use of the additional space. For more information, see the “Database Expansion utility” on page 615.

## Reconfiguring an existing 1003t MAS server as a Release 4.2 PVI server

If you want to reconfigure a 1003t MAS server as a PVI server for Release 4.2 of Symposium Call Center Server, you must repartition the drives on the 1003t according to the right column in the following table. The main difference is that the F partition must be on Disk 0, rather than Disk 1. This allows you to fit one additional 4 Gbyte database partition (J) on Disk 2.

| Original 1003t MAS server |           |           | New 1003t PVI server |           |         |
|---------------------------|-----------|-----------|----------------------|-----------|---------|
| Disk                      | Partition | Size      | Disk                 | Partition | Size    |
| Disk 0<br>(9 Gbyte)       | C: (FAT)  | 100 Mbyte | Disk 0<br>(9 Gbyte)  | C: (NTFS) | 2 Gbyte |
|                           | D: (NTFS) | 4 Gbyte   |                      | D: (NTFS) | 2 Gbyte |
|                           |           |           |                      | F: (NTFS) | 4 Gbyte |
| Disk 1<br>(9 Gbyte)       | F: (NTFS) | 4 Gbyte   | Disk 1<br>(9 Gbyte)  | G: (NTFS) | 4 Gbyte |
|                           | G: (NTFS) | 4 Gbyte   |                      | H: (NTFS) | 4 Gbyte |
| Disk 2<br>(9 Gbyte)       | H: (NTFS) | 4 Gbyte   | Disk 2<br>(9 Gbyte)  | I: (NTFS) | 4 Gbyte |
|                           | I: (NTFS) | 4 Gbyte   |                      | J: (NTFS) | 4 Gbyte |

## Keycode requirements for conversion to Release 4.2

Use the following table to determine whether you need a new keycode when you configure your Release 4.2 server, or if you can reuse the keycode from your existing Symposium Call Center Server:

| Existing system             | Keycode requirements                                                                     |
|-----------------------------|------------------------------------------------------------------------------------------|
| Release 3.0<br>(MAS)        | You must obtain a new keycode with the same limits and features as your existing system. |
| Release 4.0<br>(MAS or PVI) | You can use your existing Release 4.0 keycode.                                           |

## Upgrading features during conversion to Release 4.2

If you want to add on additional software features when you convert the server to Release 4.2, you can obtain a new keycode that includes the new features, and use this keycode when you configure the Release 4.2 server. For more information on upgrading features, see “Adding server features with a keycode upgrade” on page 648.

## Dealing with call statistics during conversion

During the conversion procedure, you must create a backup of your original server’s database. The database backup is an online operation, so the server remains in service during the backup. However, if the call center continues to respond to calls after the database backup, then call statistics recorded after the database backup of the original server will be missing from the restored database of the new or reconfigured server.

If you must transfer all call statistics to the new server, Nortel Networks recommends that

- you take the original server out of service as soon as you have completed the database backup, and keep it out of service during the entire conversion procedure
- you collect all of the needed call statistics from the original server’s database before taking the server out of service

## Converting servers in a networking environment

If you are performing conversions in a Symposium Call Center Server networking environment, perform the conversion on the Network Control Center (NCC) server first. Once this is complete, do the following:

- On the Network Control Center Release 4.2 server, add all of the sites in your multi-site call center using the Configuration (nbconfig) utility on the server. For more information, refer to the *Network Control Center Administrator’s Guide* (see the section titled “Configuring the communications database”).

Once you have completed the above step, you can then perform conversions on the remaining servers in the network. To ensure that your Release 4.2 servers can continue to route calls to other sites after conversion, you must do the following:

- On the Network Control Center Server, use the Configuration (nbconfig) utility on the server to perform a force synchronization of the Address Table for all of the sites in your multi-site call center. For more information, refer to the *Network Control Center Administrator's Guide*.

## Ways to save time during conversion

Most conversions take place in situations where down time for the server is limited. Here are a number of suggestions for minimizing the amount of down time and making the conversion go more smoothly.

### **Complete the checklist “Preparing for conversion” ahead of time**

The first section in the Conversion Checklist, titled “Preparing for conversion,” lists a number of steps you can perform well in advance of the scheduled date for conversion. These steps include

- reading overview information
- performing any required Symposium Call Center Server client conversions
- solving potential problems with backup tape drives

### **Perform a trial run of the Database Integrity Check, Platform Recovery Disk creation, and database backup**

Some conversions are slowed down when database errors are detected during a Database Integrity Check, or during the creation of a Platform Recovery Disk, which checks for database segmentation problems. Also, if you choose to back up your database to a remote directory, it takes time to set this up and test it.

For these reasons, it is good practice to perform a trial run of the Database Integrity Check, Platform Recovery Disk creation, and database backup at least a few days before the conversion is scheduled. This way, any problems can be detected and resolved ahead of time. Performing trial runs ahead of the conversion date will also enable you to estimate the time required to complete each step.

**Note:** Keep in mind that the time required to do a database backup (either to a tape or a remote directory) can vary between the trial run and the actual backup day due to several factors. For example, the amount of data to back up and the amount of customer network traffic can change from day to day.

**If you are migrating to another server, begin configuring the new server before taking the original server offline**

If you are migrating to a new hardware platform as part of your conversion plan, you can perform some steps to prepare the new server at the same time as, or in advance of, some earlier steps in the conversion checklist. Based on the state of the original server, there are two scenarios that you can follow.

**Scenario 1**

You can install both the Symposium Call Center Server software and the Sybase software on the new server before proceeding with the main migration steps (the database backup on the original server, and restoring the database on the new server) if your original server meets the following requirements:

- You have installed the minimum required PEPs/SUs on the original server and then created a Platform Recovery Disk on this server.
- You have *not* performed a database expansion on the original server after creating the Platform Recovery disk.

If your original server meets these requirements, then use the steps shown in the “Scenario 1 checklist” on page 252. Otherwise, follow the steps in the “Scenario 2 checklist” on page 253.

# **Scenario 1 checklist**

## **1. Perform Steps 1 through 7.**

| 2. Perform these steps                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | before, or in parallel with, these steps                                                                                                                                                                                                                       |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>• Step 8. Install the latest Service Update pack and any required PEPs on the original server</li> <li>• Step 9. Perform a database integrity check on the original server</li> <li>• Step 10. Create a Platform Recovery Disk on the original server</li> <li>• Step 14. Configure the operating system and drives on the new or reconfigured server</li> <li>• Step 15. Perform a platform compliance check on the new server</li> <li>• Step 16. Install the Symposium Call Center Server software on the new server.</li> <li>• Step 17. Apply the latest Install-time PEPs on the new server</li> <li>• Step 18. Import database information from the Platform Recovery Disk</li> <li>• Step 19. Install the Symposium Call Center Server database software on the new server</li> </ul> | <ul style="list-style-type: none"> <li>• Step 11. Create a backup of the original server's database</li> <li>• Step 12. Check the disk partition configuration on the original server</li> <li>• Step 13. Check the RAM size on the original server</li> </ul> |

**Note:** If you are converting a non-English version of Symposium Call Center Server, install the appropriate language PEP before proceeding to step 20. Follow the instructions in “Installing PEPs or Service Update packs on the server” on page 160. For a list of server language PEPs, see “Server language PEPs” on page 746.

## **3. Perform step 20 through to the end of the checklist.**

**Note:** The procedures in the above table can be performed days or weeks ahead of the actual migration day as long as you do not change the size of the database



on the original server *after* you create the Platform Recovery Disk and install the operating system and Symposium Call Center Server software on the new server. If you change the database size on the original server after creating the Platform Recovery Disk and installing this software, then you must create a new Platform Recovery Disk, then uninstall the database software from the new server, reimport the database information from the new Platform Recovery Disk, and install the database software again before proceeding with the migration.

Scenario 2

If your original server does not meet the requirements listed in Scenario 1 (for example, if you have expanded the database on the original server after creating the Platform Recovery Disk), then you can still save time during a migration by performing the steps outlined in the following table. In this scenario, you can complete the preparation of the new server up until the point when you import the Platform Recovery Disk. This allows you to get a lot of preparatory work done on the new server before you take the original server offline.

In this scenario, you would follow the checklist in the order shown in the table below:

Scenario 2 checklist

1. Perform Steps 1 through 7.

| 2. Perform these steps                                                                                                                                                                                                                                                                                                                                                          | before, or in parallel with, these steps                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"><li>• Step 14. Configure the operating system and drives on the new or reconfigured server</li><li>• Step 15. Perform a platform compliance check on the new server</li><li>• Step 16. Install the Symposium Call Center Server software on the new server.</li><li>• Step 17. Apply the latest Install-time PEPs on the new server</li></ul> | <ul style="list-style-type: none"><li>• Step 8. Install the latest Service Update pack and any required PEPs on the original server</li><li>• Step 9. Perform a database integrity check on the original server</li><li>• Step 10. Create a Platform Recovery Disk on the original server</li><li>• Step 11. Create a backup of the original server's database</li><li>• Step 12. Check the disk partition configuration on the original server</li><li>• Step 13. Check the RAM size on the original server</li></ul> |

**3. Perform step 18 through to the end of the checklist.**

**Note:** If you are converting a non-English version of Symposium Call Center Server, install the appropriate language PEP after step 19, and before step 20. Follow the instructions in “Installing PEPs or Service Update packs on the server” on page 160. For a list of server language PEPs, see “Server language PEPs” on page 746.

---

# Preparing for conversion

## Introduction

There are a number of steps you can do ahead of time to plan and prepare for conversion.

The following summary lists the procedures you must complete in this section:

- Step 1. Read the “Overview of conversion.”
- Step 2. Check for Installation Addenda.
- Step 3. Make sure you have the required Windows 2000 knowledge and documentation.
- Step 4. Gather the materials required for conversion.
- Step 5. Upgrade any Release 3.0 Client PCs to Release 4.0 software.
- Step 6. Update your Release 3.0 scripts (when converting from Release 3.0 only).
- Step 7. Investigate and resolve any tape drive compatibility issues.

## Step 1. Read the “Overview of conversion”

The section “Overview of conversion,” starting on page 242, contains information on a number of topics that you need to understand before performing a conversion. Be sure to read this section carefully.

## Step 2. Check for Installation Addenda

Before performing a conversion, check for any Installation Addenda or updated customer documentation on the Nortel Networks web site ([www.nortelnetworks.com](http://www.nortelnetworks.com)), or the Partner Information Center web site. The addenda and documentation may contain important information regarding conversion or migration that is not in this guide.

### Step 3. Make sure you have the required Windows 2000 knowledge and documentation

You must be prepared to install and configure the Windows 2000 Server or Windows 2000 Advanced Server operating system during conversion. This guide provides guidelines and tips for this activity, but it does not provide step-by-step instructions for all procedures. To ensure that you are prepared, review Section D: “Configuring the operating system,” on page 69. Make sure you are able to perform the installation and configuration steps listed there, and make sure you have the relevant Microsoft documentation.

### Step 4. Gather the materials required for conversion

You must have the following materials available before starting the conversion process:

| Item                                                                                                                                | Purpose and details                                                                                                                                                                                                                                                                                                                                                                                                       |
|-------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| a tape drive and associated driver software                                                                                         | Use these items to back up the database on the original server and restore it on the new server.                                                                                                                                                                                                                                                                                                                          |
| (these are required only if you are backing up your database to a tape drive, rather than a remote directory on a network computer) | <div><b>CAUTION</b></div> <div><b>Risk of database restoration error</b></div> <p>The database backup that you make on the original server must be compatible with the tape drive subsystem on the new server (driver software, tape drive, and tape media). Otherwise, you will be unable to restore your database. For more information, see “Step 7. Investigate and resolve any tape drive compatibility issues.”</p> |

| Item                                                                                                                                                                | Purpose and details                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Application Server Driver CD-ROM (NTRH8102) (for 1003t and 702t servers only), and HP NetServer Navigator CD-ROM (for 1003t servers only)                           | <p>If you are planning to use a 702t or 1003t server to run Release 4.2, then you need the latest version (version 1.0 or higher) of the Application Server Driver CD-ROM (NTRH8102). This CD contains drivers for the Tandberg tape drive that are compatible with Windows 2000. For 702t and 1003t servers, it also contains the version of the BIOS firmware that is compatible with Windows 2000. You can order this CD from Nortel Networks. In addition to this CD-ROM, for the 1003t server only, you need the latest version of the HP NetServer Navigator CD-ROM.</p> <p><b>Note:</b> Any 702t servers marked “Windows 2000 Compatible, Nortel Networks” on the front panel have been shipped with the updated CD, and the BIOS and Tandberg drivers already installed.</p> |
| blank tapes or data cartridges<br>(this is required only if you are backing up your database to a tape drive, rather than a remote directory on a network computer) | <p>You need a blank tape to store the original server’s database using the database backup procedure. The blank tape must be the correct type for the tape drive that you are using on both servers; the tape capacity must be large enough to contain the database backup.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| blank preformatted disk                                                                                                                                             | <p>Use this item to create a Platform Recovery Disk that contains the original server’s setup record and database configuration.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |

| Item                                                  | Purpose and details                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|-------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Symposium Call Center Server software for Release 4.2 | <p>You need to install the Release 4.2 version of Symposium Call Center Server software on the new server. This includes the following installation disks:</p> <ul style="list-style-type: none"><li>■ Server Application CD-ROM containing the Symposium Call Center Server installation software and the Platform Compliance Check utility for PVI servers</li><li>■ Server Supplementary CD-ROM containing any additional software components required for Symposium Call Center Server to operate, such as Service Update packs and Performance Enhancement Packages (PEPs)</li><li>■ pcAnywhere 10.5 Host-Only CD-ROM</li></ul> |
| Windows 2000 operating system                         | <p>If your new server does not have the Windows 2000 Server or Windows 2000 Advanced Server operating system installed, or if you are converting within the same server, you must do a fresh installation of the operating system.</p> <p>Make sure you have the documentation provided by Microsoft available on site when you are configuring the operating system.</p>                                                                                                                                                                                                                                                                                                                                                  |

## Step 5. Upgrade any Release 3.0 Client PCs to Release 4.0 software

You require a Symposium Call Center Server Client PC for certain steps during conversion. Nortel Networks recommends that you upgrade any Client PCs running Release 3.0 of Symposium Call Center Server Client software to Release 4.0 Client software *prior to* the server conversion date. Release 3.0 Client software is not supported for use with a Release 4.2 server.

### **ATTENTION**

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You can use a Release 4.0 Client PC with your Release 3.0 server as long as you have installed the latest available Service Update pack on the Release 3.0 server (must be NS30121SU06S or higher).

For information on upgrading Client software to Release 4.0, see “Upgrading the Client” on page 455.

## Step 6. Update your Release 3.0 scripts (when converting from Release 3.0 only)

The script syntax rules for Release 4.0 and 4.2 are different from those used in Release 3.0. You must ensure that you update your Release 3.0 scripts before you convert to Release 4.2. The following script commands have changed:

- Release 4.0/4.2 requires closed comments.
- Release 4.0/4.2 does not support the use of the Assigned/Assigned To commands with a call variable of type Set.
- The With Treatment option is no longer available with the Give Controlled Broadcast and Open Voice Session commands. You must ensure that the Symposium Call Center Server Global Settings are configured with the Access DN set as the default Treatment DN, and that the default IVR DN is the Access DN.

For more information about syntax rules, see the *Scripting Guide* for your switch type.

If you are converting from Symposium Call Center Server Release 3.0 to Release 4.2, use the TFE Syntax Checker Utility to check your scripts. You can obtain this utility by installing the latest Service Update pack (NS030121SU08S or higher) on your Release 3.0 server. The utility determines whether your scripts adhere to the syntax rules used in Release 4.2. For instructions on using the utility, see the readme file included with the Service Update pack.

### ATTENTION

---

If you do not check your script syntax before converting your Release 3.0 server, and if the syntax of one or more of your scripts does not adhere to the new rules, the TFE service will not come up after conversion. If this happens, you must view the scripts, find the syntax errors, correct them, and validate and activate the scripts. The TFE only comes up when all scripts comply with the new rules.



## Step 7. Investigate and resolve any tape drive compatibility issues

**Note:** This section applies only if you are using a tape drive to back up and restore your database. If you are using a remote directory, you can skip this step.

When you perform a conversion, you must create a database backup of your original server and restore it on your Release 4.2 server. You can use either a tape drive or a remote directory on a network computer to back up and restore your database. If you choose the tape option, before creating the backup, you must ensure that the tape drive and driver software on your Release 4.2 server can read the data on the backup tape from the original server. Otherwise, you cannot restore your database and the conversion fails.



### CAUTION

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#### **Risk of database restoration failure for Tandberg drives**

If your original server is equipped with a Tandberg tape device (MLR1, SLR32, SLR50), you must upgrade it with a Windows NT 4 Tandberg tape device driver version that produces a database backup compatible with the Windows 2000 tape device driver on the Release 4.2 server. You must do this before creating the database backup, because there is a known compatibility problem with earlier versions of the Tandberg tape drivers. Without the updated driver on the original server, you cannot restore your database on the new server running the Windows 2000 operating system.

For instructions on updating the Tandberg driver on the original server, see “Tandberg tape drive driver requirements” on page 263.

## Ensuring compatibility for database backup and restore

To determine whether you have compatibility problems, you must check the tape drive hardware and the driver software on both the original and new servers. You may need to replace the tape drive, or upgrade the driver software, or both. Use the table below to understand the compatibility requirements and what your options are to achieve compatibility. Make sure you have resolved the compatibility issues before you create the backup on the original server.

### Requirements for compatibility

### Options for achieving compatibility

|                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| The driver software on the original server must be able to write a format that is readable by the driver software on the new server.                                                                                                      | <p>Check the drivers you plan to use on both the original and new servers, and make sure they write a compatible format. This may require updating the driver on the original server before backing up the database.</p> <p><b>Note:</b> If there are incompatibilities, you may receive the following message when trying to restore the database on the new server:</p> <p>Unable to retrieve backup name.</p>                                                                                                                                                                                                                                                                                                       |
| The tape drive hardware must be compatible with both the original server and the new server. In other words, the tape media you use to create the database backup on the original server must be readable in the new server's tape drive. | <p>If your original server and new server do not have compatible tape drives and tape media, one option is to use the same physical tape drive hardware on both the original server and the new server to perform the backup and restore.</p> <p>For example, you can use the original server's tape drive on both the original server and the new server for the duration of the conversion. The tape drive replacement is temporary and required for the conversion procedure only. Save the new server's tape drive and its driver software disks for reinstallation into the new server later on.</p> <p>For information on replacing a tape drive, refer to the maintenance guide for your hardware platform.</p> |

## Requirements for compatibility

## Options for achieving compatibility

The driver software installed on the new server must be compatible with Windows 2000.

Make sure that driver software that is compatible with Windows 2000 is

- available for the tape drive(s) you are using to restore your database
- installed on the new server

### Tandberg tape drive driver requirements

If you are using a Tandberg SLR32 or SLR50 tape drive on your original server, you may need to upgrade your driver software.

Before you create your database backup, your server requires the Windows NT4 - Tandberg data SLR2..100 driver. This driver is included on the Application Server Driver CD (NTRH8102), version 1.0 or later. This CD is included with all software upgrade packages.

Follow the procedures below to identify the tape driver on your server, create the Tandberg tape drive driver disks, and update the driver on your server.

### To identify the tape driver on your server

- 1 From the Start menu, choose Settings → Control Panel.
- 2 Double-click Tape Devices.

**Result:** The Tape Device window appears with a list of the installed tape drivers. If TANDBERG Data SLR2..100 driver does not appear in the list, you must add the tape driver.

### To create the Tandberg driver disk from the Application Server Driver CD (NTRH8102)

To create a driver disk, use the Application Server CD. You can do this using any server or PC. Use the procedure below to create the driver.

- 1 Insert the Application Server CD, and wait for it to autorun.
- 2 From the main menu, select Symposium Tools, and then press Enter.

**Result:** A submenu appears.

- 3 Select the correct platform, and then press Enter.

**Result:** A platform submenu appears.

- 4 Select the driver listed as follows:

TRANSFER NTRH8024 Tandberg MLR Tape Drive drivers to drive A.

- 5 Press Enter.

**Result:** A message prompts you to insert the floppy disk and warns you that everything on it will be erased.

- 6 Insert the floppy disk in the disk drive, and then type **y** and press Enter.

**Result:** From the DOS window, a second message prompts you to insert a floppy disk in drive A.

- 7 Press Enter to continue.

**Result:** The system formats the disk, and then prompts you to insert a volume label.

- 8 Press Enter to continue.

**Result:** The system prompts you to QuickFormat another disk.

- 9 Type **n**, and then press Enter.

**Result:** The system copies the driver files from the CD to the floppy disk. The DOS window closes and the platform submenu reappears.

- 10 Press Esc three times to return to the DOS command prompt.

- 11 Remove the CD and the floppy disk that now contains the Tandberg driver. Label it as NTRH8024 Tandberg MLR tape Drive drivers.

### To remove tape drivers

If you do not have the correct Tandberg tape driver on the Windows NT server, you must remove the driver that you do not need.

- 1 From the Start menu, choose Settings → Control Panel.
- 2 Double-click Tape Devices.
- 3 Click the Drivers tab.
- 4 Select the driver installed, and then click Remove.
- 5 When asked to confirm, click Yes to remove the driver.

**Result:** The current driver is removed.

- 6 Follow the procedure below to install the new Tandberg driver.

**To install the Tandberg driver on the server**

- 1 From the Start menu, choose Settings → Control Panel.
- 2 Double-click Tape Devices.
- 3 Click the Drivers tab.
- 4 Click Add.  
**Result:** The Install Driver window appears.
- 5 Insert the disk containing the required Tandberg driver.
- 6 Click Have disk.
- 7 Select A:, and then click Browse.
- 8 Select the WinNT folder, and then select the Oemsteup.inf file.
- 9 Click OK.

**Result:** If you have a driver already installed on the system, the Windows NT setup window appears. In this case, you must click New to add the new driver, and then continue with step 11.

- 10 Click Current.
- 11 When you are prompted to restart the server, click Yes.

**Result:** The server restarts with the new driver installed.

# Collecting information from the original server

## Introduction

The new server uses some of the same base configuration information as the original server. This section shows you how to obtain the required information from the original server before starting the conversion process.

The following summary lists the procedures that you must complete in this section:

- Step 8. Install the latest Service Update pack and any required PEPs on the original server.
- Step 9. Perform a database integrity check on the original server.
- Step 10. Create a Platform Recovery Disk on the original server.
- Step 11. Create a backup of the original server's database.
- Step 12. Check the disk partition configuration on the original server.
- Step 13. Check the RAM size on the original server.

### ATTENTION

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If you are converting a Network Control Center (NCC) server, Nortel Networks recommends that you write down the IP addresses of all the sites in the network before proceeding with the remaining conversion steps. After you finish the conversion process on the NCC, this list of IP addresses will enable you to re-add the network sites more efficiently. On the original NCC, open the Nbconfig utility and use the Site table tab to view and note the list of IP addresses.

## Step 8. Install the latest Service Update pack and any required PEPs on the original server

Ensure that the latest Service Update pack and any required PEPs are applied to the original server. These include enhancements that you require to perform conversion and migration procedures.

### ATTENTION

---

The original server requires a specific PEP or SU for the conversion to be successful.

- If your original server runs Release 3.0, you must ensure that PEP NS030121SU08S is installed on the original server.
- If your original server runs Release 4.0, you must ensure that Service Update pack 07 (NS040107SU07S) or higher is installed on the original server.

This PEP/Service Update pack contains a pre-conversion fix that makes minor changes to your system that are required before you create your Platform Recovery Disk and database backup. This does *not* affect the operation of your original server. Therefore, if the conversion fails, you can continue to use your original server.

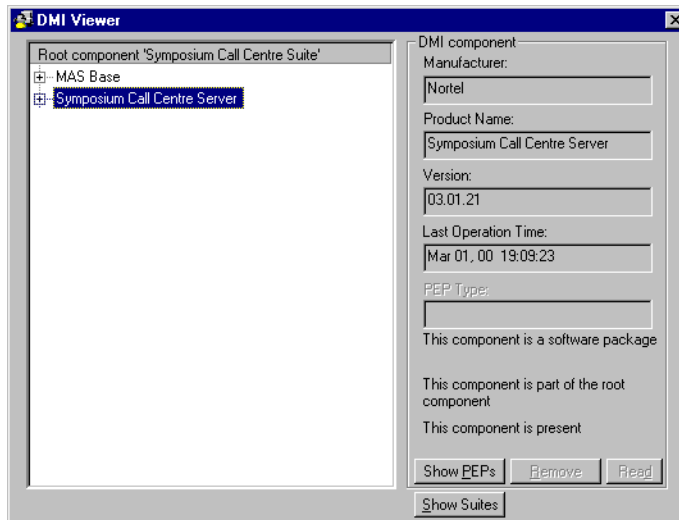
Use the procedure below to identify which Service Update pack and PEPs are installed on the original server. Then go to the web site for the Meridian PEP Library to see if there is a more recent Service Update pack or any required PEPs for the release of Symposium Call Center Server that you are running on your original server. If so, install them on your original server. For installation instructions, refer to one of the following guides, depending on the release of the software that your original server is running:

- *Nortel Networks Symposium Call Center Server Software Installation and Upgrade Guide* for Release 3.0
- *Nortel Networks Symposium Call Center Server Software Installation and Maintenance Guide* for Release 4.0

## To check the PEP levels on the original server

- 1 Log on to the original server as **NgenSys**.
- 2 From the Windows Start menu, choose Programs → Symposium → Symposium Call Center Server → DMI\_View.

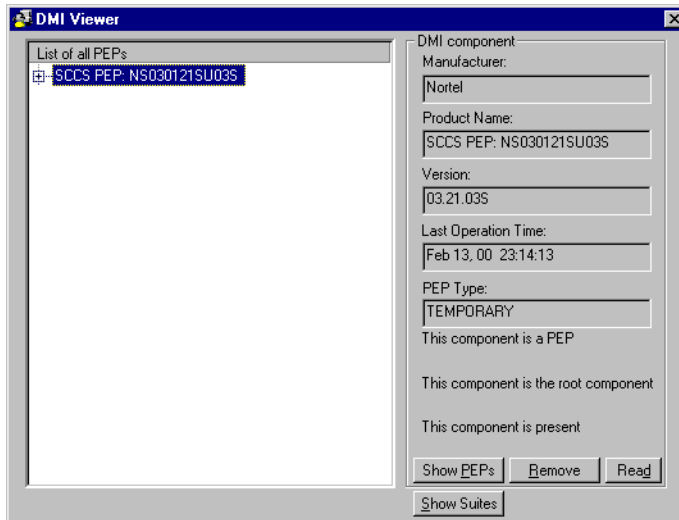
**Result:** The DMI Viewer window appears.





- 3 Click Show PEPs.

**Result:** The List of all PEPs appears.



- 4 Click each displayed PEP on the list of PEPs. Record the PEP Product Name, PEP Version, and PEP Type on the “PEP level worksheet” on page 293.

## Step 9. Perform a database integrity check on the original server

### ATTENTION

Before performing the database integrity check, make sure there are no active Symposium Call Center Server client connections to the server on which you are performing the check. If client PCs connect to the server while the check is running, errors may result and you may need to perform the check again.

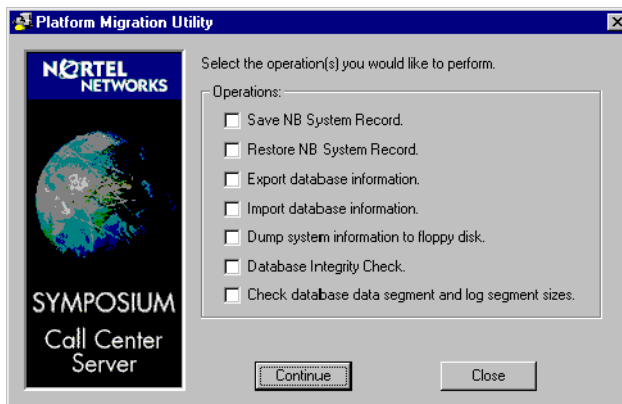
To ensure the integrity of the databases on the original server, Nortel Networks recommends that you perform a database integrity check before creating a backup of your database. This step is highly recommended to capture any database consistency problems.

Remember that a database integrity check can take from 1 to 3 hours, and that the server must be offline for the duration of the check. You can perform the check ahead of time, but make it as close as possible to the time of the database backup.

### To perform a database integrity check on the original server

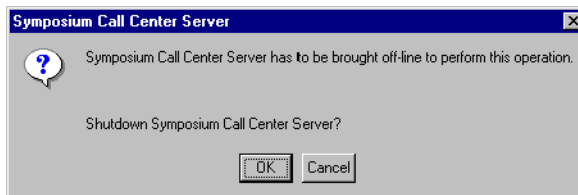
- 1 Log on to the server as **NGenSys**.
- 2 From the Windows Start menu, choose Programs → Symposium Call Center Server → Migration.

**Result:** The Platform Migration Utility dialog box appears.



- 3 Select the Database Integrity Check option and click Continue.

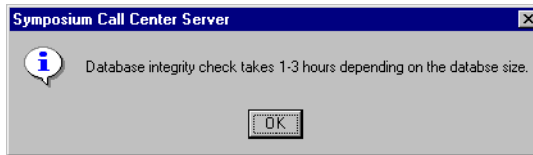
**Result:** The following dialog box appears:



- 4 Click OK.

**Result:** The system displays messages as it checks the status of each service running on the server.

- 5 Wait until the following dialog box appears:



- 6 Click OK to start the database integrity check.

**Result:** A DOS window appears on the screen. Do not close this window.

**Note:** Since the database integrity check takes some time to complete, you may not see any activity on the screen. However, you should notice continuous disk activity.

- 7 Wait until the following dialog box appears:



- 8 Click OK to exit the utility.
- 9 Check the log file (C:\DbChk.log) for errors. To do so, open the log file in a text editor (such as Notepad).

When checking the log file, search for key words such as ERROR or MSG. Contact your Nortel Networks customer support representative for any detected database error. *Do not* put the server into service with any detected database errors, even though it may seem to be functioning normally.

- 10 Restart the server.

## Step 10. Create a Platform Recovery Disk on the original server

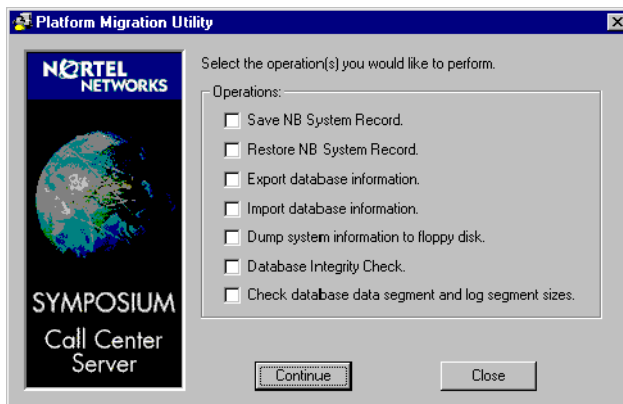
You create a Platform Recovery Disk to gather certain required information from your original server, such as its setup record and database configuration. The Platform Recovery Disk contains the file MigInfo.txt, which includes important details about how the original server was configured.

Even if you have an existing Platform Recovery Disk available, make sure you create a new one after installing the latest PEPs and SUs described in Step 8.

### To create a Platform Recovery Disk

- 1 Log on to the original server as **NGenSys**.
- 2 From the Windows Start menu, choose Programs → Symposium Call Center Server → Migration.

**Result:** The Platform Migration Utility dialog box appears.



- 3 Select the Export database information function. The Dump system information to floppy disk function is automatically selected. Click Continue.

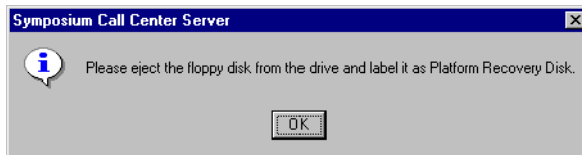
**Result:** The system prompts you to insert a floppy disk.

- 4 Insert a blank preformatted disk into drive A, and then click OK.

**Result:** Files containing the original server's setup record and database configuration are exported to the disk. This may take a few minutes.

**Note:** The system also checks for database segmentation problems. If it finds any problems, it displays a message indicating the type of problem.

- If the system finds a database *data* segmentation overlapping problem, then it advises you to contact Nortel Networks support before proceeding with the migration procedure. After support fixes the problem, you must create a new Platform Recovery Disk before proceeding with the migration.
  - If the system finds a database *log* segmentation overlapping problem, then you can still use the Platform Recovery Disk that you have just created. The system prompts you to shut down the Symposium Call Center Server services so it can fix the problem. Follow the on-screen prompt to shut down the services.
- 5 If the system displays messages confirming that the information has been dumped and saved successfully, click OK on each message.
  - 6 When the export is complete, the following dialog box appears:



- 7 Remove the disk from drive A, label it "Platform Recovery Disk," and click OK to exit the migration utility.
- 8 Keep the Platform Recovery Disk in a safe place.

## **Contents of the Platform Recovery Disk**

The Platform Recovery Disk contains a number of support files, including the file MigInfo.txt. This file contains the following information about the original server:

### **Meridian 1/CSE 1000 Symposium Call Center Server**

- keycode
- Meridian 1/CSE 1000 serial number
- installed computer name
- current computer name
- site name
- Meridian 1/CSE 1000 Switch name
- Meridian 1/CSE 1000 Switch IP address
- Meridian 1/CSE 1000 Switch customer group number
- Meridian 1/CSE 1000 Switch type
- Server ELAN IP address
- Server CLAN IP address
- Server RSM IP address
- Server TCP/IP hostname
- Server TCP/IP protocol setup (that is, gateway, subnet mask, and so on)
- Voice Connectivity
- Server software version

### **DMS/MSL Symposium Call Center Server**

- keycode
- Nortel Networks software feature key serial number
- installed computer name
- current computer name
- site name
- DMS/MSL Switch name
- DMS/MSL Switch IP address
- DMS/MSL Network Node

- DMS/MSL Application ID
- DMS/MSL Service ID
- DMS/MSL Service Version
- DMS/MSL Business Group
- DMS/MSL Linkset Name
- DMS/MSL Password
- Server ELAN IP address
- Server CLAN IP address
- Server RSM IP address
- Server TCP/IP hostname
- Server TCP/IP protocol setup (that is, gateway, subnet mask, and so on)
- Voice Connectivity
- Server software version

**NCC server**

- keycode
- Meridian 1/CSE 1000 serial number
- installed computer name
- current computer name
- site name
- Server ELAN IP address
- Server CLAN IP address
- Server TCP/IP hostname
- Server TCP/IP protocol setup (that is, gateway, subnet mask, and so on)
- Server software version

## Step 11. Create a backup of the original server's database

You must take a backup of the database of the original server so you can restore it on the new server. The original server remains online while the database is backed up. However, you should consider the following information before you proceed with the backup:

- An online backup adds an additional load to the server and reduces overall call center performance. Nortel Networks recommends that you perform backups during non-peak traffic hours. Do not change any call center configuration or user setup information during the database backup operation.
- If your server continues to receive calls after the backup, some call statistics and data pegging will be missing from the backup. If it is important that all call statistic and data pegging be migrated to the new server, take the original server offline immediately following the database backup. Ensure that the original server remains offline until all data has been successfully migrated to the new server. You must collect all call statistics and data pegging before the original server is removed from service.

### ATTENTION

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If you are migrating to a *different* server, you can postpone the database backup until just before you restore the database on the new server. This allows the original server to remain online longer during the conversion process, and reduces the amount of down-time for the call center. To understand the timing of the database restore step on the new or reconfigured server, see the “Conversion checklist” on page 237.



## Options for database backup and restore

You can back up and restore your database using either a tape or a remote directory on a network computer.

Consider the following information before you choose your backup option:

---

**Remote  
directory  
considerations**

To restore the database from a remote directory to the Release 4.2 server, you must establish a network connection between the Release 4.2 server and a network computer containing the remote directory.

Keep the following in mind if you are migrating to a new hardware platform: Since both the original server and the new server have the same TCP/IP configuration, you cannot have both servers connected to the network at the same time. This can cause a duplicate IP error to occur and stop the original server from normal operation.

To avoid this, you have the following options for obtaining a network connection on the new server to restore the database:

- You can bring down the services on the original server, and then disconnect the ELAN and CLAN from the network. Then connect the ELAN and CLAN on the new server to the network. This means that the original server will be out of service for the remainder of the migration.
  - To keep both the original and new server online, you can temporarily change the computer name and the IP configuration for the ELAN or CLAN on the new server so that you can temporarily connect to the network. This way, the original server can remain online and operational during the database restore. When the restore is complete, disconnect the new server from the network, and change the computer name and IP configuration for the CLAN and ELAN back to the correct settings.
-

---

**Tape drive considerations****CAUTION**

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**Risk of database restoration failure for tape backups**

If you are backing up your database to a tape, the database backup that you make on the original server must be compatible with the tape drive subsystem on the new server (driver software, tape drive, and tape media). Otherwise, you cannot restore your database.

Information and procedures for avoiding compatibility problems were covered earlier in this chapter in “Step 7. Investigate and resolve any tape drive compatibility issues.” This section includes information about the known compatibility problem with the Tandberg tape drives and related procedures. Make sure you have completed this step before creating the database backup.

---

Decide whether to back up and restore your database using tape or a remote directory. Procedures for both options are included in the following sections. Choose one of the following:

- “Backing up the database to a tape” below
- “Backing up the database to a remote directory” on page 280

## Backing up the database to a tape

**Notes:**

- To help calculate the speed of database backups before a conversion (to tape or a remote directory), it is a good idea to perform a trial run of the backup at least several days before the conversion. Keep in mind that the time required to do a database backup can vary between the trial run and the actual backup day due to several factors.
- For a listing of the variables that can affect the speed of your backup and restore, see “Variables affecting backup and restore speed” on page 501.
- To calculate the speed for database backups to tape (based on your configuration), see the formula listed in the section “Online Database Backup Speed Elapsed Time” in the *Nortel Networks Symposium Call Center Server Planning and Engineering Guide* for Release 4.2.
- To see sample time measurements for tape backup and restore, see “Benchmark statistics for tape backup and restore” on page 504.

- To calculate the capacity requirements for tape or remote directory backups, see “Calculating the capacity requirements for database backups” on page 513.

### **To perform a database backup to tape on the original server**

- 1 Make sure the services on the server are up.

**Note:** A database backup uses the HDM service. If this service is down, the database backup cannot start.

- 2 Insert a blank tape into the original server's tape drive.
- 3 From a client PC, log on to the original server as a Symposium Call Center Server administrator.
- 4 Schedule a database backup on the original platform.

For instructions on scheduling backups, refer to one of the following guides, depending on the release of the software that your original server is running:

- *Nortel Networks Symposium Call Center Server Software Installation and Upgrade Guide* for Release 3.0
  - *Nortel Networks Symposium Call Center Server Software Installation and Maintenance Guide* for Release 4.0
- 5 Once the database backup is complete on the original server, remove the backup tape and save it for the restore of the original server's database on the new server.
  - 6 Check whether any events were recorded in the event log on the client PC from which you scheduled the backup. If there are any errors, check the database backup log files on the original server. These files are located at the following paths: C:\Winnt\System32\backup.log and D:\Sybase\ASE-12\_0\install\backup.log.

## Backing up the database to a remote directory

### ATTENTION

---

Before backing up your database to a remote directory, check your remote folder configuration by following the guidelines listed in the section “Testing the remote directory backup and restore configuration” on page 531.

The remote backup feature is not included with the base Symposium Call Center Server software on your Release 3.0 or Release 4.0 server; the utility you need for this feature is installed on your Release 3.0 or Release 4.0 server when you install the latest Service Update pack.

- Servers running Release 3.0 require SU08 or higher
- Servers running Release 4.0 require SU07 or higher

**Note:** Use this remote backup utility only for the purpose of backing up your database prior to conversion to Release 4.2. Do not use it for regular database backups on your Release 3.0 or Release 4.0 server because you will be unable to restore the database backup from the remote directory to your Release 3.0 or Release 4.0 server.

### Notes:

- To help calculate the speed of database backups before a conversion (to tape or a remote directory), it is a good idea to perform a trial run of the backup at least several days before the conversion. Keep in mind that the time required to do a database backup can vary between the trial run and the actual backup day due to several factors. For a listing of the variables that can affect the speed of your backup and restore, see “Variables affecting backup and restore speed” on page 501.
- To help you calculate space requirements before you perform a database backup, see details about the DBSpace utility in the section “Calculating the capacity requirements for database backups” on page 513.

### Setting up the database backup to a remote directory

You must identify the computer onto which you are going to back up the database. You must then complete a series of steps to set up the connection between the server in Symposium Call Center Server and the remote directory.

The following section explains the requirements for the remote computer and network.

### **Remote computer requirements**

The remote computer for your database backup can be either a server or a workstation that meets the following requirements:

- The operating system must be Windows NT 4.0, Windows 2000 Server, Windows 2000 Professional, or Windows XP.
- The drive partition for the remote directory must be NTFS.
- The directory you use for the backup must have enough space available to hold the backup files.

### **Network requirements**

- The remote computer must be in the same network as the server in Symposium Call Center Server.
- The network connection should be through the CLAN. Ensure that the CLAN has low traffic during the scheduled time for the database backup. If you run the backup when CLAN traffic is high, the database backup may take longer than planned.

### **Files created during remote directory backup**

The remote backup process creates three files:

|            |                                              |
|------------|----------------------------------------------|
| blue.dmp   | Contains the contents of the Blue database   |
| cbc.dmp    | Contains the contents of the CBC database    |
| master.dmp | Contains the contents of the Master database |

**Worksheet for setting up a remote directory backup**

You need to set up an account, password, and a shared directory on your network computer in preparation for a remote directory backup. Create names for these items ahead of time and record them in the table below.

| Item                                                                                                                                                                                                                   | Fill in the required information |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|
| User Name<br>You must create a name and assign it to two user accounts—one on the network computer and the other on your Release 3.0 or 4.0 server. The name must be identical on both computers.                      |                                  |
| User account password<br>You must create a password and assign it to the two accounts described above. The password must be identical on both computers.                                                               |                                  |
| Computer Name of the network computer<br>Obtain and record this name so you have it available when you enter the command to back up the database.                                                                      |                                  |
| Share Name for the remote directory<br>You must create and assign a share name to the directory on the remote computer. The share name can be the directory name (this is the default in Windows) or a different name. |                                  |

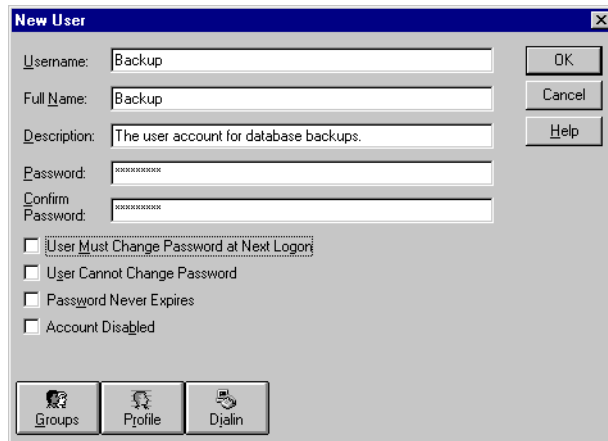
**Preparing the network computer for remote directory backup**

Once you determine which network computer to use for the remote directory backup, you must create a local Windows user account on it and then create a shared directory to contain the remote backup. Use the basic steps below, along with the documentation that came with the operating system, to correctly set up the user account and shared directory.

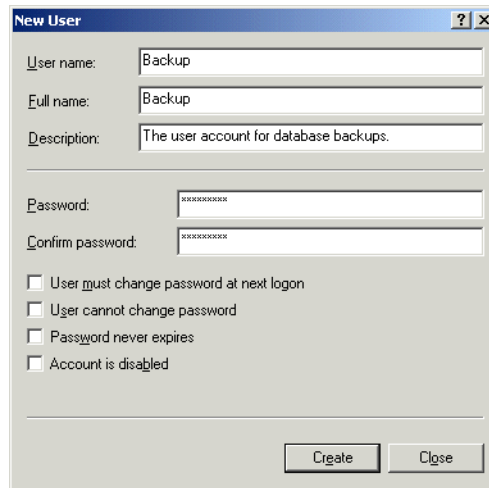
**Note:** The following procedures do not provide detailed steps, since they differ depending on the operating system on your network computer.

## To create the local Windows user account on the network computer

- 1 Create a new user account in Windows using the User Name and password that you recorded in the worksheet on page 282.
  - In Windows NT, you create the new user in Programs → Administrative Tools → User Manager. Then, from the User menu, select New User. Type the user account details in the New User window.



- In Windows 2000, you create the new user in Programs → Administrative Tools → Computer Management. Right-click Local Users and Groups, and then select New User from the resulting pop-up menu. Type the user account details in the New User window.



## CAUTION

### Risk of database backup failure

When you are creating the new user account in Windows, you must deselect the check box for “User must change password at next logon.” If this check box is selected, Symposium Call Center Server may not be able to connect to the remote computer.

- 2 Make the user account a member of the Administrators group.

## To create and share the remote directory on the network computer

- 1 On the network computer, create a directory (folder) to contain the database backup. You can use the Share Name you recorded in the worksheet.  
**Note:** The name of the remote directory must *not* contain any spaces. Spaces in the remote directory name will cause errors.
- 2 Make sure file sharing is enabled on your computer.
- 3 Make the directory shared, and assign the Share Name that you recorded in the worksheet on page 282.



- 4 For the shared directory permissions, grant Full Control access rights to the user account that you created in the previous procedure.

**Result:** The network computer is now set up for remote directory backups. You must now prepare the server in Symposium Call Center Server using the procedures below.

- 5 Make sure you have recorded the computer name of the network computer in the worksheet on page 282.

### **Preparing the server in Symposium Call Center Server for remote directory backup**

On your Release 3.0 or Release 4.0 Symposium Call Center Server, you must create a local Windows user account that is identical to the one you created on the network computer. You then add the account to the policy “Log on as a service.” Detailed procedures are provided below.

#### **To set up the local Windows user account on the server**

- 1 Log on to the Release 3.0 or 4.0 server as **NGenSys**.
- 2 From the Start menu, choose Programs → Administrative Tools (Common) → User Manager For Domains.

**Result:** The User Manager window appears.

- 3 From the User menu, click New User.

**Result:** The New User window appears.

- 4 In the Username box, type the name you recorded in the worksheet on page 282. This must be the same user name you assigned to the account on the network computer.
- 5 In the Password box, type the password you recorded in the worksheet on page 282. This must be the same password you assigned to the account on the network computer.
- 6 In the Confirm Password box, type the password again.
- 7 Make sure the check box for User Must Change Password at Next Logon is *not* checked.

**Note:** If this check box is checked, the remote backup may fail because the server in Symposium Call Center Server may not be able to access the network computer.

- 8 Check the check box for Password Never Expires.
- 9 Click Groups.  
**Result:** The Group Memberships window appears.
- 10 From the Not member of box, click Administrators. Then click Add to move Administrators to the Member of box.
- 11 Click OK.
- 12 On the New User window, click Add.
- 13 If you are prompted to confirm that you do not want the password to expire, click OK.
- 14 Click Close to close the New User window and return to the User Manager window.

### To set up the local security settings for the user account

**Note:** This procedure is a continuation of the previous procedure. It starts from the User Manager window.

- 15 From the Policies menu on the User Manager window, click User Rights.
- 16 Check the check box for Show Advanced User Rights.
- 17 From the Right box, choose Log on as a Service.
- 18 Click Add.  
**Result:** The Add Users and Groups window appears.
- 19 In the List Names From box, select the name for the local server.
- 20 Click Show Users.
- 21 From the Names list, click the user account you created in the previous procedure.
- 22 Click Add.  
**Result:** The computer name and user account appear in the list at the bottom of the window.
- 23 Click OK.
- 24 Click OK to close the User Rights Policy window.
- 25 Close the remaining open windows you used in this procedure.

## To perform a database backup on the original server

### ATTENTION

Before backing up your database to a remote directory, check your remote folder configuration by following the guidelines listed in the section “Testing the remote directory backup and restore configuration” on page 531.

- 1 Make sure the services on the server are up.  
**Note:** A database backup uses the HDM service. If this service is not up, the database backup cannot start.
- 2 Open a Command Prompt window on the Release 3.0 or 4.0 server.
- 3 Change to the directory D:\Nortel\Mig42 (this is where the remote backup utility is installed). For example:

- a. Type **d:**, and then press Enter.
- b. Type **cd \Nortel\Mig42**, and then press Enter.

- 4 Use the four pieces of data you filled out in the worksheet on page 282 to type the following command line:

**backuptor42 *computernamesharename username  
useraccountpassword***

**Example:** backuptor42 computer1\backupfiles dbbackup abc123

- 5 Press Enter.

**Result:** The Command Prompt window displays the following text:

Now backing up the databases to *\\computernamesharename*

The remote backup process begins. This can take from 30 minutes to 3 hours to complete, depending on the size of your database, the speed of your computer, and network traffic. Leave the Command Prompt window open so you can see the backup completion message.

- 6 Wait until the following message appears in the Command Prompt window:

-----

Database backup is complete.

-----

The backup log for your backup is located here.

d:\Nortel\Mig42\backup.log.txt

Please examine it for errors.

- 7 Navigate to d:\Nortel\Mig42 and open the file backup.log.txt. If your database backup was successful, the log contains the following lines of text:

```
[SERVER MESSAGE]:Backup Server: 3.42.1.1: DUMP is  
complete (database cbc).
```

```
[SERVER MESSAGE]:Backup Server: 3.42.1.1: DUMP is  
complete (database blue).
```

```
[SERVER MESSAGE]:Backup Server: 3.42.1.1: DUMP is  
complete (database master).
```

This database backup log does not have any errors or warnings.

- 8 Do one of the following:

- If your database backup log contains the text in the example above, your backup was successful. Continue to the next step in the Conversion checklist.
- If your database backup log contained any messages or errors, this could indicate a problem with the backup. Navigate to the folder D:\Sybase\install and open the file backup.log.txt. This file may indicate the source of the problem. Retry the backup and check the backup log again. If there are still messages or errors, contact Nortel Networks product support.

**Note:** If you begin a second database backup before the first backup is finished, the system may not function properly. In this case, you must terminate both backup processes.

## Step 12. Check the disk partition configuration on the original server

You must record the disk partition configuration of the original server so you can use it to determine how to partition your new server.

**Note:** Once you have recorded this information, you should make sure that your new server has adequate drive space to create the partitions you need. For information on the requirements for partitioning drives, see “Understanding disk partitioning requirements on the new or reconfigured server” on page 245.

### To check the disk partition configuration on the original server

- 1 From the Windows Start menu, choose Programs → Administrative Tools → Disk Administrator.
- 2 Record the following information on the “Disk partition configuration worksheet” on page 292:
  - the displayed disk number
  - the logical disk drive letter assignments
  - the size of each partitioned disk
- 3 Ensure that the new server has enough disk space to create the required partitions, as described in “Understanding disk partitioning requirements on the new or reconfigured server” on page 245.

The following table presents an example of disk partition configuration:

| Disk number | Disk drive letter assignment | Disk partition size |
|-------------|------------------------------|---------------------|
| Disk 0      | C                            | 4096 Mbytes NTFS    |
| Disk 0      | D                            | 4096 Mbytes NTFS    |
| CD-ROM 0    | E                            | n/a                 |
| Disk 1      | F                            | 4096 Mbytes NTFS    |

## Step 13. Check the RAM size on the original server

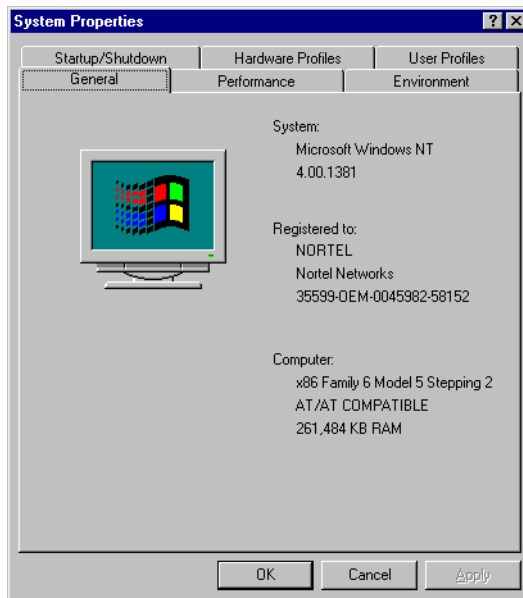
The total physical RAM of the new server must meet the requirements for a PVI server, and it must be at least as large as the RAM on the original server.

### To check the RAM size on the original server

- 1 From the Windows Start menu, choose Settings → Control Panel, and then double-click the System icon.

**Result:** The System Properties property sheet appears, with the General tab displayed.

- 2 Record the RAM size on the “RAM size worksheet” on page 292.



**ATTENTION**

---

If you are converting a Network Control Center (NCC) server, Nortel Networks recommends that you write down the IP addresses of all the sites in the network before proceeding with the remaining conversion steps. After you finish the conversion process on the NCC, this list of IP addresses will enable you to re-add the network sites more efficiently. On the original NCC, open the Nbconfig utility and use the Site table tab to view and note the list of IP addresses.

# Worksheets for collecting original server information

## Introduction

Make photocopies of these worksheet pages, and use them to record original server information for conversion.

## Disk partition configuration worksheet

| Disk number | Disk drive letter assignment | Disk partition size |
|-------------|------------------------------|---------------------|
|             |                              |                     |
|             |                              |                     |
|             |                              |                     |
|             |                              |                     |
|             |                              |                     |
|             |                              |                     |
|             |                              |                     |

## RAM size worksheet

| Item     | Fill in the required information |
|----------|----------------------------------|
| RAM size |                                  |



**PEP level worksheet**

| Item             | Fill in the required information |
|------------------|----------------------------------|
| PEP Product Name |                                  |
| PEP Version      |                                  |
| PEP Type         |                                  |
| PEP Product Name |                                  |
| PEP Version      |                                  |
| PEP Type         |                                  |
| PEP Product Name |                                  |
| PEP Version      |                                  |
| PEP Type         |                                  |
| PEP Product Name |                                  |
| PEP Version      |                                  |
| PEP Type         |                                  |
| PEP Product Name |                                  |
| PEP Version      |                                  |
| PEP Type         |                                  |
| PEP Product Name |                                  |
| PEP Version      |                                  |
| PEP Type         |                                  |

# Preparing the new server (or reconfiguring the existing server)

## Introduction

You must complete the base configuration of your new server, or reconfigure your existing server, before you can install Release 4.2 of Symposium Call Center Server and restore your database.

**Note:** This process can take from 3 to 5 hours to complete.

The following summary lists the procedures that you must complete in this section:

- Step 14. Configure the operating system and drives on the new or reconfigured server.

**Note:** Make sure that you are using the “Conversion checklist” on page 237 to keep on track during this stage of the conversion.

## Step 14. Configure the operating system and drives on the new or reconfigured server

This process involves installing the Windows 2000 operating system and partitioning the disks on the server, prior to installing the Release 4.2 software and restoring data from the original server.

The process for preparing the server is different depending on whether you are

- reconfiguring the existing Release 3.0 or Release 4.0 server as a Release 4.2 PVI server for a conversion within the same server
- migrating to a different Release 4.2 PVI server

For each of these two scenarios, a separate procedure is provided below. Choose one of the following:

- “To reconfigure the existing server (for conversions within the same server)” on page 295

- “To configure the new server (when migrating to a different server)” on page 296

### **To reconfigure the existing server (for conversions within the same server)**

- 1 Review the list of requirements for a Release 4.2 PVI server, and ensure that the server can meet each requirement. For details, see Chapter 2, “Performing the base configuration of the server.”
- 2 If you have not already shut down your Symposium Call Center Server services, do so now. From the Windows Start menu, choose Programs → Symposium Call Center Server → Shutdown, and then follow the on-screen instructions.

**Note:** If your original server is equipped with RAID drives and you chose to split the drives before installing the latest Service Update packs and PEPs, then proceed to step 4. If you have not split your RAID drives yet, then continue with the following step.

- 3 If your original server is equipped with RAID, split the RAID drives. This breaks the mirrored image of the primary hard drives and disables their redundant hard drives. The changes you must make to the primary hard drives to convert to Release 4.2 will not affect the redundant drives; your original server configuration remains on those drives. Therefore, if the conversion fails, you can restore the redundant drives and continue to operate the original server until you are ready to try again.

**Note:** If there are extra RAID drives available, you can also create a RAID backup before continuing with the conversion. This can take several hours to complete.

- 4 Follow the instructions in Section D: “Configuring the operating system,” on page 69 to install and configure the operating system correctly for Symposium Call Center Server. Use the Windows 2000 setup utility to
  - delete all existing partitions on the primary drives (do not alter the disabled drives)
  - create a new drive C partition on which to install the Windows 2000 operating system
  - configure the LAN network cards with the same network IP configuration (for example, IP address, subnet mask, default gateway, and so on) as

on the original server. Refer to the TCP/IP parameter information in the MigInfo.txt file on the Platform Recovery Disk.

**Note:** On the new server, you can use a different computer name and different IP addresses than on the original server. However, Nortel Networks recommends that you use the original server's computer name and IP addresses (CLAN and ELAN) on your new server. Refer to the information in the MigInfo.txt file on the Platform Recovery Disk.

- check that the Virtual Memory allocation (swap file) on the new server is RAM size times 1.5. Set both the initial and maximum size to this value.
- 5 Partition the remaining disks according to the server type. Refer to the information you entered in the "Disk partition configuration worksheet" on page 292, and the examples in "Understanding disk partitioning requirements on the new or reconfigured server" on page 245.
  - 6 Make sure the new server is installed with tape driver software that is compatible with Windows 2000. If it is not compatible, you cannot restore your database.

**Note:** If your server is equipped with RAID, ensure that the new drives are installed with the correct RAID administration utility. The RAID software is platform-specific and is installed differently for each platform.

- 7 Restart the new server to activate all the changes.

### **To configure the new server (when migrating to a different server)**

- 1 Review the list of requirements for a Release 4.2 PVI server, and ensure that the new server can meet each requirement. For detailed requirements, see Chapter 2, "Performing the base configuration of the server."
- 2 If the new platform is equipped with a tape drive and driver software that is *not* compatible with that of the original server, then remove the tape drive

and install a compatible drive and its driver software on the new platform. See the maintenance guide for your hardware platform.



## CAUTION

---

### Risk of database restoration failure

The database backup that you make on the original server must be compatible with the tape drive subsystem on the new server (driver software, tape drive, and tape media). Otherwise, you cannot restore your database. For more information, see “Step 7. Investigate and resolve any tape drive compatibility issues” on page 261.

If you are moving the original platform’s tape drive to the new platform, ensure that the database backup of the original platform is complete before you remove the drive.

- 3 Ensure that the new platform is disconnected from the network of the original platform (both ELAN and CLAN). The new platform should remain disconnected until the conversion procedure is completed.

**Note:** Nortel Networks recommends that you test your network connection before you prepare your new server for full service. To avoid network conflict, after you ensure that the new server is disconnected from the original server’s network (both CLAN and ELAN), test the network drivers and TCP/IP stack. For more information, see the tip on checking your TCP/IP stack in “To resolve the failed ping” on page 682.

- 4 Follow the instructions in Section D: “Configuring the operating system,” on page 69 to install and configure the operating system correctly for Symposium Call Center Server. Use the Windows 2000 setup utility to
  - delete all existing partitions on the primary drives without altering the disabled drives (if there are any existing partitions on your new server)
  - create a new drive C partition on which to install the Windows 2000 operating system
  - configure the LAN network cards with the same network IP configuration (for example, IP address, subnet mask, default gateway, and so on) as

on the original server. Refer to the TCP/IP parameter information in the MigInfo.txt file on the Platform Recovery Disk.

**Note:** It is important that you disconnect the new platform from the network of the original platform (both ELAN and CLAN) before making the IP configuration change; otherwise, a duplicate IP error can occur and stop the original platform from normal operation. On the new server, you can use a different computer name and different IP addresses than on the original server. However, Nortel Networks recommends that you use the original server's computer name and IP addresses (CLAN and ELAN) on your new server. Refer to the information in the MigInfo.txt file on the Platform Recovery Disk.

- check that the Virtual Memory allocation (swap file) on the new server is RAM size times 1.5. Set both the initial and maximum size to this value.
- 5 Ensure that all disks are installed and partitioned properly according to the hardware configuration of the new server. Refer to the information you entered in the "Disk partition configuration worksheet" on page 292, and the examples in "Understanding disk partitioning requirements on the new or reconfigured server" on page 245.

**Note:** If your server is equipped with RAID, ensure that the new drives are installed with the correct RAID administration utility. The RAID software is platform-specific and is installed differently for each platform.

- 6 Restart the new server to activate all the changes.

**Note:** It is normal for the Windows operating system to disable the network card if it is disconnected from the network. Ignore any warnings and continue with the conversion procedure.

# Completing the conversion

## Introduction

When the base configuration of your new server is ready, you can perform all the steps to complete the conversion to Release 4.2 of Symposium Call Center Server.

The following summary lists the procedures that you must complete to prepare the new or reconfigured server for service:

- Step 15. Perform a platform compliance check on the new server.
- Step 16. Install the Symposium Call Center Server software on the new server.
- Step 17. Apply the latest Install-time PEPs on the new server.
- Step 18. Import database information from the Platform Recovery Disk.
- Step 19. Install the Symposium Call Center Server database software on the new server.

**Note:** If you are converting a non-English version of Symposium Call Center Server, install the appropriate language PEP before proceeding. Follow the instructions in “Installing PEPs or Service Update packs on the server” on page 160. For a list of server language PEPs, see “Server language PEPs” on page 746.

- Step 20. Restore the original server’s database to the new server.
- Step 21. Perform a database integrity check on the new server.
- Step 22. Configure the new server’s software and database.
- Step 23. Apply the latest Service Update pack and any required PEPs to the new server.
- Step 24. Install pcAnywhere on the new server.
- Step 25. Prepare the new server for full service.

**Note:** Make sure that you are using the “Conversion checklist” on page 237 to keep on track during this final stage of the conversion.

## Step 15. Perform a platform compliance check on the new server

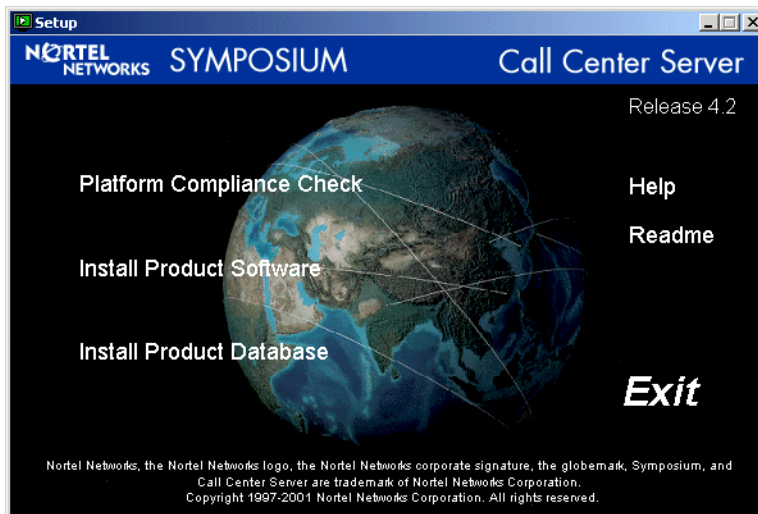
Before installing the Symposium Call Center Server software, you must ensure that your server meets the requirements for a Platform Vendor Independence (PVI) server, as defined in Chapter 2, “Performing the base configuration of the server.”

The Server Application CD includes a program that you can run to check your server’s basic compliance and identify any problems, such as the wrong operating system or incorrect disk partitioning. Not all requirements for Platform Vendor Independence are checked.

### To perform a platform compliance check

- 1 Log on to the server as **Administrator**.
- 2 Insert the Server Application CD and wait for it to autorun.

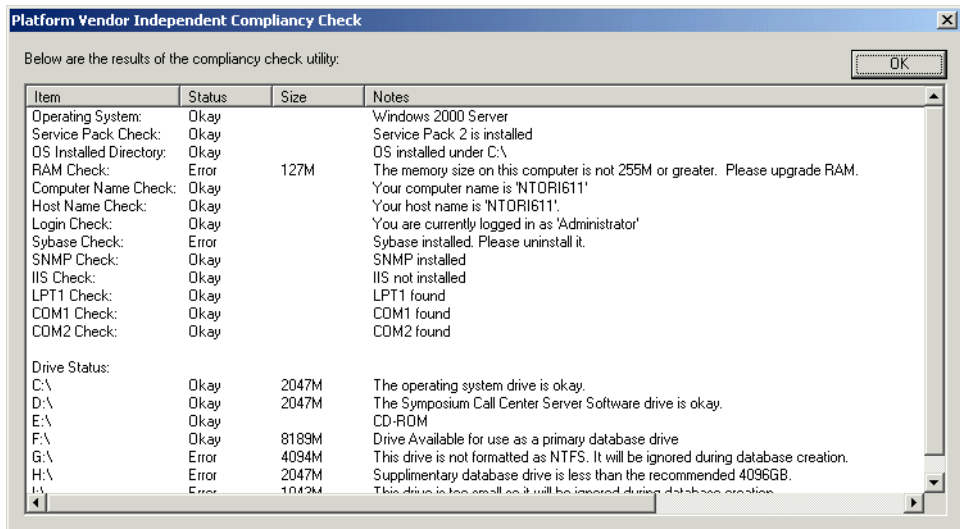
**Result:** The Setup main menu appears.





### 3 Click Platform Compliance Check.

**Result:** The system checks your server to ensure it meets certain requirements for a PVI server. The results appear in a window similar to the following one. If your server is compliant, the Status column shows Okay beside all items listed. For any non-compliant items, the Status column shows Error, and the Notes column provides information about the PVI requirement.



### 4 Refer to the following table to determine the action to take:

| IF Status is   | THEN do this                                                                                                                                                                                                                      |
|----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| All items Okay | Click OK, and continue with the following procedure.                                                                                                                                                                              |
| LPT1 Error     | <p>If you are connecting to a Meridian 1/CSE 1000 switch, click OK and continue with the following procedure.</p> <p>If you are connecting to a DMS/MSL-100 switch, click OK. Then configure the server with a parallel port.</p> |
| COM1 Error     | Click OK, and then configure the server with COM1 to allow remote support of the server.                                                                                                                                          |

| <b>IF Status is</b> | <b>THEN do this</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|---------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| COM2 Error          | <p>If you are using Symposium Voice Services on Meridian Mail, click OK. Then configure COM2. (It is required for the ACCESS link.)</p> <p>If you are not using Meridian Mail, click OK and continue with the following procedure. During the server and database configuration, you must set the voice connection type to TCP, and enter a dummy IP address and port number.</p>                                                                                                                                                                                                                                |
| Any other Error     | <p><b>a.</b> Take note of the non-compliant items and the related information in the Notes column.</p> <p><b>b.</b> Click OK to exit from the Platform Vendor Independence Compliancy Check dialog box.</p> <p><b>c.</b> Correct the problems so that the server is compliant. For more details about the minimum requirements for a PVI server, see Chapter 2, "Performing the base configuration of the server."</p> <p><b>d.</b> Rerun the platform compliance check. If you had to restart the server to correct a non-compliance, go back to Step 1. If you did not have to restart, go back to Step 3.</p> |

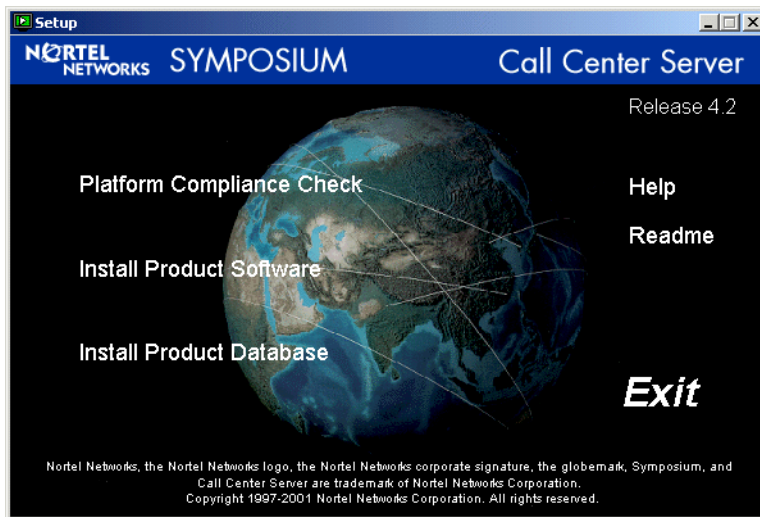
## Step 16. Install the Symposium Call Center Server software on the new server

This procedure installs all Symposium Call Center Server features and components on the server.

### To install the product software

- 1 Log on to the server as **Administrator**.
- 2 If the Server Application CD is not already running, insert the CD and wait for it to autorun.

**Result:** The Setup main menu appears.

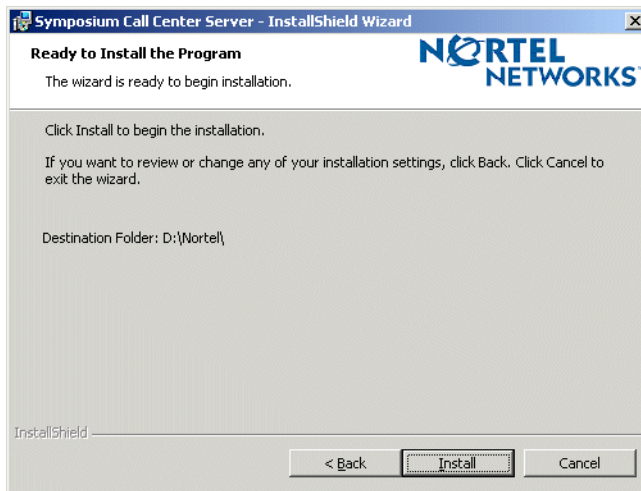


- 3 Click Install Product Software.

**Result:** The welcome window for Symposium Call Center Server - InstallShield Wizard appears.

**4** Click Next.

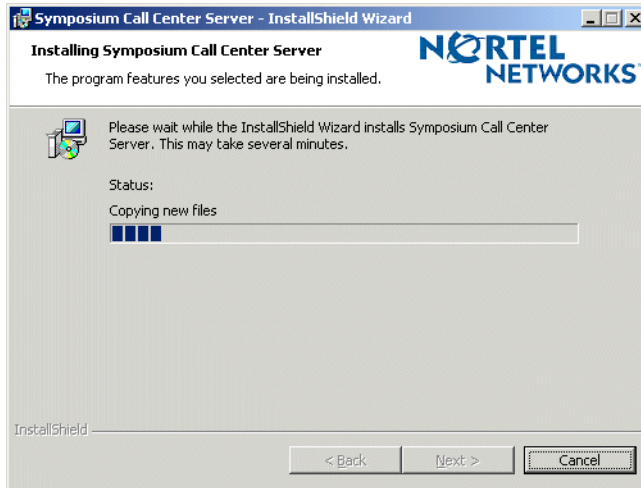
**Result:** The Ready to Install the Program window appears.



**Note:** If you click Cancel at any time during the product software installation, the InstallShield Wizard Completed window appears. The text on this window warns you that the software was not successfully installed.

5 Click Install.

**Result:** The system installs the Symposium Call Center Server software on the server's drive D. This takes several minutes.



6 Wait until the following window appears:



**7** Click Finish.

**Result:** The product software is installed.

**Note:** If you completed this procedure as part of a server recovery scenario or a platform migration, return now to the chapter that referenced this procedure. That chapter tells you what procedure to perform next.

## **Step 17. Apply the latest Install-time PEPs on the new server**

Apply the latest Install-time PEP. Install-time PEPs update the server software to take care of any known issues with the installation or configuration before you continue through the next steps.

The latest Install-time PEP is available on the Supplementary CD-ROM and from the Meridian PEP Library web site.

You can distinguish Install-time PEPs from General PEPs by the PEP ID as follows:

- For Install-time PEPs, the ninth character is a U (for example, NI040206U007S).
- For General PEPs, the ninth character is a G (for example, NS040206G004S).

For instructions on installing PEPs, see Chapter 4, “Installing/uninstalling PEPs and Service Update packs.”

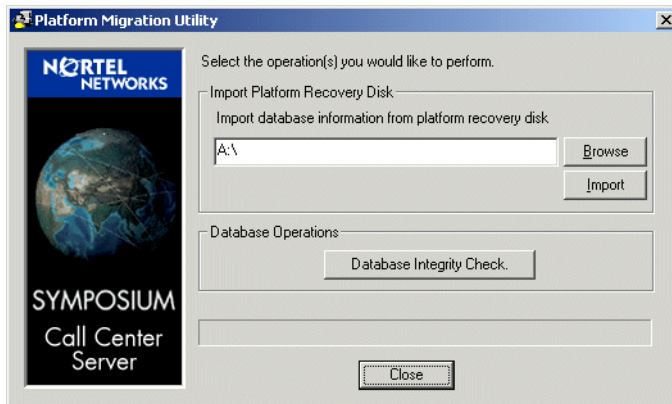
## Step 18. Import database information from the Platform Recovery Disk

Once the server software is installed, you must import database information from the Platform Recovery Disk that you created from the original server.

### To import database information from the Platform Recovery Disk

- 1 Log on to the server as **Administrator**.
- 2 Insert your Platform Recovery Disk into drive A.
- 3 From the Windows Start menu, choose Programs → Symposium Call Center Server → Migration.

**Result:** The Platform Migration Utility window appears.



- 4 In the section Import database information from platform recovery disk, make sure the path shows A:\.

5 Click Import.

**Result:** The system imports the files from your Platform Recovery Disk. A DOS window appears during the import with the text `Importing database information`. When the import is done, the DOS window displays the following confirmation message:



6 Click OK.

7 Close the Platform Migration Utility window.

8 Remove the Platform Recovery Disk from the drive.



## Step 19. Install the Symposium Call Center Server database software on the new server

This procedure installs the Sybase ASE 12.0 software, and then creates and initializes the database for Symposium Call Center Server.

During the database installation, do not close any windows that appear unless the on-screen instructions tell you to do so.

**Note:** The server restarts automatically several times during this procedure, and you must log back on to the server as **Administrator**. At this time, the next window of the installation program appears, but the Windows desktop does not appear in the background. This is normal. The Windows desktop reappears when the next window of the installation program appears.

### To install the product database

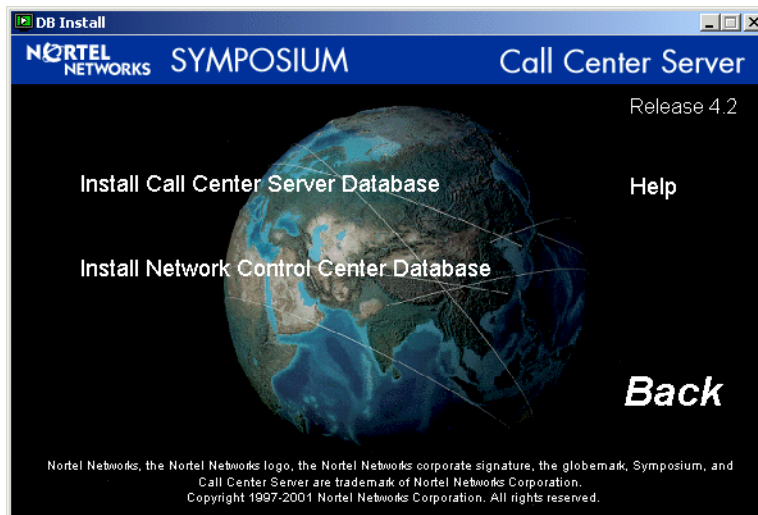
- 1 Log on to the server as **Administrator**.
- 2 If the Server Application CD is not already running, insert the CD and wait for it to autorun.

**Result:** The Setup main menu appears.



3 Click Install Product Database.

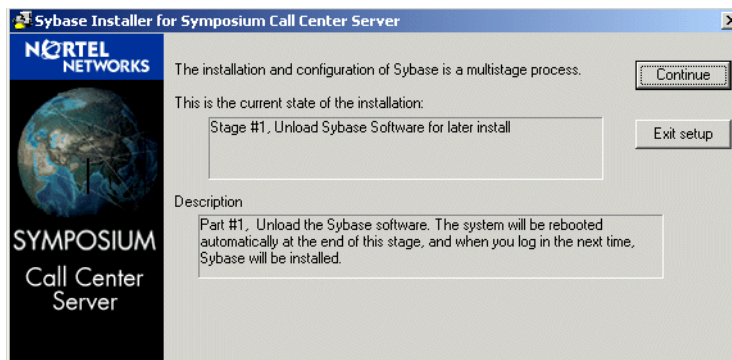
**Result:** A submenu appears, listing the database types you can install.



4 Do one of the following:

- If your server is *not* a Network Control Center (NCC) server, select Install Call Center Server Database.
- If your server *is* a Network Control Center server, select Install Network Control Center Database.

**Result:** The Sybase Installer for Symposium Call Center Server window appears.



This window shows the status of the installation in stages and parts. There are six stages to the database installation and configuration; some stages are broken into parts. Stages appear in the top status box, and parts appear in the Description box.

**ATTENTION**

---

Before you proceed to step 5, ensure that the Symposium Call Center Server Installation CD is in the CD-ROM drive. The installation CD must be in the CD-ROM drive during the entire database installation process. Do not create a shortcut to the installation CD. To access the Symposium Call Center Server setup wizard if autorun does not launch, from Windows Explorer, double-click Setup.exe under the CD-ROM directory.

- 5 Click Continue.

**Note:** When the installation begins, you can view the progress of each stage in a progress bar that appears at the bottom of the window.

**Result:** The system proceeds with Stage 1, Part 1. When Part 1 is complete, the server automatically restarts.

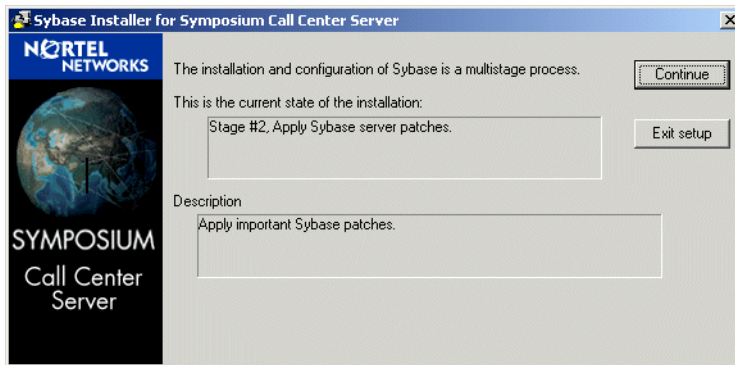
- 6 Log on as **Administrator**.

**Result:** The Sybase Installer for Symposium Call Center Server window reappears, showing the status as Stage 1, Part 2.

**Note:** In rare cases, an MS-DOS window appears, instead of the Sybase Installer for Symposium Call Center Server window. When this happens, the database installation still continues. Wait until the MS-DOS window completes its processes (do not close it), and the Sybase Installer for Symposium Call Center Server window reappears, as shown in the Result below step 7. When this window appears, proceed to step 8.

7 Click Continue.

**Result:** Stage 1, Part 2 proceeds to completion. When it is finished, the desktop reappears, followed by the next installation window, as shown:



8 Click Continue.

**Result:** The installation proceeds through Stage 2, and Stage 3, Part 1. When Part 1 is complete, the server automatically restarts.

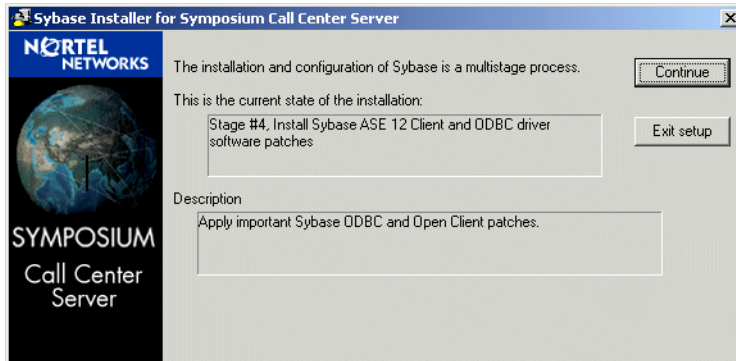
9 Log on as **Administrator**.

**Result:** The Sybase Installer for Symposium Call Center Server window reappears, showing the status as Stage 3, Part 2.

**Note:** In rare cases, an MS-DOS window appears, instead of the Sybase Installer for Symposium Call Center Server window. When this happens, the database installation still continues. Wait until the MS-DOS window completes its processes (do not close it), and the Sybase Installer for Symposium Call Center Server window reappears, as shown in the Result below step 10. When this window appears, proceed to step 11.

- 10 Click Continue.

**Result:** Stage 3, Part 2 proceeds to completion. When it is finished, the desktop reappears, followed by the next installation window, as shown:

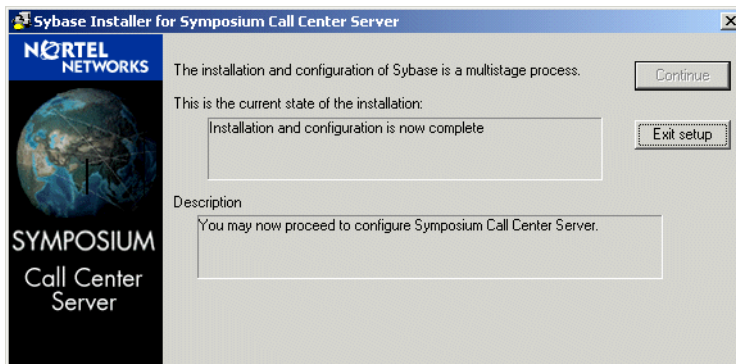


- 11 Click Continue.

**Result:** The installation proceeds through Stages 4, 5, and 6.

**Note:** These stages can take from 1 to 3 hours to complete, depending on your CPU speed, and the size and number of database partitions that you have.

- 12 Wait until the following window appears:



- 13 Click Exit setup. Do not reboot the server.

- 14 Remove the CD from the drive.

**Result:** The database is installed.

**Note:** If you are converting a non-English version of Symposium Call Center Server, install the appropriate language PEP before proceeding. Follow the instructions in “Installing PEPs or Service Update packs on the server” on page 160. For a list of server language PEPs, see “Server language PEPs” on page 746.

## Step 20. Restore the original server’s database to the new server

Use the database backup you created earlier in this procedure to restore the database to the new server. You do not need to connect the new server to the network or the Meridian 1/CSE 1000 or DMS/MSL-100 switch.

### Notes:

- Normally, a database restore takes at least 1 to 3 hours, depending on the speed of your server and the amount of data in the database. The restore can take longer if you store your call-by-call records for longer than the recommended interval. For a listing of the variables that can affect the speed of your backup and restore, see “Variables affecting backup and restore speed” on page 501.
- To see sample time measurements for tape backup and restore, see “Benchmark statistics for tape backup and restore” on page 504.

You must restore the database from either a tape backup or a remote directory backup on a network computer. This depends on how you created the current backup. (In other words, if you backed up to tape, you must restore from tape.)

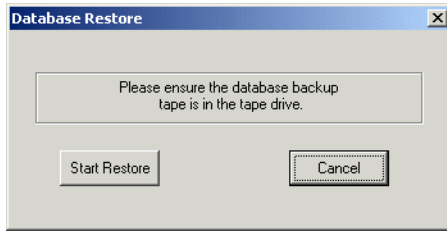
Choose one of the following procedures:

- “Restoring the database from a tape backup” on page 315
- “Restoring the database from a remote directory backup” on page 316

## Restoring the database from a tape backup

- 1 Log on to the server as **NGenSys**.
- 2 From the Windows Start menu, choose Programs → Symposium Call Center Server → Database Restore.

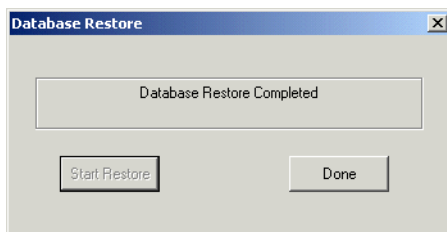
**Result:** The Database Restore dialog box appears.



- 3 Insert the tape containing the database backup.
- 4 When the tape in the drive stops moving, click Start Restore to begin the database restore process.

**Result:** The system first shuts down the Symposium Call Center Server services that you have installed. Then the database restore process begins. This can take at least 1 to 3 hours, depending on the amount of data. During this time, the Database Restore window remains visible and displays numerous status messages about the progress of the restore.

- 5 Wait until the following message appears:



**Note:** A log file is created with the following path name after the database restore is completed:

D:\Nortel\data\backup\RestoreLogs\restore.log

- 6 Click Done.

**Result:** The following dialog box appears:



- 7 Eject the backup tape from the tape drive.
- 8 Click OK to exit the Database Restore utility. You must wait for the Database Restore window to disappear. It may seem like there is no activity, but the system must complete its processes and close this window. This can take up to 2 minutes to complete. *Do not* restart the system.

Nortel Networks recommends that you do not restart the server at this time. (You need not restart the server until after you configure the server software and database.) Instead, continue to “Perform a database integrity check on the original server” on page 269.

## Restoring the database from a remote directory backup

### ATTENTION

Before restoring your database from a remote directory backup, check your remote folder configuration by following the guidelines listed in the section “Testing the remote directory backup and restore configuration” on page 531.

Use the database backup you created on the remote directory earlier in this chapter to restore the database to the new server. There are a series of steps you must perform to prepare the new server, as described in the next section.

### Preparing the Symposium Call Center Server to restore the database from a remote directory

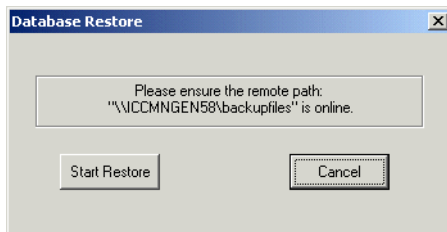
On your Release 4.2 server, you must create a local Windows user account that is identical to the one you created on the network computer. You then add the account to the policy “Log on as a service.” To complete preparation of the server, you enter the account information and the path of the remote directory in Symposium Call Center Server and turn off the tape backup option.



## To restore the database from a remote directory

- 1 On the new server in Symposium Call Center Server, establish a network connection to the network computer containing the database backup files in the remote directory. To understand the options for establishing a network connection from the new server, see “Remote directory considerations” on page 277.
- 2 On the new server in Symposium Call Center Server, from the Windows Start menu, choose Programs → Symposium Call Center Server → Database Restore.

**Result:** The Database Restore dialog box appears, showing the path for the remote directory containing the database files, as in the following example:

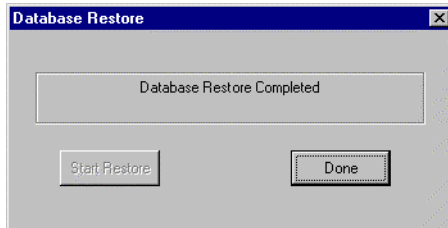


- 3 Check that the path is correct.
- 4 Click Start Restore to begin the database restore process.

**Result:** The database restore process begins. This can take at least 1 to 3 hours, depending on the amount of data and the CPU speed of the server. During this time, the Database Restore window remains in view and displays numerous status messages about the progress of the restore.

**Note:** The restore can take longer if you store your call-by-call records for longer than the recommended interval.

- 5 Wait until the following dialog box appears, indicating that the restore is complete:



**Note:** A log file with the following path name is created after the database restore is completed:

D:\Nortel\data\backup\RestoreLogs\restore.log

- 6 Click Done.

**Result:** The following dialog box appears:



- 7 Click OK to exit the Database Restore utility. You must wait for the Database Restore window to disappear. It may seem as if there is no activity, but the system must complete its processes and close this window. This can take up to 2 minutes to complete.

Nortel Networks recommends that you do not restart the server at this time. (You need not restart the server until after you configure the server software and database.) Instead, continue to the next procedure to perform a database integrity check.

## Step 21. Perform a database integrity check on the new server

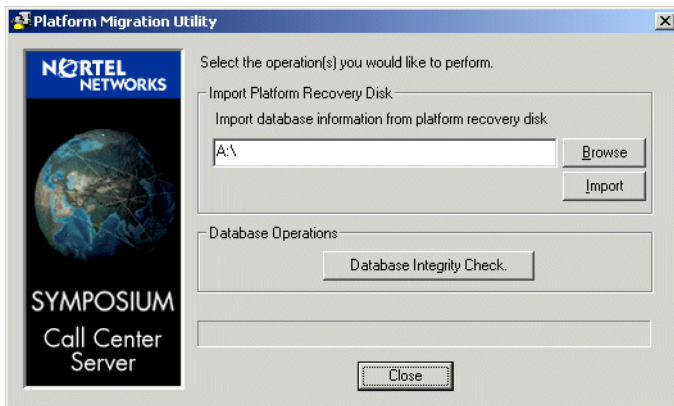
To ensure the integrity of the databases after you restore them to the new server, Nortel Networks recommends that you perform a database integrity check. This step is highly recommended to capture any database consistency problems.

Remember that a database integrity check can take from 30 minutes to 3 hours.

### To perform a database integrity check

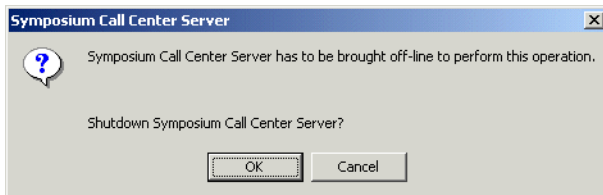
- 1 Log on to the server as **Administrator**.
- 2 From the Windows Start menu, choose Programs → Symposium Call Center Server → Migration.

**Result:** The Platform Migration Utility dialog box appears.



- 3 Click Database Integrity Check.

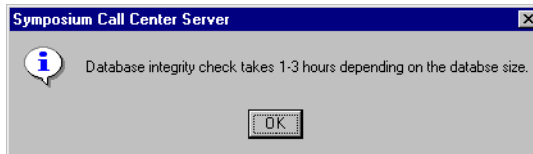
**Result:** The following dialog box appears:



- 4 Click OK.

**Result:** The system displays messages as it checks the status of each service running on the server.

- 5 Wait until the following dialog box appears:



- 6 Click OK to start the database integrity check.

**Result:** A DOS window appears on the screen. Do not close this window. The database integrity check takes from 1 to 3 hours to complete. You may not see any activity on the screen, but you should notice continuous disk activity.

- 7 Wait until the following dialog box appears:



- 8 Click OK.
- 9 Click Close to close the Platform Migration Utility dialog box.
- 10 Check the database check log (C:\DbChk.log) for database errors. To do this, use a text editor (such as Notepad).

When checking the log file, search for key words such as ERROR or MSG. Contact your Nortel Networks customer support representative for any detected database error. *Do not* put the server into service with any detected database errors, even though it may seem to be functioning normally.

**Note:** If you do not plan to reuse the remote directory backup on your Release 4.2 server for future backups (if you are planning to use tape backups), you may want to delete the user account you created for this purpose once you have completed the conversion. You may also want to unshare the directory on the network computer.

## Step 22. Configure the new server's software and database

Once you have restored the original server's database on the new server, you must configure the new server's software and database. Do one of the following:

---

|                                                 |                                                                                                                                                                      |
|-------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| If your original server is a Release 4.0 server | you can import the configuration data directly from your Platform Recovery Disk. You can then check the data to ensure it is correct and make any necessary changes. |
|-------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|

Follow the procedure "To configure the new server's software and database by importing configuration data from the Platform Recovery Disk" below.

---

|                                                 |                                                                                                                                                                                                                                                      |
|-------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| If your original server is a Release 3.0 server | you cannot import the configuration details using the Platform Recovery Disk because the system cannot accept a Release 3.0 keycode. You must enter the configuration details manually, referring to the configuration data in the MigInfo.txt file. |
|-------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

Follow the procedure "To configure the new server's software and database by entering data manually" on page 327.

---

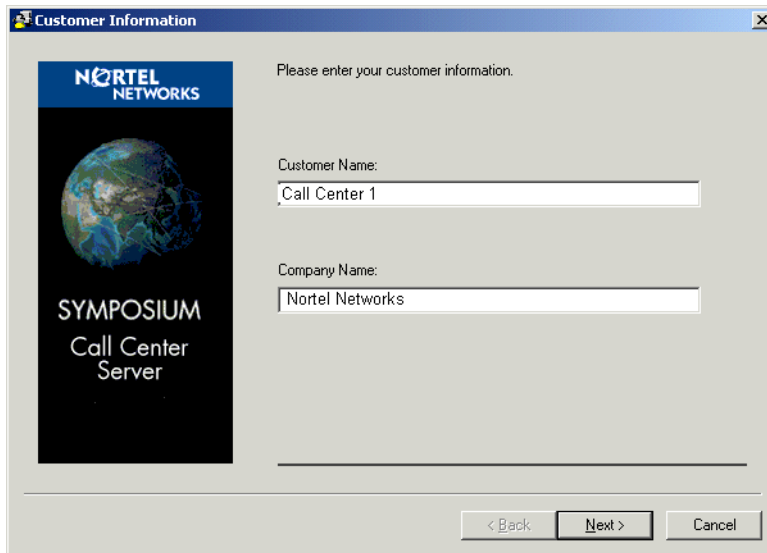
**Note:** Before you configure your new server in the following procedure, Nortel Networks recommends that you install a stand-alone PEP that addresses the Microsoft Media Sensing feature. If you disconnect the CLAN cable on the new server from the network, all Symposium Call Center Server services may be shut down immediately, causing your Symposium Call Center Server installation to fail. This event occurs because the Windows 2000 Network Media Sensing feature temporarily removes all network binding of a network card if the physical connection of this network card to the network is removed (similar to a NIC hardware indicator). You can avoid this problem by installing a stand-alone PEP that disables the Media Sensing feature (PEP number NS040206G004S).

### To configure the new server's software and database by importing configuration data from the Platform Recovery Disk

- 1 Log on to the server as **Administrator**.
- 2 Insert your Platform Recovery Disk in drive A.
- 3 From the Start menu, choose Run.

- 4 Type **d:\nortel\iccm\bin\svrconfig.exe -i -w a:\MigInfo.txt**, and then click OK.

**Result:** The Customer Information window appears.

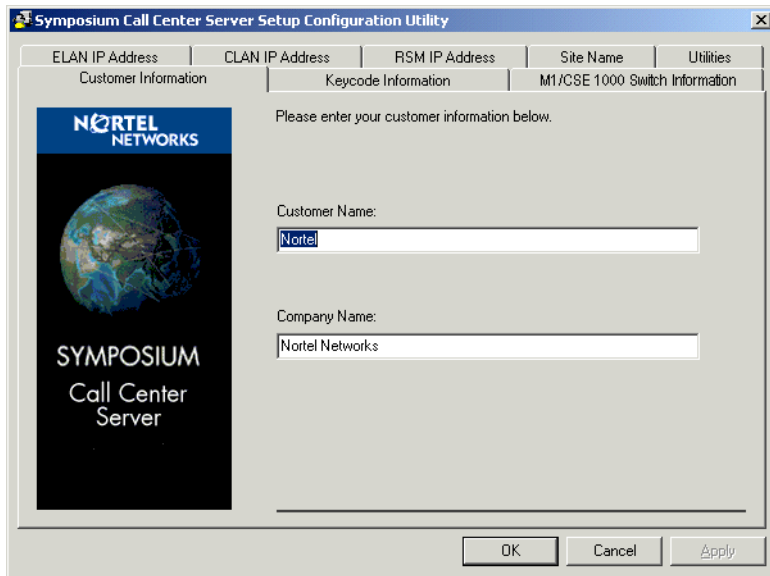


This is the first of several windows in the Setup Configuration Utility in which you enter your server configuration. However, because you have imported your Platform Recovery Disk, each window in this utility is already filled with the server's configuration data, as in the example above.

- 5 Check the information in the Customer Information window, and click Next to move to the next window.
- 6 Check the information in each subsequent window, and then click Next to move through the configuration utility.

- 7 When you reach the Site Name window, check the data, and then click Finish.

**Result:** The Server Setup Configuration Utility window appears. Each tab represents a window that you just viewed.



- 8 When you are satisfied with the configuration details, click OK.
- Result:** A window appears asking you to verify your keycode information.
- 9 Check that the features listed match the product you purchased, and then do one of the following:
- If the information is not correct, you may have entered the keycode and serial/dongle number incorrectly.
    - a. Click No.
    - b. Click the Keycode Information tab, and then make any necessary changes to your entries.
    - c. Click OK, and then repeat Step 9.

- If the information is correct, click Yes to continue.

**Result:** The Server Configuration Utility configures your server using the data you entered. It displays a status of each stage that the configuration passes through.

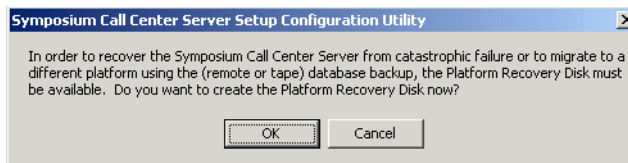
**Note:** This process can take 20 to 30 minutes to complete, depending on your server's CPU and database size. Do not close any windows during the configuration.

- 10 Wait until you see the following message:



- 11 Click OK.

**Result:** The following message appears:

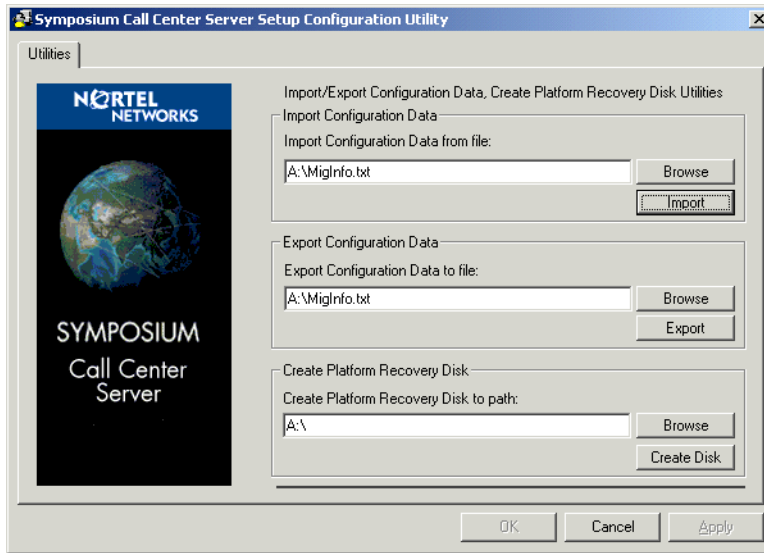




**12** Click OK.

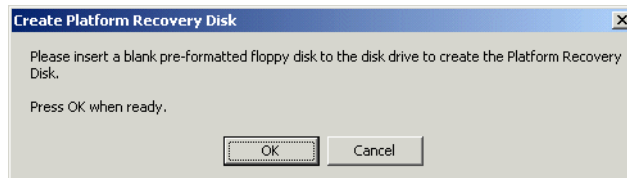
**Note:** If you click Cancel, remember to use the Server Setup Configuration utility to create a Platform Recovery Disk when the installation is complete. Skip to the result in Step 17.

**Result:** The Utilities tab appears.

**13** In the Create Platform Recovery Disk section, do one of the following:

- To save the Platform Recovery Disk to a floppy disk:
  - a. Insert a blank floppy disk in drive A.
  - b. Click Create Disk.

**Result:** The following message appears:

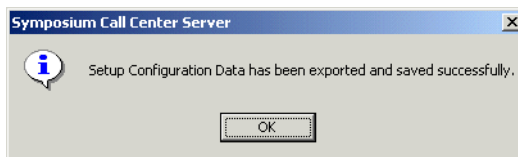


- c. Click OK.

- To save the Platform Recovery Disk to a remote directory:
  - a. Map a network drive to the remote directory into which you want to dump the Platform Recovery Disk information.  
**Note:** The name of the remote directory into which you save the Platform Recovery Disk must *not* contain any spaces. Spaces in the remote directory name will cause errors.
  - b. Click Browse and navigate to the mapped network drive.
  - c. Select the drive and click OK.  
**Result:** The drive that you selected appears to the left of the Browse button.
  - d. Click Create Disk.

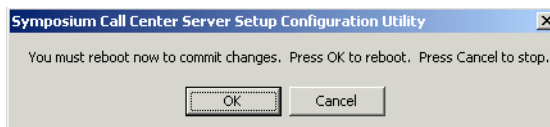
**Result:** The system creates the Platform Recovery Disk.

- 14 Wait until the following message appears:



- 15 Click OK.
- 16 If you used a floppy disk, remove it from the drive. Make sure that the Platform Recovery Disk is labeled appropriately and stored in a safe place.
- 17 Click OK to close the Symposium Call Center Server Setup Configuration Utility dialog box.

**Result:** The following message appears:



- 18 Click OK.

**Result:** The server automatically restarts.

**19 Log on as NGenSys.**

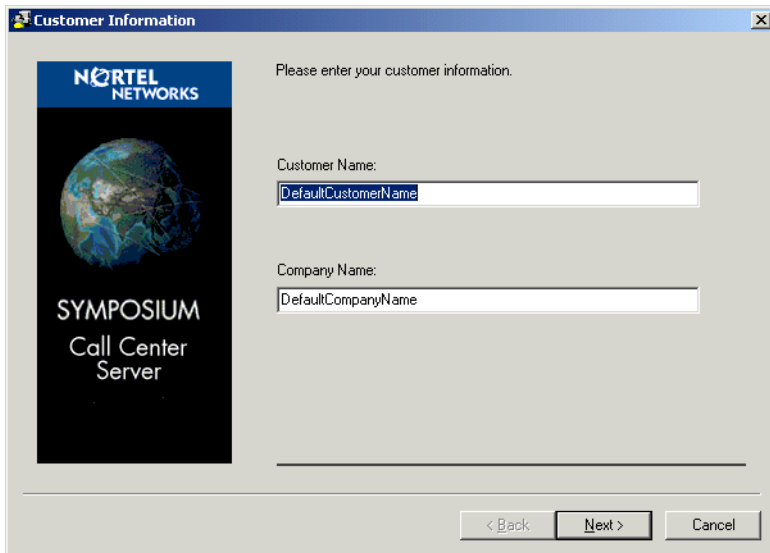
**Note:** It may take several minutes for the desktop to appear.

**Result:** The MAS Trace Window appears. The server and database configuration is complete, and the Symposium Call Center Server software is ready for use.

**To configure the new server's software and database by entering data manually**

- 1 Log on to the server as **Administrator**.
- 2 From the Start menu, choose Programs → Symposium Call Center Server → Server Setup Configuration.

**Result:** The Customer Information dialog box of the configuration utility appears.



- 3 Enter the customer and company names.

- 4 Click Next.

**Result:** The Keycode Information dialog box appears.

Keycode Information

Please enter the serial number for M1 or dongle number for DMS/MSL and the keycode below.

Serial/Dongle Number:

Keycode:

Keycode to load from file:

...

Load

< Back   Next >   Cancel

- 5 Type your serial number (for M1/CSE 1000 switches) or dongle number (for DMS/MSL-100 switches), and the keycode in the appropriate boxes.

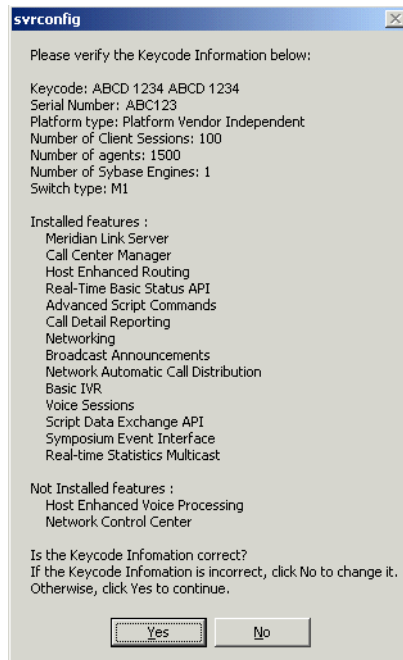
**Note:** The serial/dongle number is used in the generation of the keycode. Make sure you enter the correct keycode for the serial/dongle number that you have.

- 6 Click Next.

**Note:** If the system cannot validate your entries, it displays an error message. Do the following:

- Click OK on the error message(s).
- Check your entries in the Keycode Information dialog box, and make any corrections.
- Click Next.

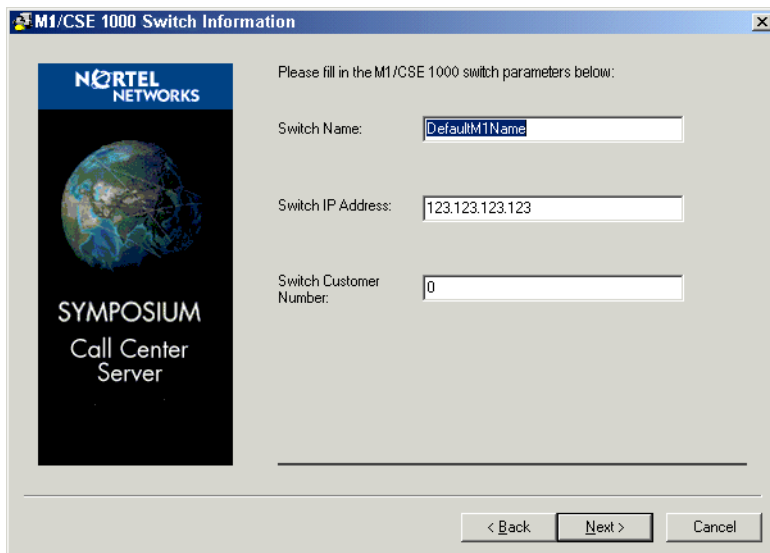
**Result:** If you entered a valid keycode and serial/dongle number, the system displays a dialog box similar to the following one:



- 7 Check that the features listed match the product you purchased, and then do one of the following:
- If the information is not correct, you may have entered the keycode and serial/dongle number incorrectly. Click No and go back to Step 5.
  - If the information is correct, click Yes to continue.

**Result:** The Switch Information dialog box appears for the type of switch identified by your keycode. This can be either the M1/CSE 1000 Switch Information dialog box or the DMS/MSL Switch Configuration dialog box. The M1/CSE 1000 Switch Information box is shown below.

**Note:** If you are installing a Network Control Center (NCC) server, a switch information dialog box does not appear.



The dialog box is titled "M1/CSE 1000 Switch Information". On the left is a logo for "NORTEL NETWORKS" above a globe and the text "SYMPOSIUM Call Center Server". On the right, it says "Please fill in the M1/CSE 1000 switch parameters below:". There are three input fields: "Switch Name:" with the text "DefaultM1Name", "Switch IP Address:" with the text "123.123.123.123", and "Switch Customer Number:" with the text "0". At the bottom right are three buttons: "< Back", "Next >", and "Cancel".

- 8 Enter the appropriate information for your switch.

**Note:** The following restrictions apply to switch names:

**ATTENTION**

For a DMS/MSL-100 switch, the Linkset Name *must* be entered in uppercase only.

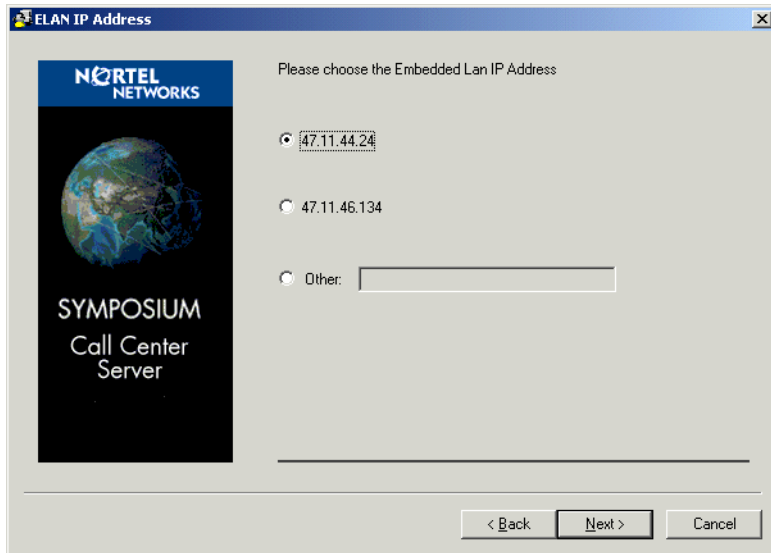
- Valid characters for switch names are A–Z, a–z, 0–9, \_ (underscore), and . (period).
- Switch names must begin with an alphabetic character and cannot contain spaces.
- The last character must not be an underscore or a period.
- Switch names must not exceed 80 characters in length.

**Tip:** If you are unsure of the correct information or if you make a mistake, you can change the switch information after you finish the installation (see “Feature Report” on page 625).

- 9 Click Next.

**Result:** The ELAN IP Address dialog box appears.

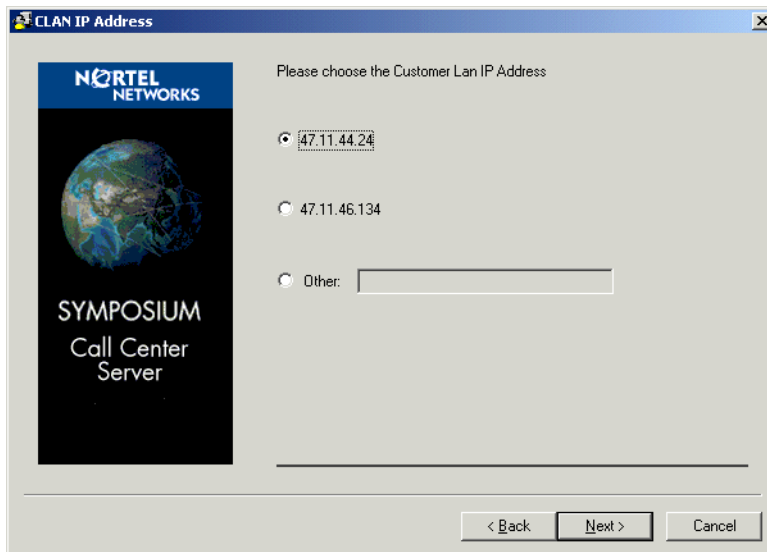
**Note:** If you are installing a Network Control Center server, the configuration utility bypasses this dialog box and displays the CLAN IP Address dialog box. Go to Step 12.



- 10 Click the radio button beside the correct IP address for your ELAN. If none of the addresses are correct, click Other, and then type the IP address.

- 11 Click Next.

**Result:** The CLAN IP Address dialog box appears.

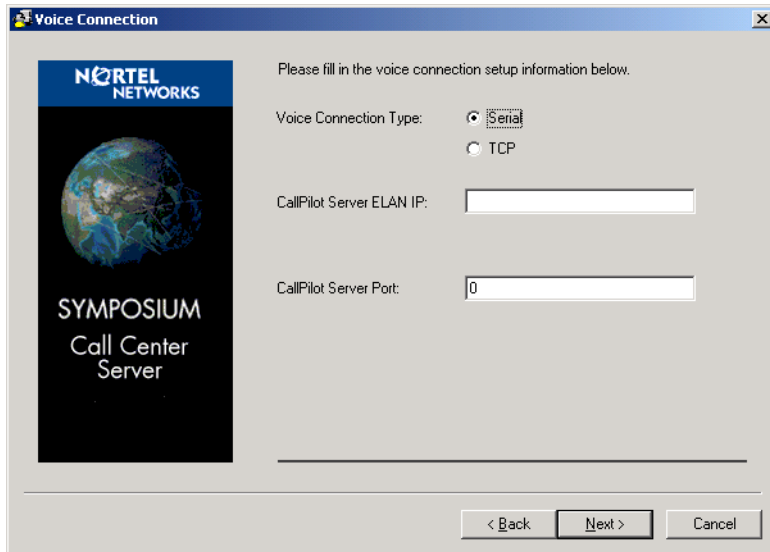


- 12 Click the radio button beside the correct IP address for your CLAN. If none of the addresses are correct, click Other, and then type the IP address.



**13** Click Next.

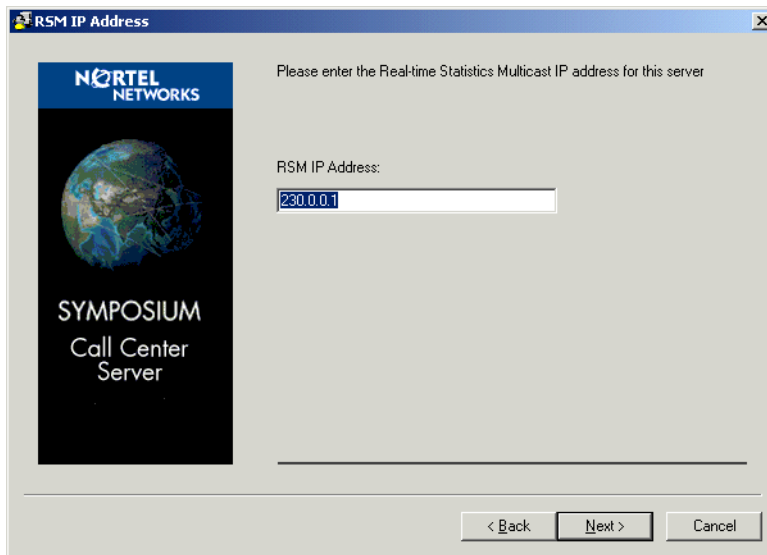
**Result:** The Voice Connection dialog box appears.

**14** Based on the voice processing system you are using, complete this page as follows:

- If you are not using an integrated voice processing system (Meridian Mail or CallPilot), for Voice Connection Type, select Serial, and click Next.
- If you are using Meridian Mail as your voice processing system, for Voice Connection Type, select Serial and click Next.
- If you are using CallPilot, for Voice Connection Type select TCP. Specify the ELAN IP address of the CallPilot server, and set the CallPilot Server Port to 10008. Then click Next.

**Result:** If the optional Real-time Statistics Multicast feature is

- enabled for your server, the RSM IP Address dialog box appears. Continue with the following step.
- not enabled, the Site Name dialog box appears. Go to Step 17.

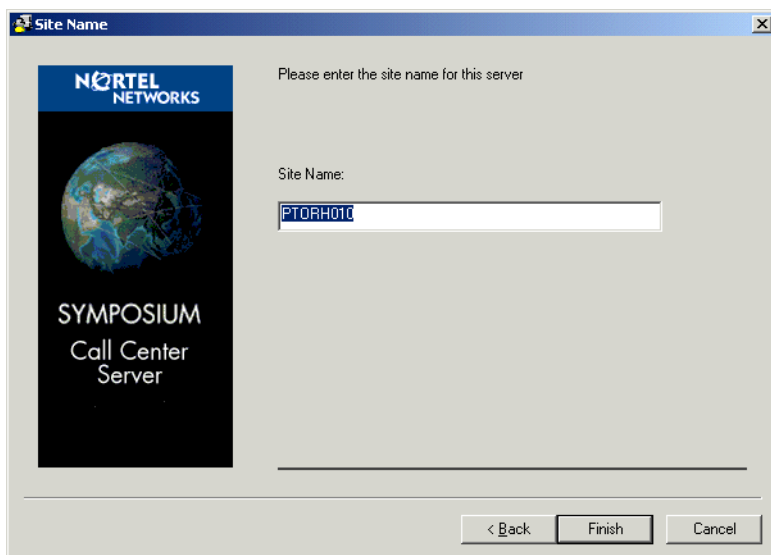


- 15** Enter the RSM IP address that you want to associate with the sending of real-time statistical data. This address is referenced by other applications, such as Symposium Web Client, that need access to real-time statistical data. The default RSM address is 230.0.0.1. You can use a different address, provided that it is within the range of valid RSM IP addresses. For more information, see Chapter 17, "Installing and configuring Real-time Statistics Multicast."

**Note:** The RSM IP address should not be confused with and is separate from your server's CLAN or ELAN addresses.

16 Click Next.

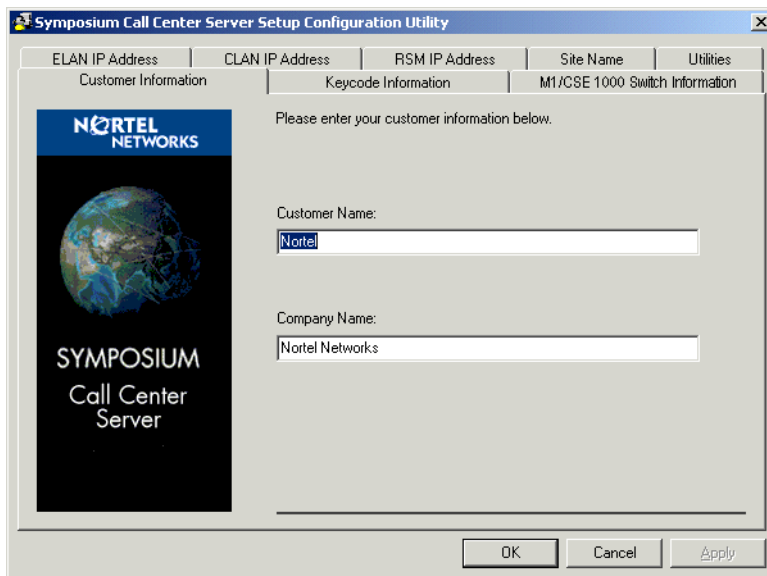
**Result:** The Site Name dialog box appears.



- 17 Enter a site name for the server, and then click Finish.

**Tip:** The site name must be unique and can consist of any combination of up to 15 characters. Do not use spaces or the backslash (\) character.

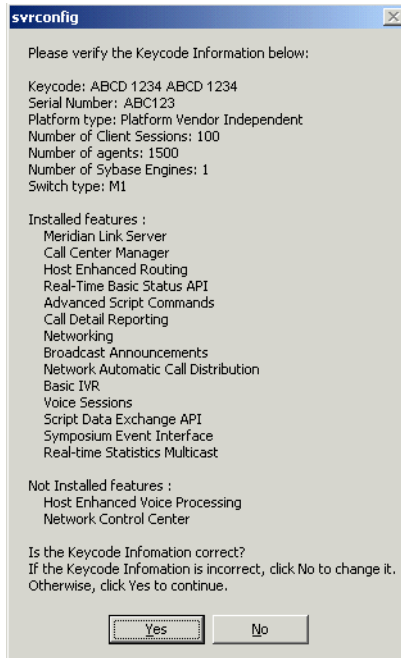
**Result:** The Symposium Call Center Server Setup Configuration Utility window appears. It contains a tab for each of the dialog boxes in which you entered information during the configuration. (It also contains a Utilities tab, which you can use to import and export configuration data and to create a Platform Recovery Disk.)



- 18 Click each tab and check that the information is correct. Make any necessary corrections.

- 19 Click OK to save your changes.

**Result:** A dialog box appears, similar to the one shown below, asking you to verify your keycode information again:

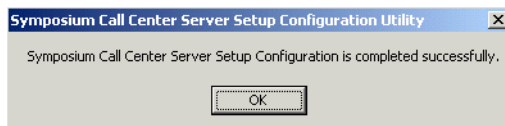


- 20 Click Yes.

**Result:** The Server Configuration Utility configures your server using the data you entered. It displays a status of each stage that the configuration passes through.

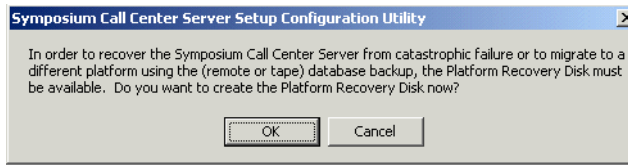
**Note:** This process can take 20 to 30 minutes to complete, depending on your server's CPU and database size. Do not close any windows during the configuration.

- 21 Wait until you see the following message:



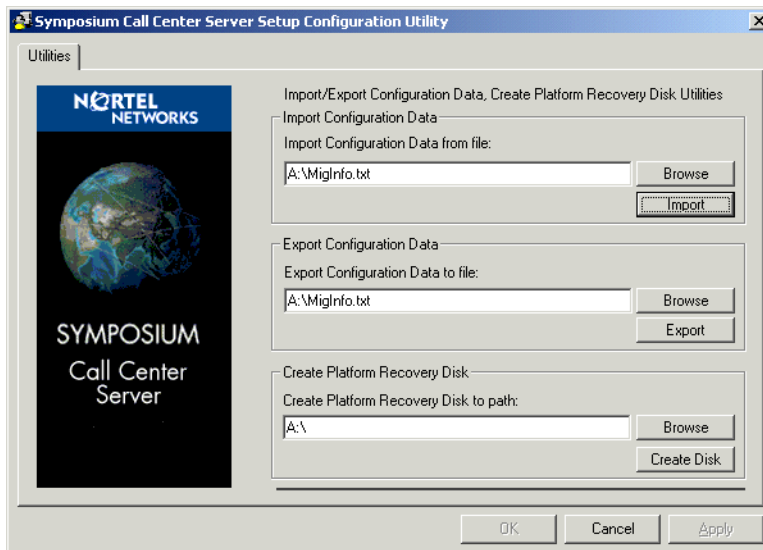
**22** Click OK.

**Result:** The following message appears:

**23** Click OK.

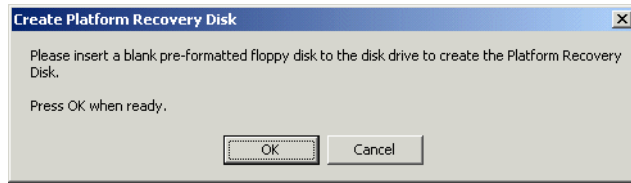
**Note:** If you click Cancel, remember to use the Migration utility to create a Platform Recovery Disk when the installation is complete. Skip to the Result in Step 28.

**Result:** The Utilities tab appears.

**24** In the Create Platform Recovery Disk section, do one of the following:

- To save the Platform Recovery Disk to a floppy disk:
  - a. Insert a blank floppy disk in drive A.
  - b. Click Create Disk.

**Result:** The following message appears:

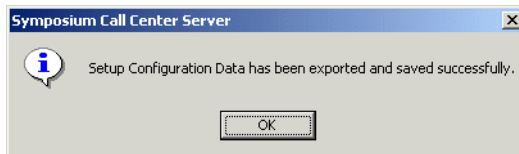


- c. Click OK.
- To save the Platform Recovery Disk to a remote directory:
  - a. Map a network drive to the remote directory.

**Note:** The name of the remote directory into which you save the Platform Recovery Disk must not contain any spaces. Spaces in the remote directory name cause errors.
  - b. Click Browse, and then navigate to the mapped network drive.
  - c. Select the drive, and then click OK.
  - d. Click Create Disk.

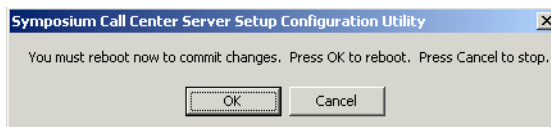
**Result:** The system creates the Platform Recovery Disk.

- 25 Wait until the following message appears:



- 26 Click OK.
- 27 If you used a floppy disk, remove it from the drive. Make sure the Platform Recovery Disk is labeled appropriately and stored in a safe place.
- 28 Click OK to close the Symposium Call Center Server Setup Configuration Utility dialog box.

**Result:** The following message appears:



**29** Click OK.

**Result:** The server automatically restarts.

**30** Log on as **NGenSys**.

**ATTENTION**

---

You must log on as NGenSys to perform many server management functions, such as installing PEPs. If you log on to the server as Administrator to perform Windows management functions, when you finish, always remember to log off and log on again as NGenSys.

**Note:** It may take several minutes for the desktop to appear.

**Result:** The MAS Trace Window appears. The server and database configuration is complete, and the Symposium Call Center Server software is ready for use.

**Note:** If you completed this procedure as part of a server recovery scenario or a platform migration, return now to the chapter that referenced this procedure. That chapter tells you what procedure to perform next.



## **Step 23. Apply the latest Service Update pack and any required PEPs to the new server**

Ensure that the latest Service Update pack and any required PEPs are applied to the new server. Check both the Server Supplementary CD supplied with Release 4.2 software and Nortel Network's Meridian PEP Library web site.

For information on installing Service Update packs or PEPs, see Chapter 4, "Installing/uninstalling PEPs and Service Update packs."

### **ATTENTION**

---

If you are using Host Data Exchange (HDX) or Real-Time Data (RTD) API applications, then you may need to update the run-time environment on the open interfaces client at this time. For details, see Appendix E, "Migrating API applications."

If you are using Real-Time Statistics Multicast (RSM), then you do not need to update your environment.

If you are using Meridian Link Services (MLS), then see the latest Meridian Link Services Interface Specification posted on the third-party programmers' web site.

## **Step 24. Install pcAnywhere on the new server**

Install pcAnywhere using the instructions in Chapter 5, "Installing and configuring pcAnywhere."

## Step 25. Prepare the new server for full service

There are a series of steps you must complete before putting Release 4.2 of Symposium Call Center Server into full service. The steps are different depending on whether

- you are converting within the same server
- you are migrating to a different server

For each of these two scenarios, a separate procedure is provided below.

### To prepare the server for full service (for conversions within the same server)

- 1 If it is not already connected, reconnect the server to the network. Restart the server to begin using the Release 4.2 Symposium Call Center Server software.
- 2 Verify the proper operation of the Symposium Call Center Server software on the new server.
- 3 Create a Platform Recovery Disk for the new server if you bypassed this step during the configuration. Without this disk, the server cannot be restored if there is a system failure. See “Creating a Platform Recovery Disk” on page 510.
- 4 If your server is a Network Control Center server, or a server that is in a networking environment, follow the steps in “Converting servers in a networking environment” on page 249.
- 5 Back up the new server’s database. See Chapter 14, “Backing up data.”  
**Note:** Nortel Networks recommends that you perform a database backup on the new server before putting the server into full service.
- 6 If your server is equipped with RAID, rebuild your RAID drives when you are satisfied with the operation of the new release of Symposium Call Center Server.
- 7 Determine whether you need to perform database expansion to increase the amount of available space on your new server for database use. Database expansion is not automatic when converting to Release 4.2, as it was in earlier releases. If you have either additional partitions or larger partitions on your new server, you must use the Database Expansion utility

to expand the database into this extra space. For more information, see “Database Expansion utility” on page 615.

**ATTENTION**

---

If you expand your database, then you must create a new Platform Recovery Disk afterward. For details, see “Creating a Platform Recovery Disk” on page 510.

**To prepare the server for full service (when migrating to a different server)**

- 1 If the tape drive on the new server is not the tape drive you want to use from this point forward, remove it and replace it with the appropriate drive and its associated driver software.
- 2 Shut down the call center operation and services on the original server. Disconnect the original server from the network.
- 3 If the server is a DMS/MSL server type, disconnect the Nortel Networks software feature key adapter (dongle) from the LPT1 parallel port of the original platform, and move it to the new platform. For a new High Availability platform, insert the serial dongle into the Master port of the serial port splitter.
- 4 Connect the new server to the network. Restart the server to begin using the Release 4.2 Symposium Call Center Server software.
- 5 Verify the proper operation of the Symposium Call Center Server software on the new server.
- 6 If you did not create a Platform Recovery Disk during configuration of the new server, create one now. Without this disk, the server cannot be restored if there is a system failure. See “Creating a Platform Recovery Disk” on page 510.
- 7 If your server is a Network Control Center server, or a server that is in a networking environment, follow the steps in “Converting servers in a networking environment” on page 249.
- 8 Back up the new server’s database. See Chapter 14, “Backing up data.”  
**Note:** Nortel Networks recommends that you perform a database backup on the new server before putting the server into full service.
- 9 Determine whether you need to perform database expansion to increase the amount of available space on your new server for database use. Database expansion is not automatic when converting to Release 4.2, as it

was in earlier releases. If you have either additional partitions or larger partitions on your new server, you must use the Database Expansion utility to expand the database into this extra space. For more information, see “Database Expansion utility” on page 615.

**ATTENTION**

---

If you expand your database, then you must create a new Platform Recovery Disk afterward. For details, see “Creating a Platform Recovery Disk” on page 510.

## Chapter 8

---

# Converting from server Release 1.5 to Release 4.2

### In this chapter

|                                                       |     |
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| Overview of conversion                                | 352 |
| Preparing for conversion                              | 361 |
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| Preparing the new server                              | 387 |
| Completing the conversion                             | 389 |

# Using this chapter

## Introduction

This chapter explains how to convert from Release 1.5 of Symposium Call Center Server to Release 4.2. This involves moving all your setup configuration, call center configuration, and call statistics to a Release 4.2 PVI platform.



### CAUTION

---

**Risk of conversion failure. Use the Conversion checklist!**

To complete a conversion correctly, you must follow the conversion checklist that is included in this chapter (see “Conversion checklist” on page 347). It provides an overview of each step you must perform and the order in which you must perform the steps. Some of the procedures you need to complete are referenced from other chapters in this guide, and the checklist provides the correct page references.

**Important:** Make a photocopy of the checklist and review it thoroughly before you start. During the conversion procedure, check off each item in the checklist as you complete it, to ensure you stay on track.

This chapter references the following chapters in this guide:

- Chapter 2, “Performing the base configuration of the server”
- Chapter 5, “Installing and configuring pcAnywhere”
- Chapter 4, “Installing/uninstalling PEPs and Service Update packs”
- Chapter 14, “Backing up data”
- Chapter 16, “Using server utilities”

# Conversion checklist

## Introduction

Use the following checklist throughout this procedure to ensure that you perform all the required steps for conversion. Take a photocopy of the checklist and keep it with you while you work.

The checklist is broken into several parts; each part corresponds to a different section in this chapter:

1. Preparing for conversion (perform these steps in advance of the conversion date)
2. Collecting information from the original server
3. Preparing the new server
4. Completing the conversion

## How to use the checklist

Here are some important points to keep in mind when using this checklist:

- The checklist contains each main step you must perform to prepare for and complete a conversion. The order in which you complete certain steps is critical, so do not change the order of the steps unless the instructions in this chapter provide you with that option.
- Each step in the checklist provides a page reference to the procedure you must follow to complete that step. Most of these procedures are in this chapter, and they appear in chronological order according to the checklist. However, a few of the procedures are in other chapters in this guide.

**Important:** When you complete a procedure that is documented in another chapter, return to the checklist to check off the item and determine the next step in the conversion process.

## Preparing for conversion

**Note:** Perform these steps in advance of the scheduled conversion date.



|                                                                                                                            |  |
|----------------------------------------------------------------------------------------------------------------------------|--|
| <b>Step 1. Read the “Overview of conversion”</b><br>See “Overview of conversion” starting on page 352 of this chapter.     |  |
| <b>Step 2. Check for Installation Addenda.</b><br>For instructions, see page 361.                                          |  |
| <b>Step 3. Make sure you have the required Windows 2000 knowledge and documentation</b><br>For instructions, see page 362. |  |
| <b>Step 4. Gather the materials required for conversion.</b><br>For instructions, see page 362.                            |  |
| <b>Step 5. Update your Release 1.5 scripts.</b><br>For instructions, see page 364.                                         |  |



## Collecting information from the original server



|                                                                                                                                        |  |
|----------------------------------------------------------------------------------------------------------------------------------------|--|
| <b>Step 6. Install the latest Service Update pack and any required PEPs on the original server.</b><br>For instructions, see page 365. |  |
| <b>Step 7. Install the Pre-conversion executable on the original server.</b><br>For instructions, see page 366.                        |  |
| <b>Step 8. Perform a database integrity check on the original server.</b><br>For instructions, see page 368.                           |  |
| <b>Step 9. Create a Platform Recovery Disk on the original server.</b><br>For instructions, see page 371.                              |  |
| <b>Step 10. Create a backup of the original server's database.</b><br>For instructions, see page 374.                                  |  |
| <b>Step 11. Check the disk partition configuration on the original server.</b><br>For instructions, see page 383.                      |  |
| <b>Step 12. Check the RAM size of the original server.</b><br>For instructions, see page 384.                                          |  |

## Preparing the new server



|                                                                                                                 |  |
|-----------------------------------------------------------------------------------------------------------------|--|
| <b>Step 13. Configure the operating system and drives on the new server.</b><br>For instructions, see page 387. |  |
|-----------------------------------------------------------------------------------------------------------------|--|

**Completing the conversion**

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| <b>Step 14. Perform a platform compliance check on the new server.</b><br>For instructions, see page 390.                                                                                                                                                                                                                                                                                                                                                             |  |
| <b>Step 15. Install the Symposium Call Center Server software on the new server.</b><br>For instructions, see page 393.                                                                                                                                                                                                                                                                                                                                               |  |
| <b>Step 16. Apply the latest Install-time PEP on the new server.</b><br>For instructions, see Chapter 4, “Installing/uninstalling PEPs and Service Update packs.”                                                                                                                                                                                                                                                                                                     |  |
| <b>Step 17. Import database information from the Platform Recovery Disk.</b><br>For instructions, see page 397.                                                                                                                                                                                                                                                                                                                                                       |  |
| <b>Step 18. Install the Symposium Call Center Server database software on the new server.</b><br>For instructions, see page 399.<br><br><b>Note:</b> If you are converting a non-English version of Symposium Call Center Server, install the appropriate language PEP before proceeding. Follow the instructions in “Installing PEPs or Service Update packs on the server” on page 160. For a list of server language PEPs, see “Server language PEPs” on page 746. |  |
| <b>Step 19. Restore the original server’s database to the new server.</b><br>For instructions, see page 404.                                                                                                                                                                                                                                                                                                                                                          |  |
| <b>Step 20. Perform a database integrity check on the new server.</b><br>For instructions, see page 410.                                                                                                                                                                                                                                                                                                                                                              |  |
| <b>Step 21. Configure the new server’s software and database.</b><br>For instructions, see page 412.                                                                                                                                                                                                                                                                                                                                                                  |  |
| <b>Step 22. Apply the latest Service Update pack and any required PEPs to the new server.</b><br>For instructions, see Chapter 4, “Installing/uninstalling PEPs and Service Update packs.”                                                                                                                                                                                                                                                                            |  |

|                                                                                                                                          |  |
|------------------------------------------------------------------------------------------------------------------------------------------|--|
| <b>Step 23. Install pcAnywhere on the new server.</b><br>For instructions, see page Chapter 5, “Installing and configuring pcAnywhere.”. |  |
| <b>Step 24. Upgrade client PCs to Release 4.0 software.</b><br>For instructions, see page 427.                                           |  |
| <b>Step 25. Prepare the new server for full service.</b><br>For instructions, see page 428.                                              |  |

# Overview of conversion

## Introduction

Conversion from Release 1.5 to 4.2 involves a series of procedures that you must complete before the new server is ready for service. In simple terms, the conversion has four main steps:

1. Prepare for conversion, which involves preparing yourself and the site prior to the conversion date.
2. Collect information from the original server, which includes creating a database backup and a Platform Recovery Disk.
3. Configure the new server as a Release 4.2 PVI server, which involves installing and configuring the Windows 2000 operating system (Server or Advanced Server) and partitioning the drives according to PVI requirements.
4. Install and configure Release 4.2 of Symposium Call Center Server on the new server, which also involves importing database information from the Platform Recovery Disk and restoring the database.

**Note:** If you are also migrating from Symposium Voice Services on Meridian Mail to Symposium Voice Services on CallPilot, perform and verify the server conversion before migrating your voice processing system.

## Understanding server requirements for conversion to Release 4.2

Release 4.2 of Symposium Call Center Server runs only on the PVI platform. Before you attempt a conversion, you must make sure that the server you plan to use for Release 4.2 meets the requirements for a Release 4.2 PVI server. For information on these requirements, see Chapter 2, “Performing the base configuration of the server.”

You cannot convert to Release 4.2 using your existing Meridian Application Server (MAS) platform. You need to choose a different server that meets the PVI requirements.

The only MAS model that can be reconfigured as a PVI server for Release 4.2 is the 1003t server. Other MAS models (1000t, 1001t, 701t, and 702t) cannot be reconfigured as Release 4.2 PVI servers.

**Notes:**

- Certain 702t PVI models can be used as platforms for Release 4.2. For details, see Appendix B, “Determining whether a 702t server can be used with Release 4.2,” on page 709.
- Symposium Call Center Server is also supported on any High Availability Platform that has undergone compatibility testing with Symposium Call Center Server as part of Nortel Networks’ Compatibility Test Program (for more information, see “High Availability platforms” on page 31).

**Understanding disk partitioning requirements on the new server**

The following list describes requirements for the disk partitions on your new server:

- The new PVI server must have at least one more partition for the database files than the original MAS server. This is because, on a MAS platform, the database begins on the D partition (with optional expansion into additional partitions), while on a PVI platform, the database begins on the F partition (with optional expansion). For more information, see “Disk partitioning examples” below.
- The drive partitions must be the same size or larger than those on the original server.
- The drive partitions must meet the minimum size requirements for a Release 4.2 PVI server. For details, see Chapter 2, “Performing the base configuration of the server.”

How you actually partition your disks depends on the hardware configuration of the server on which you are going to run your Release 4.2 system. Use the disk partitioning examples in the next section as a guideline.

# Disk partitioning examples

Use the examples below to understand the disk partitioning requirements.

## Example 1: MAS server to PVI server

If the original MAS server has only drive C and drive D, the original database is located in drive D. The new PVI server must have the database beginning in drive F, so you require partitions C, D, and an additional drive F. You can use additional new database partitions.

| Original MAS drives | New Platform Vendor Independence drives and partitions |
|---------------------|--------------------------------------------------------|
| C                   | C (operating system and pcAnywhere)                    |
| D (database)        | D (Symposium Call Center Server)                       |
|                     | F (database)                                           |

## Example 2: MAS server to PVI server

If the original MAS server has drives C, D, F, and G, the original database is located in drives D, F, and G (three database partitions). The new PVI server must have the database beginning in drive F, so you require drives C, D, F, G, and an additional partition H. (The database partitions are for drives F, G, and H). You can use additional new database partitions.

| Original MAS drives | New Platform Vendor Independence drives and partitions |
|---------------------|--------------------------------------------------------|
| C                   | C (operating system and pcAnywhere)                    |
| D (database)        | D (Symposium Call Center Server)                       |
| F (database)        | F (database)                                           |
| G (database)        | G (database)                                           |
|                     | H (database)                                           |

### **Database size and database expansion**

When you migrate from your original server to a new server, the database on the new server is exactly the same size as the database on the original server, even if you create additional or larger database partitions. Release 4.2 of Symposium Call Center Server does not automatically expand your database into additional or larger database partitions during conversion and platform migration, as in earlier releases.

For example, if your original server has two database partitions (D and F), and your new server has three database partitions (F, G, and H), you must use the Database Expansion Utility to make use of the additional partition (H). Also, if any of the partitions on your new server are larger than those on the original server, you must use the Database Expansion utility to make use of the additional space. For more information, see the “Database Expansion utility” on page 615.

### **Keycode requirements for conversion to Release 4.2**

You must obtain a new keycode with the same limits and features as your existing system. Then, to upgrade your Release 4.2 server with new features, obtain another keycode and use the Server Setup Configuration utility to reconfigure your server. For more information on upgrading features, see “Adding server features with a keycode upgrade” on page 648.

### **Dealing with pegging data during conversion**

During the conversion procedure, you must create a backup of your original server’s database. The database backup is an online operation, so the server remains in service during the backup. However, if the call center continues to respond to calls after the database backup, then some call pegging data will be missing between the database backup of the original server and the restored database of the new server.

If you must transfer pegging data to the new server, Nortel Networks recommends that

- you take the original server out of service as soon as you have completed the database backup and that it remain out of service during the entire conversion procedure

- you collect all of the needed call statistic and pegging data from the original server's database before the server is taken out of service

## Ways to save time during conversion

Most conversions take place in situations where down time for the server is limited. Here are a number of suggestions for minimizing the amount of down time and making the conversion go more smoothly.

### **Complete the checklist “Preparing for conversion” ahead of time**

The first section in the Conversion Checklist, titled “Preparing for conversion,” lists a number of steps you can perform well in advance of the scheduled date for conversion. These steps include reading overview information, performing any required Symposium Call Center Server client conversions, and solving potential problems with backup tape drives.

### **Perform a trial run of the Database Integrity Check, Platform Recovery Disk creation, and database backup**

Some conversions are slowed down when database errors are detected during a Database Integrity Check, or during the creation of a Platform Recovery Disk, which checks for database segmentation problems. Also, it takes time to set up and test the remote directory to back up your database.

For these reasons, it is good practice to perform a trial run of the Database Integrity Check, Platform Recovery Disk creation, and database backup at least several days before the conversion is scheduled. This way, any problems can be detected and resolved ahead of time. Performance of trial runs ahead of the conversion date also enables you to estimate the time required to complete each step.

**Note:** Keep in mind that the time required to do a database backup can vary between the trial run and the actual backup day due to several factors. For example, the amount of data to back up and the amount of customer network traffic can change from day to day.



**When migrating to another server, you can begin configuring the new server before taking the original server offline**

When you are migrating to a new hardware platform as part of your conversion plan, you can perform some steps to prepare the new server at the same time as, or in advance of, some earlier steps in the conversion checklist. Based on the state of the original server, there are two scenarios that you can follow.

**Scenario 1**

You can install both the Symposium Call Center Server software and the Sybase software on the new server before proceeding with the main migration steps (the database backup on the original server, and restoring the database on the new server) if your original server meets the following requirements:

- You must install the minimum required PEPs/SUs on the original server and then create a Platform Recovery Disk on this server.
- You can use this Platform Recovery Disk only if you have *not* performed a database expansion on the original server after creating it.

If your original server meets these requirements, then use the steps shown in the “Scenario 1 checklist” on page 358. Otherwise, follow the steps in the “Scenario 2 checklist” on page 360.

## Scenario 1 checklist

---

### 1. Perform Steps 1 through 5.

---

| 2. Perform these steps                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | before, or in parallel with, these steps.                                                                                                                                                                                                                      |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>■ Step 6. Install the latest Service Update pack and any required PEPs on the original server</li> <li>■ Step 7. Install the Pre-conversion executable on the original server</li> <li>■ Step 8. Perform a database integrity check on the original server</li> <li>■ Step 9. Create a Platform Recovery Disk on the original server</li> <li>■ Step 13. Configure the operating system and drives on the new server</li> <li>■ Step 14. Perform a platform compliance check on the new server.</li> <li>■ Step 15. Install the Symposium Call Center Server software on the new server</li> <li>■ Step 16. Apply the latest Install-time PEP on the new server</li> <li>■ Step 17. Import database information from the Platform Recovery Disk</li> <li>■ Step 18. Install the Symposium Call Center Server database software on the new server</li> </ul> | <ul style="list-style-type: none"> <li>■ Step 10. Create a backup of the original server's database</li> <li>■ Step 11. Check the disk partition configuration on the original server</li> <li>■ Step 12. Check the RAM size of the original server</li> </ul> |

---

**Note:** If you are converting a non-English version of Symposium Call Center Server, install the appropriate language PEP before proceeding to step 19. Follow the instructions in “Installing PEPs or Service Update packs on the server” on page 160. For a list of server language PEPs, see “Server language PEPs” on page 746.

---

---

### 3. Perform Step 19 through to the end of the checklist.

---

**Note:** The procedures in the above table can be performed days or weeks ahead of the actual migration day as long as you do not change the size of the database on the original server *after* you create the Platform Recovery Disk and install the operating system and Symposium Call Center Server software on the new server. If you change the database size on the original server after creating the Platform Recovery Disk and installing this software, then you must create a new Platform Recovery Disk, uninstall the database software from the new server, reimport the database information from the new Platform Recovery Disk, and install the database software again before proceeding with the migration.

#### Scenario 2

If your original server does not meet the requirements listed in Scenario 1 (for example, if you have expanded the database on the original server after creating the Platform Recovery Disk), then you can still save time during a migration by performing the steps outlined in the following table. In this scenario, you can complete the preparation of the new server up until the point when you import the Platform Recovery Disk. This allows you to get a lot of preparatory work done on the new server before you take the original server offline.

In this scenario, you follow the checklist in the order shown in the following table:

---

## Scenario 2 checklist

---

### 1. Perform Steps 1 through 5.

---

| 2. Perform these steps                                                                                                                                                                                                                                                                                                                                             | before, or in parallel with, these steps.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>■ Step 13. Configure the operating system and drives on the new server</li> <li>■ Step 14. Perform a platform compliance check on the new server</li> <li>■ Step 15. Install the Symposium Call Center Server software on the new server</li> <li>■ Step 16. Apply the latest Install-time PEP on the new server</li> </ul> | <ul style="list-style-type: none"> <li>■ Step 6. Install the latest Service Update pack and any required PEPs on the original server</li> <li>■ Step 7. Install the Pre-conversion executable on the original server</li> <li>■ Step 8. Perform a database integrity check on the original server</li> <li>■ Step 9. Create a Platform Recovery Disk on the original server</li> <li>■ Step 10. Create a backup of the original server's database</li> <li>■ Step 11. Check the disk partition configuration on the original server</li> <li>■ Step 12. Check the RAM size of the original server</li> </ul> |

---

### 3. Perform Step 17 through to the end of the checklist.

**Note:** If you are converting a non-English version of Symposium Call Center Server, install the appropriate language PEP after step 18, and before step 19. Follow the instructions in “Installing PEPs or Service Update packs on the server” on page 160. For a list of server language PEPs, see “Server language PEPs” on page 746.

---

# Preparing for conversion

## Introduction

There are a number of steps you can do ahead of time to plan and prepare for conversion.

The following is a summary of the procedures you must complete in this section:

- Step 1. Read the “Overview of conversion”
- Step 2. Check for Installation Addenda
- Step 3. Make sure you have the required Windows 2000 knowledge and documentation
- Step 4. Gather the materials required for conversion
- Step 5. Update your Release 1.5 scripts

## Step 1. Read the “Overview of conversion”

The section “Overview of conversion” on page 352 contains information on a number of topics you need to understand before performing a conversion. Make sure to read this section carefully.

## Step 2. Check for Installation Addenda

Before performing a conversion, check for any Installation Addenda or updated customer documentation on the Nortel Networks web site ([www.nortelnetworks.com](http://www.nortelnetworks.com)), or the Partner Information Center web site. The addenda may contain important information regarding conversion or migration that is not in this guide.

### Step 3. Make sure you have the required Windows 2000 knowledge and documentation

You must be prepared to install and configure the Windows 2000 Server or Advanced Server operating system during conversion. This guide provides guidelines and tips for this activity, but it does not provide step-by-step instructions for all procedures. To ensure you are prepared, review Section D: “Configuring the operating system,” on page 69. Make sure you are able to perform the installation and configuration steps listed there, and make sure you have the relevant Microsoft documentation.

### Step 4. Gather the materials required for conversion

You must have the following materials available before starting the conversion process:

| Item                                                  | Purpose and details                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|-------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Symposium Call Center Server software for Release 4.2 | <p>You need to install the Release 4.2 version of Symposium Call Center Server software on the new server. This includes the following installation disks:</p> <ul style="list-style-type: none"> <li>■ Application CD-ROM containing the Symposium Call Center Server installation software and the Platform Compliance Check utility for PVI servers</li> <li>■ Server Supplementary CD-ROM containing any additional software components required for Symposium Call Center Server to operate, such as Service Update packs and Performance Enhancement Packages (PEPs)</li> <li>■ pcAnywhere 10.5 Host-Only CD-ROM</li> </ul> |
| Windows 2000 operating system                         | <p>If your new server does not have the appropriate Windows 2000 operating system installed, you must do a fresh installation of this operating system.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |

| Item                                                                                                                                      | Purpose and details                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|-------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Application Server Driver CD-ROM (NTRH8102) (for 1003t and 702t servers only), and HP NetServer Navigator CD-ROM (for 1003t servers only) | <p>If you are planning to use a 702t or 1003t server to run Release 4.2, you need the latest version (version 1.0 or higher) of the Application Server Driver CD-ROM (NTRH8102). This CD contains drivers for the Tandberg tape drive that are compatible with Windows 2000 Server. For 702t and 1003t servers, it also contains the version of the BIOS firmware that is compatible with Windows 2000 Server. You can order this CD from Nortel Networks. In addition to this CD-ROM, for the 1003t server only, you need the latest version of the HP NetServer Navigator CD-ROM.</p> <p><b>Note:</b> Any 702t servers marked “Windows 2000 Compatible, Nortel Networks” on the front panel have been shipped with the updated CD and the BIOS and Tandberg drivers already installed.</p> |
| blank preformatted disk                                                                                                                   | <p>Use this item to create a Platform Recovery Disk that contains the original server’s setup record and database configuration.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |

## Step 5. Update your Release 1.5 scripts

Script syntax rules have changed in Release 4.0 and 4.2. You must ensure that you update your Release 1.5 scripts before you convert to Release 4.2. The following script commands have changed:

- In Release 1.5, it was not necessary to close comments, but in Release 4.2, all comments must be closed.
- Release 4.2 does not support the use of the Assigned/Assigned To commands with a call variable of type Set.
- The With Treatment option is no longer available with the Give Controlled Broadcast and Open Voice Session commands. You must ensure that the Symposium Call Center Server Global Settings is configured with the Access DN set as the default Treatment DN, and the default IVR DN is the Access DN.

For more information about syntax rules, refer to the *Scripting Guide*.

If you are converting from Release 1.5 to 4.2, use the TFE Syntax Checker Utility to check your scripts. The utility determines whether your scripts adhere to the syntax rules used in Release 4.2. To ensure the utility's functionality, make sure you install Release 1.5 PEP NI015003P083S on your Release 1.5 server.

Instructions for using the TFE Syntax Checker are provided in the Readme.txt file included with the PEP.

### ATTENTION

---

If you do not check your script syntax before converting your system, and if the syntax of one or more of your scripts does not adhere to the new rules, the TFE service will not come up after conversion. If this happens, you must view the scripts, find the syntax errors, correct them, and validate and activate the scripts. The TFE only comes up when all scripts comply with the new rules.



# Collecting information from the original server

## Introduction

The new server uses some of the same base configuration information as the original server. This section shows you how to obtain the required information from the original server before starting the conversion process.

The following is a summary of the procedures you must complete in this section:

- Step 6. Install the latest Service Update pack and any required PEPs on the original server
- Step 7. Install the Pre-conversion executable on the original server
- Step 8. Perform a database integrity check on the original server
- Step 9. Create a Platform Recovery Disk on the original server
- Step 10. Create a backup of the original server's database
- Step 11. Check the disk partition configuration on the original server
- Step 12. Check the RAM size of the original server

## Step 6. Install the latest Service Update pack and any required PEPs on the original server

Ensure that the latest Service Update pack and any required PEPs are applied to the original server.

First, check which Service Update pack and PEPs are installed on the original server. Record this information on the “PEP level worksheet” on page 386. Then go to the web site for the Meridian PEP Library to see if there is a more recent Service Update pack or any required PEPs for Release 1.5. If so, install them on your original server.

For instructions on viewing and installing Service Update packs and PEPs, refer to the *Release 1.5 Nortel Networks Symposium Call Center Server Software Installation and Upgrade Guide*.

## Step 7. Install the Pre-conversion executable on the original server

**Note:** You do not have to shut down the server's services to install the Pre-conversion executable.

Before you create a database backup and Platform Recovery Disk, you must run a small program (migR15R42.exe) on your original server to prepare for conversion. This program makes minor changes to your original server that are required before you create your database backup and Platform Recovery Disk.

This program does not affect the operation of your Release 1.5 server. Therefore, if you run into problems during the conversion, you can continue to use your Release 1.5 server.

The program is packaged in a self-extracting zip file that automatically installs the required files in the correct directory on your Release 1.5 server (D:\R15R42). You can obtain this program from the Meridian PEP Library web site at

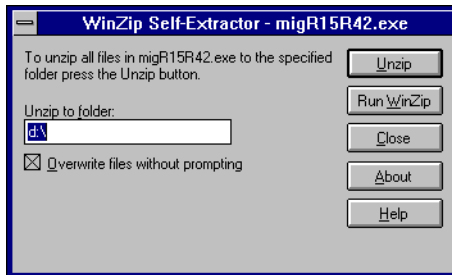
- <https://www21.nortelnetworks.com/MPL> (Europe)
- <https://www43.nortelnetworks.com/MPL> (North America)

**Note:** To register for either of these web sites, follow the instructions provided at <http://nortelnetworks.com/register>.

## To install the Pre-conversion executable on the original server

- 1 Obtain the Pre-conversion executable (migR15R42.exe) and copy it onto the Release 1.5 server.
- 2 Navigate to where you copied the executable, and then double-click it.

**Result:** The WinZip Self-Extractor window appears.



**Note:** Do not make changes to the settings in this window; the executable extracts the files to the correct directory on your server (D:\R15R42).

- 3 Click Unzip.

**Result:** The executable extracts the files to the directory D:\R15R42 on your server.

- 4 Click OK on the confirmation window.
- 5 Click Close to close the WinZip Self-Extractor window.

## Step 8. Perform a database integrity check on the original server

### ATTENTION

Before performing the database integrity check, make sure there are no active Symposium Call Center Server client connections to the server on which you are performing the check. If client PCs connect to the server while the check is running, errors may result and you may need to perform the check again.

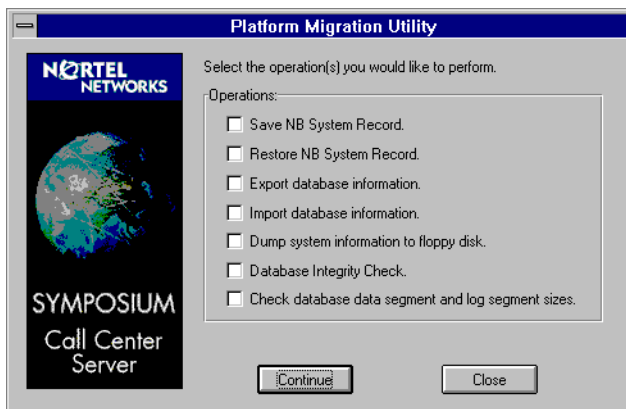
To ensure the integrity of the databases on the original server, Nortel Networks recommends that you perform a database integrity check before creating a backup of your database. This step is highly recommended to capture any database consistency problems.

Remember that a database integrity check can take from 1 to 3 hours, and it requires you to bring the server offline during the duration of the check. You can perform the check ahead of time, but make it as close as possible to the time of the backup.

### To perform a database integrity check on the original server

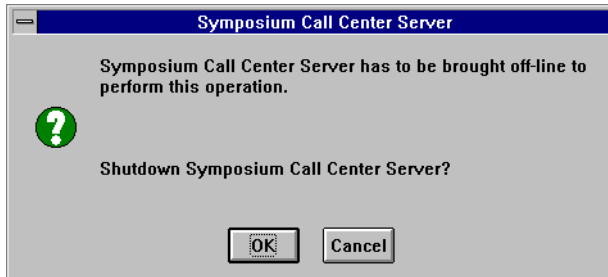
- 1 Log on to the server as **NGenSys**.
- 2 Open the Windows Program Manager and double-click SysOps Utilities.

**Result:** The Platform Migration Utility dialog box appears.



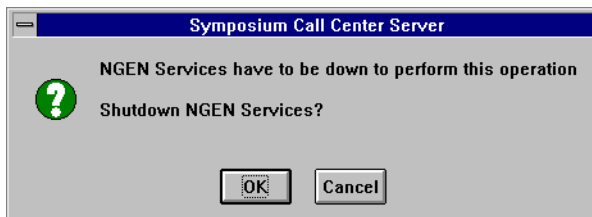
- 3 Select the Database Integrity Check option and click Continue.

**Result:** The following dialog box appears:

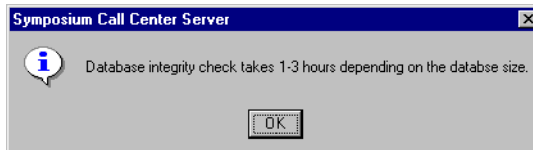


- 4 Click OK.

**Result:** The system displays messages as it checks the status of each service running on the server. Then the following dialog box appears:



- 5 Click OK.
- 6 Wait until the following dialog box appears:



- 7 Click OK to start the database integrity check.

**Result:** A DOS window appears on the screen. Do not close this window.

**Note:** Since the database integrity check takes some time to complete, you may not see any activity on the screen. However, you should notice continuous disk activity.

- 8 Wait until the following dialog box appears:



- 9 Click OK to exit the utility.
- 10 Check the log file (C:\DbChk.log) for errors. To do so, open the log file in a text editor (such as Notepad).
- When checking the log file, search for key words such as ERROR or MSG. Contact your Nortel Networks customer support representative for any detected database error. *Do not* put the server into service with any detected database errors, even though it may seem to be functioning normally.
- 11 Restart the server.

## Step 9. Create a Platform Recovery Disk on the original server

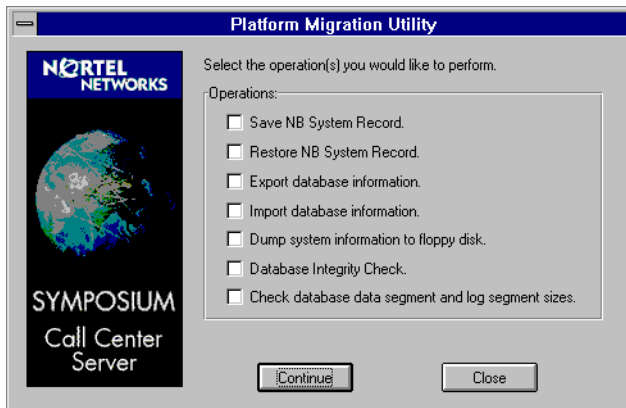
You create a Platform Recovery Disk to gather certain required information from your original server, such as its setup record and database configuration. The Platform Recovery Disk contains the file MigInfo.txt, which includes important details about how the original server is configured.

Even if you have an existing Platform Recovery Disk available, make sure you create a new one now. The Pre-conversion executable you ran earlier in this chapter adds extra information to this disk that is required for conversion.

### To create a Platform Recovery Disk

- 1 Log on to the original server as **NGenSys**.
- 2 Open the Windows Program Manager and double-click SysOps Utilities.
- 3 Double-click Migration Utility.

**Result:** The Platform Migration Utility dialog box appears.



- 4 Select the Dump system information to floppy disk option. The Export database information option is automatically selected.
- 5 Click Continue.

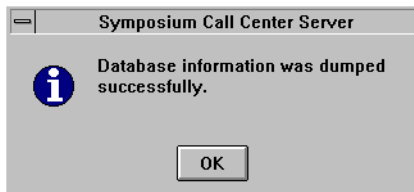
**Result:** The system prompts you to insert a floppy disk.

- 6 Insert a blank preformatted disk into drive A, and then click OK.

**Result:** Files containing the original server's setup record and database configuration are exported to the disk. This may take a few minutes.

**Note:** The system also checks for database segmentation problems (this is an added feature installed with the Pre-conversion executable). If it finds any problems, it displays a message indicating the type of problem. Follow the on-screen instructions.

- If the system finds a database *data* segmentation overlapping problem, then it advises you to contact Nortel Networks support before proceeding with the migration procedure. After support fixes the problem, you must create a new Platform Recovery Disk before proceeding with the migration.
  - If the system finds a database *log* segmentation overlapping problem, then you can still use the Platform Recovery Disk that you have just created. The system prompts you to shut down the Symposium Call Center Server services so it can fix the problem. Follow the on-screen prompt to shut down the services.
- 7 Wait until the following message appears:



- 8 Click OK.
- 9 Click OK to the confirmation message.
- 10 Remove the floppy disk from the drive and label it appropriately.
- 11 Click OK.



## **Contents of the Platform Recovery Disk**

The Platform Recovery Disk contains a number of support files, including the file MigInfo.txt. This file contains the following information about the original server:

### **Meridian 1/CSE 1000 Symposium Call Center Server**

- keycode
- Meridian 1/CSE 1000 serial number
- installed computer name
- current computer name
- site name
- Meridian 1/CSE 1000 Switch name
- Meridian 1/CSE 1000 Switch IP address
- Meridian 1/CSE 1000 Switch customer group number
- Meridian 1/CSE 1000 Switch type
- Server ELAN IP address
- Server CLAN IP address
- Server TCP/IP hostname
- Server TCP/IP protocol setup (that is, gateway, subnet mask, and so on)
- Voice Connectivity
- Server software version

## Step 10. Create a backup of the original server's database

### ATTENTION

---

Before backing up your database to a remote directory, check your remote folder configuration by following the guidelines listed in the section “Testing the remote directory backup and restore configuration” on page 531.

You must create a backup of the entire database of the original server so you can restore it on the new server. You must back up the database to a remote directory on a network computer, rather than to a tape. Tape backups are not supported because there are very few tape drives and drivers that are compatible with both Windows NT 3.51 and Windows 2000.

The remote backup function is included in the Pre-conversion executable that you installed in a previous step.

The original server remains online while the database is backed up. However, you should consider the following information before you proceed with the backup:

- An online backup adds an additional load to the server and reduces overall call center performance. Nortel Networks recommends that you perform online backups during non-peak traffic hours. Do not change any call center configuration or user setup information during the database backup operation.
- An online backup causes some call statistics and data pegging to be missing from the backup files. If it is important that all call statistic and data pegging be migrated to the new server, take the original server offline immediately following the database backup. Ensure that the original server remains offline until all data has been successfully migrated to the new server. You must collect all call statistics and data pegging before the original server is removed from service.

### Notes:

- To help calculate the speed of database backups before a conversion, it is a good idea to perform a trial run of the backup at least several days before the conversion. Keep in mind that the time required to do a database backup can vary between the trial run and the actual backup day due to several factors.

- For a listing of the variables that can affect the speed of your backup and restore, see “Variables affecting backup and restore speed” on page 501.
- To calculate the amount of space required to back up your database to the remote directory, see “Calculating the capacity requirements for database backups” on page 513.

**ATTENTION**

You can postpone the database backup until just before you restore the database on the new server. This allows the original server to remain online longer during the conversion process, and reduces the amount of down-time for the call center. To understand the timing of the database restore step on the new server, see the “Conversion checklist” on page 347.

**Setting up the database backup to a remote directory**

You must back up your database to a remote directory on a network computer. To do this, you must identify the computer onto which you are going to back up the database. You must then complete a series of steps to set up the connection between the server in Symposium Call Center Server and the remote directory.

The following section explains the requirements for the remote computer and network.

**Remote computer requirements**

The remote computer for your database backup can be either a server or a workstation that meets the following requirements:

- The operating system must be Windows NT 4.0, or Windows 2000 Server, Windows 2000 Professional, or Windows XP.
- The drive partition for the remote directory must be NTFS.
- The directory you use for the backup must have enough space available to hold the backup files.

**Network requirements**

- The remote computer must be in the same network as the server in Symposium Call Center Server.

- The network connection should be through the CLAN. Ensure that the CLAN has low traffic during the scheduled time for the database backup. If you run the backup when CLAN traffic is high, the database backup may take longer than planned.

### Files created during remote directory backup

The remote backup process creates three files:

|            |                                              |
|------------|----------------------------------------------|
| blue.dmp   | Contains the contents of the Blue database   |
| cbc.dmp    | Contains the contents of the CBC database    |
| master.dmp | Contains the contents of the Master database |

### Worksheet for setting up a remote directory backup

You must set up an account, password, and a shared directory on your network computer in preparation for a remote directory backup. Create names for these items ahead of time and record them in the table below.

| Item                                                                                                                                                                                                  | Fill in the required information |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|
| <p>User Name</p> <p>You must create a name and assign it to two user accounts—one on the network computer and the other on your Release 1.5 server. The name must be identical on both computers.</p> |                                  |
| <p>User account password</p> <p>You must create a password and assign it to the two accounts described above. The password must be identical on both computers.</p>                                   |                                  |
| <p>Computer Name of the network computer</p> <p>Obtain and record this name so you have it available when you enter the command to back up the database.</p>                                          |                                  |

| Item                                                                                                                                                                                                                              | Fill in the required information |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|
| <p>Share Name for the remote directory</p> <p>You must create and assign a share name to the directory on the remote computer. The share name can be the directory name (this is the default in Windows) or a different name.</p> |                                  |

### Preparing the network computer for remote directory backup

Once you determine which network computer to use for the remote directory backup, you must create a local Windows user account on it and then create a shared directory to contain the remote backup. Use the basic steps below, along with the documentation that came with the operating system, to correctly set up the user account and shared directory.

**Note:** The following procedures do not provide detailed steps, since they differ depending on the operating system on your network computer.

### To create the local Windows user account on the network computer

- 1 Create a new user account in Windows using the User Name and password you recorded in the worksheet on page 376.
  - In Windows NT, you create the new user in Programs → Administrative Tools → User Manager. Then, from the User menu, select New User. Type the user account details in the New User window.

**New User**

Username: Backup

Full Name: Backup

Description: The user account for database backups.

Password: [masked]

Confirm Password: [masked]

☐ User Must Change Password at Next Logon

☐ User Cannot Change Password

☐ Password Never Expires

☐ Account Disabled

OK Cancel Help

Groups Profile Dialin

- In Windows 2000, you create the new user in Programs → Administrative Tools → Computer Management. Right-click Local Users and Groups, and then select New User from the resulting pop-up menu. Type the user account details in the New User window.

**New User**

User name: Backup

Full name: Backup

Description: The user account for database backups.

Password: [masked]

Confirm password: [masked]

☐ User must change password at next logon

☐ User cannot change password

☐ Password never expires

☐ Account is disabled

Create Close

**CAUTION****Risk of database backup failure**

When you are creating the new user account in Windows, you must deselect the check box for User must change password at next logon. If this check box is selected, the Symposium Call Center Server may not be able to connect to the remote computer.

- 2 Make the user account a member of the Administrators group.

**To create and share the remote directory on the network computer**

- 1 On the network computer, create a directory (folder) to contain the database backup. You can use the Share Name you recorded in the worksheet.
- 2 Make sure file sharing is enabled on your computer.
- 3 Make the directory shared and assign the Share Name you recorded in the worksheet on page 376.
- 4 For the shared directory permissions, grant Full Control access rights to the user account that you created in the previous procedure.

**Result:** The network computer is now set up for the remote backup.

- 5 Make sure you have recorded the computer name of the network computer in the worksheet on page 376.

**Preparing Symposium Call Center Server for remote directory backup**

On your Symposium Call Center Server, you must create a local Windows user account that is identical to the one you created on the network computer. You then add the account to the policy “Log on as a service.” Detailed procedures are provided below.

**To set up the local Windows user account on the server**

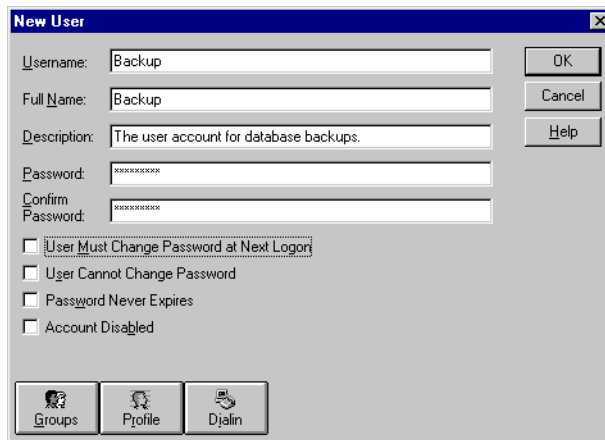
- 1 Log on to the Release 1.5 server as **NGenSys**.
- 2 Open the Windows Program Manager, and then double-click Administrative Tools.

- 3 Double-click User Manager For Domains.

**Result:** The User Manager window appears.

- 4 From the User menu, click New User.

**Result:** The New User window appears.



- 5 In the Username box, type the name you recorded in the worksheet on page 376. This must be the same user name you assigned to the account on the network computer.
- 6 In the Password box, type the password you recorded in the worksheet on page 376. This must be the same password you assigned to the account on the network computer.
- 7 In the Confirm Password box, type the password again.
- 8 Make sure the check box for User Must Change Password at Next Logon is *not* checked.

**Note:** If this check box is checked, the remote backup may fail because the server in Symposium Call Center Server may not be able to access the network computer.

- 9 Check the check box for Password Never Expires.
- 10 Click Groups.

**Result:** The Group Memberships window appears.

- 11 From the Not member of box, click Administrators. Then click Add to move Administrators to the Member of box.



- 12 Click OK.
- 13 On the New User window, click Add.
- 14 Click Close to close the New User window and return to the User Manager window.

### **To set up the local security settings for the user account**

**Note:** This procedure is a continuation of the previous procedure. It starts from the User Manager window.

- 15 From the Policies menu on the User Manager window, click User Rights.
- 16 Check the check box for Show Advanced User Rights.
- 17 From the Right box, choose Log on as a Service.
- 18 Click Add.

**Result:** The Add Users and Groups window appears.

- 19 Click Show Users.
- 20 From the Names list, click the user account you created in the previous procedure.
- 21 Click Add.

**Result:** The computer name and user account appear in the list at the bottom of the window.

- 22 Click OK.
- 23 Click OK to close the User Rights Policy window.
- 24 Close the remaining open windows you used in this procedure.

### **To perform a database backup on the original server**

- 1 Make sure the services on the server are up.

**Note:** A database backup uses the HDM service. If this service is down, the database backup cannot start.

- 2 Open a Command Prompt window on the Release 1.5 server.
- 3 Change to the directory D:\R15R42. For example:
  - a. Type **d:**, and then press Enter.
  - b. Type **cd \R15R42**, and then press Enter.

- 4 Use the four pieces of data that you filled out in the worksheet on page 376 to type the following command line:

**backuptor42 computernamesharename username  
useraccountpassword**

**Example:** backuptor42 computer1\backupfiles dbbackup abc123

- 5 Press Enter.

**Result:** The Command Prompt window displays the following text:

Now backing up the databases to \\computernamesharename

The remote backup process begins. This can take from 30 minutes to 3 hours to complete, depending on the size of your database, the speed of your computer, and network traffic. Leave the Command Prompt window open so you can see the backup completion message.

- 6 Wait until the following message appears in the Command Prompt window:

-----

Database backup is complete.

-----

The backup log for your backup is located here.

d:\Nortel\Mig42\backup.log.txt

Please examine it for errors.

- 7 Navigate to d:\R15R42 and open the file backup.log.txt. If your database backup was successful, the log contains the following lines of text:

[SERVER MESSAGE]:Backup Server: 3.42.1.1: DUMP is complete (database chb).

[SERVER MESSAGE]:Backup Server: 3.42.1.1: DUMP is complete (database blue).

[SERVER MESSAGE]:Backup Server: 3.42.1.1: DUMP is complete (database master).

This database backup log does not have any errors or warnings.

- 8 Do one of the following:

- If your database backup log contains the text in the example above, your backup was successful. Continue to the next step in the Conversion checklist.

- If your database backup log contained any messages or errors, this could indicate a problem with the backup. Navigate to the folder D:\Sybase\install and open the file backup.log.txt. This file may indicate the source of the problem. Retry the backup and check the backup log again. If there are still messages or errors, contact Nortel Networks product support.

**Note:** If you begin a second database backup before the first backup is finished, the system may not function properly. In this case, you must terminate both backup processes.

## Step 11. Check the disk partition configuration on the original server

You must record the disk partition configuration of the original server so you can use it to determine how to partition your new server.

**Note:** Once you have recorded this information, you should make sure that your new server has adequate drive space to create the partitions you need. For information on the requirements for partitioning drives, see “Understanding disk partitioning requirements on the new server” on page 353.

### To check the disk partition configuration on the original server

- 1 Open the Windows Program Manager, double-click Administrative Tools, and then double-click Disk Administrator.
- 2 Record the following information on the “Disk partition configuration worksheet” on page 385:
  - the displayed disk number
  - the logical disk drive letter assignments
  - the size of each partitioned disk
- 3 Ensure that the new server has enough disk space to create the required partitions, as described in “Understanding disk partitioning requirements on the new server” on page 353.

The following table presents an example only of disk partition configuration:

| <b>Disk number</b> | <b>Disk drive letter assignment</b> | <b>Disk partition size</b> |
|--------------------|-------------------------------------|----------------------------|
| Disk 0             | C                                   | 102 Mbytes FAT             |
| Disk 0             | D                                   | 1945 Mbytes NTFS           |
| CD-ROM 0           | E                                   | n/a                        |
| Disk 1             | F                                   | 4096 Mbytes NTFS           |

## **Step 12. Check the RAM size of the original server**

The total physical RAM of the new server must meet the requirements for a PVI server, and it must be at least as large as the RAM on the original server.

### **To check the RAM size on the original server**

- 1 Check the size of the RAM on the original server.
- 2 Record the RAM size on the “RAM size worksheet” on page 385.

# Worksheets for collecting original server information

## Introduction

Make photocopies of these worksheet pages and use them to record original server information for conversion.

### Disk partition configuration worksheet

| Disk number | Disk drive letter assignment | Disk partition size |
|-------------|------------------------------|---------------------|
|             |                              |                     |
|             |                              |                     |
|             |                              |                     |
|             |                              |                     |
|             |                              |                     |
|             |                              |                     |
|             |                              |                     |

### RAM size worksheet

| Item     | Fill in the required information |
|----------|----------------------------------|
| RAM size |                                  |

## PEP level worksheet

| Item             | Fill in the required information |
|------------------|----------------------------------|
| PEP Reference ID |                                  |
| Insertion Time   |                                  |
| PEP Reference ID |                                  |
| Insertion Time   |                                  |
| PEP Reference ID |                                  |
| Insertion Time   |                                  |
| PEP Reference ID |                                  |
| Insertion Time   |                                  |
| PEP Reference ID |                                  |
| Insertion Time   |                                  |
| PEP Reference ID |                                  |
| Insertion Time   |                                  |
| PEP Reference ID |                                  |
| Insertion Time   |                                  |
| PEP Reference ID |                                  |
| Insertion Time   |                                  |

# Preparing the new server

## Introduction

You must complete the base configuration of your new server before you can install Release 4.2 of Symposium Call Center Server and restore your database.

**Note:** This process can take from 3 to 5 hours to complete.

The following is a summary of the procedures you must complete in this section:

- Step 13. Configure the operating system and drives on the new server

**Note:** Make sure that you are using the “Conversion checklist” on page 347 to keep on track during this stage of the conversion.

## Step 13. Configure the operating system and drives on the new server

- 1 Review the list of requirements for a Release 4.2 PVI server and ensure that the new server can meet each requirement. For detailed requirements, see Chapter 2, “Performing the base configuration of the server.”
- 2 Ensure that the new platform is disconnected from the network of the original platform (both ELAN and CLAN).

**Note:** Since your database backup is on a remote directory, you will need a temporary network connection just before you restore the database to the new server. To understand options for this network connection, see “Establishing a network connection to the remote directory” on page 404.

**Tip:** Nortel Networks recommends that you test your network connection before you prepare your new server for full service. To avoid network conflict, after you ensure that the new server is disconnected from the original server’s network (both CLAN and ELAN), test the network drivers and TCP/IP stack. For more information, see the tip on checking your TCP/IP stack in “To resolve the failed ping” on page 682.

- 3 Follow the instructions in Section D: “Configuring the operating system,” on page 69 to create a drive C partition, and install the Windows 2000 Server operating system. Ensure that the operating system is configured correctly

for Symposium Call Center Server, as described in the section referenced above.

**Note:** On the new server, you can use a different computer name and different IP addresses than on the original server. However, Nortel Networks recommends that you use the original server's computer name and IP addresses (CLAN and ELAN) on your new server. Refer to the information in the MigInfo.txt file on the Platform Recovery Disk.

- 4 Ensure that all disks are installed and partitioned properly according to the hardware configuration of the new server. Refer to the information you entered in the "Disk partition configuration worksheet" on page 385, and the examples in "Understanding disk partitioning requirements on the new server" on page 353.
- 5 Configure the LAN network cards with the same network IP configuration (for example, IP address, subnet mask, default gateway, and so on) as on the original server. Refer to the TCP/IP parameter information in the MigInfo.txt file on the Platform Recovery Disk.

**Note:** It is important that you disconnect the new platform from the network of the original platform (both ELAN and CLAN) before making the IP configuration change; otherwise, a duplicate IP error can occur and stop the original platform from normal operation.

- 6 Make sure the Virtual Memory allocation (swap file) on the new server is RAM size times 1.5. Set both the initial and maximum size to this amount.

**Note:** If your server is equipped with RAID, ensure that the new drives are installed with the correct RAID administration utility. The RAID software is platform-specific and is installed differently for each platform.

- 7 Restart the new server to activate all the changes.

**Note:** It is normal for the Windows operating system to disable the network card if it is disconnected from the network. Ignore any warnings and continue with the conversion procedure.



# Completing the conversion

## Introduction

When the base configuration of your new server is ready, you can perform all the steps to complete the conversion to Release 4.2 of Symposium Call Center Server.

The following is a summary of the procedures you must complete to prepare the new or reconfigured server for service:

- Step 14. Perform a platform compliance check on the new server
- Step 15. Install the Symposium Call Center Server software on the new server
- Step 16. Apply the latest Install-time PEP on the new server
- Step 17. Import database information from the Platform Recovery Disk
- Step 18. Install the Symposium Call Center Server database software on the new server

**Note:** If you are converting a non-English version of Symposium Call Center Server, install the appropriate language PEP before proceeding. Follow the instructions in “Installing PEPs or Service Update packs on the server” on page 160. For a list of server language PEPs, see “Server language PEPs” on page 746.

- Step 19. Restore the original server’s database to the new server
- Step 20. Perform a database integrity check on the new server
- Step 21. Configure the new server’s software and database
- Step 22. Apply the latest Service Update pack and any required PEPs to the new server
- Step 23. Install pcAnywhere on the new server
- Step 24. Upgrade client PCs to Release 4.0 software
- Step 25. Prepare the new server for full service

**Note:** Make sure that you are using the “Conversion checklist” on page 347 to keep on track during this final stage of the conversion.

## Step 14. Perform a platform compliance check on the new server

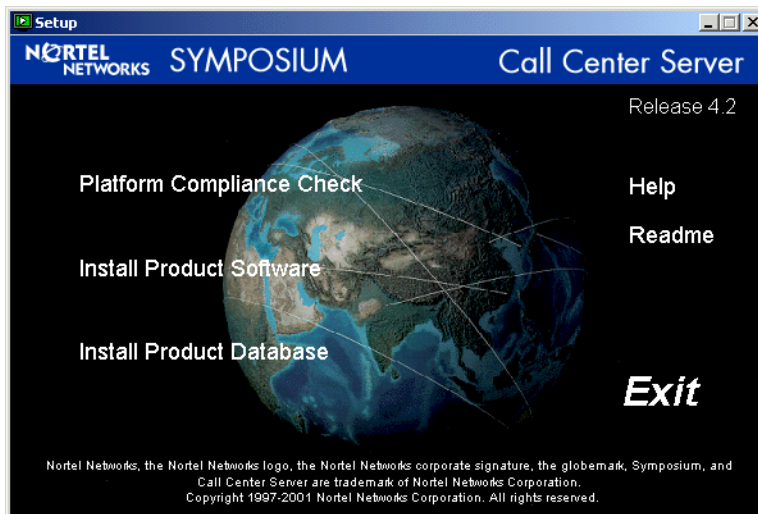
Before installing the Symposium Call Center Server software, you must ensure that your server meets the requirements for a Platform Vendor Independence (PVI) server, as defined in Chapter 2, “Performing the base configuration of the server.”

The Server Application CD includes a program that you can run to check your server’s basic compliance and identify any problems, such as the wrong operating system or incorrect disk partitioning. Not all requirements for Platform Vendor Independence are checked.

### To perform a platform compliance check

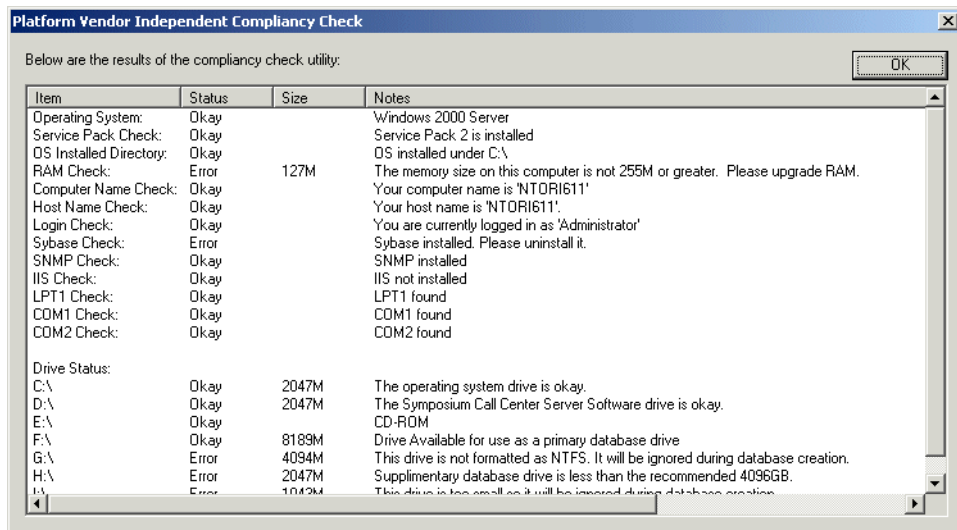
- 1 Log on to the server as **Administrator**.
- 2 Insert the Server Application CD and wait for it to autorun.

**Result:** The Setup main menu appears.



### 3 Click Platform Compliance Check.

**Result:** The system checks your server to ensure it meets certain requirements for a PVI server. The results appear in a window similar to the following one. If your server is compliant, the Status column shows Okay beside all items listed. For any non-compliant items, the Status column shows Error, and the Notes column provides information about the PVI requirement.



### 4 Refer to the following table to determine the action to take:

| IF Status is   | THEN do this                                                                                                                                                                                                                      |
|----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| All items Okay | Click OK, and continue with the following procedure.                                                                                                                                                                              |
| LPT1 Error     | <p>If you are connecting to a Meridian 1/CSE 1000 switch, click OK and continue with the following procedure.</p> <p>If you are connecting to a DMS/MSL-100 switch, click OK. Then configure the server with a parallel port.</p> |
| COM1 Error     | Click OK, and then configure the server with COM1 to allow remote support of the server.                                                                                                                                          |

| <b>IF Status is</b> | <b>THEN do this</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|---------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| COM2 Error          | <p>If you are using Symposium Voice Services on Meridian Mail, click OK. Then configure COM2. (It is required for the ACCESS link.)</p> <p>If you are not using Meridian Mail, click OK and continue with the following procedure. During the server and database configuration, you must set the voice connection type to TCP, and enter a dummy IP address and port number.</p>                                                                                                                                                                                                                                |
| Any other Error     | <p><b>a.</b> Take note of the non-compliant items and the related information in the Notes column.</p> <p><b>b.</b> Click OK to exit from the Platform Vendor Independence Compliancy Check dialog box.</p> <p><b>c.</b> Correct the problems so that the server is compliant. For more details about the minimum requirements for a PVI server, see Chapter 2, "Performing the base configuration of the server."</p> <p><b>d.</b> Rerun the platform compliance check. If you had to restart the server to correct a non-compliance, go back to Step 1. If you did not have to restart, go back to Step 3.</p> |

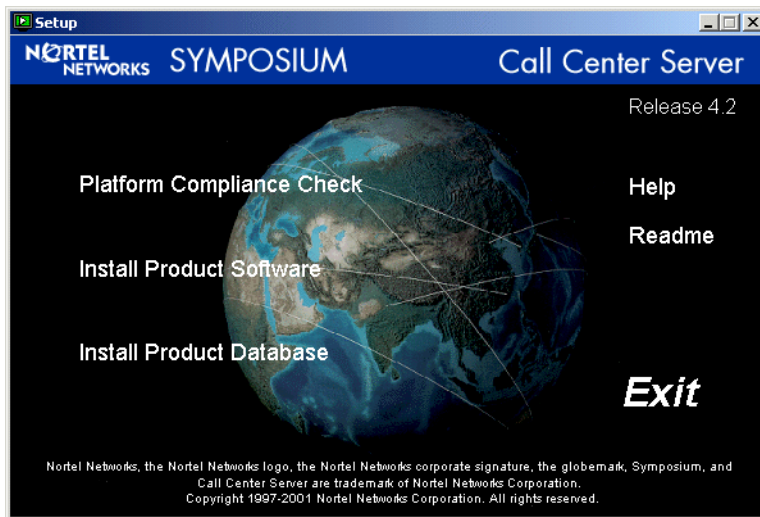
## Step 15. Install the Symposium Call Center Server software on the new server

This procedure installs all Symposium Call Center Server features and components on the server.

### To install the product software

- 1 Log on to the server as **Administrator**.
- 2 If the Server Application CD is not already running, insert the CD and wait for it to autorun.

**Result:** The Setup main menu appears.

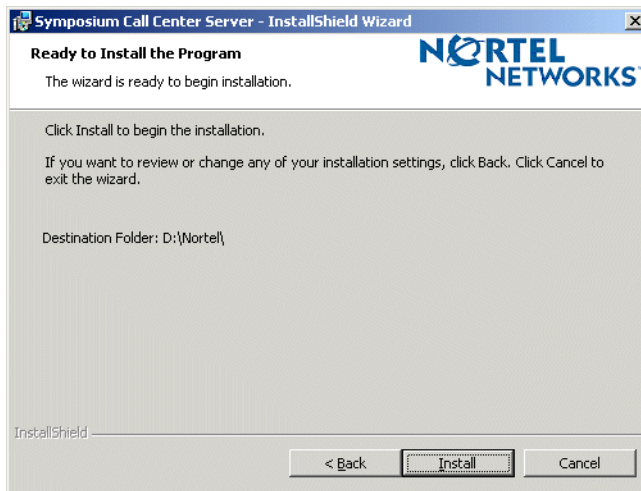


- 3 Click Install Product Software.

**Result:** The welcome window for Symposium Call Center Server - InstallShield Wizard appears.

**4** Click Next.

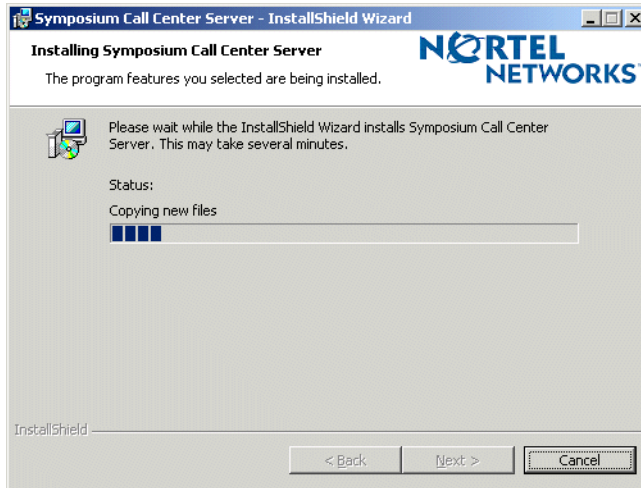
**Result:** The Ready to Install the Program window appears.



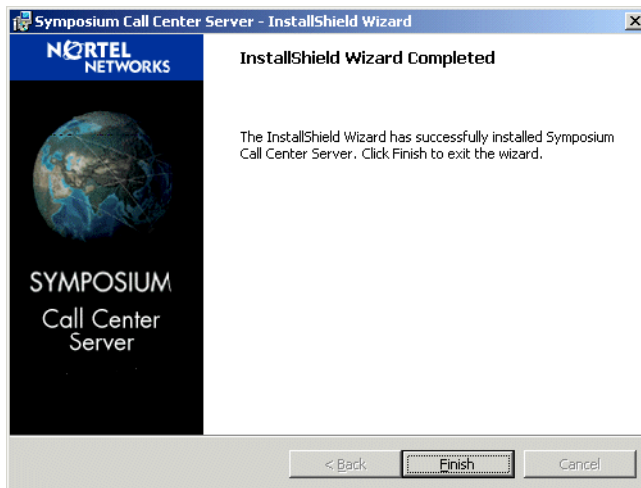
**Note:** If you click Cancel at any time during the product software installation, the InstallShield Wizard Completed window appears. The text on this window warns you that the software was not successfully installed.

5 Click Install.

**Result:** The system installs the Symposium Call Center Server software on the server's drive D. This takes several minutes.



6 Wait until the following window appears:



**7** Click Finish.

**Result:** The product software is installed.

**Note:** If you completed this procedure as part of a server recovery scenario or a platform migration, return now to the chapter that referenced this procedure. That chapter tells you what procedure to perform next.

## **Step 16. Apply the latest Install-time PEP on the new server**

Apply the latest Install-time PEP. Install-time PEPs update the server software to take care of any known issues with the installation or configuration before you continue through the next steps.

**Note:** The latest Install-time PEP is critical for a conversion from Release 1.5 to Release 4.2; this PEP updates the configuration utility to allow the conversion to proceed.

The latest Install-time PEP is available on the Supplementary CD-ROM and from the Meridian PEP Library web site.

You can distinguish Install-time PEPs from General PEPs by the PEP ID as follows:

- For Install-time PEPs, the ninth character is a U (for example, NI040206U007S).
- For General PEPs, the ninth character is a G (for example, NS040206G004S).

For instructions on installing PEPs, see Chapter 4, “Installing/uninstalling PEPs and Service Update packs.”



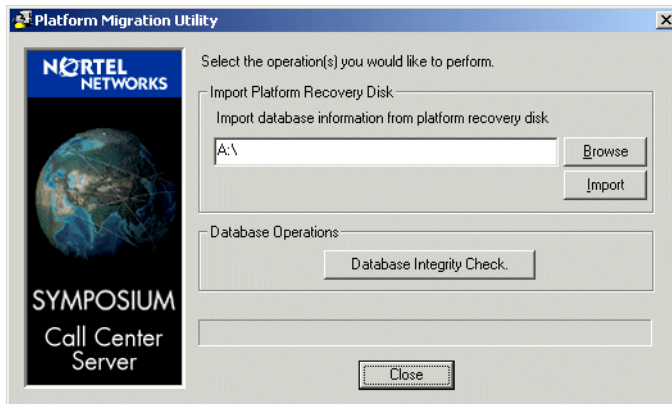
## Step 17. Import database information from the Platform Recovery Disk

This procedure imports database information from a Platform Recovery Disk into your Symposium Call Center Server.

### To import database information from the Platform Recovery Disk

- 1 Log on to the server as **Administrator**.
- 2 Insert your Platform Recovery Disk into drive A.
- 3 From the Windows Start menu, choose Programs → Symposium Call Center Server → Migration.

**Result:** The Platform Migration Utility window appears.



- 4 In the section Import database information from platform recovery disk, make sure the path shows A:\.

5 Click Import.

**Result:** The system imports the files from your Platform Recovery Disk. A DOS window appears during the import with the text `Importing database information`. When the import is done, the DOS window displays the following confirmation message:



6 Click OK.

7 Close the Platform Migration Utility window.

8 Remove the Platform Recovery Disk from the drive.

## Step 18. Install the Symposium Call Center Server database software on the new server

This procedure installs the Sybase ASE 12.0 software, and then creates and initializes the database for Symposium Call Center Server.

During the database installation, do not close any windows that appear unless the on-screen instructions tell you to do so.

**Note:** The server restarts automatically several times during this procedure, and you must log back on to the server as **Administrator**. At this time, the next window of the installation program appears, but the Windows desktop does not appear in the background. This is normal. The Windows desktop reappears when the next window of the installation program appears.

### To install the product database

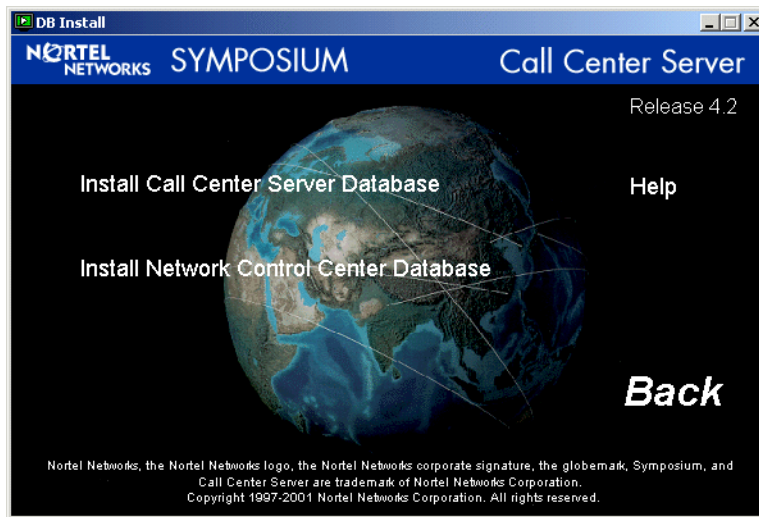
- 1 Log on to the server as **Administrator**.
- 2 If the Server Application CD is not already running, insert the CD and wait for it to autorun.

**Result:** The Setup main menu appears.



3 Click Install Product Database.

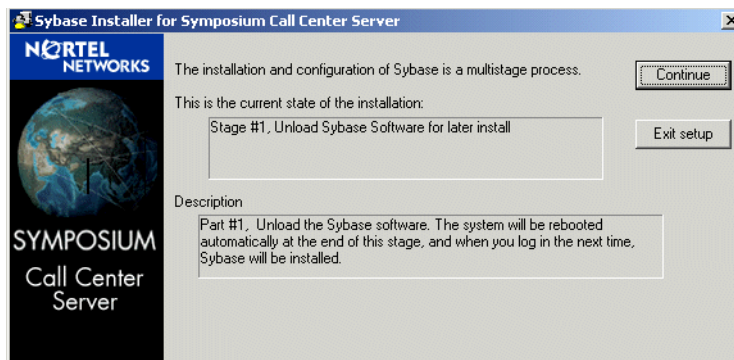
**Result:** A submenu appears, listing the database types you can install.



4 Do one of the following:

- If your server is *not* a Network Control Center (NCC) server, select Install Call Center Server Database.
- If your server *is* a Network Control Center server, select Install Network Control Center Database.

**Result:** The Sybase Installer for Symposium Call Center Server window appears.



This window shows the status of the installation in stages and parts. There are six stages to the database installation and configuration; some stages are broken into parts. Stages appear in the top status box, and parts appear in the Description box.

**ATTENTION**

Before you proceed to step 5, ensure that the Symposium Call Center Server Installation CD is in the CD-ROM drive. The installation CD must be in the CD-ROM drive during the entire database installation process. Do not create a shortcut to the installation CD. To access the Symposium Call Center Server setup wizard if autorun does not launch, from Windows Explorer, double-click Setup.exe under the CD-ROM directory.

- 5 Click Continue.

**Note:** When the installation begins, you can view the progress of each stage in a progress bar that appears at the bottom of the window.

**Result:** The system proceeds with Stage 1, Part 1. When Part 1 is complete, the server automatically restarts.

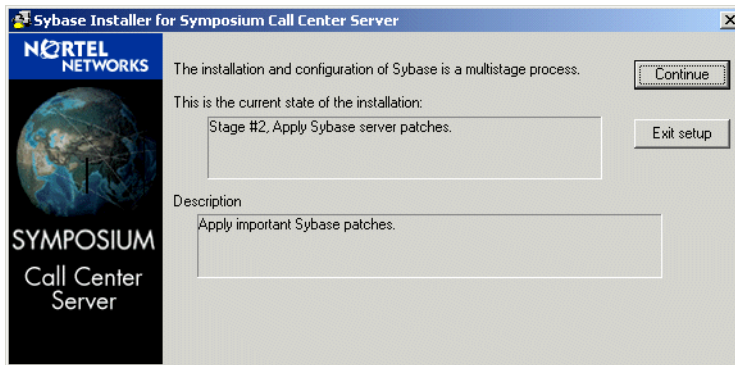
- 6 Log on as **Administrator**.

**Result:** The Sybase Installer for Symposium Call Center Server window reappears, showing the status as Stage 1, Part 2.

**Note:** In rare cases, an MS-DOS window appears, instead of the Sybase Installer for Symposium Call Center Server window. When this happens, the database installation still continues. Wait until the MS-DOS window completes its processes (do not close it), and the Sybase Installer for Symposium Call Center Server window reappears, as shown in the Result below step 7. When this window appears, proceed to step 8.

7 Click Continue.

**Result:** Stage 1, Part 2 proceeds to completion. When it is finished, the desktop reappears, followed by the next installation window, as shown:



8 Click Continue.

**Result:** The installation proceeds through Stage 2, and Stage 3, Part 1. When Part 1 is complete, the server automatically restarts.

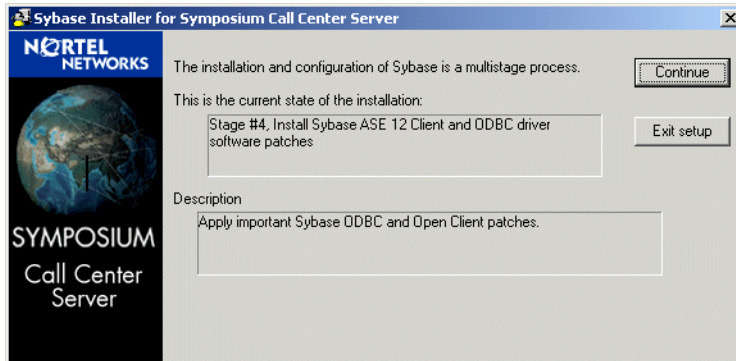
9 Log on as **Administrator**.

**Result:** The Sybase Installer for Symposium Call Center Server window reappears, showing the status as Stage 3, Part 2.

**Note:** In rare cases, an MS-DOS window appears, instead of the Sybase Installer for Symposium Call Center Server window. When this happens, the database installation still continues. Wait until the MS-DOS window completes its processes (do not close it), and the Sybase Installer for Symposium Call Center Server window reappears, as shown in the Result below step 10. When this window appears, proceed to step 11.

- 10 Click Continue.

**Result:** Stage 3, Part 2 proceeds to completion. When it is finished, the desktop reappears, followed by the next installation window, as shown:

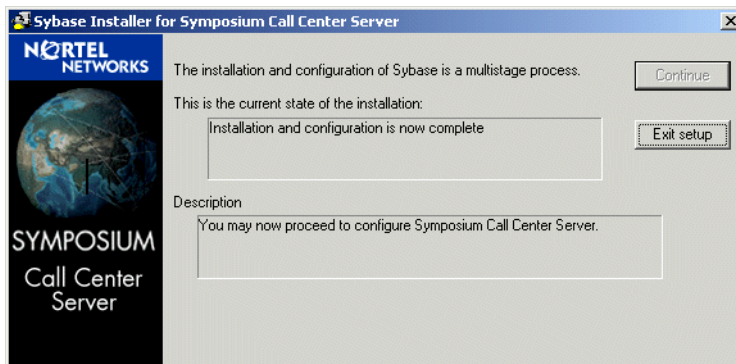


- 11 Click Continue.

**Result:** The installation proceeds through Stages 4, 5, and 6.

**Note:** These stages can take from 1 to 3 hours to complete, depending on your CPU speed, and the size and number of database partitions that you have.

- 12 Wait until the following window appears:



- 13 Click Exit setup. Do not reboot the server.  
14 Remove the CD from the drive.

**Result:** The database is installed.

**Note:** If you are converting a non-English version of Symposium Call Center Server, install the appropriate language PEP before proceeding. Follow the instructions in “Installing PEPs or Service Update packs on the server” on page 160. For a list of server language PEPs, see “Server language PEPs” on page 746.

## Step 19. Restore the original server’s database to the new server

### ATTENTION

Before restoring your database from the remote directory, check your remote folder configuration by following the guidelines listed in the section “Testing the remote directory backup and restore configuration” on page 531.

Use the database backup you created on the remote directory earlier in this procedure to restore the database to the new server.

**Note:** For a listing of the variables that can affect the speed of your backup and restore, see “Variables affecting backup and restore speed” on page 501.

### Establishing a network connection to the remote directory

To restore the database from a remote directory to the new server, you must establish a network connection between the new server and the network computer containing the remote directory. Since both the original server and the new server have the same TCP/IP configuration, you cannot have both servers connected to the network at the same time. This can cause a duplicate IP error to occur and stop the original server from normal operation.

To avoid this, you have the following options for obtaining a network connection on the new server to restore the database:

- You can bring down the services on the original server and then disconnect the ELAN and CLAN from the network. Then connect the ELAN and CLAN on the new server to the network. This means that the original server will be out of service for the remainder of the conversion.
- You can temporarily change the computer name, and the IP configuration for the ELAN or CLAN on the new server so that you can temporarily connect to the network. This way, the original server can remain online and operational during the database restore. When the restore is complete,



disconnect the new server from the network, and change the computer name and IP configuration for the CLAN and ELAN back to the correct settings.

### Preparing the Symposium Call Center Server to restore the database from a remote directory

On your new server, you must create a local Windows user account that is identical to the one you created on the network computer. You then add the account to the policy “Log on as a service.” To complete preparation of the server, you enter the account information and the path of the remote directory in Symposium Call Center Server and turn off the tape backup option. Detailed procedures are provided below.

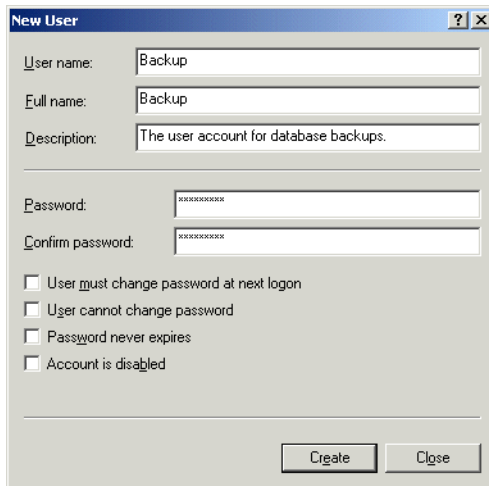
#### To set up the local Windows user account on the new server

- 1 Log on to the new server in Symposium Call Center Server as **NGenSys**.
- 2 From the Start menu, choose Programs → Administrative Tools → Computer Management.

**Result:** The Computer Management dialog box appears.

- 3 In the left panel, navigate to Local Users and Groups → Users.
- 4 Right-click on the Users folder, and then select New User.

**Result:** The New User dialog box appears.



The screenshot shows the 'New User' dialog box. The 'User name' field is filled with 'Backup'. The 'Full name' field is also filled with 'Backup'. The 'Description' field contains the text 'The user account for database backups.'. The 'Password' and 'Confirm password' fields are filled with masked characters (dots). Below the password fields, there are four unchecked checkboxes: 'User must change password at next logon', 'User cannot change password', 'Password never expires', and 'Account is disabled'. At the bottom right of the dialog box, there are two buttons: 'Create' and 'Close'.

- 5 In the User name box, type the name you recorded in the worksheet on page 376. This must be the same user name you assigned to the account on the network computer.
- 6 In the Password box, type the password you recorded in the worksheet on page 376. This must be the same password you assigned to the account on the network computer.
- 7 In the Confirm password box, type the password again.
- 8 Uncheck the check box for User must change password at next logon.  
**Note:** If you do not remove this check mark, the restore may fail because the server in Symposium Call Center Server may not be able to access the network computer.
- 9 Click Create.
- 10 Click Close.
- 11 In the left panel of the Computer Management window, click the Users folder to display its contents in the right panel.
- 12 In the right panel, right-click the new user you just created, and then select Properties.  
**Result:** The Properties dialog box for the user appears.
- 13 Click the Member Of tab.
- 14 Click Add.  
**Result:** The Select Groups dialog box appears.
- 15 In the Name column, click Administrators, and then click Add.  
**Result:** The group appears in the bottom list box.
- 16 Click OK.
- 17 When the Member Of tab reappears, click Apply, and then click Close.
- 18 Close all windows that remain open.

### To set up the local security settings

- 1 On the new server in Symposium Call Center Server, select Start → Programs → Administrative Tools → Local Security Policy.  
**Result:** The Local Security Settings dialog box appears.

- 2 In the left panel, navigate to Local Policies → User Rights Assignment. Click User Rights Assignment to view its contents in the right panel.

- 3 From the right panel, double-click Log on as a service.

**Result:** The Local Security Policy Setting dialog box appears.

- 4 Click Add.

**Result:** The Select Users or Groups dialog box appears.

- 5 In the Name column, select the user account that you just created, and then click Add.

**Result:** The account appears in the bottom list box.

- 6 Click OK.

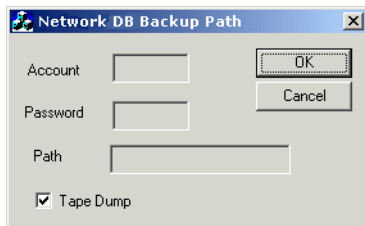
- 7 Click OK to close the Local Security Policy Setting dialog box.

- 8 Close the Local Security Settings dialog box.

### To complete the remote restore settings on the new server

- 1 On the new server in Symposium Call Center Server, select Start → Programs → Symposium Call Center Server → Network DB Backup Path.

**Result:** The Network DB Backup Path dialog box appears.



- 2 Uncheck the Tape Dump check box.

- 3 In the Account box, type the User Name you recorded in the worksheet on page 376. This must be the same User Name you assigned to the account on both the network computer and the server.

- 4 In the Password box, type the password you recorded in the worksheet on page 376. This must be the same password you assigned to the account on both the network computer and the server.

- 5 In the Path box, type the network path for the shared directory you created on the network computer. Use the following format:

- computername\sharename

Refer to the computer name and share name that you recorded in the worksheet on page 376.

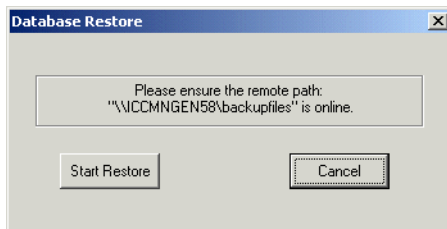
- 6 Click OK to save your settings and exit.

**Result:** Symposium Call Center Server is now set to restore the database from the remote directory on the network computer.

### To restore the database from a remote directory

- 1 On the new server in Symposium Call Center Server, establish a network connection to the network computer containing the database backup files in the remote directory. To understand the options for establishing a network connection from the new server, see “Establishing a network connection to the remote directory” on page 404.
- 2 On the new server in Symposium Call Center Server, from the Windows Start menu, choose Programs → Symposium Call Center Server → Database Restore.

**Result:** The Database Restore dialog box appears, showing the path for the remote directory containing the database files, as in the following example:

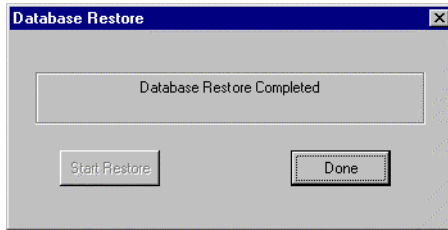


- 3 Check that the path is correct.
- 4 Click Start Restore to begin the database restore process.

**Result:** The database restore process begins. This can take at least 1 to 3 hours, depending on the amount of data and the CPU speed of the server. During this time, the Database Restore window remains in view and displays numerous status messages about the progress of the restore.

**Note:** The restore can take longer if you store your call-by-call records for longer than the recommended interval.

- 5 Wait until the following dialog box appears, indicating that the restore is complete:



**Note:** A log file with the following path name is created after the database restore is completed:

D:\Nortel\data\backup\RestoreLogs\restore.log

- 6 Click Done.

**Result:** The following dialog box appears:



- 7 Click OK to exit the Database Restore utility. You must wait for the Database Restore window to disappear. It may seem as if there is no activity, but the system must complete its processes and close this window. This can take up to 2 minutes to complete.

Nortel Networks recommends that you do not restart the server at this time. (You need not restart the server until after you configure the server software and database.) Instead, continue to the next procedure to perform a database integrity check.

## Step 20. Perform a database integrity check on the new server

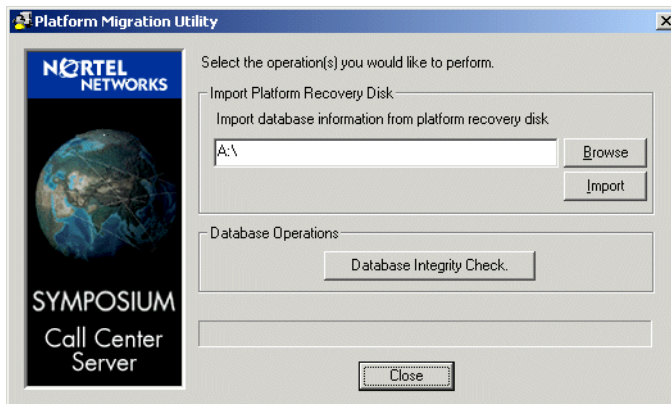
To ensure the integrity of the databases after you restore them to the new server, Nortel Networks recommends that you perform a database integrity check. This step is highly recommended to capture any database consistency problems.

Remember that a database integrity check can take from 30 minutes to 3 hours.

### To perform a database integrity check

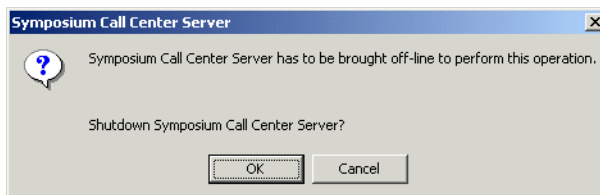
- 1 Log on to the server as **Administrator**.
- 2 From the Windows Start menu, choose Programs → Symposium Call Center Server → Migration.

**Result:** The Platform Migration Utility dialog box appears.



- 3 Click Database Integrity Check.

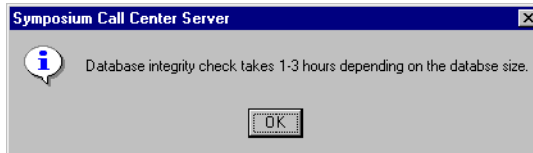
**Result:** The following dialog box appears:



- 4 Click OK.

**Result:** The system displays messages as it checks the status of each service running on the server.

- 5 Wait until the following dialog box appears:



- 6 Click OK to start the database integrity check.

**Result:** A DOS window appears on the screen. Do not close this window. The database integrity check takes from 1 to 3 hours to complete. You may not see any activity on the screen, but you should notice continuous disk activity.

- 7 Wait until the following dialog box appears:



- 8 Click OK.
- 9 Click Close to close the Platform Migration Utility dialog box.
- 10 Check the database check log (C:\DbChk.log) for database errors. To do this, use a text editor (such as Notepad).

When checking the log file, search for key words such as ERROR or MSG. Contact your Nortel Networks customer support representative for any detected database error. *Do not* put the server into service with any detected database errors, even though it may seem to be functioning normally.

**Note:** If you do not plan to reuse the remote directory backup on your Release 4.2 server for future backups (if you are planning to use tape backups), you may want to delete the user account you created for this purpose once you have completed the conversion. You may also want to unshare the directory on the network computer.

## Step 21. Configure the new server's software and database

Once you have restored the original server's database on the new server, you must configure the new server's software and database. In this procedure, you must enter configuration information about the server. Refer to the information on the file MigInfo.txt on your Platform Recovery Disk. It lists the configuration from the original server.

### Notes:

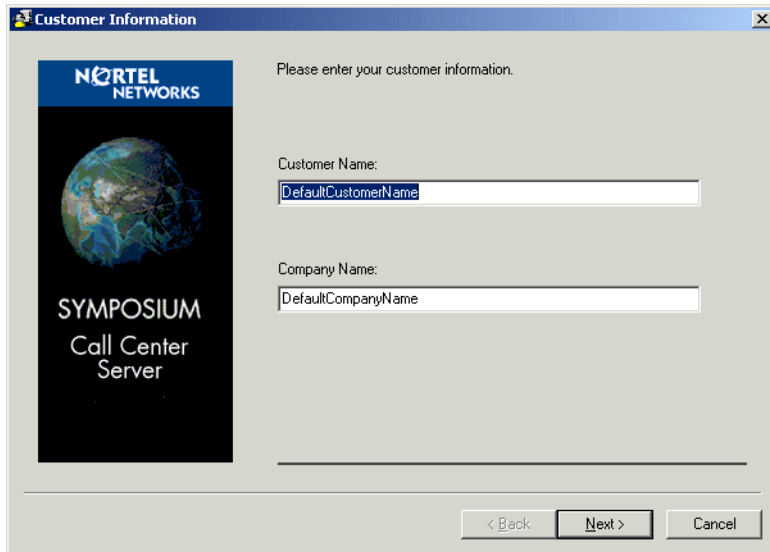
- You cannot import the configuration information from your Platform Recovery Disk because the import feature cannot accept a Release 1.5 keycode.
- Before you configure your new server in the following procedure, Nortel Networks recommends that you install a stand-alone PEP that addresses the Microsoft Media Sensing feature. If you disconnect the CLAN cable on the new server from the network, all Symposium Call Center Server services may be shut down immediately, causing your Symposium Call Center Server installation to fail. This event occurs because the Windows 2000 Network Media Sensing feature temporarily removes all network binding of a network card if the physical connection of this network card to the network is removed (similar to a NIC hardware indicator). You can avoid this problem by installing a stand-alone PEP that disables the Media Sensing feature (PEP number NS040206G004S).



## To configure the new server's software and database

- 1 Log on to the server as **Administrator**.
- 2 From the Start menu, choose Programs → Symposium Call Center Server → Server Setup Configuration.

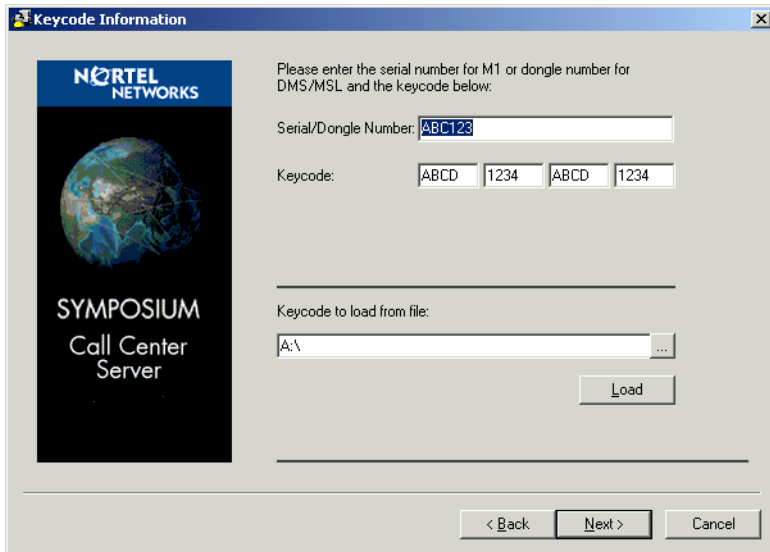
**Result:** The Customer Information dialog box of the configuration utility appears.



- 3 Enter the customer and company names.

- 4 Click Next.

**Result:** The Keycode Information dialog box appears.



- 5 Type your serial number (for M1/CSE 1000 switches) or dongle number (for DMS/MSL-100 switches), and the keycode in the appropriate boxes.

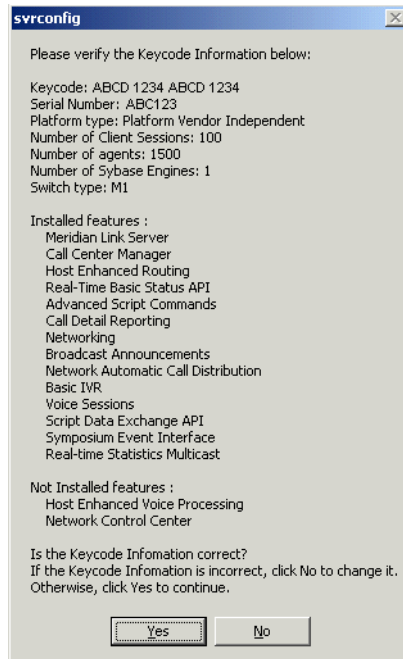
**Note:** The serial/dongle number is used in the generation of the keycode. Make sure you enter the correct keycode for the serial/dongle number that you have.

- 6 Click Next.

**Note:** If the system cannot validate your entries, it displays an error message. Do the following:

- Click OK on the error message(s).
- Check your entries in the Keycode Information dialog box, and make any corrections.
- Click Next.

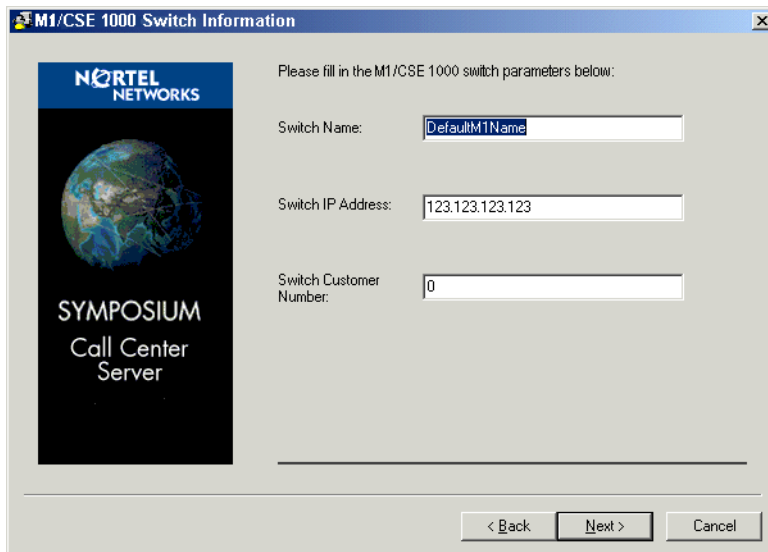
**Result:** If you entered a valid keycode and serial/dongle number, the system displays a dialog box similar to the following one:



- 7 Check that the features listed match the product you purchased, and then do one of the following:
- If the information is not correct, you may have entered the keycode and serial/dongle number incorrectly. Click No and go back to Step 5.
  - If the information is correct, click Yes to continue.

**Result:** The Switch Information dialog box appears for the type of switch identified by your keycode. This can be either the M1/CSE 1000 Switch Information dialog box or the DMS/MSL Switch Configuration dialog box. The M1/CSE 1000 Switch Information box is shown below.

**Note:** If you are installing a Network Control Center (NCC) server, a switch information dialog box does not appear.



The dialog box is titled "M1/CSE 1000 Switch Information". On the left is a logo for "NORTEL NETWORKS" above a globe and the text "SYMPOSIUM Call Center Server". On the right, it says "Please fill in the M1/CSE 1000 switch parameters below:". There are three input fields: "Switch Name:" with the text "DefaultM1Name", "Switch IP Address:" with the text "123.123.123.123", and "Switch Customer Number:" with the text "0". At the bottom right are three buttons: "< Back", "Next >", and "Cancel".

- 8 Enter the appropriate information for your switch.

**Note:** The following restrictions apply to switch names:

**ATTENTION**

For a DMS/MSL-100 switch, the Linkset Name *must* be entered in uppercase only.

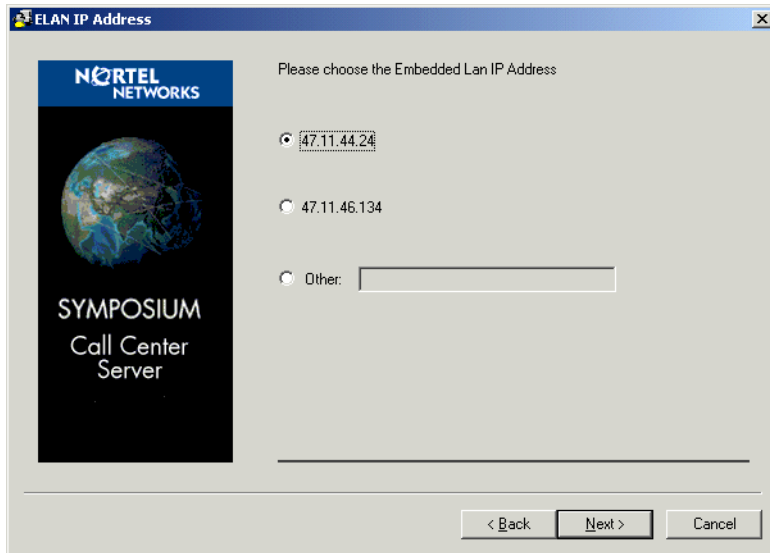
- Valid characters for switch names are A–Z, a–z, 0–9, \_ (underscore), and . (period).
- Switch names must begin with an alphabetic character and cannot contain spaces.
- The last character must not be an underscore or a period.
- Switch names must not exceed 80 characters in length.

**Tip:** If you are unsure of the correct information or if you make a mistake, you can change the switch information after you finish the installation (see “Feature Report” on page 625).

- 9 Click Next.

**Result:** The ELAN IP Address dialog box appears.

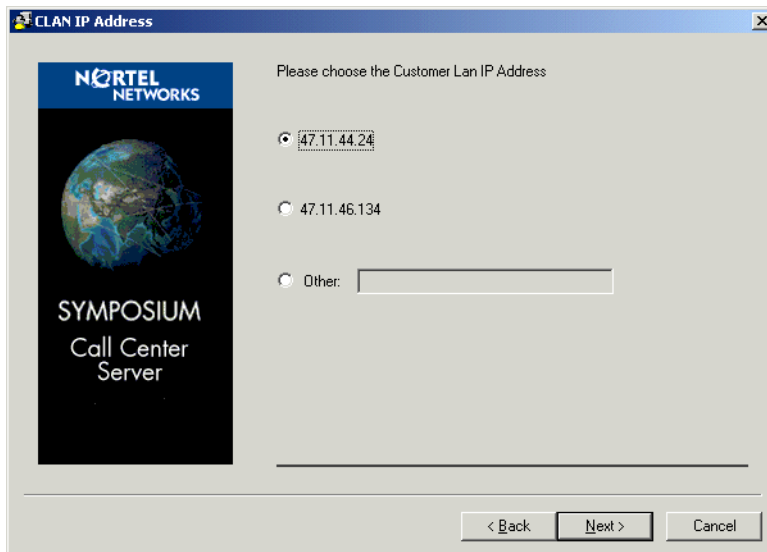
**Note:** If you are installing a Network Control Center server, the configuration utility bypasses this dialog box and displays the CLAN IP Address dialog box. Go to Step 12.



- 10 Click the radio button beside the correct IP address for your ELAN. If none of the addresses are correct, click Other, and then type the IP address.

- 11 Click Next.

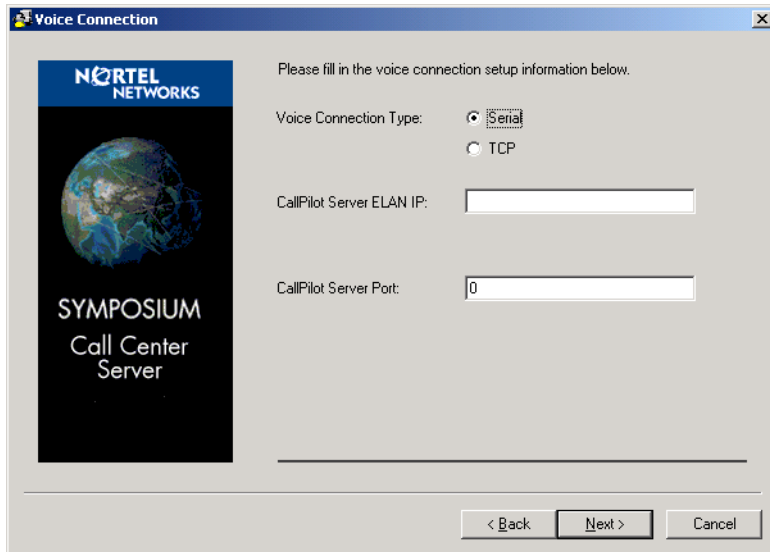
**Result:** The CLAN IP Address dialog box appears.



- 12 Click the radio button beside the correct IP address for your CLAN. If none of the addresses are correct, click Other, and then type the IP address.

**13** Click Next.

**Result:** The Voice Connection dialog box appears.

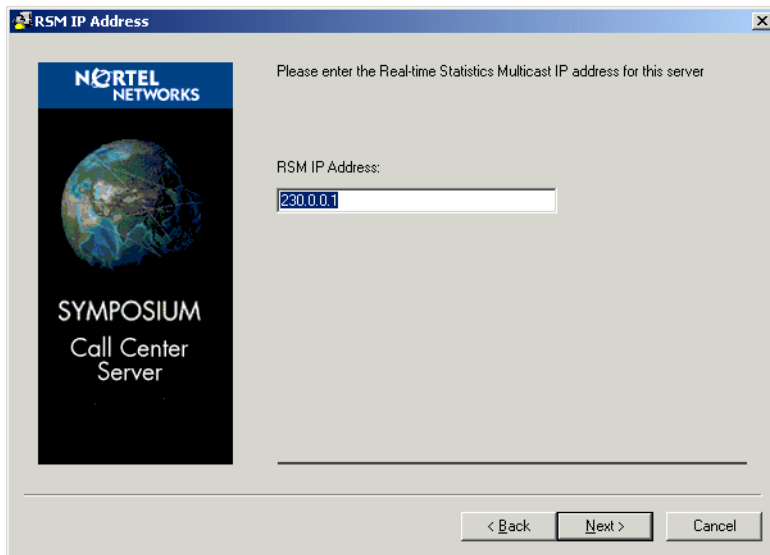


**14** Based on the voice processing system you are using, complete this page as follows:

- If you are not using an integrated voice processing system (Meridian Mail or CallPilot), for Voice Connection Type, select Serial, and click Next.
- If you are using Meridian Mail as your voice processing system, for Voice Connection Type, select Serial and click Next.
- If you are using CallPilot, for Voice Connection Type select TCP. Specify the ELAN IP address of the CallPilot server, and set the CallPilot Server Port to 10008. Then click Next.

**Result:** If the optional Real-time Statistics Multicast feature is

- enabled for your server, the RSM IP Address dialog box appears. Continue with the following step.
- not enabled, the Site Name dialog box appears. Go to Step 17.



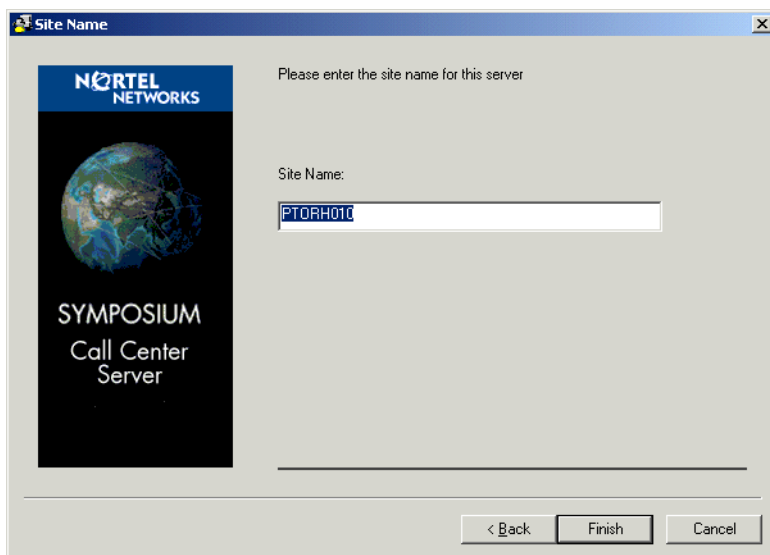
- 15** Enter the RSM IP address that you want to associate with the sending of real-time statistical data. This address is referenced by other applications, such as Symposium Web Client, that need access to real-time statistical data. The default RSM address is 230.0.0.1. You can use a different address, provided that it is within the range of valid RSM IP addresses. For more information, see Chapter 17, "Installing and configuring Real-time Statistics Multicast."

**Note:** The RSM IP address should not be confused with and is separate from your server's CLAN or ELAN addresses.



16 Click Next.

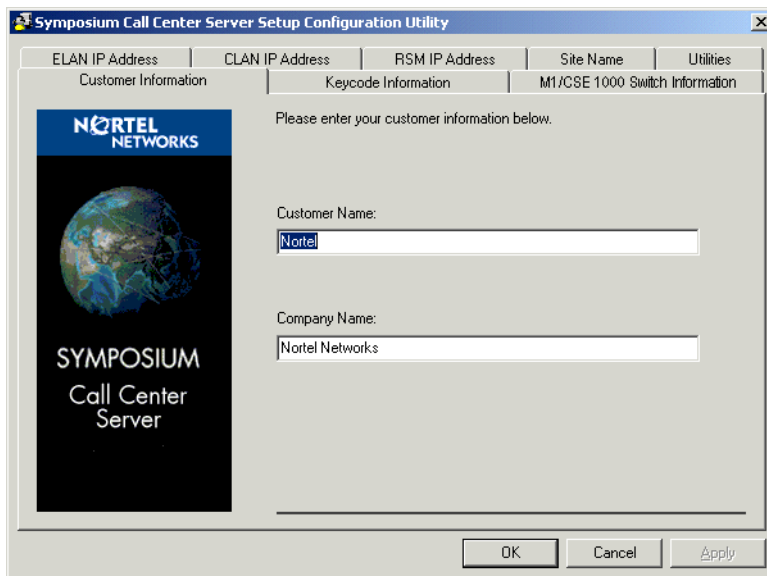
**Result:** The Site Name dialog box appears.



- 17 Enter a site name for the server, and then click Finish.

**Tip:** The site name must be unique and can consist of any combination of up to 15 characters. Do not use spaces or the backslash (\) character.

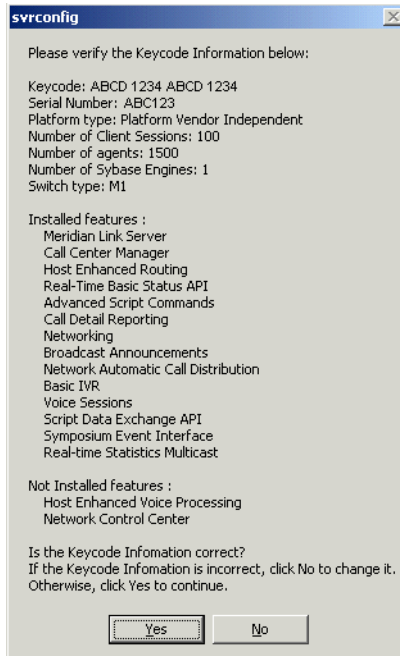
**Result:** The Symposium Call Center Server Setup Configuration Utility window appears. It contains a tab for each of the dialog boxes in which you entered information during the configuration. (It also contains a Utilities tab, which you can use to import and export configuration data and to create a Platform Recovery Disk.)



- 18 Click each tab and check that the information is correct. Make any necessary corrections.

- 19 Click OK to save your changes.

**Result:** A dialog box appears, similar to the one shown below, asking you to verify your keycode information again:



- 20 Click Yes.

**Result:** The Server Configuration Utility configures your server using the data you entered. It displays a status of each stage that the configuration passes through.

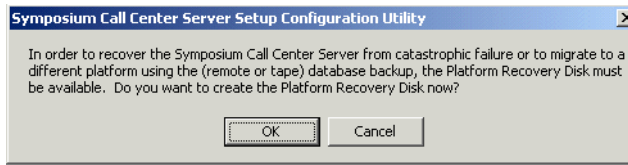
**Note:** This process can take 20 to 30 minutes to complete, depending on your server's CPU and database size. Do not close any windows during the configuration.

- 21 Wait until you see the following message:



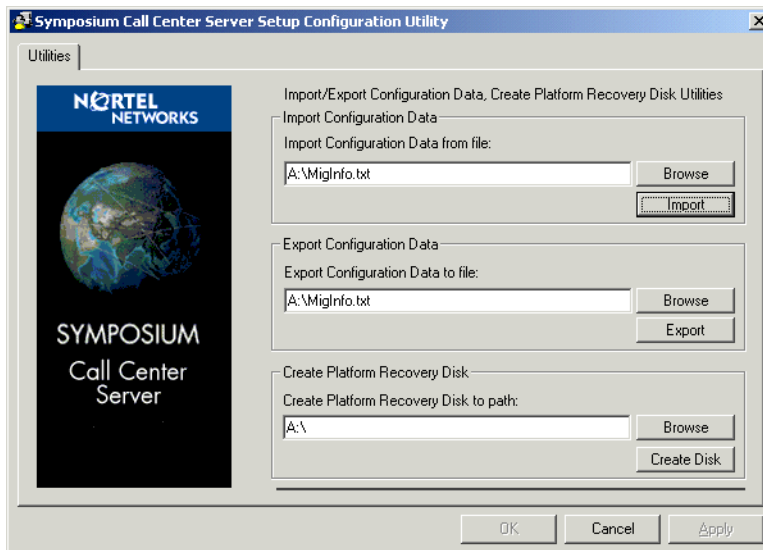
**22** Click OK.

**Result:** The following message appears:

**23** Click OK.

**Note:** If you click Cancel, remember to use the Migration utility to create a Platform Recovery Disk when the installation is complete. Skip to the Result in Step 28.

**Result:** The Utilities tab appears.

**24** In the Create Platform Recovery Disk section, do one of the following:

- To save the Platform Recovery Disk to a floppy disk:
  - a. Insert a blank floppy disk in drive A.
  - b. Click Create Disk.

**Result:** The following message appears:

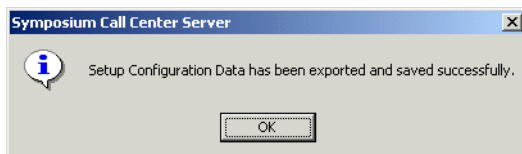


- c. Click OK.
- To save the Platform Recovery Disk to a remote directory:
  - a. Map a network drive to the remote directory.

**Note:** The name of the remote directory into which you save the Platform Recovery Disk must not contain any spaces. Spaces in the remote directory name cause errors.
  - b. Click Browse, and then navigate to the mapped network drive.
  - c. Select the drive, and then click OK.
  - d. Click Create Disk.

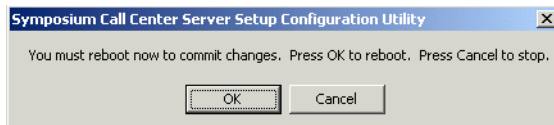
**Result:** The system creates the Platform Recovery Disk.

- 25 Wait until the following message appears:



- 26 Click OK.
- 27 If you used a floppy disk, remove it from the drive. Make sure the Platform Recovery Disk is labeled appropriately and stored in a safe place.
- 28 Click OK to close the Symposium Call Center Server Setup Configuration Utility dialog box.

**Result:** The following message appears:



**29** Click OK.

**Result:** The server automatically restarts.

**30** Log on as **NGenSys**.

**ATTENTION**

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You must log on as NGenSys to perform many server management functions, such as installing PEPs. If you log on to the server as Administrator to perform Windows management functions, when you finish, always remember to log off and log on again as NGenSys.

**Note:** It may take several minutes for the desktop to appear.

**Result:** The MAS Trace Window appears. The server and database configuration is complete, and the Symposium Call Center Server software is ready for use.

**Note:** If you completed this procedure as part of a server recovery scenario or a platform migration, return now to the chapter that referenced this procedure. That chapter tells you what procedure to perform next.

## **Step 22. Apply the latest Service Update pack and any required PEPs to the new server**

Ensure that the latest Service Update pack and any required PEPs are applied to the new server. Check both the Server Supplementary CD supplied with Release 4.2 software and Nortel Network's Meridian PEP Library web site.

For information on installing Service Update packs or PEPs, see Chapter 4, "Installing/uninstalling PEPs and Service Update packs."

### **ATTENTION**

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If you are using Host Data Exchange (HDX) or Real-Time Data (RTD) API applications, then you may need to update the run-time environment on the open interfaces client at this time. For details, see Appendix E, "Migrating API applications."

If you are using Real-Time Statistics Multicast (RSM), then you do not need to update your environment.

If you are using Meridian Link Services (MLS), then see the latest Meridian Link Services Interface Specification posted on the third-party programmers' web site.

## **Step 23. Install pcAnywhere on the new server**

Install pcAnywhere using the instructions in Chapter 5, "Installing and configuring pcAnywhere."

## **Step 24. Upgrade client PCs to Release 4.0 software**

You must upgrade your Symposium Call Center Server client PCs to Release 4.0 client software. This is because your new Release 4.2 server requires a Release 4.0 client; earlier versions of the client software are not supported for use with Release 4.2 server software.

For information on upgrading client software to Release 4.0, see "Upgrading the Client" on page 455.

## Step 25. Prepare the new server for full service

There are a series of steps you must complete before putting Release 4.2 of Symposium Call Center Server into full service.

### To prepare the new server for full service

- 1 Shut down the call center operation and services on the original server. Disconnect the original server from the network.
- 2 Connect the new server to the network. Restart the server to begin using the Release 4.2 Symposium Call Center Server software.
- 3 Verify the proper operation of the Symposium Call Center Server software on the new server.
- 4 If you did not create a Platform Recovery Disk during configuration of the new server, create one now. Without this disk, the server cannot be restored if there is a system failure. See “Creating a Platform Recovery Disk” on page 510.
- 5 Back up the new server’s database. See Chapter 14, “Backing up data.”  
**Note:** Nortel Networks recommends that you perform a database backup on the new server before putting the server into full service.
- 6 Determine whether you need to perform database expansion to increase the amount of available space on your new server for database use. Database expansion is not automatic when converting to Release 4.2, as it was in earlier releases. If you have either additional partitions or larger partitions on your new server, you must use the Database Expansion utility to expand the database into this extra space. For more information, see “Database Expansion utility” on page 615.

### ATTENTION

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If you expand your database, then you must create a new Platform Recovery Disk afterward. For details, see “Creating a Platform Recovery Disk” on page 510.



## Chapter 9

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# Uninstalling and reinstalling server software

### In this chapter

|                                               |     |
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| Reinstalling the database and server software | 442 |

# Uninstalling the database and server software

## Introduction

You can uninstall the Symposium Call Center Server software and database if you want to use your server for another purpose, or if you need to reinstall your server as part of a recovery procedure.

To provide more flexibility, the uninstall procedure is broken down into two independent steps: removing the database, and uninstalling the server software. This saves you time if you need to perform only one of these two steps.

When you remove the database, this does not remove the Sybase ASE 12.0 software from your server. If required, you can remove Sybase ASE 12.0 using a separate procedure provided in this section.

## Options and procedures for uninstalling the database and server software

Use the table below to determine the types of uninstall procedures that are available, what they do, and which procedures in this section you must follow to accomplish your goals.

For information on how uninstalling procedures relate to various recovery scenarios, see “Overview of recovery procedures” on page 554.

| Type of uninstall  | What it does                                                            | Procedures to follow                                                                                                                                                                                                                                            |
|--------------------|-------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Complete uninstall | Removes all software and files related to Symposium Call Center Server. | <p>Complete the following procedures in this order:</p> <ol style="list-style-type: none"> <li>1 “Removing the database” on page 432</li> <li>2 “Uninstalling Sybase ASE 12.0” on page 434</li> <li>3 “Uninstalling the server software” on page 435</li> </ol> |

| <b>Type of uninstall</b>                 | <b>What it does</b>                                                                                                                                                                                                                                                 | <b>Procedures to follow</b>                                                                                                                                                                           |
|------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Database removal<br>(excluding Sybase)   | <p>Removes all database folders and files on all installed database drives.</p> <p>Does not remove</p> <ul style="list-style-type: none"> <li>■ Sybase ASE 12.0 software</li> <li>■ server software files, folders, registries, services, and shortcuts</li> </ul>  | <p>Complete the following procedure:</p> <ul style="list-style-type: none"> <li>■ “Removing the database” on page 432</li> </ul>                                                                      |
| Database uninstall<br>(including Sybase) | <p>Removes all database folders and files on all installed database drives, and removes the Sybase ASE 12.0 software.</p> <p>Does not remove server software files, folders, registries, services, and shortcuts.</p>                                               | <p>Complete the following procedures in this order:</p> <ol style="list-style-type: none"> <li>1 “Removing the database” on page 432</li> <li>2 “Uninstalling Sybase ASE 12.0” on page 434</li> </ol> |
| Server software<br>uninstall             | <p>Removes the server software files, folders, registries, services, and shortcuts.</p> <p>Does not remove</p> <ul style="list-style-type: none"> <li>■ database folders and files on the installed database drives.</li> <li>■ Sybase ASE 12.0 software</li> </ul> | <p>Complete the following procedure:</p> <ul style="list-style-type: none"> <li>■ “Uninstalling the server software” on page 435</li> </ul>                                                           |

## Removing the database

This procedure removes all database folders and files on all installed database drives. It does not remove Sybase ASE 12.0.

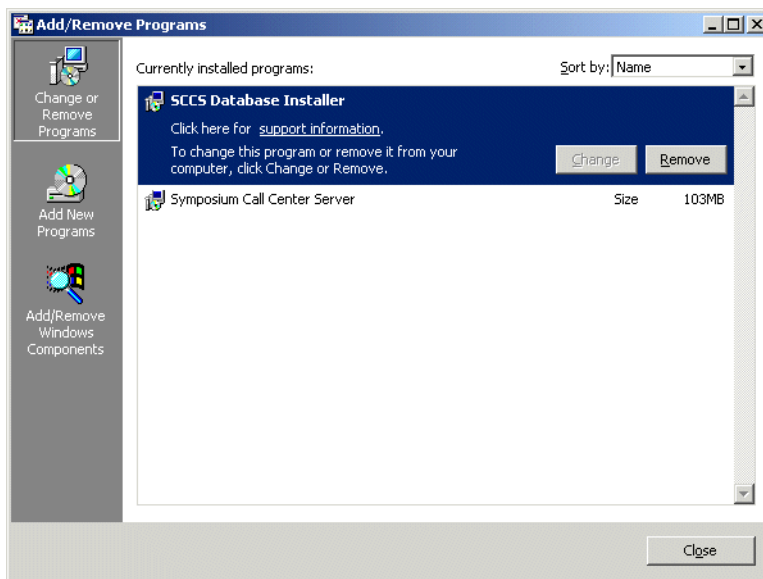
### To remove the database

- 1 Log on to the server as **NGenSys** or **Administrator**.
- 2 Shut down all services on the server. For details, see “Shutdown” on page 653.
- 3 Close all windows and exit all applications.
- 4 From the Start menu, choose Settings → Control Panel.

**Result:** The Control Panel window appears.

- 5 Double-click Add/Remove Programs.

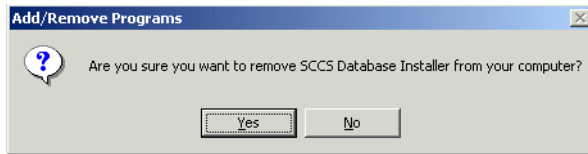
**Result:** The Add/Remove Programs window appears.



- 6 Highlight SCCS Database Installer.

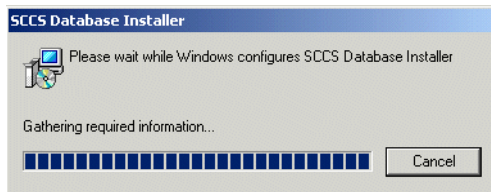
- 7 Click Remove.

**Result:** A message box asks you to confirm your choice.

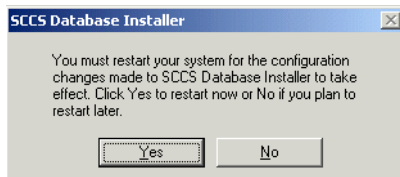


- 8 Click Yes.

**Result:** The SCCS Database Installer window appears. The status bar indicates the progress of the uninstall.



- 9 When the system is finished removing the database from the server, a message box appears, asking you to restart the server.



- 10 Click Yes to restart the server.

**Note:** Do not bypass this restart or you may encounter problems with the remaining steps in this procedure.

- 11 Log on to the server as **Administrator**.

- 12 Do the following tasks to make sure that all the database folders and files on the database partitions have been removed:

- a. Open Windows Explorer and navigate to the F partition (first database partition).
- b. Make sure the drive does not contain any files or folders. Take note of the drive letter if there are remaining files or folders.

- c. If you have additional database partitions (G, H, I, and so on), repeat steps Step a. and Step b. for each partition.
  - d. Do one of the following:
    - If you found files or folders on any of the database partitions, continue to the next step.
    - If you did not find any files or folders, go to Step 13.
  - e. To remove remaining files or folders from all database partitions, from the Start menu, choose Run.
  - f. Type **D:\nortel\installdb\installdb -removedb**.  
**Result:** The system checks that all services are down. Then it removes any remaining database files and folders.
  - g. Recheck the database partitions to ensure they contain no files or folders.
- 13** Close Windows Explorer.
- Result:** The database is removed.

## Uninstalling Sybase ASE 12.0

This procedure removes the Sybase ASE 12.0 software. If you want to use this procedure, you must first complete the procedure “Removing the database” on page 432.

### To uninstall Sybase ASE 12.0

- 1 Log on to the server as **NgenSys** or **Administrator**.
- 2 Shut down all services on the server.
- 3 Close all windows and exit all applications.
- 4 From the Start menu, choose Run.
- 5 Type **D:\nortel\installdb\installdb -removesybase**, and then click OK.  
**Result:** The system removes the Sybase ASE 12.0 software. It then prompts you to restart the server.
- 6 Click OK to restart the server.
- 7 Log on to the server as **NGenSys** or **Administrator**.

- 8 Check to ensure that the D:\Sybase directory has been removed. If it has not, delete the directory and its contents.

**Result:** Sybase is now uninstalled.

## Uninstalling the server software

This procedure removes the server software files, folders, registries, services, and shortcuts. It does not remove any software or folders related to the database.

**Note:** If you want to uninstall the database software as well, do not start this procedure unless you have already uninstalled the database software. To understand the correct order in which to uninstall different parts of Symposium Call Center Server, see “Options and procedures for uninstalling the database and server software” on page 430.

Choose one of the following methods for uninstalling the server software:

1. You can use the uninstall wizard included on the Server Application CD (see the procedure below). This method automatically uninstalls PEPs and Service Update packs so you do not have to perform this step separately. This procedure is provided below.
2. You can use the Windows Add/Remove Programs dialog box (see the procedure on page 439). This method does not automatically uninstall PEPs and Service update packs, so you must perform this as a separate step.

### To uninstall the server software using the Server Application CD

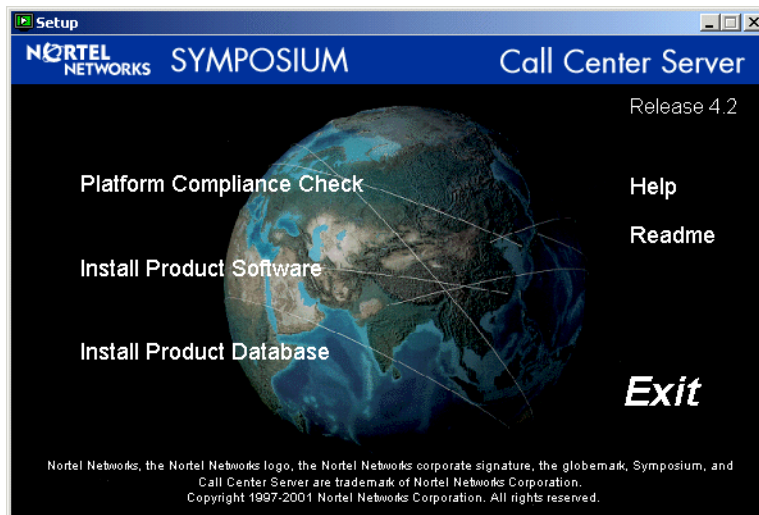
- 1 Log on to the server as **Administrator**.

**Note:** Do not log on as **NGenSys**. Uninstallation of the software removes the NGenSys account, and you may encounter problems.

- 2 Close all windows and exit all applications.

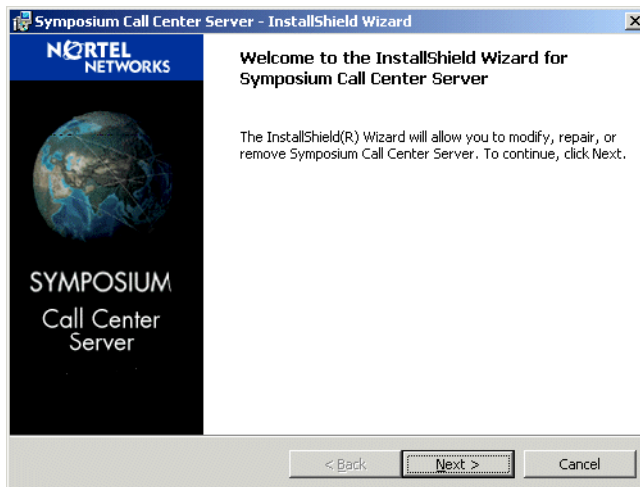
- 3 Insert the Server Application CD into the server.

**Result:** The Setup main menu appears.



- 4 Click Install Product Software.

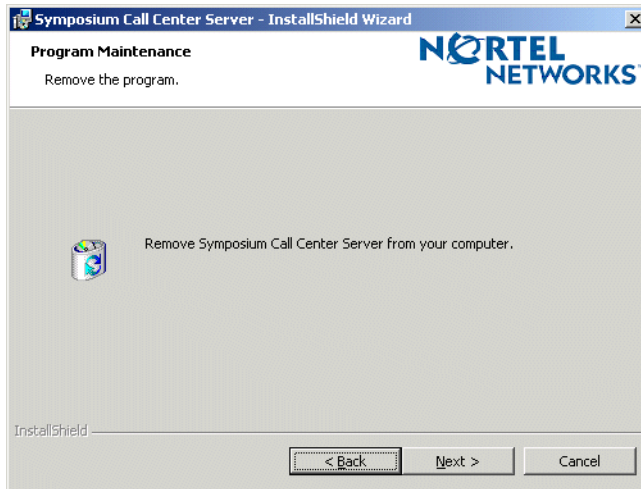
**Result:** The Symposium Call Center Server - InstallShield Wizard appears.





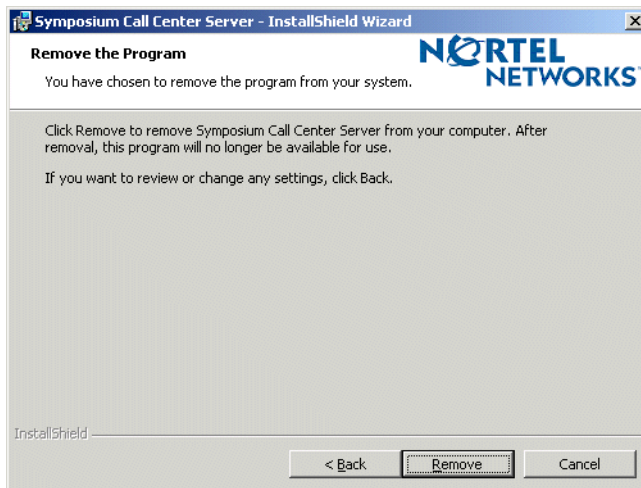
5 Click Next.

**Result:** The Program Maintenance window appears.



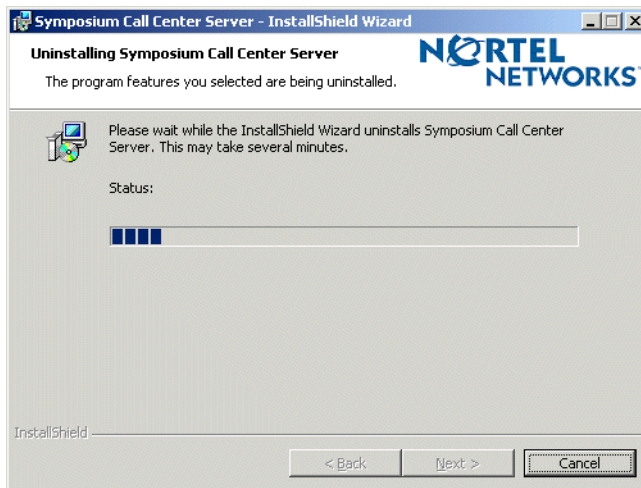
6 Click Next.

**Result:** The Remove the Program window appears.

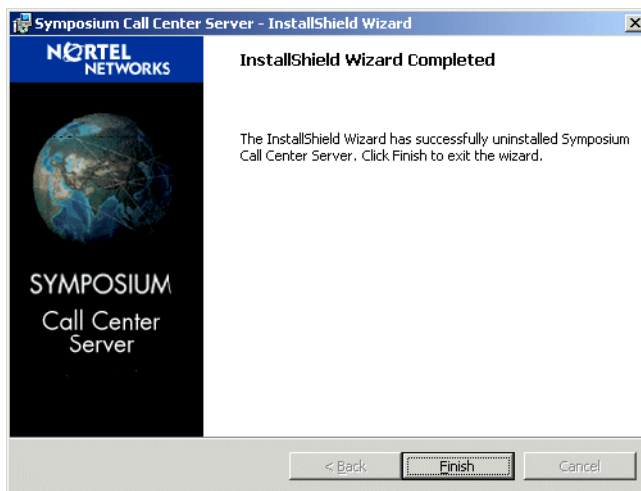


7 Click Remove.

**Result:** The Uninstalling Symposium Call Center Server window appears, showing a status of the uninstall. The program also shuts down the services at this time.



8 When the system has shut down all Symposium Call Center Server services and uninstalled the software, the InstallShield Wizard Completed window appears.



9 Click Finish to complete the uninstall and exit the wizard.

- 10 Close all open windows and restart the server.

**Result:** The uninstall of the software is complete.

## To uninstall the server software using Add/Remove Programs

- 1 Log on to the server as **Administrator**.

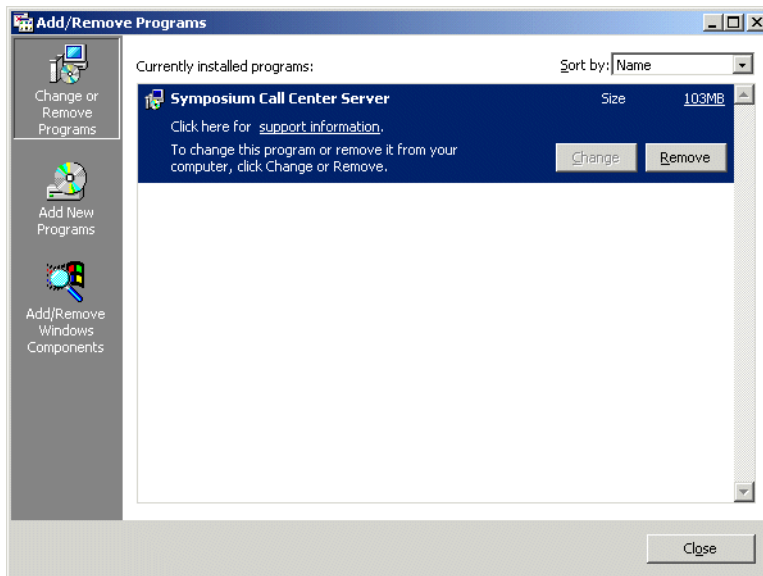
**Note:** Do not log on as **NGenSys**. Uninstallation of the software removes the NGenSys account, and you may encounter problems.

- 2 Shut down all services on the server. For details, see “Shutdown” on page 653.
- 3 Close all windows and exit all applications.
- 4 Uninstall any PEPs or Service Update packs that are installed on the server. For instructions, see “PEP Viewer” on page 638. If you are planning to reinstall your server, you should take note of the PEPs and Service Update packs you uninstall so you can reinstall them later.
- 5 From the Start menu, choose Settings → Control Panel.

**Result:** The Control Panel window appears.

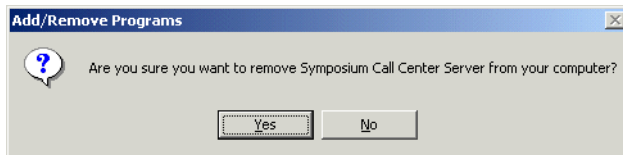
- 6 Double-click Add/Remove Programs.

**Result:** The Add/Remove Programs window appears.



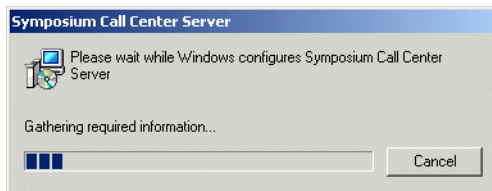
- 7 Ensure that Symposium Call Center Server is highlighted.
- 8 Click Remove.

**Result:** A message box asks you to confirm your choice.

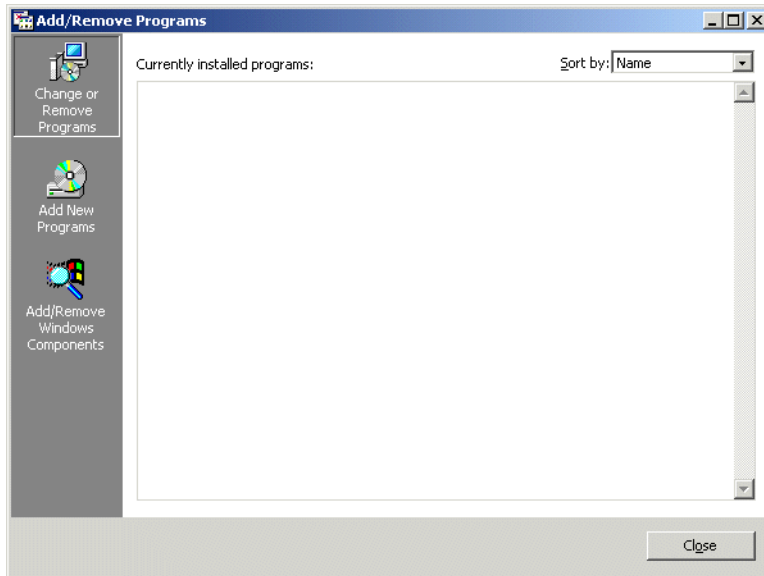


- 9 Click Yes.

**Result:** The Symposium Call Center Server window appears, displaying the progress of the uninstall.



When the uninstall is complete, the Add/Remove Programs window reappears. This may take a few seconds.



- 10 Verify that Symposium Call Center Server does *not* appear in this window.
- 11 Close all open windows and restart the server.

**Result:** The uninstall of the software is complete.

## Reinstalling the database and server software

You can perform a reinstallation only on a server that has already been installed properly. For example, if you have a working server that suddenly has problems in the server or database software, you can try to uninstall and then reinstall the software.

**Note:** You cannot downgrade features (that is, remove features or reduce the number of purchased agents) with this procedure.

For more information on reinstalling the server software and database software, see Chapter 15, “Restoring data,” in one of the following sections:

- “Recovery (reinstallation) of Sybase ASE 12 and database software” on page 574
- “Recovery (reinstallation) of the server software” on page 578

## Chapter 10

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# Converting, upgrading, reinstalling, and uninstalling client software

### In this chapter

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| Removing NCC reports                         | 450 |
| Upgrading the Client                         | 455 |
| Uninstalling the Release 4.0 client software | 466 |

# Reinstalling NCC reports

## Introduction

If you have previously installed Symposium Call Center Server Client Release 4.0 for a Meridian 1/CSE 1000 switch and want to install or reinstall NCC reports, follow this procedure.

- 1 Log on to the client PC.

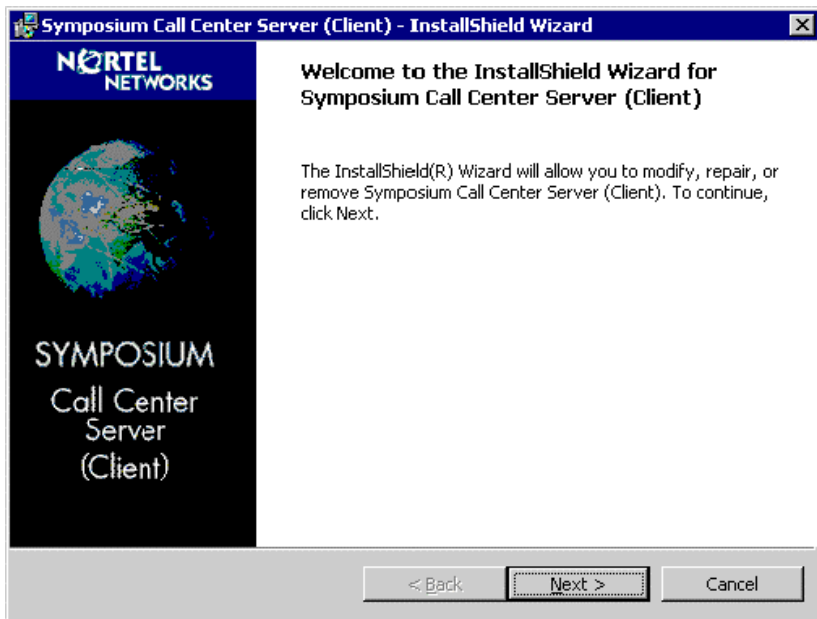
**Note:** If the client PC is running Windows NT Workstation, Windows 2000 Professional, or Windows XP, log on as **Administrator**. You must be logged on with administrative privileges to install or uninstall Symposium Call Center Server software.

- 2 Insert the client installation CD, or, if you are installing from a remote CD-ROM, map the client installation CD to a drive letter on the client PC.
- 3 From the Windows Start menu, choose Run.
- 4 Click Browse and browse to the appropriate file on the root directory of the CD:
  - If you are using Windows NT, Windows 95, or Windows 2000, select Setup.exe.
  - If you are using Windows XP, select Symposium Call Center Server (Client).msi.



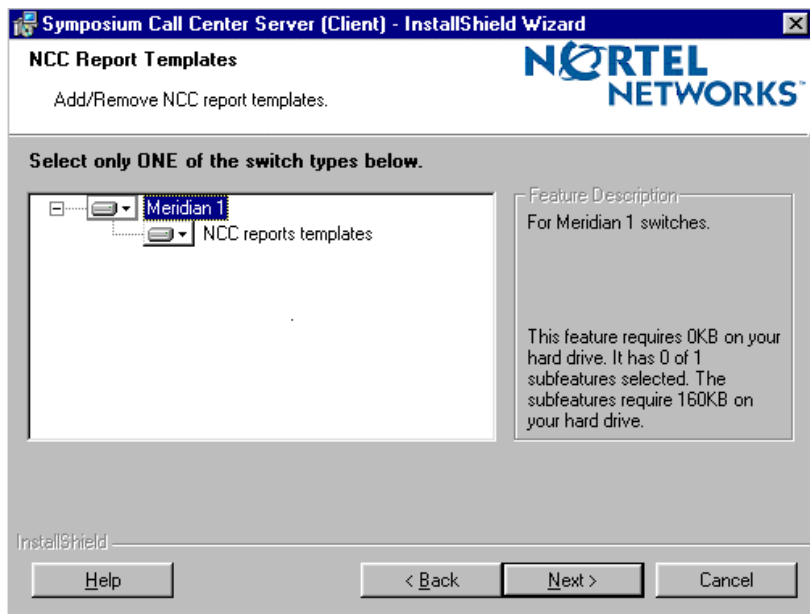
- 5 Click OK to run.

**Result:** The Symposium Call Center Server (Client) - InstallShield Wizard window appears with a welcome message.



- 6 Click Next.

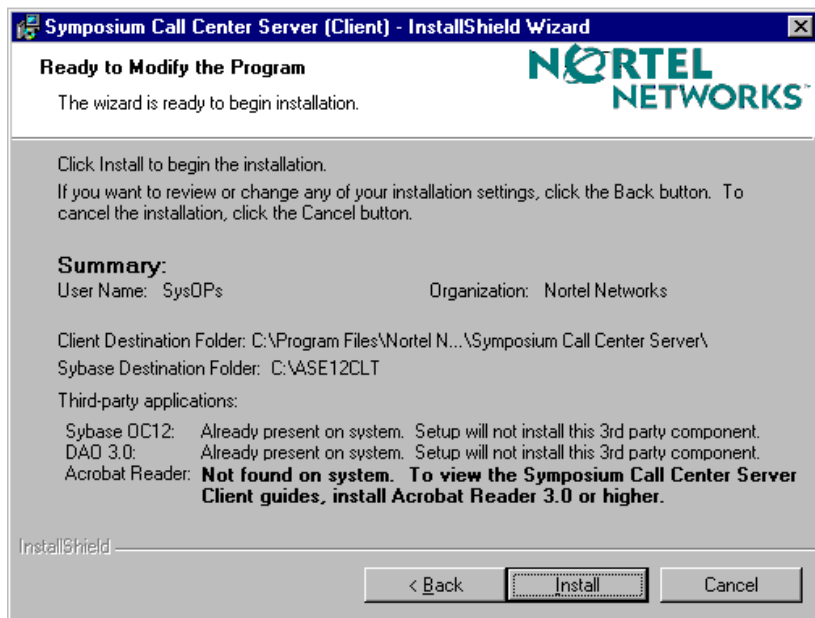
**Result:** The NCC Report Templates dialog box appears. This dialog box gives you the option to add NCC reporting capabilities.



- 7 Click the down arrow beside NCC reports templates, and choose Install this feature now to install NCC reports.

- 8 Click Next.

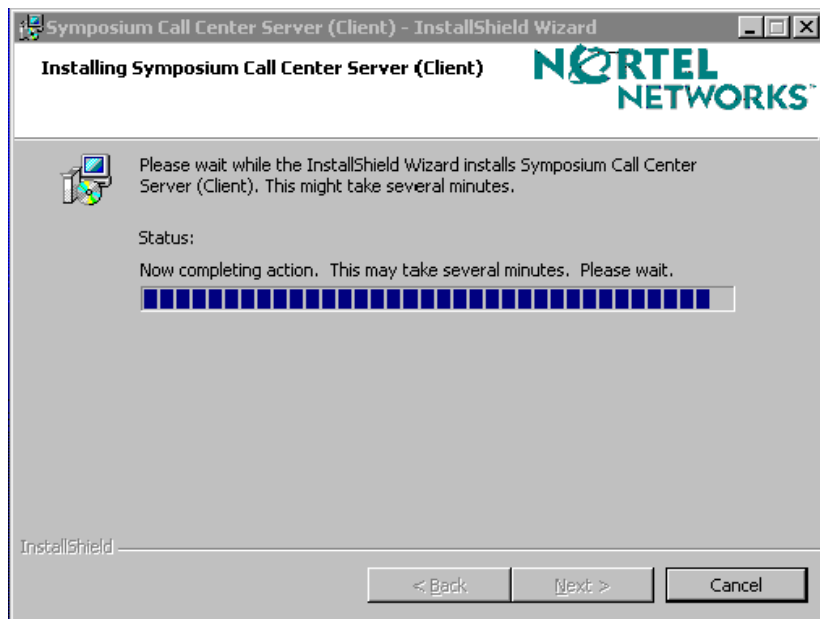
**Result:** The Ready to Modify the Program dialog box appears.



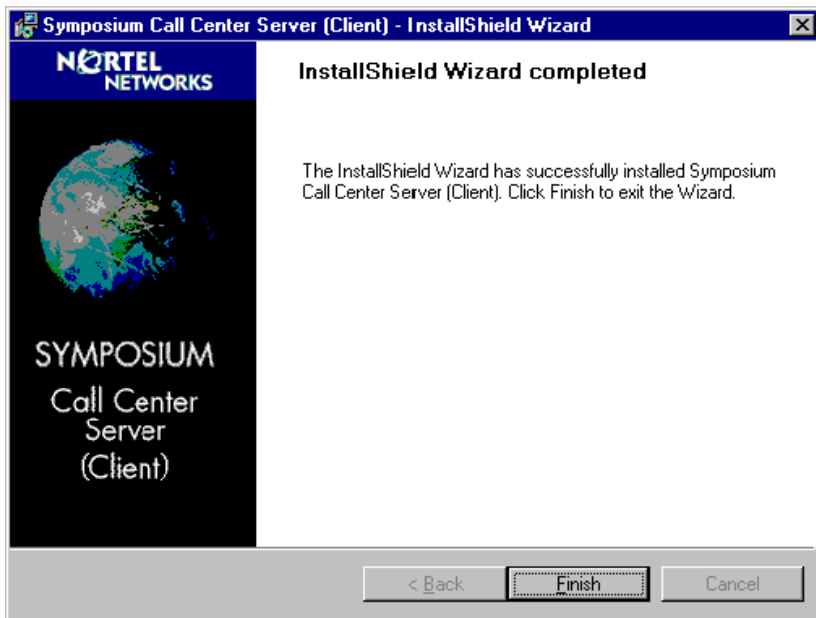
- 9 Verify that all options in the dialog box are correct. If errors appear, click Back, make the necessary corrections, and then click Next.

**10** Click Install.

**Result:** The Installing Symposium Call Center Server (Client) window appears. The system installs the NCC report templates.



When the NCC reports installation is complete, the InstallShield Wizard completed message appears.



- 11 Click Finish.

**Result:** The program prompts you to restart.

- 12 Click Yes to restart the computer.

**Result:** You have successfully installed NCC Reports.

# Removing NCC reports

## Introduction

If you chose to install Networking NCC reports for a Meridian 1/CSE 1000 switch, you can remove the NCC report templates at any time.

### To remove NCC report templates.

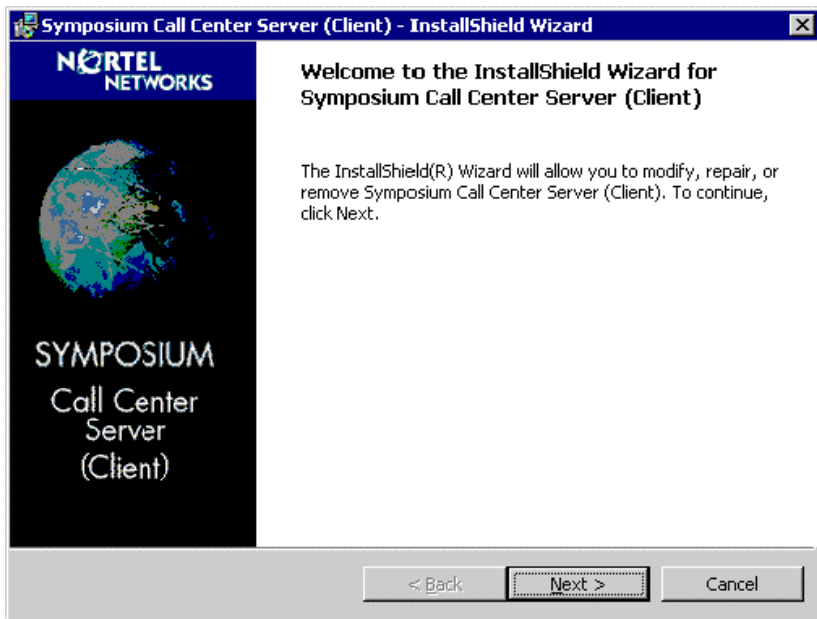
- 1 Log on to the client PC.

**Note:** If the client PC is running Windows NT Workstation, Windows 2000 Professional, or Windows XP, log on as **Administrator**. You must be logged on with administrative privileges to install or uninstall Symposium Call Center Server software.

- 2 Insert the client installation CD, or, if you are removing NCC reports from a remote CD-ROM, map the client installation CD to a drive letter on the client PC.
- 3 From the Windows Start menu, choose Run.
- 4 Click Browse and browse to the appropriate file on the root directory of the CD:
  - If you are using Windows NT, Windows 95, or Windows 2000, select Setup.exe.
  - If you are using Windows XP, select Symposium Call Center Server (Client).msi.

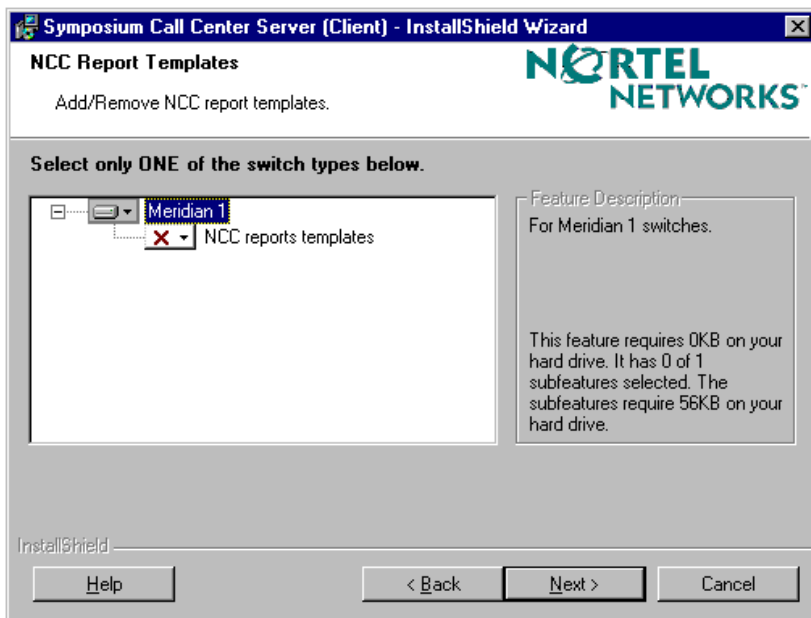
- 5 Click OK to run.

**Result:** The Symposium Call Center Server (Client) - InstallShield Wizard window appears with a welcome message.



- 6 Click Next.

**Result:** The NCC Report Templates dialog box appears. This dialog box gives you the option to remove NCC reporting capabilities.

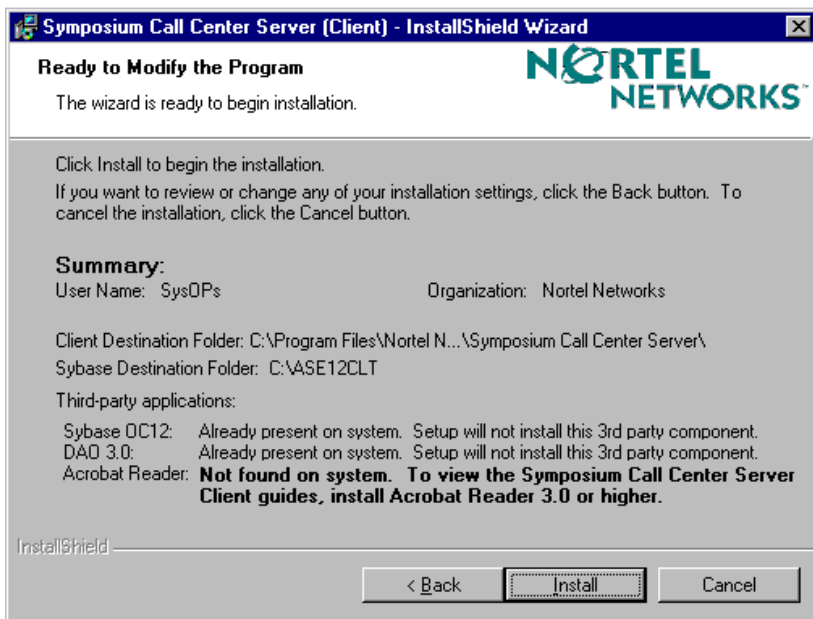


- 7 Click the down arrow beside NCC reports templates, and choose Do not install/remove this feature to remove NCC reports.



- 8 Click Next.

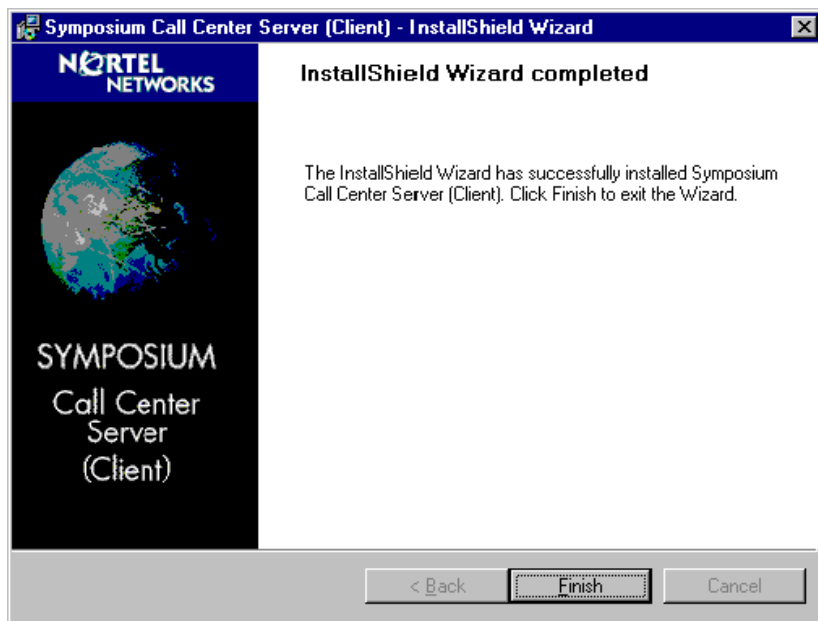
**Result:** The Verification dialog box appears.



- 9 Verify that all options in the Verification dialog box are correct. If errors appear, click Back, make the necessary corrections, and then click Next.

- 10 Click Install.

**Result:** The system uninstalls NCC reports. When complete, the InstallShield Wizard completed message appears.



- 11 Click Finish.

**Result:** The program prompts you to restart.

- 12 Click Yes to restart the computer.

**Result:** You have successfully removed the NCC Reports.

**Note:** NCC report templates are also uninstalled during the regular uninstallation process, as described in "Uninstalling the Release 4.0 client software" on page 466.

# Upgrading the Client

## Introduction

To upgrade the operating system on the Client PC or to perform a conversion from a previous release of the Symposium Call Center Server Client software to Release 4.0, you must perform the following procedures in sequence:

1. Export the data from the present version to a safe location.
2. Uninstall the old client software.
3. If you are upgrading the operating system, perform the operating system upgrade.
4. Install the Symposium Call Center Server Client Release 4.0.
5. Import the data that you previously exported.

### Notes:

- You cannot upgrade from Symposium Call Center Server Release 1.0 or 1.1 to Symposium Call Center Server Release 4.0. To upgrade from one of these releases, you must first upgrade to Release 1.5 and then perform a conversion to Release 4.0.
- Conversion to Release 4.0 is supported on Windows 95, Windows 98, Windows NT 4.0 Workstation, and Windows 2000 Professional.

### ATTENTION

---

To ensure Release 4.0 client interoperability with a Release 3.0 server, make sure Service Update pack NS30121SU06S is installed on the server.

## Upgrading from Release 1.0 or Release 1.1

To upgrade from Symposium Call Center Server Release 1.0 or 1.1 to Release 4.0, you must first upgrade to Release 1.5. To upgrade to Release 1.5, refer to *Symposium Call Center Server Upgrade Instructions from Release 1.0 to Release 1.5* that accompanies the CD.

## Default access classes

Symposium Call Center Server requires that the three default access classes (adminGroup, Call Center Admin, and Supervisor) be defined. Before performing a conversion from an earlier version of Symposium Call Center Server, you must apply PEPs on the client and server to

- prevent these classes from being deleted
- re-add them if they have been deleted
- restore their names, if they have been renamed

**Note:** If any of these access classes do not exist or if they have different names, the conversion fails.

## Conversion checklist

| Step                                                                                                                                                                                                                                                                                | ✓ |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|
| <b>1</b> If you are performing a conversion from Release 1.5, apply the following PEPs on the client (see page 457): <ul style="list-style-type: none"> <li>■ NI015003P067C (This PEP is included in Service Update pack SU09C.)</li> <li>■ NI015003P085C</li> </ul>                |   |
| <b>2</b> If you are performing a conversion from Release 3.0, apply Client PEP NS030121G096C (see page 457).<br><b>Attention</b><br>To ensure Release 4.0 client interoperability with a Release 3.0 server, make sure Service Update pack NS30121SU06S is installed on the server. |   |
| <b>3</b> Export the data from the present version to a safe location (see page 458).                                                                                                                                                                                                |   |
| <b>4</b> Uninstall the client software (see page 460).                                                                                                                                                                                                                              |   |
| <b>5</b> If you are upgrading the operating system, perform the operating system upgrade (see page 461).                                                                                                                                                                            |   |
| <b>6</b> Install Symposium Call Center Server Client Release 4.0 (see page 461).                                                                                                                                                                                                    |   |

| Step                                                                                                   | ✓ |
|--------------------------------------------------------------------------------------------------------|---|
| <b>7</b> Install the latest client Service Update (see page 462).                                      |   |
| <b>8</b> Import the data that you previously exported (see page 462).                                  |   |
| <b>9</b> Install PEPs (see page 464).                                                                  |   |
| <b>10</b> Add an SMI system (see page 464).                                                            |   |
| <b>11</b> If you are performing a client conversion, restore report selection criteria (see page 464). |   |
| <b>12</b> If you are performing a client conversion, check your user-created reports (see page 465).   |   |

**Note:** For Windows NT Workstation or Windows 2000 Professional, you must be logged on as a user with administrative privileges to be able to install and uninstall software.

## To apply the client PEPs

- 1** If you are performing a conversion from Release 1.5, ensure that PEPs NI015003P067C and NI015003P085C are installed. For detailed instructions, see your Release 1.5 documentation.
- 2** If you are performing a conversion from Release 3.0, ensure that PEP NS030121G096C is installed. For detailed instructions, see your Release 3.0 documentation.

## To export the data

The following operating systems and their corresponding versions of Symposium Call Center Server Client are supported by the export utility:

| <b>Symposium Call Center Server Client version</b> | <b>Supported client PC Windows operating system</b>                        |
|----------------------------------------------------|----------------------------------------------------------------------------|
| 1.5                                                | Windows 95/98                                                              |
| 3.0                                                | Windows 95/98/NT 4.0 Workstation                                           |
| 4.0                                                | Windows 95/98/NT 4.0 Workstation/<br>Windows 2000 Professional, Windows XP |

### Notes:

- Windows 95 is not supported on Revision 5 of the Client CD.
- Windows XP is only supported on Revision 5 of the Client CD.

Before you uninstall the client software, use this procedure to export your customized client data to a safe location, such as a secondary partition that is not shared with the operating system, or to a mapped network shared location.

### Before you start

Ensure that no SMI Workbench sessions are running on the client PC before you start the exporting process.

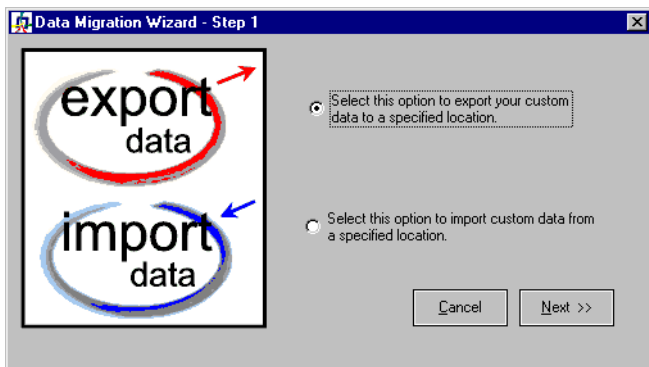
Ensure that all user-created Crystal Reports have a unique name. If they do not have a unique name, they are overwritten during the exporting process and cannot function properly.

- 1 Decide where you want to store your client data. If you want to create a new folder to store your client data, do so now.
- 2 Log on to the client PC.

**Note:** If the client PC is running Windows NT Workstation or Windows 2000 Professional, log on as **Administrator**.

- 3 Navigate to <user-defined path> Nortel\client\en\sysops, and double-click DataMgr.exe.

**Result:** The Data Migration Wizard - Step 1 dialog box appears.

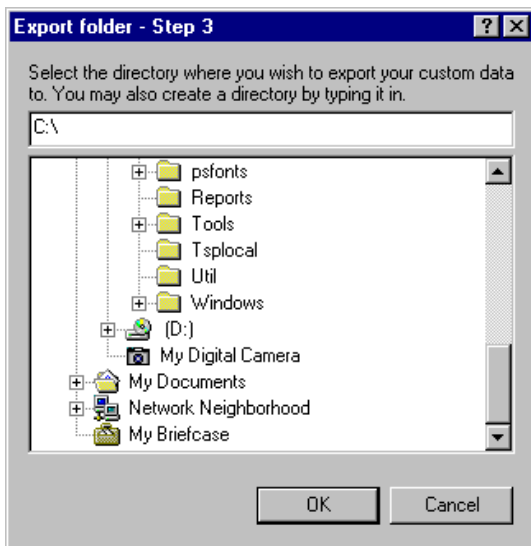


- 4 Ensure that the export option button is selected, and then click Next.

**Result:** The Data Migration Wizard - Step 2 window appears with general information concerning the export/import process.

- 5 Read the text and click Next to continue.

**Result:** The Export folder - Step 3 window appears.



- 6 Select the folder where you want to save your exported data, and then click OK.

**Result:** A dialog box appears stating that the data export may take a few minutes and to wait until you are prompted to restart the PC.

- 7 Click OK.

**Result:** The system informs you when the export is complete and asks you to restart the client computer.

- 8 Click Yes.

## To uninstall the client software

You can either uninstall your current Symposium Call Center Server Client Release 1.5, Release 3.0, or Release 4.0 client software, or you can completely reinstall your entire operating system before installing the Release 4.0 client software. The following procedure shows you how to uninstall versions of client software previous to Release 4.0. To uninstall Symposium Call Center Server Release 4.0, see “Uninstalling the Release 4.0 client software” on page 466.

**Note:** Before you uninstall the software, deactivate any scheduled reports.

- 1 Log on to the client PC.

**Note:** If the client PC is running Windows NT Workstation or Windows 2000 Professional, log on as **Administrator**. You must be logged on with administrative privileges to install or uninstall Symposium Call Center Server software.

- 2 Depending on your release of Symposium Call Center Server Client, do one of the following steps:

- Open the Windows Control Panel (from the Windows Start menu, choose Settings → Control Panel), and then double-click Add/Remove Programs. Select Symposium Call Center Server client, and then click Remove. Windows removes the software.
- From the Windows Start menu, choose Programs → Symposium Call Center Server → Uninstall.

- 3 From the Windows Start menu, choose Settings → Control Panel.

**Result:** For Release 3.0 only, a dialog box appears showing all components to be uninstalled.



4 For Release 3.0 only, choose Select all, and then click Next.

5 Click Yes to uninstall, and then click Yes to confirm.

**Note:**

- If the message Setup is not able to automate Sybase Open Client uninstall appears, click OK.
- If any window obscures the uninstallation summary, minimize the window.

**Result:** The Nortel Systems Operations window appears.

6 Click OK.

**Result:** For Release 3.0 only, the system asks if you want to uninstall DMI and the Nortel Log directory.

7 Click OK.

**Result:** An uninstall summary dialog box appears.

8 Click OK twice to exit and restart.

**Result:** The system restarts and the client uninstallation is complete.

**Note:** If an error message regarding the uninstalling of all Symposium Call Center Server features appears, click OK.

**Note:** The uninstall procedure does not remove the Desktop shortcut that Symposium Call Center Server created during the installation of Release 1.5. You must remove this shortcut manually.

## To upgrade the operating system

If you are upgrading your operating system, do so now, following the instructions provided with your new operating system.

## To install Symposium Call Center Server Client Release 4.0

Follow the procedure in Chapter 6, "Installing the client software."

**Result:** Symposium Call Center Server Client Release 4.0 is installed on the client PC.

## Installing Service Update NS040107SU01C

Install Service Update NS040107SU01C on the client PC. For instructions, see “Installing PEPs and Service Update packs on the client” on page 172.

### To import the data

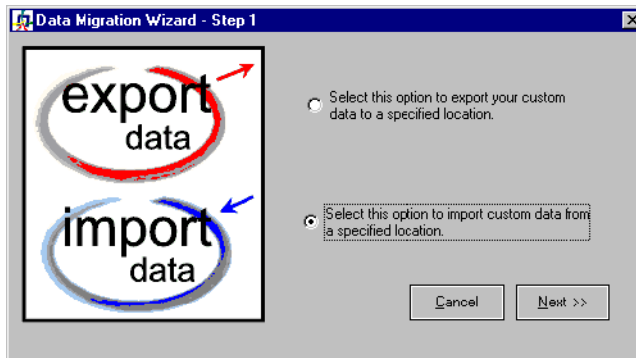
Follow this procedure to import your customized client data to the new Release 4.0 client, and copy the user-created custom Crystal Reports back to their original locations.

- 1 Log on to the client PC.

**Note:** If the client PC is running Windows NT Workstation or Windows 2000 Professional, log on as **Administrator**.

- 2 Choose Start → Programs → Symposium Call Center Client → Data Migration Wizard.

**Result:** The Data Migration Wizard - Step 1 dialog box appears.

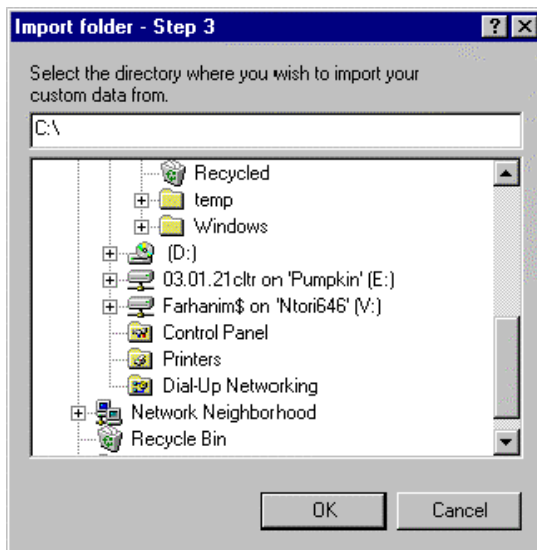


- 3 Select the import option button, and then click Next.

**Result:** The Data Migration Wizard - Step 2 window appears with general information concerning the export/import process.

- 4 Read the text, and then click Next to continue.

**Result:** The Import folder - Step 3 window appears.



- 5 Select the folder from which you want to import your data, and then click OK. This must be the same folder to which you previously exported your data.

**Result:** The data is imported. After a few seconds, the system informs you that you must restart the computer.

- 6 Click Yes to restart the client computer.
- 7 When the operating system has restarted, copy all the user-created custom Crystal Reports files from the location to which they are imported (<Install Directory>\Client\En\Rpt\UserCreated\..) to the exact location where they were located on the previous system. (<Install Directory> is the folder where you previously exported your data.) If you are unsure where you previously stored your user-created custom reports, open the UserTemplate table in the following file using Microsoft Access 97 or newer:

*<Install Directory>\Client\En\Data\nicrpt.mdb*

**Note:** You must reimport any user-created report templates to include them in future SMI Workbench reports.

**Result:** The data is imported from the backup location to the Release 4.0 client.

## Installing PEPs

If you received a Supplementary CD, install the PEPs now. For instructions, refer to “Installing PEPs and Service Update packs on the client” on page 172.

Also, check for latest or additional PEPs from your regional Symposium Call Center Server technical web site.

## Adding an SMI system

If you do not have a Supplementary CD, or after you install the PEPs, you must add an SMI system. See “Adding an SMI system” on page 228.

### ATTENTION

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When you log on to the server for the first time, you must log on as **sysadmin**. The application prompts you to change your password. After the sysadmin user changes his or her password, other desktop users can log on. They are also prompted to change their passwords.

## To restore report selection criteria

After you complete the conversion from Release 1.5 to 4.0 only, log on to each client PC. Restore the selection criteria for the reports containing agents, using the printed reports as a reference.

- 1 Select the report, and choose File → Properties.
- 2 Click the Selection Criteria tab.
- 3 Use the hard-copy report as a reference to select each required agent in the Available box, and click the left arrow to move the agent to the Selected list. Repeat this step until all required agents have been selected.
- 4 Click Save.

## **Checking user-created reports imported from a Release 3.0 client**

You may experience problems running user-created reports, such as the call-by-call report, that you have imported from a Release 3.0 client to a Release 4.0 client. This occurs because the Release 4.0 client uses a different version of the Crystal Reports software (version 8.0) than the Release 3.0 client. If you experience problems, you must open the applicable template on the Release 4.0 client and recreate your user-created report.

# Uninstalling the Release 4.0 client software

## Introduction

Uninstall the client software when you want to use the client PC for another purpose. If you must reinstall the client software, use this procedure to uninstall the client software first.

**Note:** Before you uninstall the software, deactivate any scheduled reports.

## Uninstallation checklist

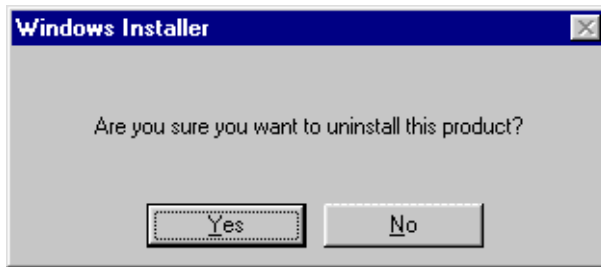
| Steps                                                                                                                                                                                                                | ✓ |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|
| Obtain the user ID and password required to log on to the client. On a Windows NT 4.0 Workstation, Windows 2000 Professional, or Windows XP client PC, you need an account that has local administrative privileges. |   |
| Uninstall the client software.                                                                                                                                                                                       |   |

## To uninstall the Release 4.0 client software

- 1 Log on to the client PC.  
**Note:** If the client PC is running Windows NT Workstation, Windows 2000 Professional, or Windows XP, log on as **Administrator**. You must be logged on with administrative privileges to install or uninstall Symposium Call Center Server software.
- 2 For Windows NT, Windows 9x, or Windows 2000 Professional, from the Windows Start menu, choose Programs → Symposium Call Center Client → Uninstall.

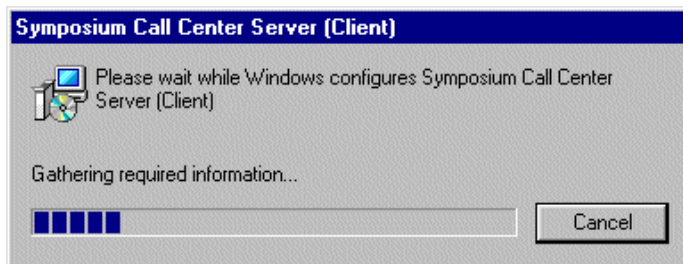
- 3 For Windows XP, from the Windows Start menu, choose All Programs → Symposium Call Center Client → Uninstall.

**Result:** The following Windows Installer message asks you to confirm the uninstallation:



- 4 Click Yes.

**Result:** The system uninstalls Symposium Call Center Server Client Release 4.0.



When the software is uninstalled, a message asks you to restart your computer.

- 5 Click Yes to restart your PC.

**Result:** Symposium Call Center Server Client Release 4.0 is uninstalled from the computer.

**Note:** The uninstall procedure does not remove Desktop shortcuts that you have created for SMI. You must remove these types of shortcuts manually.

## To uninstall Sybase Open Client

There is no uninstall program for Sybase. Use the following procedure to uninstall Sybase from all Windows operating systems.



### CAUTION

---

#### Risk of corrupting the operating system

The following procedure assumes that you can make changes to the registry with the editing tool Regedit. Incorrect changes to the registry can disable parts of the operating system or other programs.

- 1 From the Windows Start menu, choose Run.
- 2 In the text box, type **regedit**, and then click OK.  
**Result:** The Registry Editor window appears.
- 3 Navigate down to HKEY\_LOCAL\_MACHINE/System/CurrentControlSet/Control/Session Manager/Environment.
  - a. Remove the values Sybase and Sybase\_OCS.
  - b. Modify the PATH key to remove any Sybase-related paths. Do not remove any Winnt paths by mistake.
- 4 In HKEY\_LOCAL\_MACHINE/Software, remove the key Sybase.
- 5 Exit regedit.
- 6 Delete the Sybase folder. If Sybase was installed with Symposium Call Center Server Client 4.0, the default folder is C:\ASE12CLT.
- 7 Delete the shortcut from the program group.

**Result:** You have removed Sybase from the client PC.



# Part 2

---

## Maintenance



# Chapter 11

---

## Managing the server

### In this chapter

|                                        |     |
|----------------------------------------|-----|
| Shutting down or restarting the server | 472 |
| Managing the date and time             | 473 |

# Shutting down or restarting the server

## Introduction

Always use the Shut Down option on the Windows Start menu to shut down the server.



### CAUTION

---

#### **Risk of file corruption**

Do not press the power button on the front of the server to shut down your system as this can result in

- file corruption
- failure to deacquire resources
- loss of statistics for the current interval

# Managing the date and time

## Meridian 1/CSE 1000 switch

The server makes adjustments to stay synchronized with the switch time. If you attempt to change the date and time on the server, the server automatically adjusts the time back to stay synchronized with the switch. As a result, only the switch administrator can change the date and time.

For more information, refer to the *Nortel Networks Symposium Call Center Server Symposium, M1/CSE 1000, and Voice Processing Guide*.

### Example: Change from daylight saving to standard time

During a time change from standard time to daylight saving time or from daylight saving time to standard time, the following events occur:

- Windows on the server automatically adjusts the time.
- Within 10 minutes, the server changes the time back to ensure that it is synchronized with the switch time.

#### Notes:

- After a change to or from daylight saving time, you must restart the server.
- During the interval between the automatic time changes, the time on real-time displays and in reports is incorrect (for example, the end times of calls in progress may be earlier than their start times).

## DMS/MSL-100 switch

Symposium Call Center Server is the master clock. It does not derive its time from the switch.

**Note:** After a time change, you must restart the server.

For more information refer to one of the following guides:

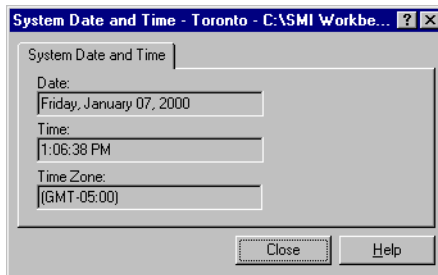
- *Nortel Networks Symposium Call Center Server and the DMS-100 Switch Guide*

- *Nortel Networks Symposium Call Center Server and the MSL-100 Switch Guide*

## To view the system date, time, and time zone from the client PC

- 1 From the SMI window, double-click the time at the bottom right corner of the SMI window.

**Result:** The System Date and Time property page appears.



- 2 Click Close to return to the SMI window.

# Chapter 12

---

## Managing security

### In this chapter

|                                                 |     |
|-------------------------------------------------|-----|
| Password guidelines                             | 476 |
| Changing Nortel Networks user account passwords | 477 |
| Protecting pcAnywhere settings                  | 480 |
| Checking server events for suspicious activity  | 482 |

# Password guidelines

## Password format

Write down any new passwords and store them in a secure place for future reference. Passwords are case sensitive.

New passwords should be

- unique
- alphanumeric (they should contain at least one number)
- a minimum of six characters
- not nouns

### Example

xyd45fst

## When to change passwords

Change passwords at the following times:

- during the initial system setup after the operating system is installed
- at regular intervals for maximum security
- if you experience trouble logging on to Windows
- if server software is reinstalled (the default accounts and passwords are recreated, so passwords must be changed)

**Note:** If you require support from Nortel Networks or your distributor, you must tell them the new passwords.



# Changing Nortel Networks user account passwords

## Introduction

To maintain system security, change passwords regularly and store them in a secure location.

To make changes to the Administrator or any other Windows passwords, refer to the documentation provided with your operating system.

## Default accounts and passwords

The following Windows accounts are created on the server during the installation procedure:

- NGenSys
- NGenDist
- NGenDesign

### ATTENTION

---

The on-site installer is instructed to change all default passwords as part of the on-site installation procedures.

You can change all passwords with the procedures in this section. Nortel Networks recommends that you change all passwords regularly to maintain system security.

If server software is reinstalled, the default accounts and passwords are recreated and passwords must be changed.

## To change the NGenDist, NGenDesign, or NGenSys passwords

**Note:** You are not required to change the NGenSys password. If you change the NGenSys password, you must apply the same password change to the Meridian Application Server (MAS) Backup/Restore service.

- 1 Log on to the server as **Administrator**.
- 2 Click Start → Programs → Computer Management.  
**Result:** The Computer Management window appears.
- 3 Click Local users, and then click Users.  
**Result:** The Computer Management displays a list of available user accounts, including NGenDist and NGenDesign.
- 4 Right-click NGenDist.
- 5 Click Set Password.  
**Result:** The Properties window appears.
- 6 In the Password box, type the new password.  
**Note:** Ensure that you use a password that contains a combination of numbers and letters (see “Password format” on page 476).
- 7 In the Confirm Password box, type the same password entered in the Password box.
- 8 Click OK.
- 9 Repeat steps 4 to 8 for NGenDesign.
- 10 Select Exit to save changes.
- 11 Record these passwords and store them in a secure place away from the server.

If you have changed the NGenSys password, continue with the following procedure.

### ATTENTION

When you are finished changing passwords, remember to log on as NGenSys. You must be logged on as NGenSys to monitor and manage the server.

## To change the NGenSys password for MAS Backup/Restore service

**Note:** This procedure is required only if you change the Windows user account password for NGenSys.

1 Click Start → Settings → Control Panel.

2 Click Services.

**Result:** The Services dialog box appears.

3 Scroll to MAS Backup/Restore service, and then select it.

4 From the Action menu, choose Properties.

**Result:** The Service dialog box appears.

5 Click the Log On tab, and then fill in the Password and Confirm Password boxes with the current NGenSys password.

**Note:** Use the same password you assigned to NGenSys in “To change the NGenDist, NGenDesign, or NGenSys passwords” on page 478.

6 Click OK.

### ATTENTION

---

When you are finished, remember to log on as NGenSys. You must be logged on as NGenSys to monitor and manage the server.

# Protecting pcAnywhere settings

## Introduction

This section will show you how to create a password to protect the pcAnywhere settings on the server.

### ATTENTION

If you select the option Required to modify properties, you must enter the password each time a setting is changed. You should record the password and keep a copy of it in a safe place. If you forget the password, you cannot change any settings.

## To add a password to protect pcAnywhere settings

- 1 Log on to the server as **Administrator**.
- 2 From the Windows Start menu, choose Programs → Symantec pcAnywhere.

**Result:** pcAnywhere starts.

- 3 If necessary, select Be a Host PC.
- 4 Click Network.

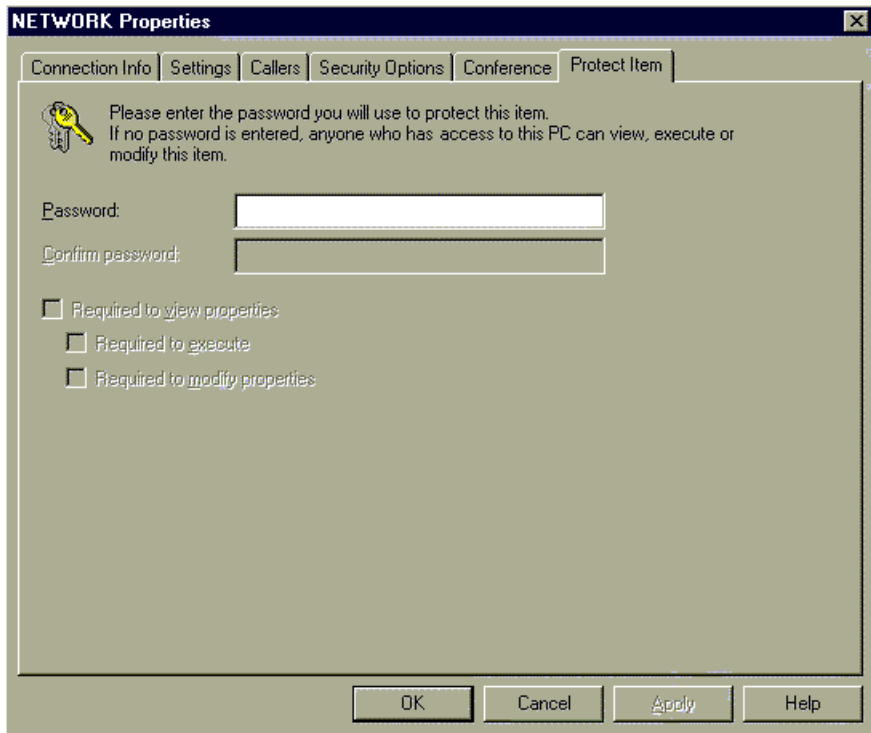
**Note:** Do not double-click the icon or you will begin a pcAnywhere session.

- 5 From the File menu, choose Properties.

**Result:** The NETWORK Properties dialog box appears.

- 6 Click the Protect Item tab.

**Result:** The following property page appears:



- 7 In the Password box, type a password that will protect the pcAnywhere network settings.
- 8 Type the password again in the Confirm password box.
- 9 Check the appropriate check boxes for the level of security you desire.
- 10 Click Apply to save the changes.
- 11 Click OK.

**ATTENTION**

When you are finished, remember to log on as NGenSys. You must be logged on as NGenSys to monitor and manage the server.

# Checking server events for suspicious activity

## Security events

Security auditing is enabled on the server. Suspicious actions by a user are logged as event code 40593 in the Event Browser in the SMI window on the client, and in the security log in the Windows Event Viewer. The severity of the event depends on the severity of the condition that caused the event. If the severity is Information, the event does not appear in the Alarm Monitor.

# Chapter 13

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## Working with alarms and events

### In this chapter

|                                    |     |
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| Overview of viewing events         | 484 |
| Changing the Windows EventLog size | 486 |
| Using the Windows Event Viewer     | 488 |
| Configuring SNMP on the server     | 489 |

# Overview of viewing events

## Introduction

You can use two tools to view events that occur on your Symposium Call Center Server:

- the Event Browser on the client (supplied with Symposium Call Center Server)
- the Event Viewer on the server (supplied with the Windows operating system)

This chapter provides guidelines for viewing events with the Windows Event Viewer on the server, and describes recommended sizes for the event logs. It also explains how to configure the Windows Simple Network Management Protocol (SNMP) on the server.

For details about viewing events through the Event Browser on the client, see the *Administrator's Guide*.

## Events

Events are log entries that record activities on Symposium Call Center Server, such as

- sending or receiving messages
- opening or closing applications
- errors

Some events are for information purposes only, while others can indicate problems. Events are categorized by severity.

## Event severity

Events are assigned a default severity of Information, Minor, Major, or Critical. The Alarm Monitor does not report Information-level events.



**Information**

These events indicate that something noteworthy has happened on the system, but do not mean that there is a problem. For example, an information-level event can indicate that a service has started or stopped. These events appear in the Event Browser but not in the Alarm Monitor.

**Minor**

These events indicate that a non-service-affecting fault condition exists, and that you must take corrective action to prevent a more serious fault. For example, a minor event is generated when the file system is 90 percent full.

**Major**

These events indicate that a service-affecting condition has developed and an urgent corrective action is required. The event condition can cause severe degradation in server performance, and you must restore full capacity. For example, a major event is generated when the file system is 100 percent full.

**Critical**

These events indicate that a service-affecting condition has occurred and an immediate corrective action is required. Critical events are reported when a component is completely out of service and you must take immediate action to restore it. For example, a critical event is generated when the file system crashes.

**Simple Network Management Protocol**

Symposium Call Center Server also supports Simple Network Management Protocol (SNMP) traps. You can use SNMP to send events to a Network Management System (NMS) on your network.

# Changing the Windows EventLog size

## Introduction

The Windows EventLog resides on the server and stores a record of all events that occur on the server. When you install Symposium Call Center Server, the installation program sets certain default sizes for the various Windows log files. If you change the size settings, the results affect the entire server.



### CAUTION

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#### Risk of data loss

Only qualified technicians should make changes to these settings.

## Event wraparound

The EventLog size is fixed. It does not increase in size as new events are added to the log. When the log is full and a new event is generated, the server removes the *oldest* event report in the log and replaces that report with the newest one.

## Changing the size of the log files

If you reduce the size of the event logs, then the server can store fewer events. If you increase the size of the event logs, you reduce the amount of available disk space on the server, which may slow response times for retrieving events from the Event Browser.

### Default event log size

During a Symposium Call Center Server installation, the log settings are set to the following values:

| Log name        | Size        | Event log wrapping          |
|-----------------|-------------|-----------------------------|
| Application Log | 8192 kbytes | Overwrite events as needed. |

| Log name     | Size       | Event log wrapping          |
|--------------|------------|-----------------------------|
| System Log   | 512 kbytes | Overwrite events as needed. |
| Security Log | 512 kbytes | Overwrite events as needed. |

### **Making changes to the default Application Log size**

Application events, such as Symposium Call Center Server events, are stored in the Application Log. You can adjust the size of the Application Log to suit the size of your call center. When you change the Application Log size, you also change the number of Symposium Call Center Server events that are stored.

Nortel Networks recommends the following size settings for the Application Log:

- For a small call center, set the log size to 512 kbytes.
- For a medium-sized call center, set the log size to 6015 kbytes or greater, depending on the number of days you want to keep the events.
- For a large call center, set the value at 10 048 kbytes or greater, depending on the number of days you want to keep events.

**Note:** Do not change the event log wrapping settings.

For information on how to adjust the size of Windows event logs, refer to the documentation supplied with the Windows operating system.

# Using the Windows Event Viewer

## Introduction

Most of the information provided by the Windows Event Viewer on the server is also accessible through the Event Browser on the client. The following type of information is not available on the client:

- database events (from the Application Log)
- MAS debug events (from the Application Log)

## When to use

Use the Windows Event Viewer on the server to view information that you cannot view through the Event Browser on the client. For more information on the Event Viewer, refer to the documentation supplied with the Windows operating system.

# Configuring SNMP on the server

## Introduction

Windows provides a Simple Network Management Protocol (SNMP) agent, which runs as a service on Symposium Call Center Server. You can use this service to forward events to a Network Management System (NMS) on your network. To do so, you must do the following tasks:

- Configure the Windows SNMP service on the server (see “To configure the Windows SNMP service to forward traps to an NMS” on page 489).
- Select the types of events to be forwarded to the NMS (see “To select the types of events to be forwarded” on page 491).
- Configure the NMS (see “Configuring the NMS” on page 492).

## Overriding event filtering for individual events

When you configure the server, you choose the types of events to be forwarded to the NMS. For example, you may choose only to forward Unknown and Critical events. However, you may also be interested in tracking a Minor event, such as 41553. If you configure the server to forward all Minor events, a significant amount of traffic is generated on your CLAN. To avoid this, but still track event 41553, you can use the Event Preferences feature. This feature allows you to temporarily assign event 41553 a priority of Critical. After you do so, the event is automatically forwarded to the NMS.

For detailed instructions, see the *Administrator's Guide*.

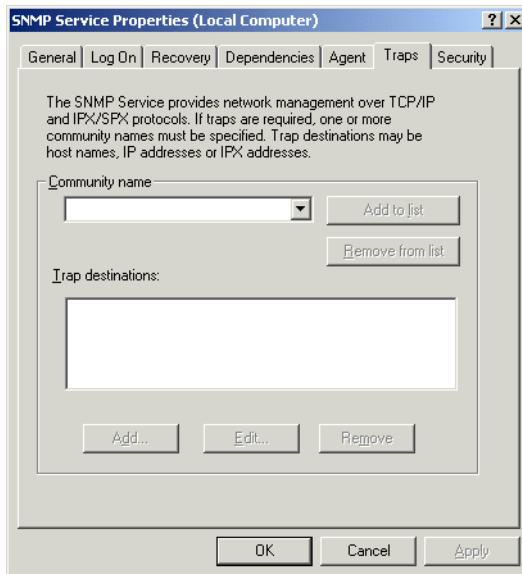
## To configure the Windows SNMP service to forward traps to an NMS

- 1 Log on to the server as **NGenSys**.
- 2 From the Windows Start menu, choose Programs → Administrative Tools → Services.  
**Result:** The Services window appears.
- 3 From the list of Services, select the SNMP Service.

- 4 Click Action → Properties.

**Result:** The SNMP Service Properties property sheet appears.

- 5 Click the Traps tab.

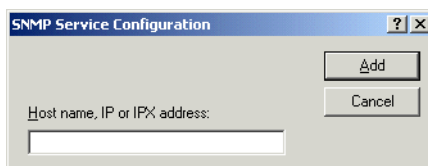


- 6 If no community name is defined, in the Community name box, type **public**.

- 7 Click Add to list.

- 8 To add the IP address of the NMS to which the server will send traps, click Add.

**Result:** The SNMP Service Configuration window appears.



- 9 Type the IP address of the NMS.

- 10 Click Add.

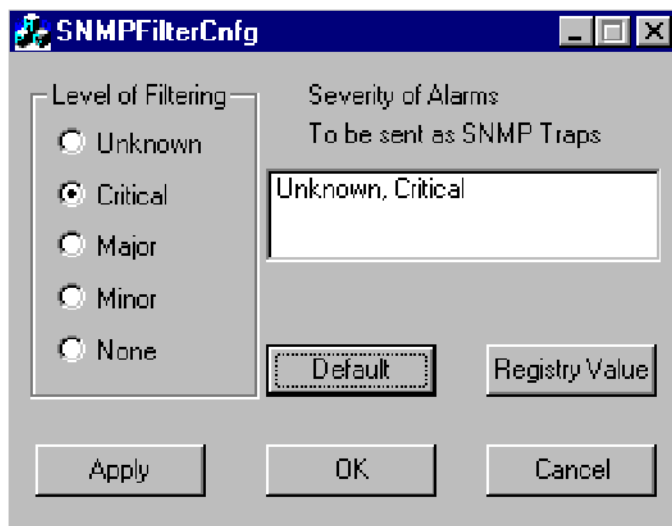
**Result:** The SNMP Service Configuration window closes.

- 11 In the SNMP Service Properties property sheet, click OK.  
**Result:** The SNMP Service Properties property sheet closes.
- 12 In the Services window, right-click the SNMP Trap Service.
- 13 From the resulting pop-up menu, click Start.  
**Result:** The SNMP Trap Service starts.
- 14 Close the Services window.

## To select the types of events to be forwarded

- 1 From the Windows Start menu, choose Programs → Accessories → Windows Explorer.
- 2 Browse to the folder D:\Nortel\bin, and double-click SNMPFilterCnfg.exe.

**Result:** The SNMPFilterCnfg dialog box appears.



- 3 In the Level of Filtering box, select the types of events you want to forward to the NMS. All event types that appear above the type that you select are also forwarded. For example, if you select Major, all Unknown, Critical, and Major events are forwarded.
- 4 Click OK.

## Configuring the NMS

After you configure the server, you must configure the NMS to receive and interpret traps (including identification to the NMS, and the origin and format of the Symposium Call Center Server traps). To do so, you must load or compile the Symposium Call Center Server Management Information Block (MIB) files in the NMS.

The following MIB files describe the format of the traps generated by the server:

- nt-ref.mib (MIB-II)
- nbflt.mib (NGen MIB)

The files are available in the following locations:

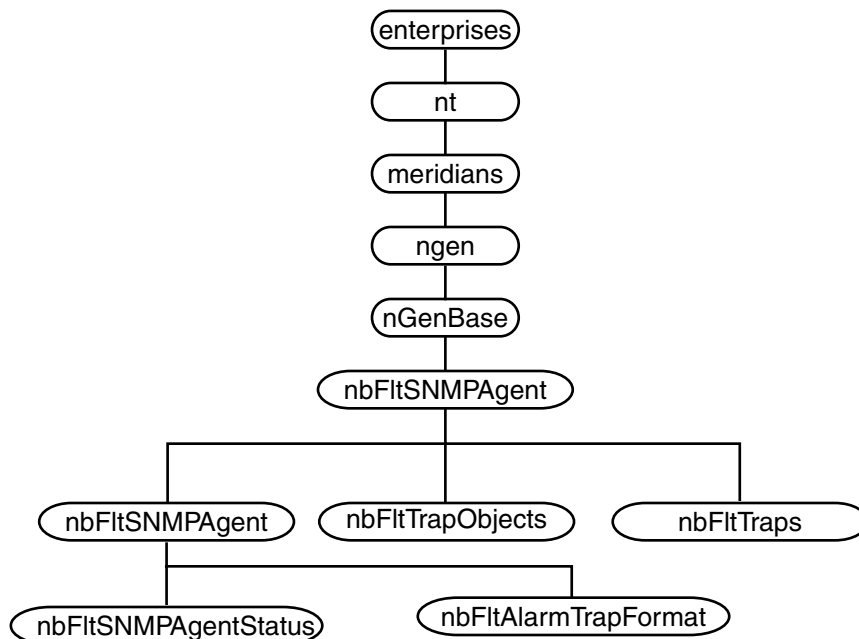
- on the Server Application CD for Symposium Call Center Server, in the folder called “data”
- on the Symposium Call Center Server, in the path d:\nortel\data

For more information about configuring your NMS, refer to your NMS documentation.



## Format of the NGen MIB

Symposium Call Center Server supports the Windows standard MIB-II. In addition, it provides its own MIB, the NGen MIB. The NGen MIB has the following structure:





# Chapter 14

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## Backing up data

### In this chapter

|                                                                      |     |
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| Overview of backing up data                                          | 496 |
| Backup speeds                                                        | 500 |
| Requirements for backups                                             | 506 |
| Checklist for performing backups                                     | 509 |
| Creating a Platform Recovery Disk                                    | 510 |
| Calculating the capacity requirements for database backups           | 513 |
| Section A: Setting up backup options                                 | 517 |
| Section B: Scheduling backups                                        | 533 |
| Section C: Using a third-party backup utility to create full backups | 545 |

# Overview of backing up data

## Introduction

Your backup strategy is a critical part of your disaster recovery program. Backups minimize the data loss resulting from catastrophic failure.

Your backup strategy can include the following types of backups:

- full backup
- database backup
- RAID

## When to use a database backup

Nortel Networks recommends performing a daily database backup using the Symposium Call Center Server backup utility. A database backup is performed while the server is online. In conjunction with a Platform Recovery disk (see “Creating a Platform Recovery Disk” on page 510), a database backup allows you to restore all system data (scripts and statistics) after a crash.

**Note:** If your server is equipped with a mirrored Redundant Array of Independent Disks (RAID) system, then recovery from a single drive failure does not require a database backup. However, you should still continue to perform daily backups.

### Backup destinations

You can direct your database backup to the following destinations:

- a remote directory on a network computer
- a tape in a local tape drive

Use multiple backup tapes on a rotation basis, with tapes being rotated off-site for protection in the event of a catastrophic disaster.

**ATTENTION**

You do not require a full backup of your Symposium Call Center Server if you maintain a current database backup and Platform Recovery Disk, as well as the original server software. If you want to do a full backup of your server, you must use a third-party backup utility. For more information on full backups, see Section C: “Using a third-party backup utility to create full backups,” on page 545.

**Note:** To back up data on the client, you must provide separate software and hardware.

**Daily maintenance and database backups**

The daily maintenance process consolidates statistics. It runs on the server at midnight and takes several hours, depending on the system configuration. Frequent delays occur if you schedule a backup at the same time as the daily maintenance process. The server puts the backup on hold until the maintenance process is completed. The delay is logged in the backup log file, and it has no impact on the system or backup.

**When to use a full backup**

A full backup allows you to restore the server to its state at the time of the backup. It is useful for recovery from a catastrophic failure in the server's disk subsystem. In combination with a current database backup, a full backup can help you minimize your data loss.

A full backup is performed while the server is offline. You should create a full backup

- after installation and configuration of a new server
- before and after a major conversion of the server (for example, from Release 3.0 to Release 4.2)

- before and after any major hardware upgrades (such as a disk expansion, BIOS upgrade, or platform migration)

**ATTENTION**

---

To create a full backup, you must use a third-party backup utility. For information on preparing for a third-party backup, see Section C: “Using a third-party backup utility to create full backups,” on page 545.

## When to use a RAID backup

RAID backups are recommended for platforms with hot-swap disk configurations. They provide a fast mechanism for backing up and restoring your system. Used in conjunction with a database backup, a RAID backup allows you to restore your system to its condition preceding a crash.

The Symposium Call Center Server backup utility backs up the server database. You need a database backup to recover from database corruption, or to perform a conversion or migration on your server. (The backup utility is not intended to restore individual pieces of information or files that were deleted by accident.)

## Backup best practices

To help you recover your database in the case of a system failure, follow the guidelines listed below to ensure that you always have an up-to-date backup of your database files:

- Create a new Platform Recovery Disk after you have expanded your database using the Database Expansion Utility, restored your database, and each time you change any of the following information on the server:
  - **Customer Information** If you change your customer name or company name, then you must create a new Platform Recovery Disk.
  - **Keycode Information** If you enter a new serial number (or dongle number for DMS/MSL-100 systems) and keycode when upgrading the server software, then you must create a new Platform Recovery Disk.
  - **DMS/MSL-100/M1/CSE 1000 Switch Information** If you update switch information, such as the switch name, IP address, and customer number, then you must create a new Platform Recovery Disk.

- **ELAN/CLAN IP Addresses** If you update the ELAN or CLAN IP address of the server, then you must create a new Platform Recovery Disk.
- **Voice Connection** If you update the connection to the voice processing system (CallPilot or Meridian Mail), then you must create a new Platform Recovery Disk.
- **RSM IP Address** If you update the Real-Time Statistics Multicast (RSM) IP address of the server, then you must create a new Platform Recovery Disk.
- **Site Name** If you change the site name for Symposium Call Center Server, then you must create a new Platform Recovery Disk.
- Perform daily database backups. For more information on setting up database backups, see Section A: “Setting up backup options,” on page 517.

# Backup speeds

## Backup types and backup speeds

The following table provides a summary description of the types of backups:

| Backup type                                                                    | Definition                                                                                                     | Result                                                                                                                              | Approximate speed of backup                                                                                                                     |
|--------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|
| Database backup                                                                | Backs up all information stored in the Symposium Call Center Server database to a remote directory or to tape. | <i>Online</i> operation:<br>Call processing continues as the backup executes. No Symposium Call Center Server services are stopped. | <ul style="list-style-type: none"> <li>■ See notes below the table.</li> </ul>                                                                  |
| RAID drive backup                                                              | Backs up drives to a spare drive pack.                                                                         | <i>Offline</i> operation:<br>Fast system backup and simple restore.                                                                 | <ul style="list-style-type: none"> <li>■ 13.5 Gbytes/hour on a 1003t</li> <li>■ For other platforms, see the supplied documentation.</li> </ul> |
| Full backup<br><b>Note:</b> Full backup requires a third-party backup utility. | Backs up the entire system using a third-party backup utility.                                                 | <i>Offline</i> operation:<br>Allows you to restore the system to its state at the time of the backup.                               | <ul style="list-style-type: none"> <li>■ See the documentation for the third-party backup utility.</li> </ul>                                   |

### Notes:

- To help calculate the speed of database backups before a conversion (to tape or a remote directory), it is a good idea to perform a trial run of the backup at least several days before the conversion. Keep in mind that the time required to do a database backup can vary between the trial run and the actual backup day due to several factors.
- For a listing of the variables that can affect the speed of your backup and restore, see “Variables affecting backup and restore speed” on page 501.



- To calculate the speed for database backups to tape (based on your configuration), see the formula listed in the section “Online Database Backup Speed Elapsed Time” in the *Nortel Networks Symposium Call Center Server Planning and Engineering Guide* for Release 4.2.
- To see sample time measurements for tape backup and restore, see “Benchmark statistics for tape backup and restore” on page 504.
- To help you calculate the disk space requirements before you back up your database, see details about the DBSpace utility in the section “Calculating the capacity requirements for database backups” on page 513.

## Variables affecting backup and restore speed

Since Symposium Call Center Server runs on a Platform Vendor Independence (PVI) platform, the factors that affect backup speeds can vary from server to server. The factors shown in the following table can affect backup and restore speed for both remote directory and tape backups. To improve the backup/restore speed on your server, note the recommendations in the last column of the table.

| Backup/restore variable                          | Impact of variable on backup/restore                                                           | Recommendation                             |
|--------------------------------------------------|------------------------------------------------------------------------------------------------|--------------------------------------------|
| Symposium Call Center Server CPU speed           | Faster CPU means more free processing time available for the backup/restore.                   | Use a higher CPU speed on your PVI server. |
| Symposium Call Center Server database disk speed | Faster database disk speed allows for a higher data transfer rate for the backup/restore task. | Use a faster disk.                         |

| <b>Backup/restore variable</b>               | <b>Impact of variable on backup/restore</b>                                                                                                                                                                                                                                         | <b>Recommendation</b>                                                                            |
|----------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|
| Symposium Call Center Server processing time | Since database backup/restore is a low priority background task on the server, more call traffic, real-time displays, or scheduled reports will slow down the backup/restore task.                                                                                                  | Backup/restore your database during low traffic hours, or during periods of low server activity. |
| Symposium Call Center Server local tape type | Different tape drives have different data transfer rates. Faster tape drives will allow faster database backup/restore on a local tape.                                                                                                                                             | Use a faster tape drive type for local tape backup/restore.                                      |
| Remote PC CPU speed                          | Faster CPU speed on the remote PC will mean more free processing time available for the remote backup/restore task on the remote PC.                                                                                                                                                | Use a remote PC with a higher CPU speed.                                                         |
| Remote PC disk type                          | Different disk types have different data transfer rates (for example, SCSI is usually faster than IDE, or a newer ATA interface is faster than older IDE type, and so on). Remote database backup/restore speed is dependant on the total data transfer rate of the remote PC disk. | Use a faster disk type on the remote PC.                                                         |

| <b>Backup/restore variable</b> | <b>Impact of variable on backup/restore</b>                                                                                                                                                                                                                      | <b>Recommendation</b>                                                                              |
|--------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|
| Remote PC disk speed           | A faster disk speed allows for a higher data transfer rate for the remote backup/restore task on the remote PC.                                                                                                                                                  | Use a faster disk on the remote PC.                                                                |
| Remote PC processing time      | The more processes run on the remote PC, the more the remote database backup/restore task on the remote PC will be slowed down.                                                                                                                                  | Do not run other processes or applications on the remote PC during remote database backup/restore. |
| LAN bandwidth                  | The speed of the remote database backup/restore is proportional to the network bandwidth (speed). A higher LAN speed will have a higher bandwidth to handle the additional network traffic for the backup/restore.                                               | Use a LAN with a higher bandwidth.                                                                 |
| LAN traffic                    | The speed of the remote database backup/restore is highly dependant on the actual LAN traffic at the time of the backup/restore. Additional traffic in the network will delay the backup/restore packets between Symposium Call Center Server and the remote PC. | Backup/restore your database during low LAN traffic hours.                                         |

| <b>Backup/restore variable</b>             | <b>Impact of variable on backup/restore</b>                                                                                                                                                                     | <b>Recommendation</b>                                                                                                               |
|--------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|
| Symposium Call Center Server database data | The total length of backup time is proportional to the actual amount of physical data in the database at the time of the backup. The length of the backup time will be shorter if less data is in the database. | Keep the minimum call statistical data required (for example, do not keep 10 days of data if you only need to keep 2 days of data). |

## Benchmark statistics for tape backup and restore

The benchmark results below act as guidelines to indicate the amount of time it takes to perform database maintenance. This maintenance includes database backups to tape and Database Integrity Checks (DBCC). The times listed are specific to the platform and software versions shown; actual time may vary on other PVI platforms and with other software versions:

- Symposium Call Center Server Release 4.0
- Database partition size: 16 384 Mbytes
- Total number of Database Partitions: 4
- Blue database size: 23 348 Mbytes (23.34 Gbytes)
- CBC database size: 27 678 Mbytes (27.67 Gbytes)

### Hardware

|                    |                                                                        |
|--------------------|------------------------------------------------------------------------|
| Platform           | Optiplex GX200, 256 Mbytes RAM                                         |
| CPU speed          | Pentium III, 728 MHz                                                   |
| Hard disk          | 80 Gbyte SCSI (primary with Windows NT / SP 6a)                        |
| Primary partition  | C: for Windows NT (4096 Mbytes)                                        |
| Extended partition | D: for Symposium Call Center Server Release 4.0 software (4096 Mbytes) |

---

**Hardware**


---

|            |                           |
|------------|---------------------------|
| Tape drive | Tandberg Tape Drive SLR32 |
|------------|---------------------------|

---

**Notes:**

- The 32 Gbyte (compressed) Tandberg tape can back up only up to 19 Gbytes of Sybase database (data volume).
- The maximum total database combination partition disk size is 64 Gbytes.

**Benchmark results**

| Process                    | 15 Gbytes data volume | Default data volume |
|----------------------------|-----------------------|---------------------|
| Database backup            | 95 minutes            | 28 minutes          |
| Database restore           | 213 minutes           | 127 minutes         |
| + Database Integrity Check | 163 minutes           | 29 minutes          |
| + System overhead*         | 15 minutes            | 15 minutes          |
| Total database restore     | 391 minutes           | 171 minutes         |
| Database Integrity Check   | 163 minutes           | 29 minutes          |

\*The system overhead is the approximate time required to shut down/restart the Sybase server during the restore process and setting database thresholds.

**Note:** The default data volume is the state of the system with a brand new installation (for example, no historical or configuration data has been stored in the database yet).

# Requirements for backups

## Remote directory requirements

If you are using a remote directory to back up your database, read this section to understand requirements for the remote computer and network.

### Remote computer requirements

The remote computer for your database backup can be either a server or a workstation that meets the following requirements:

- The operating system must be Windows NT 4.0, Windows 2000 Server, Windows 2000 Professional, or Windows XP.
- The drive partition for the remote directory must be NTFS.
- The directory you use for the backup must have enough space available to hold the backup files. For more information on calculating disk space requirements, see “Calculating the capacity requirements for database backups” on page 513.

### Network requirements

- The remote computer must be in the same network as the server in Symposium Call Center Server.
- The network connection should be through the CLAN. Ensure that the CLAN has low traffic during the scheduled time for the database backup. If you run the backup when CLAN traffic is high, the database backup may take longer than planned.

## Tape drive requirements and maintenance

If you are using a tape to back up your database, read this section to understand tape drive requirements and maintenance steps.

### Tape drives

Use a SCSI tape drive listed on the Microsoft Compatibility List for Windows 2000 on the Microsoft web site. Ensure that the SCSI ID for the tape drive does not conflict with existing SCSI IDs configured for other server devices.

You can use 1/4-inch cartridge and 4-mm and 8-mm digital audio (DAT) formats drives.

The drive can be internal or external to the server.

### Head-cleaning kit

Nortel Networks recommends purchasing a head-cleaning kit to prolong the life of your tape heads and ensure the quality of your backups. You should clean tape drives based on how often they are used.

| <b>Tape cartridges used per day</b> | 1      | 2               | 3               | 4 or more |
|-------------------------------------|--------|-----------------|-----------------|-----------|
| <b>Cleaning interval</b>            | Weekly | Every other day | Every other day | Daily     |

Most cleaning kits suggest how often heads should be cleaned.

### Dedicated tapes for backup types

Use one backup tape for each backup, regardless of whether extra space is available on the tape. Make sure you have enough backup tapes on hand so that you can save backups for a safe period of time before you have to overwrite an old backup.



#### CAUTION

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##### Risk of overwriting data

After a backup, the tape is not ejected from the tape drive. Ensure that you eject the tape after each backup to prevent the next backup from overwriting the data.

### Tape size

Ensure that the backup tape is large enough to store the data you are backing up. You cannot use multiple backup tapes for a single backup. For more information on calculating tape capacity requirements, see “Calculating the capacity requirements for database backups” on page 513.

**Tape rotation**

Rotate tapes daily and store them at an off-site location. Do not keep a tape in the tape drive for more than one or two days for the following reasons:

- The next backup may overwrite existing data on the tape. If the same tape is used for several consecutive nightly backups and the tape becomes damaged, no other backup is available to restore lost data.
- Consistent reuse of the same tape accelerates wear on the tape. Tapes may need replacement earlier than their normal life span.

Nortel Networks recommends storing backup tapes off-site for as long as possible before reusing them. Store tapes for at least two weeks.



# Checklist for performing backups

## Checklist

| Step                                                                                                                                                                                                                                                                          | ✓ |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|
| After installing your server, or after making changes to your server configuration (for example, IP addresses), create a Platform Recovery disk. For more information, see “To create a Platform Recovery Disk” on page 510.                                                  |   |
| Decide whether to use tape backups or remote directory backups, and configure the setting on Symposium Call Center Server. For more information, see Section A: “Setting up backup options,” on page 517.                                                                     |   |
| If you are backing up to a tape, ensure that you have the following: <ul style="list-style-type: none"> <li>■ enough backup tapes to rotate them. See page 508.</li> <li>■ a head-cleaning kit. Also ensure that you clean the tape drive regularly. See page 507.</li> </ul> |   |
| Schedule a daily database backup from the client PC. See page 535.<br><b>Note:</b> You may also want to plan an offline full backup using a third-party backup utility.                                                                                                       |   |



### CAUTION

#### Risk of data loss

The server does not contain a default backup schedule. Perform a backup after all system hardware and software are installed and also before and after any conversion. Schedule a daily database backup.

# Creating a Platform Recovery Disk

## Introduction

When you create a Platform Recovery Disk, the system saves both server and database configuration data into a series of text files. You must keep an up-to-date Platform Recovery Disk available in case you need to recover your server software, database, or both. You also need this disk for conversion and migration procedures. Nortel Networks recommends you create a Platform Recovery disk after any major modifications to the system.

You can create a Platform Recovery Disk on either a floppy disk or a remote directory on a network computer.

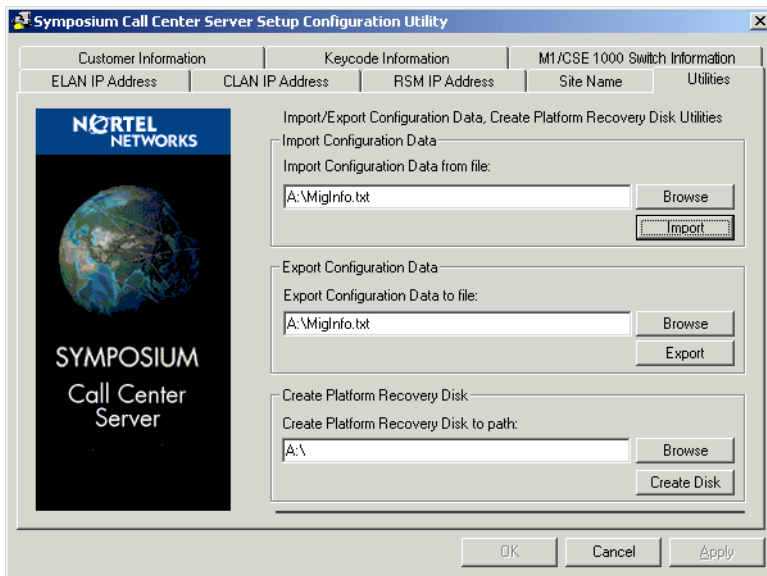
**Note:** If you want to use a remote computer, you must first map the directory on the network computer to a network drive on your server. The name of the remote directory into which you save the Platform Recovery Disk must not contain any spaces. Spaces in the remote directory name cause errors.

### To create a Platform Recovery Disk

- 1 Log on to the server as **NGenSys**.
- 2 From the Windows Start menu, choose Programs → Symposium Call Center Server → Server Setup Configuration.

**Result:** The Symposium Call Center Server Setup Configuration Utility dialog box appears.

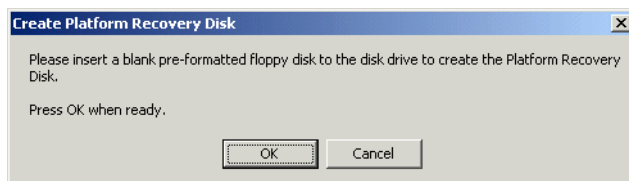
- 3 Click the Utilities tab to display the following:



- 4 In the Create Platform Recovery Disk section, do one of the following:

- If you want to create a Platform Recovery Disk on a floppy disk:
  - a. Make sure the path shows A:\.
  - b. Insert a blank floppy disk in drive A.
  - c. Click Create Disk.

**Result:** The following message appears:



- d. Click OK.
- If you want to create a Platform Recovery Disk in a directory on a network computer:

- a. Make sure you have mapped a network drive to the remote directory in which you want to save the Platform Recovery Disk.

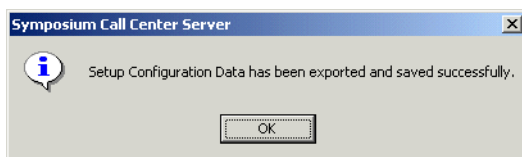
**Note:** The name of the remote directory into which you save the Platform Recovery Disk must not contain any spaces. Spaces in the remote directory name cause errors.

- b. Click Browse and navigate to the mapped drive.
- c. Select the directory, and then click OK.

**Result:** The drive you selected appears to the left of the Browse button.

- d. Click Create Disk.

**Result:** The system exports files containing the server's setup record and database configuration to the disk or remote directory. When the process is complete, the following dialog box appears:



- 5 Click OK. If you used a floppy disk, remove it from the drive, and make sure it is labeled clearly.
- 6 Close the Symposium Call Center Server Setup Configuration Utility window.
- 7 Store the Platform Recovery Disk in a safe place.

# Calculating the capacity requirements for database backups

## Introduction

Before you perform a database backup, you must ensure that the tape or remote directory used for a database backup has enough capacity to hold the backup files. To calculate the amount of space required in the tape or remote directory, you have two options, based on the version of the Symposium Call Center Server software installed on the computer on which you are performing the backup.

- **Symposium Call Center Server Releases 1.5/3.0/4.0/4.2** You can use the DBSpace utility included on the Release 4.2 Server Supplementary CD-ROM. For more information, see “To calculate the capacity requirements for database backups using the DBSpace utility” on page 513.
- **Symposium Call Center Server Release 4.2 only** You can access a new database view called “SCCSDBSpace” by installing the SU04S Service Update pack from the Release 4.2 Server Supplementary CD-ROM. After you apply this SU, create a custom report to extract the contents of the new database view. For more information, see “To calculate the capacity requirements for database backups using the SCCSDBSpace view (on Release 4.2 servers only)” on page 515.

## To calculate the capacity requirements for database backups using the DBSpace utility

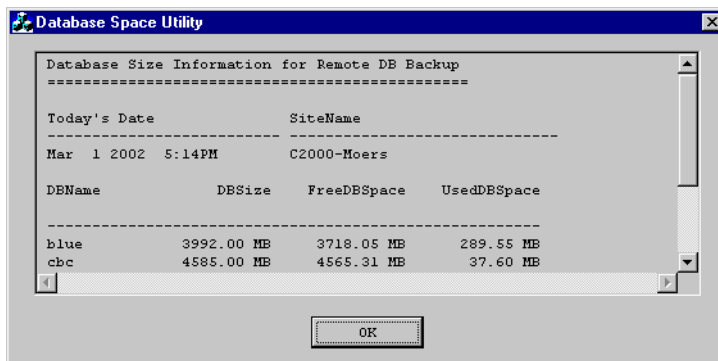
You can use the DBSpace utility included on the Release 4.2 Server Supplementary CD-ROM to calculate the amount of data that you have stored in each of the blue, CBC, and master databases, and then give you the total amount of data stored, in megabytes.

**Note:** Since the amount of data stored can change between the time when you run this utility and the time when you back up your database, as an extra precaution, it is a good idea to add a 15 to 30 percent buffer to the amount shown in the Total row of the UsedDBSpace column in the utility window.

- 1 Insert the Release 4.2 Server Supplementary CD-ROM into the server in Symposium Call Center Server (or the Network Control Center server).
- 2 On the CD-ROM, browse to the file *DBSpace.exe* located in the directory Utility/DBSpace.
- 3 Copy the file DBSpace.exe.
- 4 On the server, create a directory with the name of your choice. This directory can be located anywhere on either the C: or D: logical partition.
- 5 Paste the DBSpace.exe file into this directory.
- 6 On the server, open an MS-DOS prompt window and navigate to the directory containing the file. For example, if the directory name is *Database*, type **cd\Database**, and then press Enter.
- 7 Start the utility by typing **dbspace.exe <sysadmin password>**, and then pressing Enter. For example, if the sysadmin password for your server is *nortel1*, then type **dbspace.exe nortel1**, and press Enter.

**Note:** Leave a space between the file name and the sysadmin password.

**Result:** The Database Space Utility opens and calculates the amount of data stored in the database.



- 8 In the window, note the values in the UsedDBSpace column. These values show the amount of data stored in each database (blue, CBC, and master). Use the scroll bar to view the bottom portion of the pane where the total amount is listed. The total value shown in the UsedDBSpace column is the amount of space that you need to have available in a tape or remote directory before you perform a database backup (plus the 15 to 30 percent buffer to safely perform the database backups without any space constraints).

- 9 Click OK to close the window.

**Tip:** For your reference, the system creates a replica of the utility results and stores it in a text file called *dbspace.txt*. This file is located in the same directory where you saved the utility and you can view it at any time.

## To calculate the capacity requirements for database backups using the SCCSDBSpace view (on Release 4.2 servers only)

On servers running Release 4.2 of Symposium Call Center Server, you can install the Service Update pack SU04S, which includes a new database view called the SCCSDBSpace view. After you install the SU pack, to access the contents of the view, create a custom report with your reporting application.

**Note:** For further information on this database view, see the *Nortel Networks Symposium Call Center Server What's New Guide* for Release 4.2.

When you generate your custom report, you will see the following information:

- the amount of space allocated to the Symposium Call Center Server databases (blue, master, and CBC)
  - the amount of space used by the databases
  - the amount of allocated space that is unused
- 1 Insert the Release 4.2 Server Supplementary CD-ROM into the Release 4.2 Symposium Call Center Server (or the Network Control Center server).
  - 2 From the CD-ROM, install the SU04S Service Update pack. For information on installing SUs, see "To install a Service Update pack on the server" on page 164.
  - 3 Create a custom report with the report writing application of your choice (for example, Crystal Reports). The custom report must point to the new "SCCSDBSpace" view on the server. For information on creating custom reports, see the documentation included with your report writing application.
  - 4 Generate the report to view the capacity requirements for your database backup.





# Section A: Setting up backup options

## In this section

|                                     |     |
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| Setting up tape backups             | 520 |
| Setting up remote directory backups | 522 |

# Overview

## Introduction

Before you schedule your database backups, you must determine which backup option you want to use and set it up on Symposium Call Center Server. Your options are

- backing up to a remote directory on a network computer
- backing up to a tape in a local tape drive

If required, you can switch between these methods; however, you cannot use both methods simultaneously.

You set your database backup option on Symposium Call Center Server using the procedures in this section. Then you schedule the backup from the client PC as described in Section B: “Scheduling backups,” on page 533.

**Note:** There are no predefined backup schedules.

## Pros and cons of tape backups and remote directory backups

### Tape backups

| Pros                                                                                                                                 | Cons                                                                                                                                                                                                                                                                                                                                                                                    |
|--------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"><li>■ not affected by network instability</li><li>■ no dependency on low network traffic</li></ul> | <ul style="list-style-type: none"><li>■ requires maintenance of tape drive and tapes</li><li>■ possibility of mechanical failure of tapes and drives</li><li>■ backup data is readable only by Sybase backup server; cannot be read by Windows backup utility</li><li>■ for technical support, tapes must be handed off or shipped; data cannot be transmitted electronically</li></ul> |

### Remote directory backups

| Pros                                                                                                                                                                                                                                                          | Cons                                                                                                                                                                                                                                                |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"><li>■ for technical support, backup data can be transmitted electronically</li><li>■ backup data files can be recognized by the Windows file system</li><li>■ low maintenance and not prone to mechanical failure</li></ul> | <ul style="list-style-type: none"><li>■ requires a stable network</li><li>■ must be scheduled when network traffic is low</li><li>■ requires an archiving plan for backup files after each backup to ensure the files are not overwritten</li></ul> |

# Setting up tape backups

## Introduction

You can back up your database to a tape in a local tape drive on your Symposium Call Center Server. You choose the tape backup option through a dialog box in the server software.

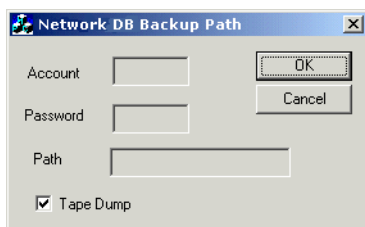
When you do a fresh installation of the Symposium Call Center Server software, the default setting is tape backup. If you want to confirm that your server is set to tape backup, or if you want to change from remote directory backup to tape backup, use the following procedure.

Once you have completed these steps, the next scheduled backup goes to the tape drive.

## To set up a tape backup

- 1 Log on to the server as **NGenSys**.
- 2 From the Windows Start menu, choose Programs → Symposium Call Center Server → Network DB Backup Path.

**Result:** The Network DB Backup Path dialog box appears.



- 3 Make sure the Tape Dump check box is checked.
- 4 Click OK.

**Result:** The backup option is set to tape backup.

- If you want to schedule a backup, see Section B: “Scheduling backups,” on page 533.

- If your backup is already scheduled, the system automatically sends the backup to the tape drive.

# Setting up remote directory backups

## Introduction

You can back up your database to a remote directory on a network computer. You choose this option through a dialog box on Symposium Call Center Server. However, you must first complete a series of steps to set up the connection between the server in Symposium Call Center Server and the remote directory. To set up a remote directory backup, you must complete the following tasks:

1. Prepare the network computer:
  - Create a local Windows user account with administrator privileges.
  - Create a shared directory to contain the remote database backup files.
2. Prepare Symposium Call Center Server:
  - Create an identical local Windows user account with administrator privileges.
  - Add the account to the policy “Log on as a service.”
  - Enter the account and path information through a dialog box in Symposium Call Center Server, and deselect the tape backup option.

Once you have completed these steps, the next scheduled backup goes to the remote directory. See the detailed procedures below.

### ATTENTION

---

After you configure the remote directory for backup and restore, check your configuration before backing up or restoring the database by following the guidelines listed in the section “Testing the remote directory backup and restore configuration” on page 531.

## Files created during remote directory backup

The backup process creates three files:

|            |                                              |
|------------|----------------------------------------------|
| blue.dmp   | Contains the contents of the Blue database   |
| cbc.dmp    | Contains the contents of the CBC database    |
| master.dmp | Contains the contents of the Master database |



### CAUTION

#### Risk of database restoration error

If you need to restore your database, the restore program looks for the exact file names listed above. If you change the file names for archiving purposes—for example, by adding a date to the name—you must change the names back to their original state before you try to restore the database. Otherwise, the restore process fails.

## Before you start

Make sure that your remote computer and the network meet the requirements identified in “Remote directory requirements,” on page 506.

## Worksheet for setting up a remote directory backup

You must set up accounts, passwords, and a shared directory in preparation for remote directory backups. Create names for these items ahead of time and record them in the table below.

| Item                                                                                                                                                                                                                                                                                                                                                               | Fill in the required information |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|
| User Name<br>You must create a name and assign it to two user accounts—one on the network computer and the other on Symposium Call Center Server. The name must be identical on both computers.                                                                                                                                                                    |                                  |
| User account password<br>You must create a password and assign it to the two accounts described above. The password must be identical on both computers.                                                                                                                                                                                                           |                                  |
| Computer Name of the network computer<br>Obtain and record this name so you have it available when you set up the remote directory backup on the server.                                                                                                                                                                                                           |                                  |
| Share Name for the remote directory<br>You must create and assign a share name to the directory on the remote computer. The share name can be the directory name (this is the default in Windows) or a different name.<br><b>Note:</b> The Share Name for the remote directory must not contain any spaces. Spaces in the remote directory name will cause errors. |                                  |



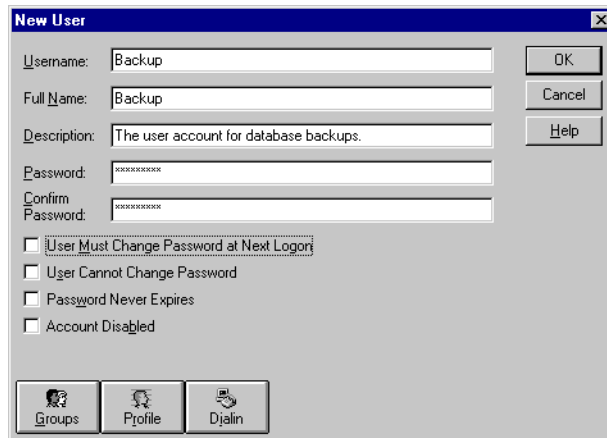
## Preparing the network computer for remote directory backup

Once you determine which network computer you will use for the remote directory backup, you must create a local Windows user account on it, and then create a shared directory to contain the remote backup. Use the basic steps below, along with the documentation that came with the operating system, to correctly set up the user account and shared directory.

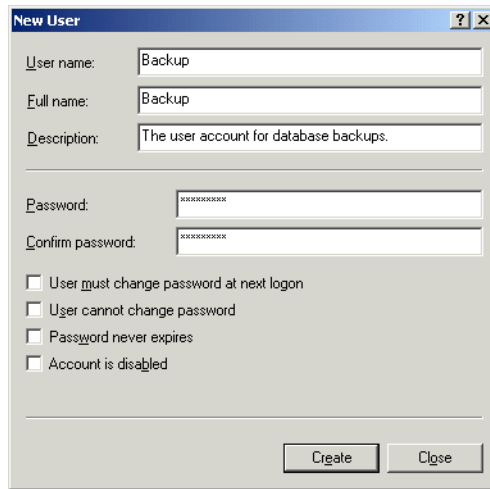
**Note:** The following procedures do not provide detailed steps, since they differ depending on the operating system on your network computer.

### To create the local Windows user account on the network computer

- 1 Create a new user account in Windows using the User Name and password that you recorded in the worksheet on page 524.
  - In Windows NT, you create the new user in Programs → Administrative Tools → User Manager. Then, from the User menu, select New User. Type the user account details in the New User window.



- In Windows 2000, you create the new user in Programs → Administrative Tools → Computer Management. Right-click Local Users and Groups, and then select New User from the resulting pop-up menu. Type the user account details in the New User window.



## CAUTION

### Risk of database backup failure

When you are creating the new user account in Windows, you must deselect the check box for “User must change password at next logon.” If this check box is selected, Symposium Call Center Server may not be able to connect to the remote computer.

- 2 Make the user account a member of the Administrators group.

## To create and share the remote directory on the network computer

- 1 On the network computer, create a directory (folder) to contain the database backup. You can use the Share Name you recorded in the worksheet.  
**Note:** The name of the remote directory must *not* contain any spaces. Spaces in the remote directory name will cause errors.
- 2 Make sure file sharing is enabled on your computer.
- 3 Make the directory shared, and assign the Share Name that you recorded in the worksheet on page 524.

- 4 For the shared directory permissions, grant Full Control access rights to the user account that you created in the previous procedure.

**Result:** The network computer is now set up for remote directory backups. You must now prepare the server in Symposium Call Center Server using the procedures below.

- 5 Make sure you have recorded the computer name of the network computer in the worksheet on page 524.

## Preparing the Symposium Call Center Server for remote directory backup

On your Symposium Call Center Server, you must create a local Windows user account that is identical to the one you created on the network computer. You then add the account to the policy “Log on as a service.” To complete preparation of the server, you enter the account information and the path of the remote directory in Symposium Call Center Server and turn off the tape backup option. See the detailed procedures below.

### To set up the local Windows user account on the new server

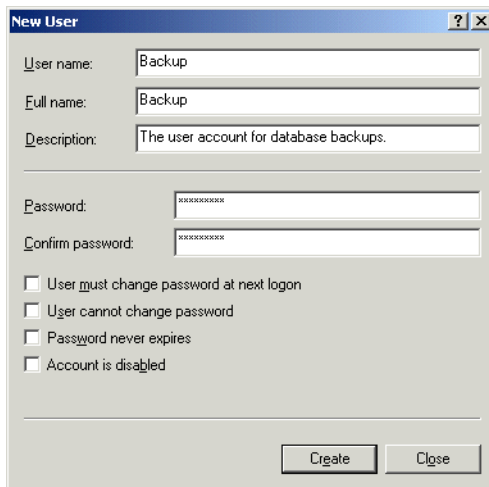
- 1 Log on to the server as **NGenSys**.
- 2 From the Start menu, choose Programs → Administrative Tools → Computer Management.

**Result:** The Computer Management dialog box appears.

- 3 In the left panel, navigate to Local Users and Groups → Users.

- 4 Right-click on the Users folder, and then select New User.

**Result:** The New User dialog box appears.



The screenshot shows a Windows-style dialog box titled "New User". It has a blue title bar with a question mark icon and a close button. The dialog contains several text input fields: "User name:" with the text "Backup", "Full name:" with the text "Backup", and "Description:" with the text "The user account for database backups.". Below these are two password fields: "Password:" and "Confirm password:", both containing "xxxxxxxx" to indicate masked text. There are four checkboxes: "User must change password at next logon", "User cannot change password", "Password never expires", and "Account is disabled". At the bottom right are two buttons: "Create" and "Close".

- 5 In the User name box, type the name you recorded in the worksheet on page 524. This must be the same user name you assigned to the account on the network computer.
- 6 In the Password box, type the password you recorded in the worksheet on page 524. This must be the same password you assigned to the account on the network computer.
- 7 In the Confirm password box, type the password again.
- 8 Uncheck the check box for User must change password at next logon.  
**Note:** If you do not remove this check mark, the restore may fail because the server in Symposium Call Center Server may not be able to access the network computer.
- 9 Click Create.
- 10 Click Close.
- 11 In the left panel of the Computer Management window, click the Users folder to display its contents in the right panel.
- 12 In the right panel, right-click the new user you just created, and then select Properties.

**Result:** The Properties dialog box for the user appears.

- 13 Click the Member Of tab.
- 14 Click Add.  
**Result:** The Select Groups dialog box appears.
- 15 In the Name column, click Administrators, and then click Add.  
**Result:** The group appears in the bottom list box.
- 16 Click OK.
- 17 When the Member Of tab reappears, click Apply, and then click Close.
- 18 Close all windows that remain open.

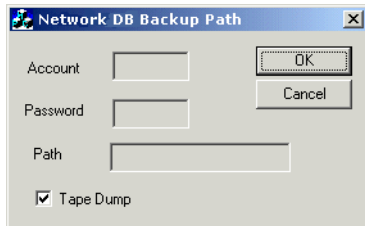
### **To set up the local security settings**

- 1 On the server, select Start → Programs → Administrative Tools → Local Security Policy.  
**Result:** The Local Security Settings dialog box appears.
- 2 In the left panel, navigate to Local Policies → User Rights Assignment. Click User Rights Assignment to view its contents in the right panel.
- 3 From the right panel, double-click Log on as a service.  
**Result:** The Local Security Policy Setting dialog box appears.
- 4 Click Add.  
**Result:** The Select Users or Groups dialog box appears.
- 5 In the Name column, select the user account that you just created, and then click Add.  
**Result:** The account appears in the bottom list box.
- 6 Click OK.
- 7 Click OK to close the Local Security Policy Setting dialog box.
- 8 Close the Local Security Settings dialog box.

## To complete the remote restore settings on the new server

- 1 On the server, select Start → Programs → Symposium Call Center Server → Network DB Backup Path.

**Result:** The Network DB Backup Path dialog box appears.



- 2 Uncheck the Tape Dump check box. (Check this box only if you want to back up your database to a tape.)
- 3 In the Account box, type the User Name you recorded in the worksheet on page 524. This must be the same User Name you assigned to the account on both the network computer and the server.
- 4 In the Password box, type the password you recorded in the worksheet on page 524. This must be the same password you assigned to the account on both the network computer and the server.
- 5 In the Path box, type the network path for the shared directory you created on the network computer. Use the following format:

- computername\sharename

Refer to the computer name and share name that you recorded in the worksheet on page 524.

- 6 Click OK to save your settings and exit.

**Result:** Symposium Call Center Server is now set to restore the database from the remote directory on the network computer.

- If you want to schedule a backup, see Section B: “Scheduling backups,” on page 533.
- If your backup is already scheduled, the system automatically sends the database backup files to the remote directory.

## Testing the remote directory backup and restore configuration

To ensure that you have configured the remote directory backup correctly, after completing the configuration procedures listed above, perform the following steps before backing up to, or restoring from the remote directory. Before a migration, it is important that you perform these steps on both the original server (before backing up your database) and on the new server (before restoring the database).

### Check the physical connection between server and remote PC

1. On the server in Symposium Call Center Server, use the remote PC computer name to ping the remote PC. This enables you to check the physical network connection between the server and the remote PC.
2. If you cannot ping the remote PC from the server in Symposium Call Center Server, check the remote PC computer name, DNS configuration, and the physical network connection between the server and the remote PC (for example, the IP address and router configuration).

### Check the access to the shared folder

1. On the server, log on to Windows using the local Windows user account that you created on the server. For more information on this account, see “To set up the local Windows user account on the new server” on page 527.
2. On the server, temporarily map to the shared folder on the remote PC as a mapped network drive.
3. To check the access level to this mapped folder, on the server, copy any small file (for example, a text file) and paste it into this mapped drive. Then delete this file from the mapped drive.
4. If the system prompts you to enter the user name and password for the shared folder, then check that the user name and password for the Windows user accounts are synchronized on the server and the remote PC.
5. If you cannot paste the copied file into the shared folder, or delete the file from it, then on the remote PC check that the Windows user account has been granted Full Control access rights.
6. On the server, unmap the shared folder and log off the server.

**Perform a test backup**

After configuring the remote backup, you can schedule a backup and check the results in the backup log file when the backup is complete. For instructions, see Section B: “Scheduling backups,” on page 533.

**Note:** Make sure you do this when there is low network traffic.



## Section B: Scheduling backups

### In this section

|                              |     |
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| Scheduling a backup          | 535 |
| Monitoring backups           | 541 |
| Other procedures for backups | 543 |

# Overview

## Introduction

Use the Backup Scheduler on the client PC to schedule backups for the server. There are no predefined backup schedules.

## Administrative privileges required

To schedule backups, you must log on to the server from the client PC as sysadmin.

# Scheduling a backup

## Introduction

To ensure that your system information can be restored after a hardware failure or data corruption, schedule regular backups. For scheduling suggestions, see “When to use a database backup” on page 496.

You can back up your database either to a local tape drive or to a remote directory on a network computer. You must configure one of these options on your Symposium Call Center Server *before* scheduling a backup. For more information, see Section A: “Setting up backup options,” on page 517.

### ATTENTION

---

In the following procedure, you must select PrimaryServerTape as the backup device for both tape backups and remote directory backups.

**Note:** To recover your system, you must have a Platform Recovery disk. See “To create a Platform Recovery Disk” on page 510.

## Overwriting data

### Remote directory backups

When you schedule regular backups to a remote directory, the backup program overwrites any existing database backup files in the remote directory with new versions of those files. To avoid overwriting the database backup files, move each set from the remote directory to another location following each backup, and store them according to the date when they were created. For a list of files created at each backup, see “Files created during remote directory backup” on page 523.

### Tape backups

When you schedule a backup to tape, the overwrite option is selected automatically. This option overwrites any data on the tape. To avoid overwriting the data after a scheduled backup, remove and replace the tape, make sure it is labeled appropriately, and store it in a safe place.

## To prepare tapes prior to a scheduled backup

- 1 Remove the write-protect tabs from the backup tapes.
- 2 Label your backup tapes with the following information:
  - backup date and time
  - backup files
  - name of person who is performing the backup
- 3 Insert the tape properly into the tape drive on the server.



### CAUTION

---

#### Risk of equipment damage

If you insert the tape incorrectly, you run the risk of damaging your system.

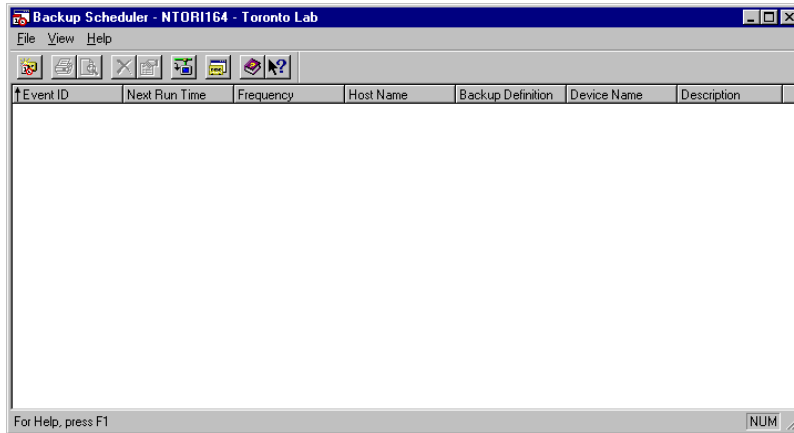
## To schedule a backup (for both tape and remote directory backups)

- 1 Make sure the services on your server are up.

**Note:** A database backup uses the HDM service. If this service is down, the database backup cannot start, and the system will generate an error message in the Backup Status window stating that the backup completed abnormally.
- 2 At the client PC, log on to the server as **sysadmin**.

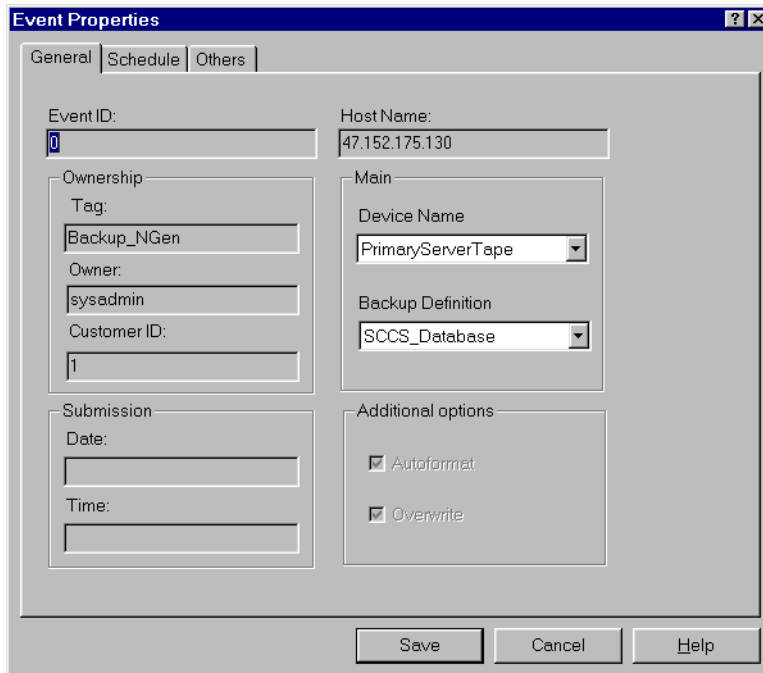
- 3 From the SMI window, choose System Administration → Server Backup → Backup Scheduler.

**Result:** The Backup Scheduler window appears.



- 4 In the Backup Scheduler window, choose File → New Schedule.

**Result:** The Event Properties window appears.



The screenshot shows the 'Event Properties' dialog box with three tabs: 'General', 'Schedule', and 'Others'. The 'General' tab is active. It contains several input fields and checkboxes. The 'Event ID' field has the value '0'. The 'Host Name' field has the value '47.152.175.130'. The 'Ownership' section includes 'Tag' (Backup\_NGen), 'Owner' (sysadmin), and 'Customer ID' (1). The 'Main' section includes 'Device Name' (PrimaryServerTape) and 'Backup Definition' (SCCS\_Database). The 'Submission' section includes 'Date' and 'Time' fields. The 'Additional options' section includes checkboxes for 'Autoformat' and 'Overwrite', both of which are checked. At the bottom are 'Save', 'Cancel', and 'Help' buttons.

- 5 In the Device Name box, ensure that PrimaryServerTape is selected.

**Note:** This is the default value. This value applies to both tape backups and remote directory backups.

- 6 Click the Schedule tab.

**Result:** The Schedule property page appears.

The screenshot shows the 'Event Properties' dialog box with the 'Schedule' tab selected. The 'Specific date(s)' dropdown is open, showing a list of months and days. The 'Start' time is set to 9:35 AM, and the 'Maximum wait time' is set to 00:15. The 'Clear' and 'Invert' buttons are visible at the bottom of the calendar area.

| Month                                         | Day                                    |
|-----------------------------------------------|----------------------------------------|
| <input type="checkbox"/> January              | <input type="checkbox"/> 1             |
| <input type="checkbox"/> February             | <input type="checkbox"/> 2             |
| <input type="checkbox"/> March                | <input type="checkbox"/> 3             |
| <input type="checkbox"/> April                | <input type="checkbox"/> 4             |
| <input type="checkbox"/> May                  | <input type="checkbox"/> 5             |
| <input type="checkbox"/> June                 | <input type="checkbox"/> 6             |
| <input type="checkbox"/> July                 | <input type="checkbox"/> 7             |
| <input type="checkbox"/> August               | <input type="checkbox"/> 8             |
| <input checked="" type="checkbox"/> September | <input type="checkbox"/> 9             |
| <input type="checkbox"/> October              | <input checked="" type="checkbox"/> 10 |
| <input type="checkbox"/> November             | <input type="checkbox"/> 11            |
| <input type="checkbox"/> December             | <input type="checkbox"/> 12            |

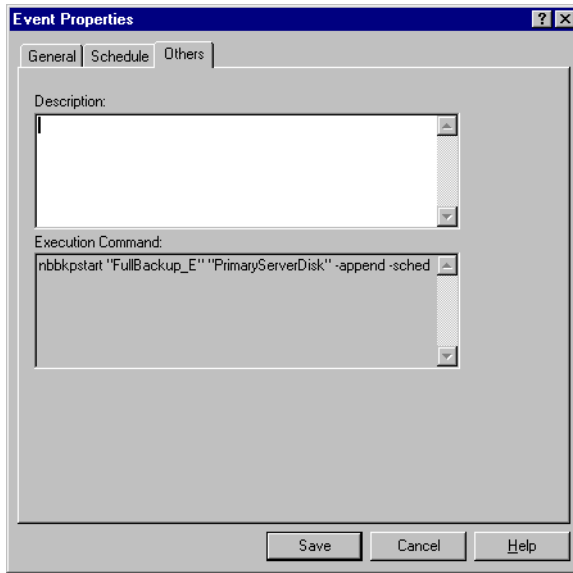
- 7 Select the type of schedule (daily, weekly, monthly, yearly, or specific date).
- 8 Select the month, day, or date on which the backup should run. (The options available depend on the type of schedule selected.)
- 9 In the Start box, select the time to start the backup.

**Note:** The backup is scheduled according to the server time, which is not necessarily the same as the client PC time.

- 10 In the Maximum wait time box, enter the length of time the system can wait before starting the backup. This time is required in case a scheduling conflict with other tasks forces the backup to wait. If the wait time expires before the backup is able to start, then the backup is skipped. For example, you can schedule a backup for a non-peak period, but in 3 hours the morning shift arrives. In this case, you can enter 03:00 as the interval time. This ensures that the backup does not take place when the morning shift arrives.

- 11 Click the Others tab.

**Result:** The Others property page appears.



- 12 In the Description box, type the description or the purpose of the backup.
- 13 Click Save.

**Result:** The backup is scheduled.



# Monitoring backups

## Introduction

You can monitor the status of a running backup with the Backup Status window on the client PC. To view the Backup Status window, from the Backup Scheduler window, select View → View backup status.

You can also use view backup status in the log file.

## Backup Status window

The Backup Status window shows whether any files were skipped or copied in error during a database backup.

If any files are not copied successfully, a minor alarm is generated. Obtain the Event ID from the alarm in the Alarms Monitor for more information.

## Using log files

To verify that a backup was successful, use a text editor (such as Notepad or WordPad) to check the backup log. The backup log is generated at the end of the backup, and is stored on the server in the following directory:

d:\Nortel\data\backup\backuplogs

The file name for a backup log is `SCCS_Database yymmdd hhmm.LOG`, where `yymmdd hhmm` are the date and time of the backup (for example, 011117 1415 represents 2:15 p.m. on November 17, 2001).

**Note:** The contents of the backup log are the same whether you back up to tape or to a remote directory.

If a database backup is successful, the backup log contains all of the following messages:

```
[DATE/TIME] - Starting backup of 'SCCS_Database' to device  
'PrimaryServerTape' ...
```

```
[SERVER MESSAGE]:Backup Server: 3.42.1.1: DUMP is complete  
(database cbc).
```

```
[SERVER MESSAGE]:Backup Server: 3.42.1.1: DUMP is complete  
(database blue).
```

```
[SERVER MESSAGE]:Backup Server: 3.42.1.1: DUMP is complete  
(database master).
```

```
[DATE/TIME] - The backup of 'SCCS_Database' was completed  
successfully.
```

**ATTENTION**

---

The text Starting backup of 'SCCS\_Database' to device 'PrimaryServerTape' appears for both tape backups and remote database backups.

Make sure that there are no error messages in the log file. The following example shows a log file with errors:

```
[DATE/TIME] - Starting backup of 'SCCS_Database' to device  
'PrimaryServerTape' ...
```

```
[SERVER MESSAGE]:Backup Server: 3.42.1.1: DUMP is complete  
(database cbc).
```

```
Msg 408202, Level 2, State 41
```

```
This database backup has errors or warnings.
```

```
[DATE/TIME] - The backup of 'SCCS_Database' failed.
```

If your database backup produces error messages, repeat the backup. If it produces error messages again, contact Nortel Networks customer support.

# Other procedures for backups

## Introduction

You can change any detail of a scheduled backup using the Event Properties window. You can also delete backups from this window.

## To change a scheduled backup

On the Backup Scheduler window, double-click the scheduled backup that you want to change.

For step-by-step instructions, press F1 to access the online Help.

## To delete a scheduled backup

On the Backup Scheduler window, select the scheduled backup that you want to delete, and then choose File → Delete.

For step-by-step instructions, press F1 to access the online Help.

## To cancel a running backup

Click Cancel in the Backup Status window.

**Note:** If you cancel the backup, any data that was written to the backup device is unusable.



## **Section C: Using a third-party backup utility to create full backups**

### **In this section**

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| Overview                                   | 546 |
| Guidelines for third-party backup software | 547 |
| Preparing for third-party backups          | 549 |

# Overview

## Introduction

You can create a full backup so that you can restore Symposium Call Center Server to its state at the time of the backup. This type of backup is useful for recovery from situations such as a catastrophic failure in the disk subsystem.

To perform a full backup in Symposium Call Center Server Release 4.2, you must use a third-party backup utility, such as the Windows backup utility. This section provides guidelines for selecting the third-party backup software you will use, and describes the procedures you must complete before performing the third-party backup.

Nortel Networks recommends that you perform a full backup

- after the initial Symposium Call Center Server installation and configuration
- before and after a major conversion to a new release
- before and after any major hardware configuration changes

# Guidelines for third-party backup software

## Introduction

The third-party backup software must meet the requirements listed in this section.

## Requirements for third-party backup software

- The third-party backup software must not reduce the hard disk space available to Symposium Call Center Server and the Windows 2000 operating system below the minimum required.
- The installation or uninstallation of the third-party backup software must not impact or conflict with Symposium Call Center Server software (for example, it must not cause .DLL conflicts). If such conflicts are discovered, a rebuild of the server may be necessary.
- If the third-party backup software has its own database, it must not impact the Symposium Call Center Server database.
- The third-party backup software must not interfere with Symposium Call Center Server services in any way (for example, causing improper or out-of-sequence shutdowns).
- During run-time, the third-party backup software must not degrade the Symposium Call Center Server system beyond an average 50 percent CPU utilization.
- You must run the third-party backup manually. Do not schedule the third-party backup to run in automatic mode.

### ATTENTION

---

Services associated with the third-party backup must not run while Symposium Call Center Server is running.

- If you are using a tape drive for your backups, the third-party backup system can use a dedicated tape drive, or it can share the tape drive used for Symposium Call Center Server database backups.

- If the third-party backup and the Symposium Call Center Server database backup have dedicated tape drives, the tape drive used for the database backup must be configured with the device name “Tape0”.
- If the third-party backup and the Symposium Call Center Server database backup share a tape drive, the drive must meet the requirements of Symposium Call Center Server (see page 35).
- For backups to a remote directory, the third-party backup must not interfere with the server ports used for network connections by Symposium Call Center Server.
- Before putting Symposium Call Center Server in operation, perform comprehensive coresidency testing of the server and the third-party backup utility.



# Preparing for third-party backups

## Introduction

The customer must define a backup and restore process based on the third-party utility used (for example, Windows backup). This section describes procedures that must be completed before beginning a full backup using a third-party utility. Refer to your third-party documentation for information on the full backup procedure.

When performing a full backup, you must perform the following steps in the order listed below. Each step is detailed in the following pages:

1. Shut down the Symposium Call Center Server services using the Shutdown utility.
2. Stop the database services from running by using the Stop Sybase Services utility.
3. Perform the full backup using the third-party utility of your choice.
4. Start the database services using the Start Sybase Services utility.
5. Start the Symposium Call Center Server services using the Startup utility.

## To prepare your server for a full backup

- 1 Shut down all Symposium Call Center Server services using the Shutdown utility as follows:
  - a. From the Windows Start menu, choose Programs → Symposium Call Center Server → Shutdown.  
**Result:** The Symposium Call Center Server Shutdown dialog box appears.
  - b. Click OK.  
**Result:** The utility shuts down all services, and then the Service Status Log dialog box appears. This log displays any services that failed to shut down. Click Recheck to refresh the service statuses.

- c. If any services are still running, in the control panel, click the Administrative Tools → Services icon to manually shut down the listed services. Then click Recheck to update the status log.
      - d. Click Accept to exit the utility.
- 2 Shut down the database services using the Stop Sybase Services utility as follows:

**ATTENTION**

---

You must shut down the Symposium Call Center Server Services as outlined in step 1 *before* shutting down the database services. Failure to do so can result in database corruption.

- a. From the Windows Start menu, choose Programs → Sybase → Stop Sybase Services.  
**Result:** The Symposium Call Center Server Shutdown window appears.
  - b. Click OK.  
**Result:** The utility shuts down the Sybase backup server, monitor server, and the Sybase server. When all services are shut down, the Service Status Log appears.
  - c. Verify that all services have been successfully shut down. If any services cannot be shut down, contact Nortel Networks support personnel.
  - d. If all services have been successfully shut down, click Accept to exit the shutdown utility, and then proceed with the full backup.
- 3 Based on the type of backup you want to perform, you have the following choices:
  - To do a full backup of only the database files, proceed to step 7.
  - To do a full backup of the database files *and* all of the operating system files, continue with the following step.
- 4 To back up the entire system (for example, if you want to back up all of the operating system files in addition to the database files), then, depending on

the backup utility you are using, you may need to use the Services window in the Control Panel to make sure the services listed below are shut down.

**Note:** Some third-party backup utilities require that you manually shut down the following services. If you do not shut them down as follows, then some Windows files may not be backed up.

Click Start → Settings → Control Panel → Administrative Tools → Services.

**Result:** The following services are shown:

- Telephony
- TCP/IP NetBIOS Helper Service
- SNMP Service
- Simple TCP/IP Services
- Server
- Protected Storage
- Messenger
- License Logging Service

- 5 To shut down the services, select the service, and then press Stop.
- 6 Once complete, click Close on the Services control panel.
- 7 Back up the server. You must select the following options before starting the full backup:
  - verify backup—This ensures that the backup was made successfully.
  - back up local registry—This is a required option to back up all of the server's configuration details. The third-party backup utility must support registry backups.

**Note:** You may want to use the compression option (if available) to make sure all of the data on the server can be backed up.

The following drives must be backed up:

- C:—Windows operating system, SysOps.log file, pcAnywhere
- D:—Symposium Call Center Server, Sybase executables
- all drives greater than and including F: - Database drives

## To perform the backup

- 1 Start the backup from the third-party utility.
- 2 When the backup is complete, restart your server.
- 3 When the server is restarted, use the Start Sybase Services utility to restart the database services, as follows:

### ATTENTION

---

Do not attempt to restart the database services if the Symposium Call Center Server services are running. The Symposium Call Center Server services must be shut down before starting the database services. After starting the database services, then start the Symposium Call Center Server services.

- a. From the Windows Start menu, choose Programs → Sybase → Start Sybase Services.  
**Result:** The Symposium Call Center Server Startup window appears.
  - b. Click OK to start the Sybase services.  
**Result:** The services start up. When all services have successfully started, the Startup Complete window appears.
  - c. Click OK to exit this window.
- 4 When the database services have been started, start the Symposium Call Center Server services as follows:
- a. From the Windows Start menu, choose Programs → Symposium Call Center Server → Startup.  
**Result:** The Symposium Call Center Server Startup dialog box appears.
  - b. Click OK.  
**Result:** After all services have started, the Startup Complete dialog box appears.
  - c. Click OK to exit the window.

# Chapter 15

---

## Restoring data

### In this chapter

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| Overview of recovery procedures                                        | 554 |
| Section A: Recovery using a Platform Recovery Disk and database backup | 559 |
| Section B: Recovery using a third-party backup                         | 595 |

# Overview of recovery procedures

## Introduction

There are a number of recovery methods available for your system (Symposium Call Center Server or Network Control Center). The method you choose depends on the problem you encounter and the backup data and media available to you.

**Note:** Before using these recovery procedures, check your regional Symposium Call Center Server technical web site for updated customer documentation and installation addenda.

## Recovery using a database backup and Platform Recovery Disk

The following table lists the recovery methods that use database backups and Platform Recovery Disks, or both. Use the table to determine which recovery scenario is appropriate for your situation. This chapter contains procedures for each method.

| Recovery method                                                                            | When to use (examples)                                                                                                                                                                                                                                                                                                                               | Backup data required                                                               |
|--------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|
| Full system recovery using a database backup and Platform Recovery Disk<br>(See page 561.) | <p>You suspect or experience</p> <ul style="list-style-type: none"> <li>■ file corruption that affects more than Symposium Call Center Server or Network Control Center (NCC) database (for example, you cannot boot the system because the operating system is corrupted)</li> <li>■ hardware failure (for example, a hard disk failure)</li> </ul> | Platform Recovery Disk and Database backup<br>(must exist prior to system failure) |

| Recovery method                                                                     | When to use (examples)                                                                                                                                                                                                                                                                                                                                                                                                             | Backup data required                                                                    |
|-------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| Recovery of the system setup configuration<br>(See page 569.)                       | You suspect problems with the setup configuration (for example, the Feature Report displays incorrect system configuration data or indicates a crash).                                                                                                                                                                                                                                                                             | Platform Recovery Disk<br>(must exist prior to configuration corruption)                |
| Recovery of the database contents<br>(See page 572.)                                | You suspect data in the database is corrupted (for example, the system produces database error messages, you observe incorrect customer data, or your Database Integrity Check fails).                                                                                                                                                                                                                                             | Platform Recovery Disk and Database backup<br>(must exist prior to database corruption) |
| Recovery (reinstallation) of Sybase ASE 12 and database software<br>(See page 574.) | You suspect corruption in Sybase ASE 12 configuration or software (for example, your Sybase database server fails).                                                                                                                                                                                                                                                                                                                | Platform Recovery Disk and Database backup                                              |
| Recovery (reinstallation) of the server software<br>(See page 578.)                 | <p>You suspect the server software is corrupted (for example, some Symposium Call Center Server or NCC services fail or crash and are not recoverable, or the system produces error messages indicating that software files are missing).</p> <p><b>Note:</b> You can also use this method to return the system to its original software state if the installed PEPs/Service Update packs are causing problems or are unknown.</p> | Platform Recovery Disk                                                                  |

## Recovery using RAID backups or third-party backups

If your system is equipped with RAID, or if you use a third-party backup utility, the following additional backup options are available:

| Recovery method                                                                                                                                                                                                  | When to use (examples)                                                                                                                                                                                                                                                                                                                                         | Backup data required                                     |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------|
| Recovery of a system equipped with RAID: <ul style="list-style-type: none"> <li>■ full system recovery</li> <li>■ recovery of a faulty hard drive</li> </ul> (See your hardware documentation for instructions.) | <ul style="list-style-type: none"> <li>■ You have performed a conversion or another maintenance activity on the system, and you need to rebuild or restore your split RAID drives.</li> <li>■ You suspect or experience hardware failure (for example, a hard disk failure).</li> </ul>                                                                        | RAID backup (for systems equipped with RAID)             |
| Full system recovery using a third-party backup utility<br>(See page 595.)                                                                                                                                       | <p>In the event of a catastrophic failure (for example, the operating system will not boot, or the system crashes randomly in the operating system and application software).</p> <p>Use this method when the latest database backup and setup configuration data is not available for a Symposium Call Center Server or Network Control Center reinstall.</p> | Full backup of system using a third-party backup utility |

## If you do not have a backup

If you do not have a Platform Recovery disk and database backup, a RAID system, or a full backup, you must do a fresh install of Symposium Call Center Server or NCC server.

Nortel Networks does not recommend this method for recovery. If you are in this situation, contact Nortel Networks customer support for detailed information. An overview is provided below.



**Symposium Call Center Server**

When you reinstall Symposium Call Center Server, you lose all of the configuration and statistics information. To recover your configuration, you must reconfigure the server following the instructions in the *Administrator's Guide*.

**Network Control Center**

When you reinstall the NCC, you lose all of the network configuration information. To recover the configuration, in addition to reconfiguring the NCC, you must also reconfigure and Network Communication Parameters at each server in the network.

While statistics stored at the different servers within the network are retained, they are no longer useful, since site IDs may be changed during reinstallation of the NCC. Therefore, after installation, statistics may be attributed to the incorrect server.



# Section A: Recovery using a Platform Recovery Disk and database backup

## In this section

|                                                                  |     |
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| Overview                                                         | 560 |
| Full system recovery                                             | 561 |
| Recovery of the server setup configuration                       | 569 |
| Recovery of the database contents                                | 572 |
| Recovery (reinstallation) of Sybase ASE 12 and database software | 574 |
| Recovery (reinstallation) of the server software                 | 578 |
| Common recovery procedures used in this guide                    | 581 |

# Overview

## Introduction

The procedures in this section provide instructions for recovering a system (Symposium Call Center Server or Network Control Center) using a Platform Recovery Disk, a database backup, or both. This includes five types of recovery:

- full system recovery
- recovery of the system setup configuration
- recovery of the database contents
- recovery (reinstallation) of Sybase ASE 12 and database software
- recovery (reinstallation) of the server software

### ATTENTION

---

If your recovery procedure involves restoring the database, make sure the database backup you use was created from the same system running the same software release of Symposium Call Center Server. If you attempt to restore a database backup created from a system running a different software release, the database restore will finish, but the system will not work properly. Make sure you label each database backup properly, including the software release of Symposium Call Center Server.

## Common recovery procedures

Certain recovery procedures, such as restoring the database or importing database or configuration data from a Platform Recovery Disk, are used in more than one of the recovery scenarios listed above. These common procedures are located at the end of this section and are referenced where appropriate for each specific recovery scenario.

# Full system recovery

## Introduction

The full system recovery procedure provides instructions for recovering from system failure, such as

- file corruption that affects more than the Symposium Call Center Server or Network Control Center database
- a hardware failure (for example, a hard drive failure)

If you have a current Platform Recovery Disk and recent database backup, you can use this recovery method.

## Requirements for full system recovery

| Item                                                                                                                                                                                                                                                                                                                    | ✓ |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|
| CD containing Windows 2000 operating system (if you need to reinstall the operating system)                                                                                                                                                                                                                             |   |
| Symposium Call Center Server Application CD                                                                                                                                                                                                                                                                             |   |
| Supplementary CD containing the PEPs and Service Update packs installed on the original system. (The most recent PEPs and Service Update packs are available from the Meridian PEP Library web site.)<br><b>Note:</b> On the restored system, you must install all the PEPs that were installed on the original system. |   |
| Platform Recovery Disk                                                                                                                                                                                                                                                                                                  |   |
| Latest database backup of the system                                                                                                                                                                                                                                                                                    |   |
| Printout of the MigInfo.txt file, located on the Platform Recovery Disk<br>This file contains the setup information for the system you are recovering, and is used during installation and configuration of the operating system and Symposium Call Center Server.                                                      |   |
| Information about the original system <ul style="list-style-type: none"> <li>■ partition sizes</li> <li>■ PEP and Service Update pack level</li> </ul>                                                                                                                                                                  |   |

## Checklist for full system recovery

Complete the following steps to perform this recovery procedure. To keep on track during the procedure, make a photocopy of the checklist and check off each step as you complete it.

| Description                                                                                           | ✓ |
|-------------------------------------------------------------------------------------------------------|---|
| <b>1</b> Prepare the base configuration of the system for the full recovery procedure (see page 563). |   |
| <b>2</b> Install the Symposium Call Center Server software (see page 565).                            |   |

| Description                                                                                                                                                                                                                                                                                                                                                                             | ✓ |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|
| <b>3</b> Apply the latest Install-time PEPs (see page 565).                                                                                                                                                                                                                                                                                                                             |   |
| <b>4</b> Import database information from the Platform Recovery Disk (see page 566).                                                                                                                                                                                                                                                                                                    |   |
| <b>5</b> Install the database software (see page 566).<br><b>Note:</b> If you are converting a non-English version of Symposium Call Center Server, install the appropriate language PEP before proceeding. Follow the instructions in “Installing PEPs or Service Update packs on the server” on page 160. For a list of server language PEPs, see “Server language PEPs” on page 746. |   |
| <b>6</b> Restore the system’s database (see page 567).                                                                                                                                                                                                                                                                                                                                  |   |
| <b>7</b> Perform a database integrity check on the restored system (see page 567).                                                                                                                                                                                                                                                                                                      |   |
| <b>8</b> Configure the software and database (see page 567).                                                                                                                                                                                                                                                                                                                            |   |
| <b>9</b> Apply any required Service Update packs or PEPs (see page 567).                                                                                                                                                                                                                                                                                                                |   |
| <b>10</b> Complete the remaining steps for recovery (see page 568).                                                                                                                                                                                                                                                                                                                     |   |

## Preparing the base configuration of the system for the full recovery procedure

Before you can reinstall the Symposium Call Center Server or Network Control Center software and restore your database and configuration, you must ensure that the base configuration of your system is in a proper state. In other words, you must ensure that

- the operating system is installed and correctly configured on drive C
- pcAnywhere is installed and configured on drive C
- the additional drives (D, F, and any additional database partitions) are empty and partitioned in exactly the same way as they were before the system failure

How you achieve this depends on the state of your system before you begin the recovery steps. You can choose one of the following approaches:

- Reinstall the operating system and pcAnywhere, and repartition the drives on the system.
- Leave the operating system, pcAnywhere, and drive partitions intact, and remove only the Symposium Call Center Server or Network Control Center software, Sybase ASE 12, and the database files.

See the guidelines below for both these approaches.

### **Reinstalling the operating system and repartitioning the drives**

If you suspect that the operating system is unstable, or if you cannot boot the system, you may need to do a fresh installation of the operating system and pcAnywhere, and then repartition all remaining drives. Complete the following steps:

1. Follow the instructions in Section D: “Configuring the operating system,” on page 69 to create a drive C partition, and install the Windows 2000 operating system. The file MigInfo.txt on your Platform Recovery Disk provides most of the data that you need to reconfigure your operating system. Ensure that the operating system is configured correctly, as described in the section referenced above.
2. Configure the LAN network cards with the same network IP configuration (for example, IP address, subnet mask, default gateway, and so on) as on the original system. Use the TCP/IP parameter information in the file MigInfo.txt.
3. Partition the remaining disks in exactly the same way as they were partitioned before the system failure. This information is also available in the file MigInfo.txt.
4. If you are restoring your database from tape, make sure the system is installed with tape driver software that is compatible with Windows 2000.
5. Install pcAnywhere, as described in Chapter 5, “Installing and configuring pcAnywhere.”



## Uninstalling the Symposium Call Center Server software and database

If you suspect that the problem with the system does not affect the operating system, you may only need to uninstall the Symposium Call Center Server or Network Control Center software, Sybase ASE 12, and the database files, thereby leaving the operating system and drive partitions intact.

Follow the procedures for a complete uninstall in Chapter 9, “Uninstalling and reinstalling server software.”

## Installing the Symposium Call Center Server software

Once you have completed the base configuration of your system, you can proceed to install the Symposium Call Center Server or Network Control Center software.

### To install the software

- 1 Locate the Server Application CD containing the Release 4.2 software for Symposium Call Center Server.
- 2 Install the server software as described in “Installing the product software (phase 1)” on page 126 in Chapter 3, “Installing the server software.”

**Note:** When you have installed the software, do not continue to the next procedure in the referenced chapter. Instead, return to this chapter and continue to the procedure below.

## Applying the latest Install-time PEP

Apply the latest Install-time PEP. These PEPs update the server software to take care of any known issues with the installation or configuration before you continue through the next steps.

The latest Install-time PEP is available on the Supplementary CD-ROM and from the Meridian PEP Library web site.

You can distinguish Install-time PEPs from General PEPs by the PEP ID as follows:

- For Install-time PEPs, the ninth character is a U (for example, NI040206U007S).

- For General PEPs, the ninth character is a G (for example, NS040206G004S).

For instructions on installing PEPs, see Chapter 4, “Installing/uninstalling PEPs and Service Update packs.” Then continue to the following procedure.

## Importing database information from the Platform Recovery Disk

Once the server software is installed, you must import database information from the original system from a current Platform Recovery Disk.

For instructions, see “Importing database information from a Platform Recovery Disk” on page 581. Then continue to the following procedure.

## Installing the database software

Before you can restore the database on your system, you must first install and initialize the database software.

### To install and initialize the database software

- 1 If it is not already running, locate the Server Application CD containing the Release 4.2 software for Symposium Call Center Server and insert the CD-ROM in the drive.
- 2 Install the database software according to the instructions in “Installing the product database (phase 2)” on page 130 of Chapter 3, “Installing the server software.”

**Note:** If you are converting a non-English version of Symposium Call Center Server, install the appropriate language PEP before proceeding. Follow the instructions in “Installing PEPs or Service Update packs on the server” on page 160. For a list of server language PEPs, see “Server language PEPs” on page 746.

When you finish the database installation, do not continue on to the next procedure in the referenced chapter. Instead, continue to the procedure below.

## Restoring the system's database

You can restore the database either from a tape or from a remote directory, depending on which of these options you used to create the database backup.

Use one of the following procedures:

- “To restore the database from a tape backup” on page 583
- “To restore the database from a remote directory backup” on page 585

Then continue to the following procedure.

## Performing a database integrity check on the restored system

To ensure the integrity of the databases after you restore them, Nortel Networks recommends that you perform a database integrity check. This step is highly recommended to capture any database consistency problems.

For instructions, see “Performing a Database Integrity Check” on page 633 of Chapter 16, “Using server utilities.” Then continue with the procedure below.

## Configuring the system's software and database

Import configuration data from your Platform Recovery Disk to restore the configuration of your system's software and database.

For instructions, see “Configuring your system's software and database by importing configuration data from the Platform Recovery Disk” on page 588. Then continue to the procedure below.

## Applying Service Update packs and PEPs to the restored system

Apply the same Service Update packs and PEPs to the restored system that were installed on the original system.

For information on installing Service Update packs or PEPs, see Chapter 4, “Installing/uninstalling PEPs and Service Update packs.” Then continue to the procedure below.

## To complete the full system recovery

Check that the system services start up successfully as follows:

From the Start menu, choose Programs → Symposium Call Center Server → System Monitor.

**Result:** The SMonW window appears and Symposium Call Center Server services begin the startup process. The services take approximately 15 to 20 minutes to start up. For more information about the services and their statuses, see “Troubleshooting problems with Symposium Call Center Server services” on page 686.

### Additional steps required for servers in a networking environment

If you just recovered either an NCC server or a server that is connected to an NCC server for networking, you must perform some additional steps.

---

|                                                          |                                                                                                                                                                         |
|----------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| If you recover an NCC server                             | using the Configuration (nbconfig) utility on the NCC server, add all of the sites in your multi-site call center.                                                      |
| <hr/>                                                    |                                                                                                                                                                         |
| If you recover a nodal server connected to an NCC server | using the Configuration (nbconfig) utility on the NCC server, perform a force synchronization of the Address Table for all of the sites in your multi-site call center. |

---

For more information, refer to the *Network Control Center Administrator's Guide* (see the section titled “Configuring the communications database”).

When you are satisfied with the proper operation of the restored system, create a database backup. For instructions, see Chapter 14, “Backing up data.” You may also want to perform a third-party backup, if available.

# Recovery of the server setup configuration

## Introduction

If you suspect corruption in your server setup configuration, you can recover an earlier version if you have an up-to-date copy of your system's configuration data file, MigInfo.txt. This file is created when you create a Platform Recovery Disk or when you use the Export Configuration Data utility in the Server Setup Configuration Utility.

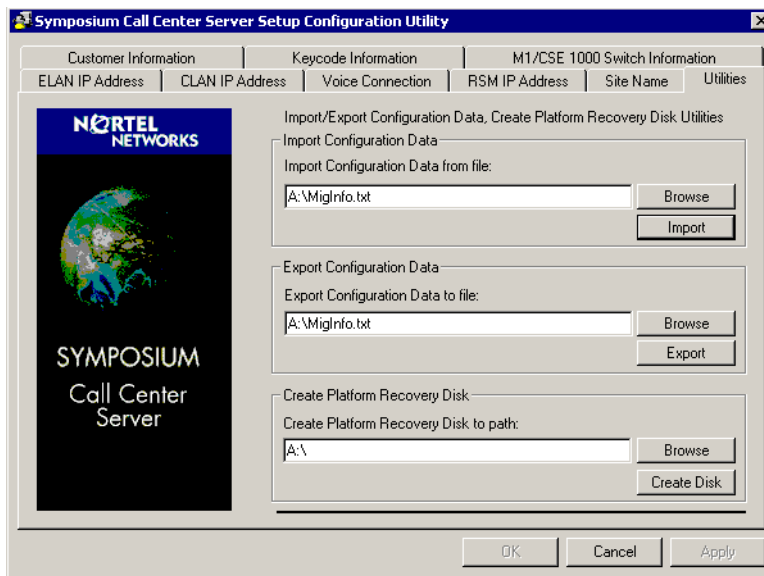
### To recover the server setup configuration

- 1 Make sure you have an up-to-date copy of your system's Platform Recovery Disk, or a copy of the file MigInfo.txt on a disk or in a directory that your system can access.
- 2 If your MigInfo.txt file is on a disk, insert it into the floppy drive.
- 3 From the Windows Start menu, choose Programs → Symposium Call Center Server → Server Setup Configuration.

**Result:** The Server Setup Configuration Utility appears.

- 4 Click the Utilities tab.

**Result:** The following window appears:



**Note:** The Voice Connection tab appears if you have installed Symposium Call Center Server Service Update NS040206SU07S or a subsequent PEP.

- 5 In the Import Configuration Data from file section, make sure that the path displayed is the correct location of your file MigInfo.txt. If the path is not correct, use Browse to navigate to the location of the file.
- 6 When the path shown is correct, click Import.

**Result:** The system imports your configuration data.

- 7 Complete steps 9 through 20 in the procedure “To configure your server’s software and database by importing configuration data from the Platform Recovery Disk” on page 588. Then continue to the procedure below.

**To check that the server's services start up successfully**

From the Start menu, choose Programs → Symposium Call Center Server → System Monitor.

**Result:** The SMonW window appears and Symposium Call Center Server services begin the startup process. The services take approximately 15 to 20 minutes to start up. For more information about the services and their statuses, see “Troubleshooting problems with Symposium Call Center Server services” on page 686.

# Recovery of the database contents

## Introduction

If you suspect that data in your Symposium Call Center Server or Network Control Center database is corrupt, you can restore an existing backup of the database to the system using the Database Restore utility.

Use one of the following procedures:

- “To restore the database from a tape backup” on page 583
- “To restore the database from a remote directory backup” on page 585

Then continue to the procedure below.

The restore process causes the connection between the client PC and server to be lost, and the services on the server to be shut down. After the restore process is finished, restart the system, and reconnect the client PC.

## Performing a Database Integrity Check

Nortel Networks recommends that you perform a Database Integrity Check once you have restored your database to ensure the data is not corrupted before you return your system to full service.

For instructions, see “Performing a Database Integrity Check” on page 633 of Chapter 16, “Using server utilities.” Then continue to the procedure below.

## Reapplying any PEPs or Service Update packs

If you applied any PEPs or Service Update packs since you created the database backup used for the restore, you must uninstall and then reinstall them. This ensures that your restored database is properly updated. For instructions, see Chapter 4, “Installing/uninstalling PEPs and Service Update packs.” If your database backup was created after you applied any PEPs or Service Update packs, then you do not need to uninstall and reinstall these PEPs.



## Additional steps required for servers in a networking environment

If you just recovered the database of either an NCC server or a server that is connected to an NCC server for networking, you must perform some additional steps.

---

|                                                          |                                                                                                                                                                                                                                                                                                                                                                 |
|----------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| If you recover an NCC server                             | run the nbconfig utility on the NCC server and check to make sure that the IP addresses and site names are correct for all the servers connected to the network. If any sites are incorrect, remove and then re-add the sites.                                                                                                                                  |
| If you recover a nodal server connected to an NCC server | run the nbconfig utility on both the NCC server and the recovered nodal server. Check to make sure that the IP addresses and site names match on both the NCC and the nodal server. If there are any differences, use the nbconfig utility on the NCC to perform a force synchronization of the Address table for all the sites in your multi-site call center. |

---

For more information, refer to the *Network Control Center Administrator's Guide* (see the section titled "Configuring the communications database").

## Recovery (reinstallation) of Sybase ASE 12 and database software

If you suspect that the Sybase ASE 12 server configuration or software is unstable, you can uninstall the database software and configuration, and then reinstall it while leaving the system software and configuration intact. You need a database backup and a Platform Recovery Disk to perform this procedure.

### Checklist for recovering Sybase ASE 12 and database software

Complete the following steps to perform this recovery procedure. To keep on track during the procedure, take a photocopy of the checklist and check off each step as you complete it.

| Description                                                                                                                                                                                                                                                                                                                                                                                                                       | ✓ |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|
| 1 Prepare the system for reinstallation (see page 575).                                                                                                                                                                                                                                                                                                                                                                           |   |
| 2 Import the database information from the Platform Recovery Disk (see page 575).                                                                                                                                                                                                                                                                                                                                                 |   |
| <b>3</b> Reinstall and initialize the database software, including Sybase ASE 12 (see page 575).<br><b>Note:</b> If you are converting a non-English version of Symposium Call Center Server, install the appropriate language PEP before proceeding. Follow the instructions in “Installing PEPs or Service Update packs on the server” on page 160. For a list of server language PEPs, see “Server language PEPs” on page 746. |   |
| 4 Restore the database contents (see page 576).                                                                                                                                                                                                                                                                                                                                                                                   |   |
| 5 Perform a Database Integrity Check on the restored database (see page 576).                                                                                                                                                                                                                                                                                                                                                     |   |
| 6 Configure the system’s software and database (see page 577).                                                                                                                                                                                                                                                                                                                                                                    |   |
| 7 Reapply any Service Update packs or PEPs (see page 577).                                                                                                                                                                                                                                                                                                                                                                        |   |

## Preparing the system for reinstallation

Before you can reinstall the database software and restore the database, you must uninstall the existing database software that you suspect is corrupted. You can also prepare your backup data, if you do not already have it available.

### To prepare the system for reinstallation

- 1 If you do not already have a Platform Recovery Disk, create one as described in “To create a Platform Recovery Disk” on page 510 of Chapter 14, “Backing up data.” Then continue to the next step below.
- 2 If you do not already have a current database backup, create one as described in Chapter 14, “Backing up data.” Then continue to the next step below.
- 3 Remove the database, as described in “Removing the database” on page 432 of Chapter 9, “Uninstalling and reinstalling server software.” Then continue to the next step below.
- 4 Uninstall the Sybase ASE 12 software, as described in “Uninstalling Sybase ASE 12.0” on page 434. Then continue to the next step below.
- 5 Continue to the next procedure.

## Importing database information from the Platform Recovery Disk

Once you have prepared the system for reinstallation, you must import database information from a current Platform Recovery Disk.

For instructions, see “Importing database information from a Platform Recovery Disk” on page 581. Then continue to the following procedure.

## Reinstalling and initializing the database software, including Sybase ASE 12

You must install a fresh copy of the Symposium Call Center Server database software and Sybase ASE 12 software supplied on the Server Application CD.

## To reinstall and initialize the database software

- 1 Locate the Server Application CD containing the Release 4.2 software for Symposium Call Center Server and insert the CD-ROM in the drive. Wait for it to autorun.
- 2 Reinstall the database, as described in “Installing the product database (phase 2)” on page 130 of Chapter 3, “Installing the server software.”

**Note:** If you are converting a non-English version of Symposium Call Center Server, install the appropriate language PEP before proceeding. Follow the instructions in “Installing PEPs or Service Update packs on the server” on page 160. For a list of server language PEPs, see “Server language PEPs” on page 746.

When you finish the database installation, do not continue in the referenced chapter. Instead, continue to the following procedure.

## Restoring the database contents

Once you have reinstalled the database software, you must restore the database contents, either from a tape or from a remote directory, depending on which of these options you used to create the database backup.

Use one of the following procedures:

- “To restore the database from a tape backup” on page 583
- “To restore the database from a remote directory backup” on page 585

Then continue to the procedure below.

## Performing a database integrity check

To ensure the integrity of the databases after you restore them, Nortel Networks recommends that you perform a database integrity check. This step is highly recommended to capture any database consistency problems.

For instructions, see “Performing a Database Integrity Check” on page 633 of Chapter 16, “Using server utilities.” Then continue to the procedure below.

## Configuring the system's software and database

Import configuration data from your Platform Recovery Disk to restore the configuration of your server software and database.

For instructions, see “Configuring your system's software and database by importing configuration data from the Platform Recovery Disk” on page 588. Then continue to the procedure below.

## Reapplying any PEPs or Service Update packs

If you applied any PEPs or Service Update packs since you created the database backup used for the restore, you must uninstall them and then reinstall them. This ensures that your restored database is properly updated. For instructions, see Chapter 4, “Installing/uninstalling PEPs and Service Update packs.” If your database backup was created after you applied any PEPs or Service Update packs, then you do not need to uninstall and reinstall these PEPs.

## Additional steps required for servers in a networking environment

If you just recovered either an NCC server or a server that is connected to an NCC server for networking, you must perform some additional steps.

|                                                          |                                                                                                                                                                         |
|----------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| If you recover an NCC server                             | using the Configuration (nbconfig) utility on the NCC server, add all of the sites in your multi-site call center.                                                      |
| If you recover a nodal server connected to an NCC server | using the Configuration (nbconfig) utility on the NCC server, perform a force synchronization of the Address Table for all of the sites in your multi-site call center. |

For more information, refer to the *Network Control Center Administrator's Guide* (see the section titled “Configuring the communications database”).

# Recovery (reinstallation) of the server software

## Introduction

If you suspect that your Symposium Call Center Server or Network Control Center software is corrupted, you can uninstall and then reinstall it while leaving the database intact. You must also restore your server's setup configuration using a Platform Recovery Disk. This is because all system configuration details are lost when you uninstall the software.

### To prepare the system for reinstallation

- 1 Create a Platform Recovery Disk, as described in "To create a Platform Recovery Disk" on page 510 of Chapter 14, "Backing up data." Then continue to the next step below.
- 2 Uninstall any PEPs or Service Update packs on the system. For instructions, refer to Chapter 4, "Installing/uninstalling PEPs and Service Update packs." Then continue to the next step below.
- 3 Uninstall the server software, as described in "Uninstalling the server software" on page 435 of Chapter 9, "Uninstalling and reinstalling server software." Then continue to the next step below.
- 4 Continue to the following procedure.

### To reinstall the server software

- 1 When the system has restarted after the uninstall, log on to the server as **Administrator**.
- 2 Locate the Server Application CD containing the Release 4.2 software for Symposium Call Center Server.
- 3 Install the server software as described in "Installing the product software (phase 1)" on page 126 of Chapter 3, "Installing the server software."

**Note:** When you have installed the software, do not continue in the referenced chapter. Instead, continue to the following procedure.

## **To apply the latest Install-time PEP**

Apply the latest Install-time PEP. Install-time PEPs update the server software to take care of any known issues with the installation or configuration before you continue through the next steps.

The latest Install-time PEP is available on the Supplementary CD-ROM and from the Meridian PEP Library web site.

You can distinguish Install-time PEPs from General PEPs by the PEP ID as follows:

- For Install-time PEPs, the ninth character is a U (for example, NI040206U007S).
- For General PEPs, the ninth character is a G (for example, NS040206G004S).

Then continue to the next procedure.

## **To configure the new system's software and database by importing configuration data from the Platform Recovery Disk**

Import configuration data from your Platform Recovery Disk to restore the configuration of your server software and database.

For instructions, see “Configuring your system’s software and database by importing configuration data from the Platform Recovery Disk” on page 588. Then continue to the procedure below.

## **To apply any PEPs or Service Update packs on the system**

Apply any applicable PEPs or Service Update packs to the system.

For information on installing Service Update packs or PEPs, see Chapter 4, “Installing/uninstalling PEPs and Service Update packs.” Then continue to the procedure below.

## To check that the system services start up successfully

From the Start menu, choose Programs → Symposium Call Center Server → System Monitor.

**Result:** The SMonW window appears and Symposium Call Center Server services begin the startup process. The services take approximately 15 to 20 minutes to start up. For more information about the services and their statuses, see “Troubleshooting problems with Symposium Call Center Server services” on page 686.

## Additional steps required for servers in a networking environment

If you just recovered either an NCC server or a server that is connected to an NCC server for networking, you must perform some additional steps.

---

|                                                          |                                                                                                                                                                         |
|----------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| If you recover an NCC server                             | using the Configuration (nbconfig) utility on the NCC server, add all of the sites in your multi-site call center.                                                      |
| If you recover a nodal server connected to an NCC server | using the Configuration (nbconfig) utility on the NCC server, perform a force synchronization of the Address Table for all of the sites in your multi-site call center. |

---

For more information, refer to the *Network Control Center Administrator's Guide* (see the section titled “Configuring the communications database”).



# Common recovery procedures used in this guide

## Introduction

This section contains recovery procedures that are used in more than one recovery scenario. Refer to this section for specific restore procedures that are referenced from other sections in this chapter.

## Importing database information from a Platform Recovery Disk

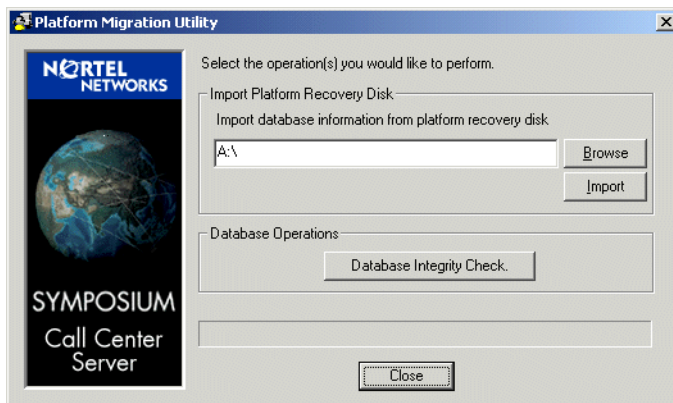
This procedure imports database information from a Platform Recovery Disk into your Symposium Call Center Server or Network Control Center.

### To import database information from the Platform Recovery Disk

- 1 Log on to the server as **Administrator** or **NGenSys**.
- 2 Do one of the following:
  - a. If your Platform Recovery Disk is on a floppy disk, insert it into drive A.
  - b. If your Platform Recovery Disk is in a directory on a remote computer, map a network drive to that directory.

- 3 From the Windows Start menu, choose Programs → Symposium Call Center Server → Migration.

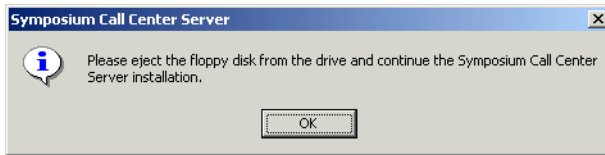
**Result:** The Platform Migration Utility window appears.



- 4 In the section Import database information from platform recovery disk section, do one of the following:
  - If your Platform Recovery Disk is on a floppy disk:
    - a. Make sure the drive shown is A:\.
    - b. Insert the floppy disk into the drive.
  - If your Platform Recovery Disk is on a remote directory:
    - a. Click Browse and navigate to the mapped drive for the remote directory.
    - b. Click the drive, and then click OK.
    - c. Make sure the mapped drive appears in the Platform Migration Utility window.

- 5 Click Import.

**Result:** The system imports the files from your Platform Recovery Disk. A DOS window appears during the import with the text `Importing database information`. When the import is done, the DOS window displays the following confirmation message:



- 6 Click OK.
- 7 Close the Platform Migration Utility window.
- 8 If you used a floppy disk, remove it from the drive.
- 9 Return to the procedure that referenced this procedure.

## Restoring a system's database from tape or from a remote directory

These procedures restore a database backup from either a tape or from a remote directory. Use the relevant procedure below.

### Notes:

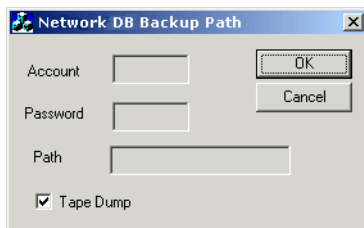
- For a listing of the variables that can affect the speed of your backup and restore, see "Variables affecting backup and restore speed" on page 501.
- To see sample time measurements for tape backup and restore, see "Benchmark statistics for tape backup and restore" on page 504.

### To restore the database from a tape backup

- 1 Log on to the server as **NGenSys**.
- 2 Make sure the system is set to restore the database from a tape by doing the following:

- a. From the Windows Start menu, choose Programs → Symposium Call Center Server → Network DB Backup Path.

**Result:** The Network DB Backup Path dialog box appears.

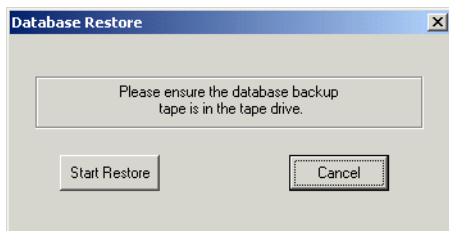


- b. Make sure Tape Dump is checked, and then click OK.

**Note:** If this dialog box did not have Tape Dump checked, and there were values in the Account and Path boxes, then the system was configured for remote directory backup. If you want to reset the remote directory backup on the system *after* you have restored from tape, you must reenter the Account, Password and Path information later.

- 3 From the Windows Start menu, choose Programs → Symposium Call Center Server → Database Restore.

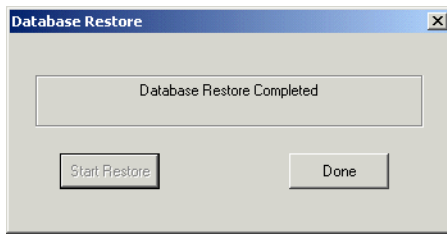
**Result:** The Database Restore dialog box appears.



- 4 Insert the tape containing the database backup.
- 5 When the tape in the drive stops moving, click Start Restore to begin the database restore process.

**Result:** The system first shuts down the Symposium Call Center Server services that you have installed. Then the database restore process begins. This can take at least 1 to 3 hours, depending on the amount of data. During this time, the Database Restore window remains visible and displays numerous status messages about the progress of the restore.

- 6 Wait until the following message appears:

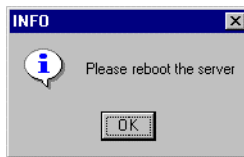


**Note:** A log file is created with the following path name after the database restore is completed:

D:\Nortel\data\backup\RestoreLogs\restore.log

- 7 Click Done.

**Result:** The following dialog box appears:



- 8 Eject the backup tape from the tape drive.
- 9 Click OK to exit the Database Restore utility. You must wait for the Database Restore window to disappear. It may seem like there is no activity, but the system must complete its processes and close this window. This can take up to 2 minutes to complete. *Do not* restart the system.
- 10 Return to the procedure that referenced this procedure.

## To restore the database from a remote directory backup

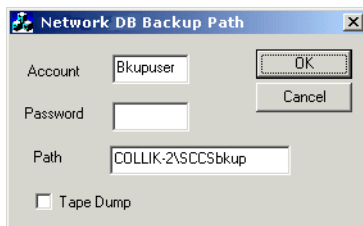
### ATTENTION

Before restoring your database from a remote directory, check your remote folder configuration by following the guidelines listed in the section “Testing the remote directory backup and restore configuration” on page 531.

- 1 Log on to the system as **NGenSys**.
- 2 Ensure that you have a network connection to the computer containing the remote directory backup.

- 3 Make sure the system is set to restore the database from a remote directory by doing the following:
  - a. From the Windows Start menu, choose Programs → Symposium Call Center Server → Network DB Backup Path.

**Result:** The Network DB Backup Path dialog box appears.



- b. Ensure that Tape Dump is unchecked, and check that the boxes in the dialog box are correct for the directory on the network computer containing the database backup files.

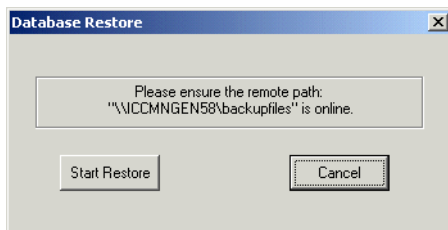
**Note:** For security reasons, you cannot see the password.

- c. If you did not make changes to this window, click Cancel to close the window.

**Note:** If you are logged on as **Administrator**, the system may display a warning message telling you that the password cannot be verified. You can ignore this message if you are sure that the password entered on this window is the same as the password set up on this server for the user account.

- 4 From the Windows Start menu, choose Programs → Symposium Call Center Server → Database Restore.

**Result:** The Database Restore dialog box appears, showing the path for the remote directory containing the database files, as in the following example:

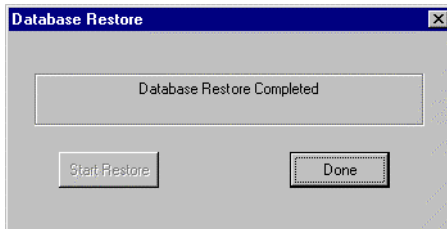


- 5 Click Start Restore to begin the database restore process.

**Result:** The database restore process begins. This can take at least 1 to 3 hours, depending on the amount of data and the CPU speed of the server. During this time, the Database Restore window remains in view and displays numerous status messages about the progress of the restore.

**Note:** The restore can take longer if you store your call-by-call records for longer than the recommended interval.

- 6 Wait until the following dialog box appears, indicating that the restore is complete:

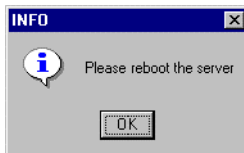


**Note:** A log file with the following path name is created after the database restore is completed:

D:\Nortel\data\backup\RestoreLogs\restore.log

- 7 Click Done.

**Result:** The following dialog box appears:



- 8 Click OK to exit the Database Restore utility. You must wait for the Database Restore window to disappear. It may seem as if there is no activity, but the system must complete its processes and close this window. This can take up to 2 minutes to complete.

Nortel Networks recommends that you do not restart the server at this time. (You need not restart the server until after you configure the server software and database.) Instead, continue to the next procedure to perform a database integrity check.

- 9 Return to the procedure that referenced this procedure.

## Configuring your system's software and database by importing configuration data from the Platform Recovery Disk

The file MigInfo.txt on your Platform Recovery Disk contains all configuration data for your Symposium Call Center Server. To configure your server software and database, you can import this information directly into the Server Setup Configuration Utility using a command, as described in the following procedure.

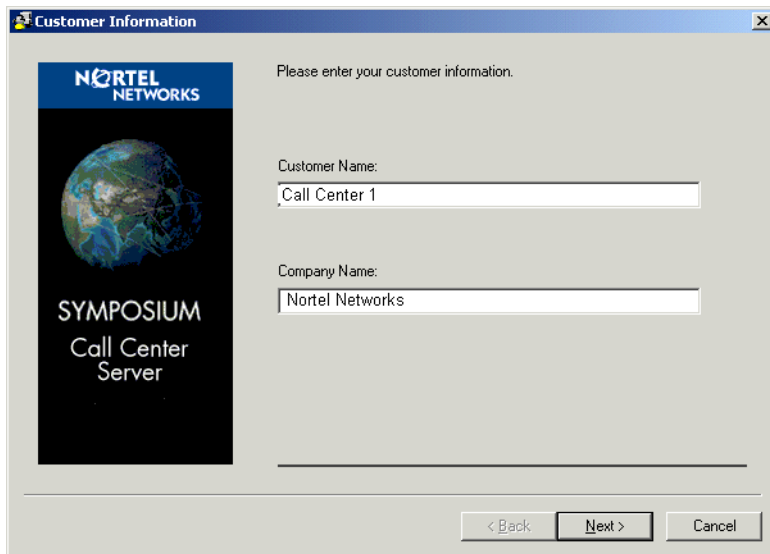
### To configure your server's software and database by importing configuration data from the Platform Recovery Disk

- 1 Make sure you are logged on to the server as **Administrator** or **NGenSys**.
- 2 Do one of the following:
  - If your Platform Recovery Disk is on a floppy disk, insert it into the floppy drive.
  - If your Platform Recovery Disk is in a remote directory, map a network drive to the remote directory.
- 3 From the Start menu, choose Run.
- 4 Do one of the following
  - If your Platform Recovery Disk is on a floppy disk, type **d:\nortel\iccm\bin\svrconfig.exe -i -w a:\MigInfo.txt**.
  - If your Platform Recovery Disk is in a remote directory, type **d:\nortel\iccm\bin\svrconfig.exe -i -w x:\MigInfo.txt**, where x is the letter of the mapped remote directory.



- 5 Click OK.

**Result:** The Customer Information window appears.



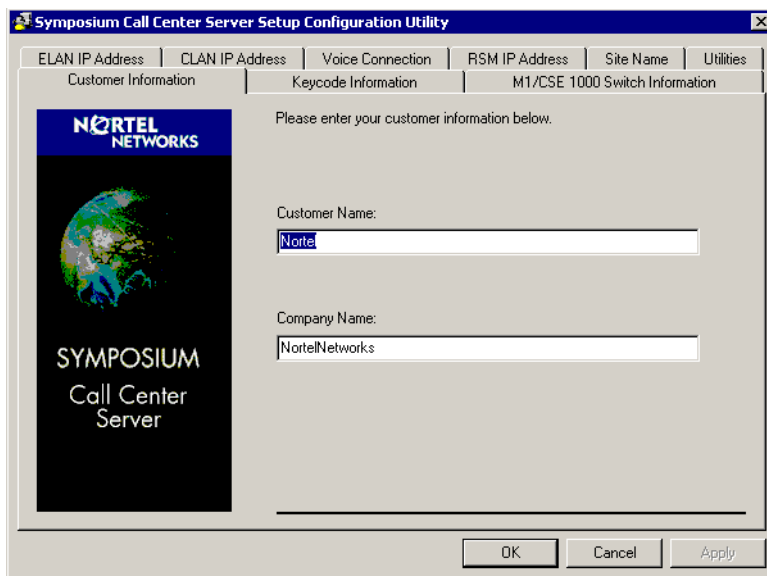
The screenshot shows a window titled "Customer Information" with a close button (X) in the top right corner. On the left side, there is a logo for "NORTEL NETWORKS" above a globe graphic, and below that, the text "SYMPOSIUM Call Center Server". The main area of the window contains the text "Please enter your customer information." followed by two input fields. The first field is labeled "Customer Name:" and contains the text "Call Center 1". The second field is labeled "Company Name:" and contains the text "Nortel Networks". At the bottom of the window, there are three buttons: "< Back", "Next >", and "Cancel".

This is the first of several windows in the Setup Configuration Utility into which you enter your system configuration. However, because you have imported your Platform Recovery Disk, each window in this utility is already filled with the original system's configuration data, as in the example above.

- 6 Check the information in the Customer Information window, and then click Next to move to the next window.
- 7 Check the information in each subsequent window, and then click Next to move through the configuration utility.

- 8 When you reach the Site Name window, check the data, and then click Finish.

**Result:** The Server Setup Configuration Utility window appears. Each tab represents a window that you just viewed.



**Note:** The Voice Connection tab appears if you have installed Symposium Call Center Server Service Update NS040206SU07S or a subsequent PEP.

- 9 When you are satisfied with the configuration details, click OK.

**Result:** A window appears asking you to verify your keycode information.

- 10 Check that the features listed match the product you purchased, and then do one of the following:
- If the information is not correct, you may have entered the keycode and serial/dongle number incorrectly.
    - a. Click No.
    - b. Click the Keycode Information tab and make any necessary changes to your entries.
    - c. Click OK, and then repeat step 9.

- If the information is correct, click Yes to continue.

**Result:** The Server Configuration Utility configures your server using the data you entered. It displays a status of each stage that the configuration passes through.

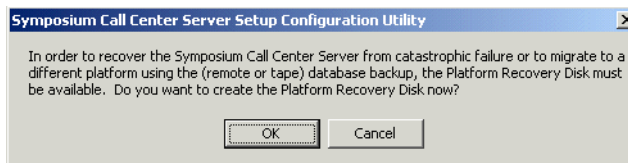
**Note:** This process can take 20 to 30 minutes to complete, depending on your system's CPU and database size. Do not close any windows during the configuration.

- 11 Wait until you see the following message:



- 12 Click OK.

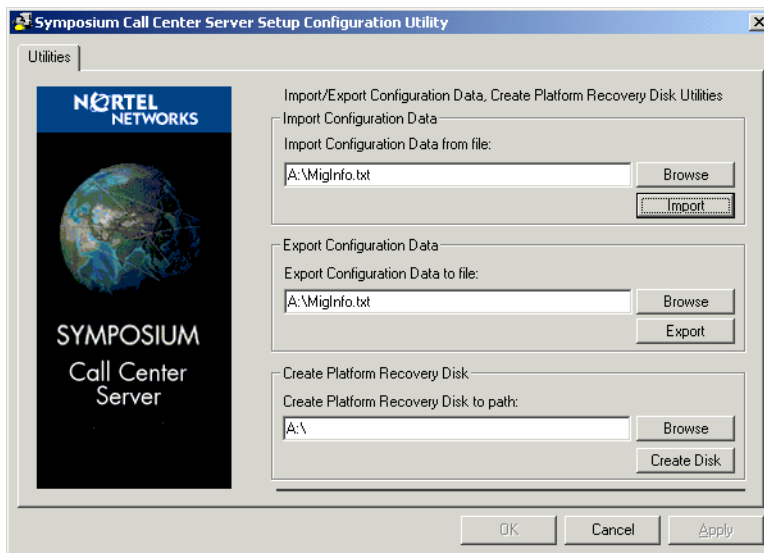
**Result:** The following message appears:



**13** Click OK.

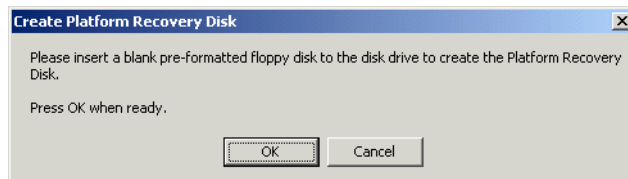
**Note:** If you click Cancel, remember to use the Migration utility to create a Platform Recovery Disk when the installation is complete. Skip to the Result in step 18.

**Result:** The Utilities tab appears.

**14** In the Create Platform Recovery Disk section, do one of the following:

- To save the Platform Recovery Disk to a floppy disk:
  - a. Insert a blank floppy disk in drive A.
  - b. Click Create Disk.

**Result:** The following message appears:



- c. Click OK.

- To save the Platform Recovery Disk to a remote directory:
  - a. Click Browse and navigate to the directory in which you want to store the data.

**Note:** The name of the remote directory into which you save the Platform Recovery Disk must not contain any spaces. Spaces in the remote directory name cause errors.

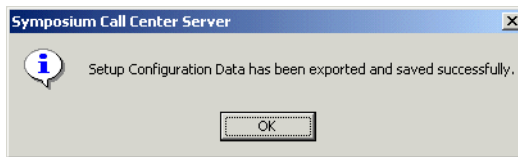
- b. Select the directory, and then click OK.

**Result:** The path you selected appears to the left of the Browse button.

- c. Click Create Disk.

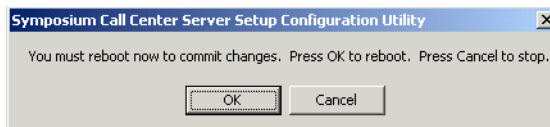
**Result:** The system creates the Platform Recovery Disk.

- 15 Wait until the following message appears:



- 16 Click OK.
- 17 If you used a floppy disk, remove it from the drive. Make sure the Platform Recovery Disk is labeled appropriately and stored in a safe place.
- 18 Click OK to close the Symposium Call Center Server Setup Configuration Utility dialog box.

**Result:** The following message appears:



- 19 Click OK.

**Result:** The system automatically restarts.

**20** Log on as **NGenSys**.

**Note:** It may take several minutes for the desktop to appear.

**Result:** The MAS Trace Window appears. The server and database configuration is complete, and the Symposium Call Center Server software is ready for use.

**21** Return to the procedure that referenced this procedure.

## **Section B: Recovery using a third-party backup**

### **In this section**

Recovering the database with a third-party backup

596

# Recovering the database with a third-party backup

## Introduction

Customers must define their own full backup and restore process based on the third-party backup utility of their choice.

You can use a full restore in the event of catastrophic failure when the latest database backup and the initial system setup data records and database configuration are not available for reinstallation of Symposium Call Center Server.

**Note:** Do not use a restore from a full backup without a reinstallation of Symposium Call Center Server in the following situations:

- A full backup tape is not available.
- The failed system is replaced with a new system that may have slightly different hardware configuration.
- The failed system is replaced with a different platform.



# Chapter 16

---

## Using server utilities

### In this chapter

|                            |     |
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| Startup                    | 655 |
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# Overview

## Introduction

Symposium Call Center Server utilities are automatically installed when you install Symposium Call Center Server. These utilities enable you to perform system operations not available on the Symposium Call Center Server Client.

You can access the server utilities from the Windows Start menu by choosing Programs → Symposium Call Center Server.

## Utility name and function overview

| Utility name               | Function                                                                                                                                 |
|----------------------------|------------------------------------------------------------------------------------------------------------------------------------------|
| Computer Name Sync         | Updates the computer name in the Symposium Call Center Server database.                                                                  |
| Configuration (Nbconfig)   | Enables you to add and modify site information for a Symposium Call Center Server network.                                               |
| Database Expansion Utility | Enables you to expand the size of your Symposium Call Center Server database.                                                            |
| Database Restore           | Restores the database from a backup tape or a remote directory.                                                                          |
| Feature Report             | Enables you to view and modify switch parameters. It also enables you to view other system information and a list of installed features. |
| Migration                  | Allows you to obtain system information in preparation for restoring a full system or migrating to another hardware platform.            |
| Network DB Backup Path     | Enables you to select whether to back up your database to a remote directory on a network computer, or to a tape.                        |

| <b>Utility name</b>                   | <b>Function</b>                                                                                                                                       |
|---------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|
| PEP Viewer                            | Enables you to view the list of Product Enhancement Packages (PEPs) and Service Update packs that you have installed on Symposium Call Center Server. |
| Registry Maintenance                  | Performs a registry comparison. This utility enables you to check for any corruption or changes in the registry.                                      |
| Server Setup Configuration            | Enables you to enter your server setup configuration settings after you have installed the server software.                                           |
| Shutdown/Startup (separate utilities) | Shuts down and starts up certain Symposium Call Center Server services. This is required for some maintenance and troubleshooting activities.         |
| System Information                    | Shows particulars about the Symposium Call Center Server system, such as names, IP addresses, and system numbers.                                     |
| System Monitor                        | Enables you to view the current status of all the Symposium Call Center Server services.                                                              |

---

# Computer Name Sync

## Introduction

If you change the computer name after installing the Symposium Call Center Server, use this utility to synchronize the Symposium Call Center Server name and the current computer name.

### Notes: :

- This utility also verifies if the DNS Host Name matches the new computer name and notifies you if the two names are different.
- This utility changes the database name to match the new computer name.

## Computer name restrictions

The new computer name must be a single word without spaces, 6 to 15 characters long. Letters, numbers, and underscores are allowed. Spaces, hyphens, and dashes are not allowed.

## To change the computer name

To change the computer name, you must first change the name on the operating system, and then use the Computer Name Sync utility to synchronize the new computer name with the Symposium Call Center Server name.

- 1 From the Windows Start menu, select Settings → Control Panel → System.
- 2 Change the computer name.
- 3 Click OK.

**Result:** The system prompts you to restart the server.

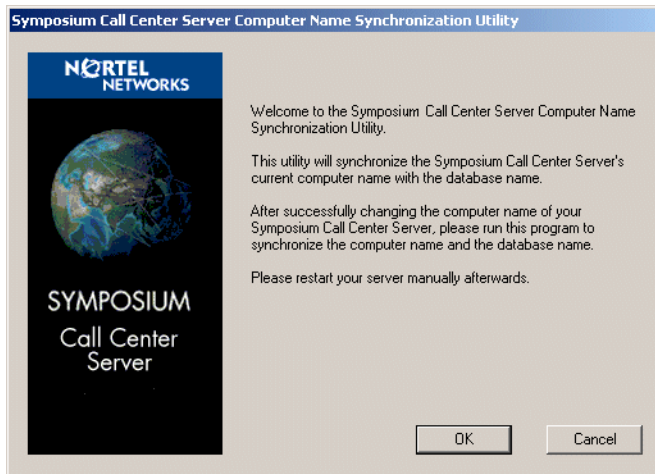
- 4 Click Yes.

**Result:** The server restarts.

- 5 Log on to the server as **Administrator**.

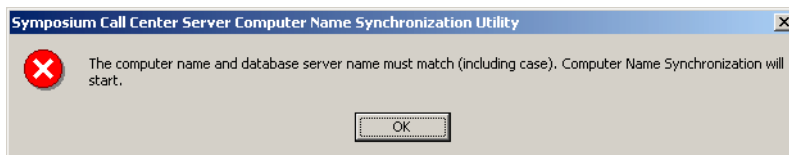
- 6 From the Windows Start menu, choose Programs → Symposium Call Center Server → Computer Name Sync.

**Result:** The Symposium Call Center Server Computer Name Synchronization Utility dialog box appears.



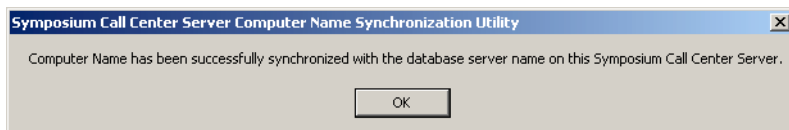
- 7 Click OK.

**Result:** The utility compares the computer name with the database server name. If the names do not match, then the following message appears:



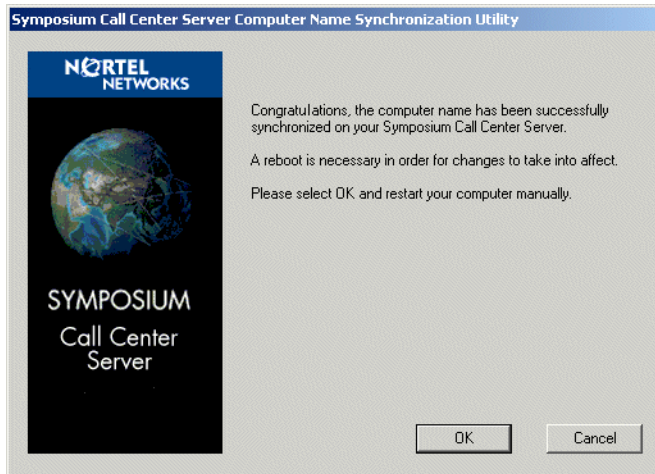
- 8 Click OK.

**Result:** The utility shuts down the Symposium Call Center Server services and then synchronizes the computer name with the database server name. When the process is finished, the following message box appears:



- 9 Click OK.

**Result:** The following dialog box appears:



- 10 Click OK.
- 11 Restart the server.

# Configuration (Nbconfig)

## Introduction

Use the Configuration utility (Nbconfig) to perform the following tasks:

- Change the IP address of the server's CLAN or ELAN card (see page 607).
- Change the server site name (see page 610).
- Add or remove servers, or change server address information (see page 612).
- Add sites at the Network Control Center (NCC) (see page 614).

**Note:** To perform these tasks, you must start the Configuration utility with the admin access level. For more information, see “To start the Configuration utility with the admin access level” on page 604.

## Access levels

There are two access levels available in the Configuration utility—regular and admin. Based on the access level with which you open the Configuration utility, you can perform different actions. With the *regular* access level, you cannot edit any settings as all information is read-only. In the *admin* access level, you can make changes to the server settings.

### To start the Configuration utility with the regular access level

From the Windows Start menu, choose Programs → Symposium Call Center Server → Configuration.

**Result:** The Nbconfig window appears with the following three tabs:

- Local Machine Settings
- Address Table
- Site Table

## To start the Configuration utility with the admin access level

- 1 From the Windows Start menu, choose Run.
- 2 Type **nbconfig -admin**, and then click OK.

**Result:** The Nbconfig window opens with the admin access level.

## Modes

There are two modes in the Configuration utility:

- **server mode** The Configuration utility runs in server mode at each Symposium Call Center Server.
- **NCC mode** The Configuration utility runs in NCC mode at the NCC server. In this mode, you cannot add another NCC or enter a duplicate site name. You can only enter CLAN IP addresses of the servers in the network. In addition, if a new site cannot be connected (for example, if the IP address is incorrect), the Configuration utility enables you to remove the site.

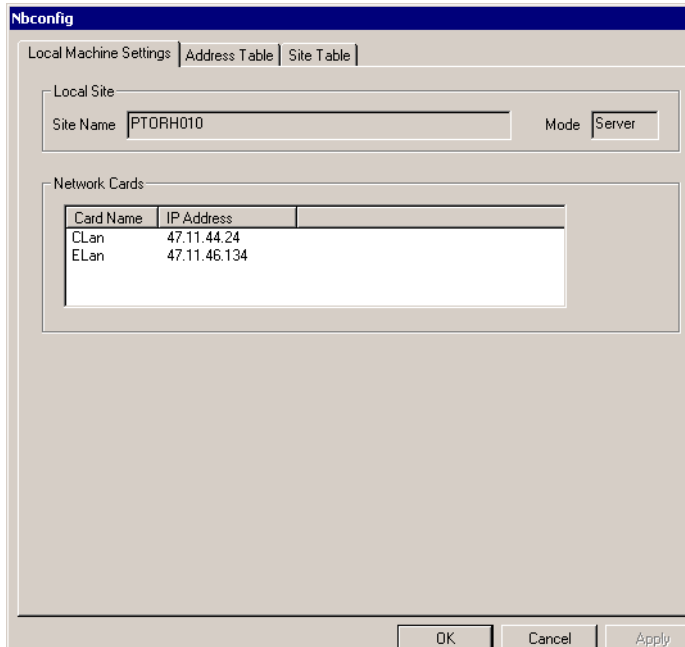
**Note:** In NCC mode, you do not need to shut down services to add or delete sites.



## Nbconfig tabs

### Local Machine Settings

The Local Machine Settings tab displays the local site name and network card IP addresses.



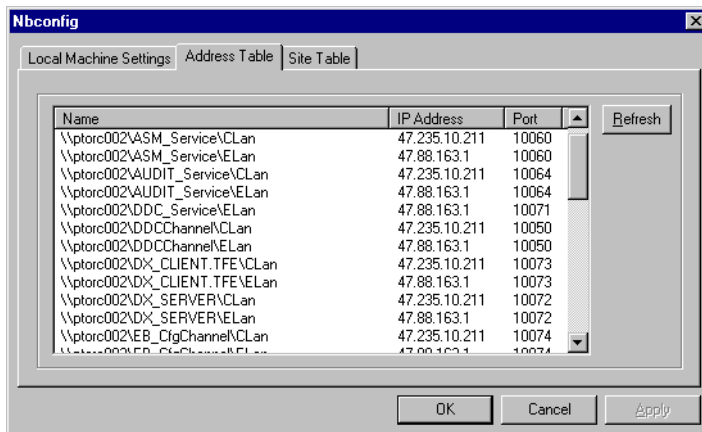
The image shows the 'Nbconfig' utility window with the 'Local Machine Settings' tab selected. The window has three tabs: 'Local Machine Settings', 'Address Table', and 'Site Table'. The 'Local Machine Settings' tab contains a 'Local Site' section with a 'Site Name' text box containing 'PTDRH010' and a 'Mode' dropdown menu set to 'Server'. Below this is a 'Network Cards' section containing a table with two columns: 'Card Name' and 'IP Address'. The table lists two network cards: 'CLan' with IP address '47.11.44.24' and 'ELan' with IP address '47.11.46.134'. At the bottom of the window are three buttons: 'OK', 'Cancel', and 'Apply'.

| Card Name | IP Address   |
|-----------|--------------|
| CLan      | 47.11.44.24  |
| ELan      | 47.11.46.134 |

For more information on the Configuration utility for the NCC, refer to the *Network Control Center Administrator's Guide*.

## Address Table

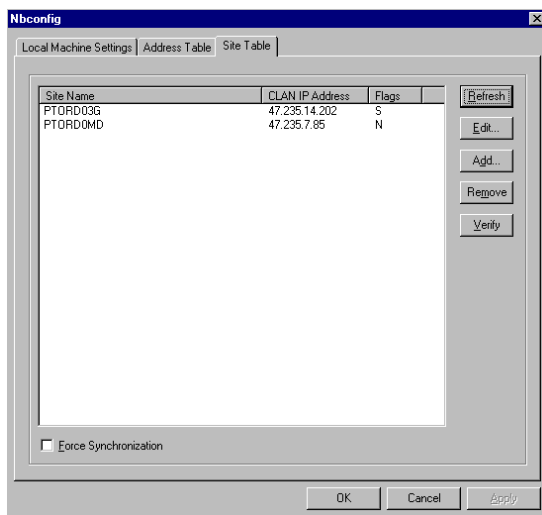
The Address Table tab lists the computer name, IP address, and port information of all servers in the network, including the NCC.



## Site Table

The Site Table tab lists information about site names, IP addresses, and flags.

**Note:** When you are logged on to the NCC in admin mode, this tab enables you to add sites.



## Changing the server IP address or site name

To change IP addresses on Symposium Call Center Server, you must make your changes in the following places:

- Change the IP addresses through the operating system's control panel.
- Change the IP addresses in the Configuration utility (Nbconfig).
- If the Symposium Call Center Server is in a network with an NCC, then you must make changes using the Configuration utility on the NCC (in NCC mode).
- Add the new IP address on the Symposium Call Center Server Client.

During installation, the IP addresses are defined in the operating system's control panel, and then again during the server software installation. No further action is required unless you need to change the IP addresses after installation.

If you change the IP address of a server in Symposium Call Center Server, it impacts other applications that connect to the server, such as Symposium Web Client. Therefore, when you change the IP address, you must notify the Symposium Web Client administrator.

**Note:** You can also use the Server Setup Configuration utility to change the IP address on a server. See "Server Setup Configuration" on page 644.

## To change the IP address of Symposium Call Center Server or the NCC server

- 1 Log on to the server as **NGenSys**.
- 2 Shut down all Symposium Call Center Server services by choosing Start → Programs → Symposium Call Center Server → Shutdown. The shutdown process takes a few minutes to complete.
- 3 Ensure that the SMonW window is closed.
- 4 Through the Windows control panel, change the CLAN or ELAN IP address.
- 5 When prompted to restart the server, choose to restart later. (Do not restart the server at this time.)
- 6 Change the CLAN or ELAN IP address using the Configuration utility (Nbconfig) as follows:

a. From the Windows Start menu, choose Run.

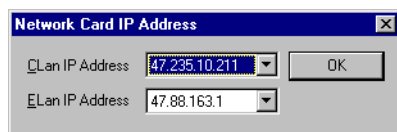
b. Type **nbconfig -admin**.

**Result:** The Nbconfig window appears, with the Edit button on the Local Machine Settings tab enabled.

c. In the Card Name column, select the network card for which you want to change the IP address.

d. Click Edit.

**Result:** The Network Card IP Address window appears, enabling you to select another CLAN or ELAN IP address from the drop-down lists.



**Note:** On the NCC server, you can add only a CLAN IP address.

e. Make your changes.

f. Click OK to close the Network Card IP Address window.

g. Click OK to close the Nbconfig window.

7 Run nicomsetup as follows:

a. From the Windows Start menu, choose Programs → Accessories → Command Prompt.

b. In the Command Prompt window, change to the drive on which Symposium Call Center Server is installed. For example, type **D:**, and then press Enter.

c. Type **CD \Norte\NCCM\bin**, and then press Enter.

d. Type **nicomsetup**, and then press Enter.

**Result:** The IP address change is completed.

8 Restart the server by choosing Shutdown → Restart from the Windows Start menu. When the server is restarted, continue as follows:

■ If you are changing the IP address of a single server that is not in a Symposium Call Center Server network, proceed to step 11.

■ If you are changing the IP address of a server in a Symposium Call Center Server network, perform steps 9 and 11.

- If you are changing the IP address of the NCC server, perform steps 9, 10, and 11.
- 9 If the server is in a networking environment (Meridian 1/CSE 1000 only), you must also update the new IP address on the NCC server as follows:
- a. At the NCC, log on as **NGenSys**.
  - b. From the Windows Start menu, choose Run.
  - c. Type **nbconfig -admin**.
  - d. Click the Site Table tab.
  - e. Select the server for which you changed the IP address, and then click Remove.
  - f. Click Add, and then add the server.
  - g. Click Verify.
  - h. Click OK to synchronize the IP addresses.
- 10 If the server for which you are changing the IP address is an NCC server (Meridian 1/CSE 1000 only), continue with the following steps:
- a. At the NCC, log on as **NGenSys**.
  - b. From the Windows Start menu, choose Run.
  - c. Type **nbconfig -admin**.
  - d. Click the Site Table tab.
  - e. Click Add, and then add all servers.
  - f. Click Verify.
  - g. Click Apply to start synchronization.
  - h. When the synchronization process is complete, click OK to close the Nbconfig window.
- 11 On the Symposium Call Center Server Client, choose the site whose IP address you changed.
- a. Open the properties for the site.
  - b. Add the new IP address (do not delete the old IP address).
  - c. Click OK to save your changes.

## To change the server site name

- 1 Log on to the server as **Administrator**.
- 2 Ensure that the SMonW window (the System Monitor) is closed.
- 3 Shut down all Symposium Call Center Server services by choosing Start → Programs → Symposium Call Center Server → Shutdown. The shutdown process takes a few minutes to complete.
- 4 Run `nicomsetup` as follows:
  - a. From the Windows Start menu, choose Programs → Accessories → Command Prompt.
  - b. In the Command Prompt window, change to the drive on which Symposium Call Center Server is installed. For example, type **D:**, and then press Enter.
  - c. Type **CD\Norte\NCCM\bin**, and then press Enter.
  - d. Type **nicomsetup**, and then press Enter.
  - e. Close the Command Prompt window.
- 5 Change the server site name using the Configuration utility (Nbconfig) as follows:
  - a. From the Windows Start menu, choose Run.
  - b. Type **nbconfig -admin**.

**Result:** The Nbconfig window appears, with the Edit button on the Local Machine Settings tab enabled.
  - c. Make the desired changes to the site name, and then click OK.
  - d. Click OK to close the Nbconfig window.
- 6 Based on the type of server for which you are changing the site name, continue as follows:
  - If you are changing the site name of a single server that is not in a Symposium Call Center Server network, proceed to step 9.
  - If you are changing the site name of a server in a Symposium Call Center Server network, perform steps 7 and 9.
  - If you are changing the site name of the NCC server, perform steps 7, 8, and 9.

- 7 If you are changing the site name of a server in a networking environment (Meridian 1/CSE 1000 only), continue by performing a stand-alone site name change on the NCC server as follows:
  - a. At the NCC, log on as **Administrator**.
  - b. From the Windows Start menu, choose Run.
  - c. Type **nbconfig -admin**.
  - d. Click the Site Table tab.
  - e. Select the server for which you changed the site name, and then click Remove.
  - f. Click Add, and then add the server.
  - g. Click Verify.
  - h. Click Apply to start synchronization.
  - i. When the synchronization process is complete, click OK to close the Nbconfig window.
- 8 If you are changing the site name of the NCC (Meridian 1/CSE 1000 only), continue by performing a stand-alone site name change as follows:
  - a. At the NCC, log on as **Administrator**.
  - b. From the Windows Start menu, choose Run.
  - c. Type **nbconfig -admin**.
  - d. Click the Site Table tab.
  - e. Click Add, and then add all servers.
  - f. Click Verify.
  - g. Click Apply to start synchronization.
  - h. When the synchronization process is complete, click OK to close the Nbconfig window.
- 9 On the Symposium Call Center Server Client, choose the site name that has been changed.
  - a. Open the properties for the site.
  - b. Modify the site name from the old site name to the new site name and save your changes.
  - c. Add the new site (do not delete the old site).
  - d. Click OK to save your changes.

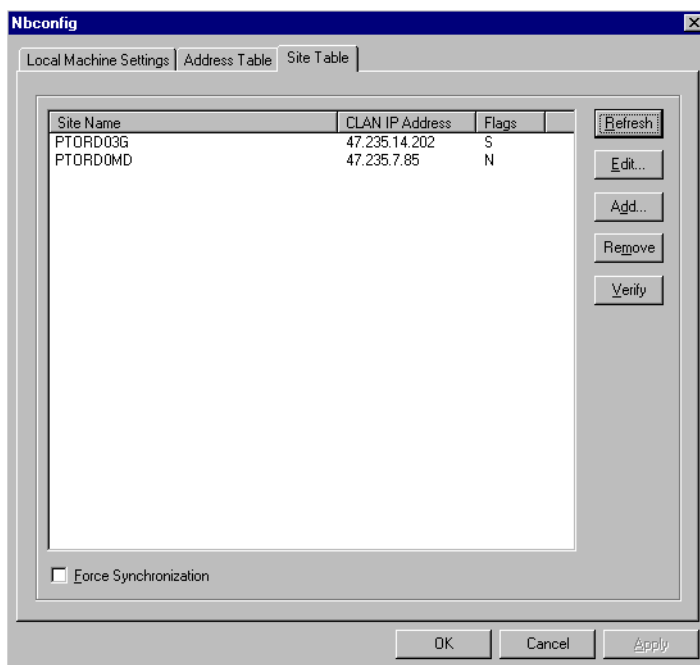
## To add or remove sites (nodal servers), or change the IP address of a site

- 1 Log on to the NCC server as **NGenSys**.
- 2 Shut down all Symposium Call Center Server services by choosing Start → Programs → Symposium Call Center Server → Shutdown. The shutdown process can take a few minutes to complete.
- 3 From the Windows Start menu, choose Run.
- 4 In the Run window, type **nbconfig -admin**.

**Result:** The Nbconfig window appears.

- 5 Click the Site Table tab.

**Result:** The Nbconfig window now shows an Edit, Add, and Remove button.



- 6 To remove a site, select it and click Remove. Go to step 10.

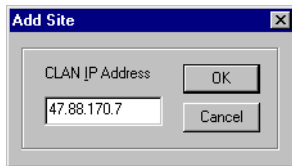


- 7 To add a site, click Add.

**Result:** The Add/Edit Address window appears. The boxes in this window are blank. Continue with step 9.

- 8 To change the IP address of a site, select it, and then click Edit.

**Result:** The Add/Edit Address window appears.



- 9 Enter the desired information, and then click OK.
- 10 Click Verify.
- 11 Click Apply to start synchronization.
- 12 When the synchronization process is complete, click OK to close the Nbconfig window.

## To run the nicomsetup utility

Run the nicomsetup utility after a site name change to clear information from the Address Table and Site Table tabs in the Nbconfig window.

- 1 From the Windows Start menu, choose Programs → Accessories → Command Prompt.

**Result:** The Command Prompt window appears.

- 2 Change directories to Nortel\NCCM\bin as follows:

- a. Navigate to the drive where Symposium Call Center Server is installed. For example, type **D:**, and then press Enter.
- b. Type **CD\Nortel\NCCM\bin**, and then press Enter.

- 3 Type **nicomsetup**, and then press Enter.

**Result:** All information is reset in the Address Table tab and Site Table tab.

- 4 Open the Configuration utility to verify that the new information has been added to Address Table tab and Site Table tab.

For more information on adding sites in a network, refer to the *Network Control Center Administrator's Guide*.

### To add a site (NCC mode only)

- 1 Log on to the NCC as **NGenSys**.
- 2 From the Windows Start menu, choose Run.
- 3 In the Run window, type **nbconfig -admin**.  
**Result:** The Nbconfig window appears.
- 4 Click the Site Table tab.
- 5 Click Add.
- 6 Enter the CLAN IP address of the site that you want to add.
- 7 Click OK.

For more information on adding sites in a network, refer to the *Network Control Center Administrator's Guide*.

# Database Expansion utility

## Introduction

The Database Expansion utility enables you to expand the size of your Symposium Call Center Server database by

- expanding it into a new partition
- expanding it into additional space on an enlarged partition following a conversion or platform migration

The Database Expansion utility also allows you to reserve new partitions for non-database use.

## Before you begin

Ensure that you create a Platform Recovery Disk and perform a database backup.

**Note:** If there is a hardware problem with an added partition or a segmentation problem in the database, a database expansion will fail, and you will not be able to recover your system without a Platform Recovery Disk and a database backup.

For more information on creating a Platform Recovery Disk and a database backup, see Chapter 14, “Backing up data.”

## Expanding the database into a new partition

If you create a new partition on your server for database use, you must use the Database Expansion utility to expand the database into that partition. When you run the Database Expansion utility, it automatically detects any usable new partitions that are not already in use. When it detects usable new partitions, the utility assumes that you want to expand your database into them.

The utility automatically selects a partition for expansion if

- it is not currently being used for a database

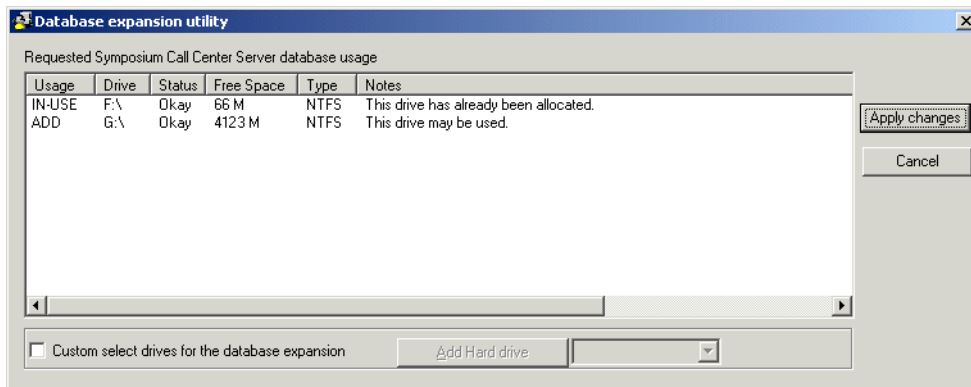
- it is formatted as NTFS
- it has at least 2.1 Gbytes of free space

In the following example, a new partition for the server's database has been created and labeled G. This procedure explains how to use the Database Expansion utility to expand the database into the new G partition.

### To expand the database into a new partition

- 1 From the Windows Start menu, choose Programs → Symposium Call Center Server → Database Expansion Utility.

**Result:** The Database expansion utility dialog box appears:

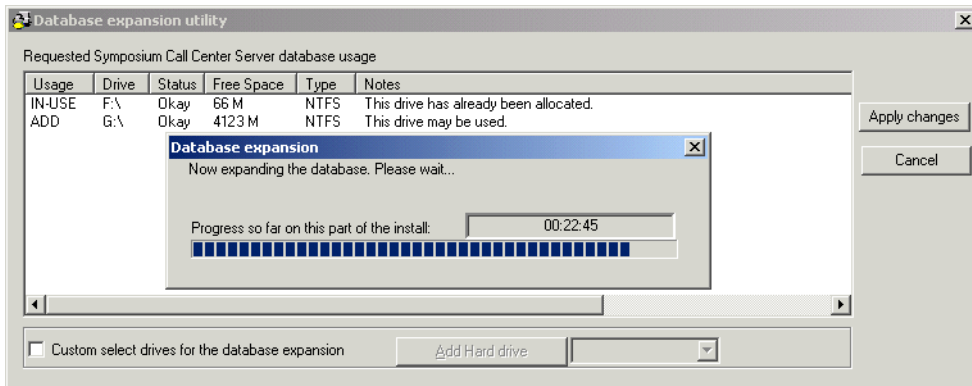


In this example, the Database Expansion utility has detected that partition G is usable for expansion and has assumed that you want to use it. The system assigns the value ADD in the Usage field to the partition G. (It shows the existing database partition, F, as IN-USE.)

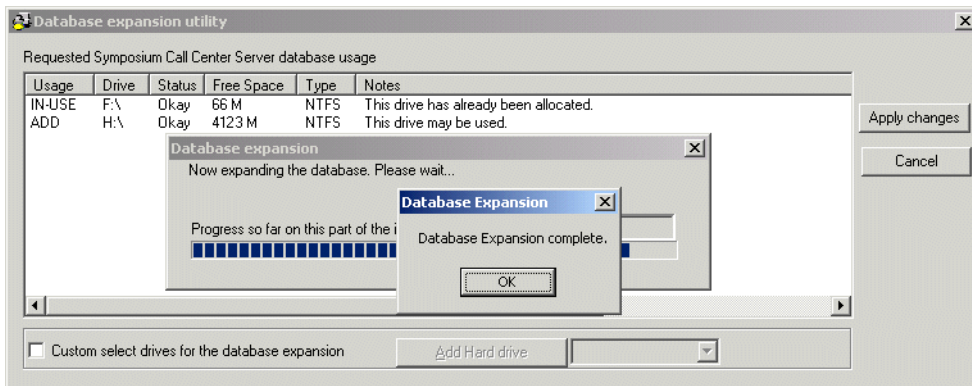
**Note:** If you have added a partition into which you do *not* want your database to expand (for example, if you want to reserve a partition for trace files or third-party full backup images), you must tell the Database Expansion utility not to use this partition. To do this, click the check box beside Custom select drives for the database expansion, select the partition letter you want to change from the drop-down list, and click “Do Not Create Database.” This marks the drive letter as unavailable, and the Usage field changes to “---”.

- 2 To expand the database to partition G, click Apply Changes.

**Result:** A series of dialog boxes appear stating that services are being shut down. Once the process is complete, the following dialog box appears:



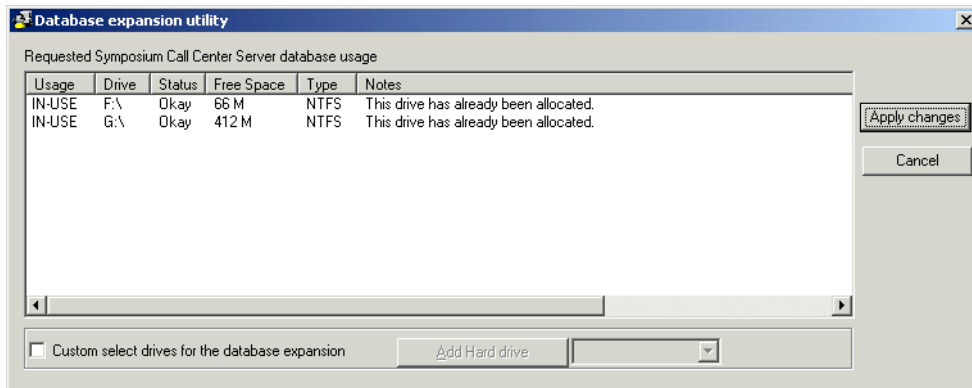
When the expansion is complete, the following dialog box appears:



- 3 Click OK.

**Result:** The Database Expansion utility closes.

**Tip:** If you want to confirm that your database has been expanded into your new partition, restart the Database Expansion utility to check that the new partition now shows the value IN-USE. In this example, you should see the following:



- 4 Restart the Symposium Call Center Server services by choosing Start → Symposium Call Center Server → Startup.
- 5 Create another Platform Recovery Disk. For instructions, see “Creating a Platform Recovery Disk” on page 510.
- 6 Back up the database. For instructions, see Chapter 14, “Backing up data.”

## Expanding the database to make use of a larger partition following conversion or platform migration

You can expand the database to make use of a larger partition following conversion or platform migration. This is only necessary when one or more of the database partitions on the new server is larger than the original server’s database partitions. During a conversion or a platform migration, database expansion is not automatic. If you want to expand a partition to take advantage of extra space, you must do it manually using this utility.

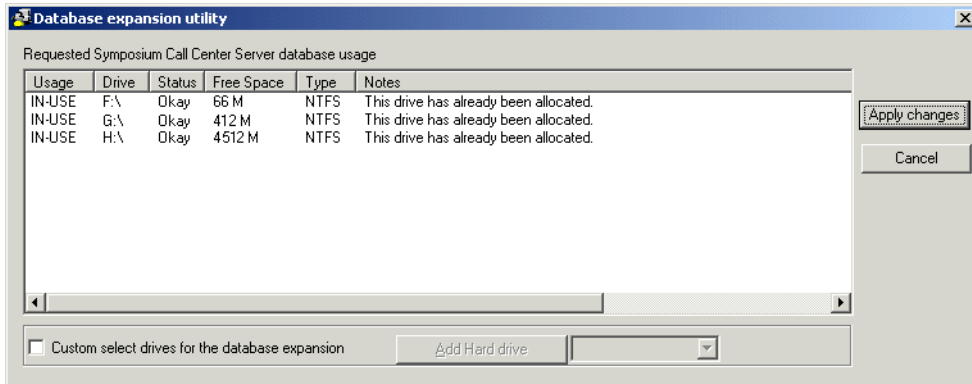
For example, you have completed a platform migration from your original server to a new server. Your original server has database partitions F, G, and H. Your new server also has database partitions F, G, and H. However, the H partition on your new server is 8 Gbytes and the H partition on the original server is only 4 Gbytes. To make use of the additional 4 Gbytes on the new server’s H partition, you must use the Database Expansion utility to expand the H partition.

The following procedure explains how to expand the H partition in this example.

## To expand the database to make use of a larger partition during conversion or platform migration

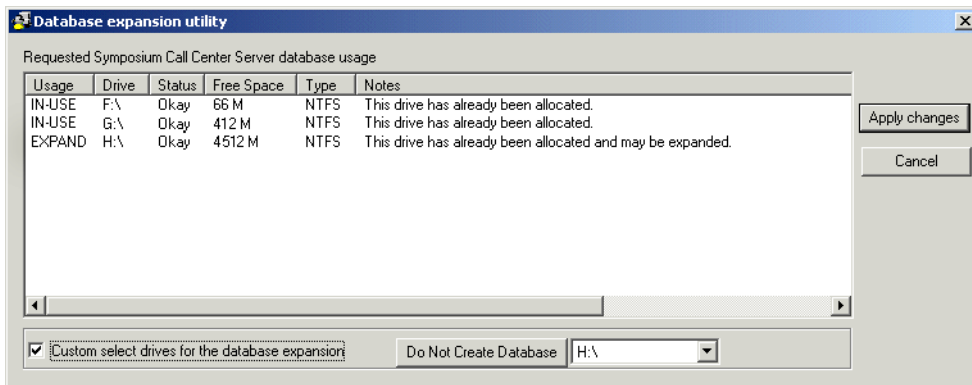
- 1 From the Windows Start menu, choose Programs → Symposium Call Center Server → Database Expansion Utility.

**Result:** The Database Expansion utility dialog box appears. Note that the H partition shows over 4 Gbytes of free space.



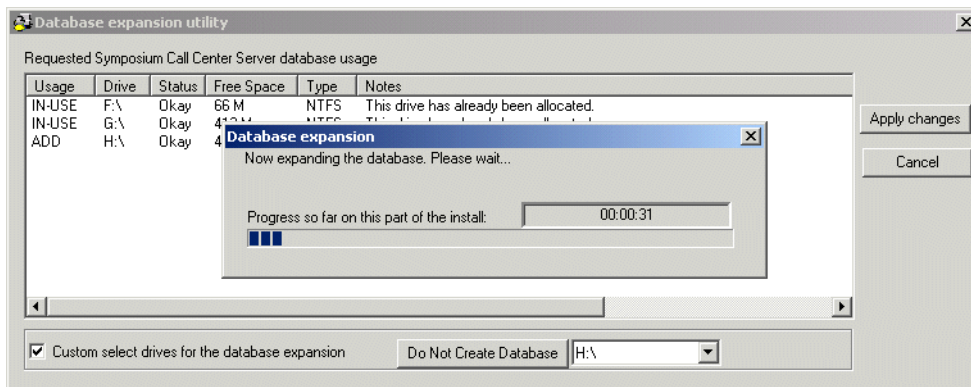
- 2 Click the check box beside **Custom select drives for the database expansion**.
- 3 From the drop-down list, select the drive you want to expand (in this case, H).
- 4 Click Expand Database.

**Result:** The Usage field for the selected drive changes to *EXPAND*:

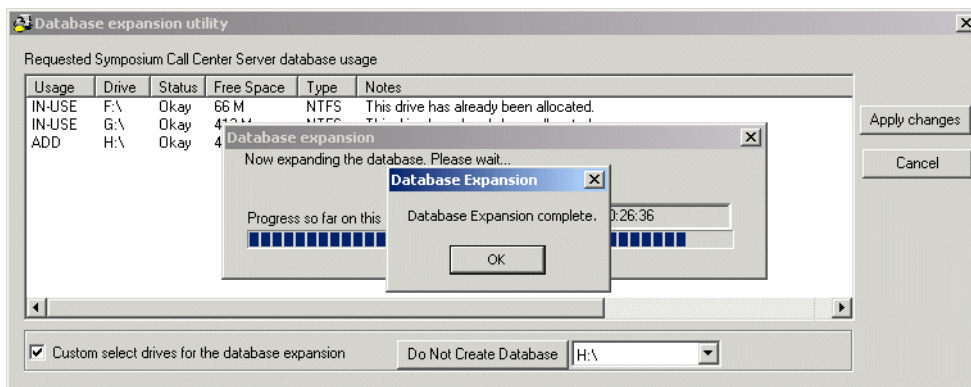


- 5 To expand the database into drive H, click Apply Changes.

**Result:** A series of dialog boxes appear stating that services are being shut down. Once the process is complete, the following dialog box appears:



When the expansion is complete, the following dialog box appears:

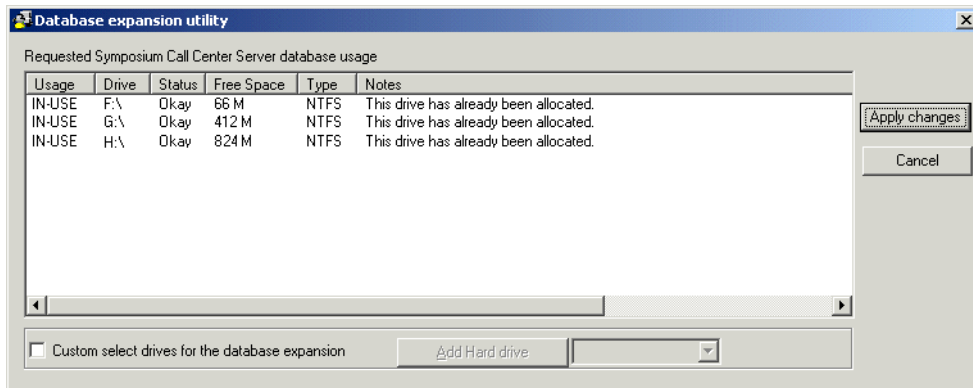


- 6 Click OK.

**Result:** The Database Expansion utility closes.

**Tip:** If you want to confirm that your database has been expanded to make use of the larger partition, restart the Database Expansion utility to check that the new partition shows the value IN-USE, and that the amount of free space has been reduced accordingly. In this example, you should see the following:





- 7 Restart the Symposium Call Center Server services by choosing Start → Symposium Call Center Server → Startup.
- 8 Create another platform recovery disk. For instructions, see “Creating a Platform Recovery Disk” on page 510.
- 9 Back up the database. For instructions, see Chapter 14, “Backing up data.”

## Usage column entry meanings

Each line in the Usage column displays one of the following entries:

| Usage entry | Meaning                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|-------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| IN-USE      | The drive is currently in use for the database.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| EXPAND      | <p>The drive is currently in use, but you have indicated that you want to expand the database to take advantage of more disk space.</p> <p><b>Note:</b> This is only necessary when performing a conversion or a platform migration, and one or more of the database partitions on the new server is larger than the original database partition. During a conversion or a platform migration, database expansion is not automatic. If you want to expand the database to take advantage of extra space, you must do it manually using this utility.</p> |

---

| Usage entry | Meaning                                                                                                                                                                                                                                                                                                            |
|-------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ADD         | The drive is currently not in use, but you want to use it. When you add a new partition to the server, the system automatically assigns it the value ADD.                                                                                                                                                          |
| ---         | <p>The drive is currently not in use because you have reserved it for something other than database use. This drive is not selected for database expansion, but you can select it if it</p> <ul style="list-style-type: none"><li>■ has at least 2.1 Gbytes of free space</li><li>■ is formatted as NTFS</li></ul> |

---

# Database Restore

## Introduction

Use this utility to restore a corrupted database or to restore a database as part of a migration or conversion procedure. You can restore your database from either

- a remote directory on a network computer
- a tape in a local tape drive

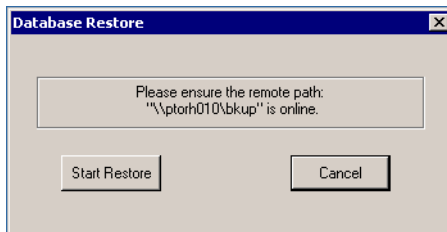
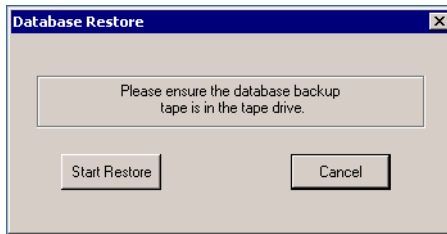
You must have backed up your database to the same location from which you want to restore it.

For detailed instructions on setting up both of these options, see “Setting up remote directory backups” on page 522, and “Setting up tape backups” on page 520.

## To access the Database Restore utility

- 1 From the Windows Start Menu, choose Programs → Symposium Call Center Server → Database Restore.

**Result:** The Database Restore dialog box appears. The dialog box you see varies depending on whether you have set up your system to back up files to a tape or a remote directory.



- 2 If you are restoring from a tape, make sure the backup tape is in the tape drive.
- 3 If you are restoring from a remote directory, make sure that the remote computer is online.
- 4 Click Start Restore to restore the database.

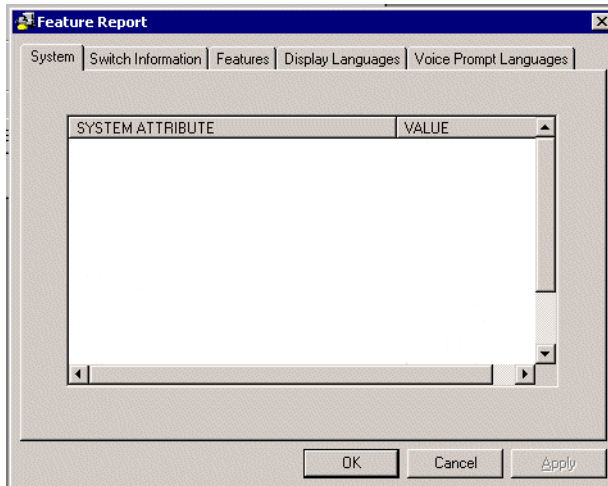
## Checking the restore status

The Database Restore utility creates a log file, named Restore.log, in the path D:\\Norte1\\data\\backup\\RestoreLogs. Use a text editor, like Notepad, to open the log file and check the status of the restore.

# Feature Report

## Introduction

Use this utility to display system information and a list of installed features. The following illustration shows the Feature Report tabs:



## Modifiable information

Only the Switch Information tab contains information that you can modify. All other tabs contain read-only information.

## To start the Feature Report utility

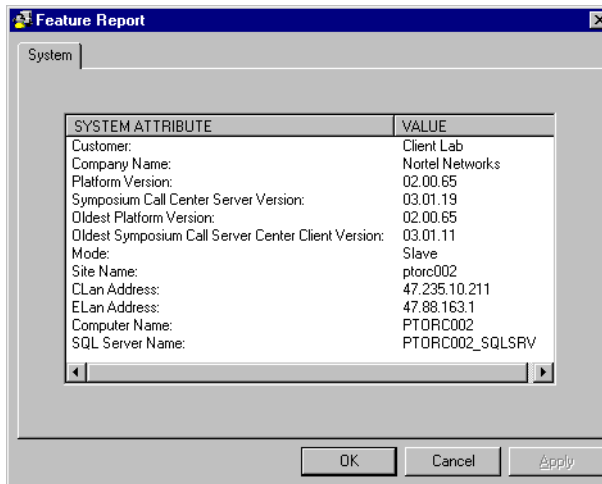
From the Windows Start menu, choose Programs → Symposium Call Center Server → Feature Report.

**Result:** The Feature Report window appears. See the following pages for a description and example of the Feature Report tabs.

## Feature Report tabs

### System

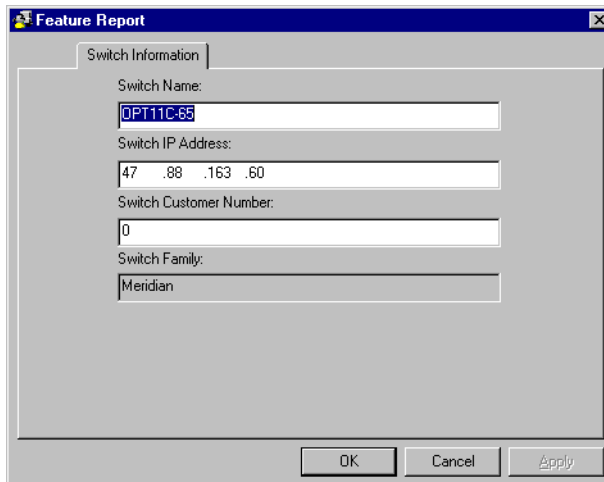
The System tab lists information entered at installation, including computer name, IP addresses, and site name. You cannot edit any of the items showing in this tab, as it contains read-only information.



**Note:** In a networked environment, the NCC site name and IP address are automatically updated after the server is added to the list of sites on the NCC.

## Switch Information

The Switch Information tab lists switch information and parameters. This information is entered during server software installation, but you can modify it after installation on this tab.



The image shows a Windows-style dialog box titled "Feature Report" with a close button (X) in the top right corner. It has a tab labeled "Switch Information". Inside the dialog, there are five text input fields with labels to their left:

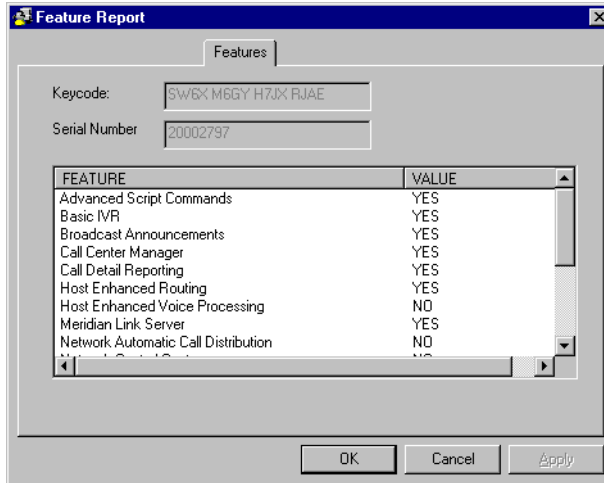
- Switch Name:
- Switch IP Address:
- Switch Customer Number:
- Switch Family:

At the bottom of the dialog, there are three buttons: "OK", "Cancel", and "Apply".

## Features

The Features tab lists product features, and specifies which features are installed on the server. The features that are installed depend on what features were purchased and the keycode entered during server installation.

This tab contains read-only information.



The image shows a 'Feature Report' dialog box with a 'Features' tab selected. It contains fields for 'Keycode' (SW6X M6GY H7JX RJAE) and 'Serial Number' (20002797). Below these is a table listing features and their installation status.

| FEATURE                             | VALUE |
|-------------------------------------|-------|
| Advanced Script Commands            | YES   |
| Basic IVR                           | YES   |
| Broadcast Announcements             | YES   |
| Call Center Manager                 | YES   |
| Call Detail Reporting               | YES   |
| Host Enhanced Routing               | YES   |
| Host Enhanced Voice Processing      | NO    |
| Meridian Link Server                | YES   |
| Network Automatic Call Distribution | NO    |

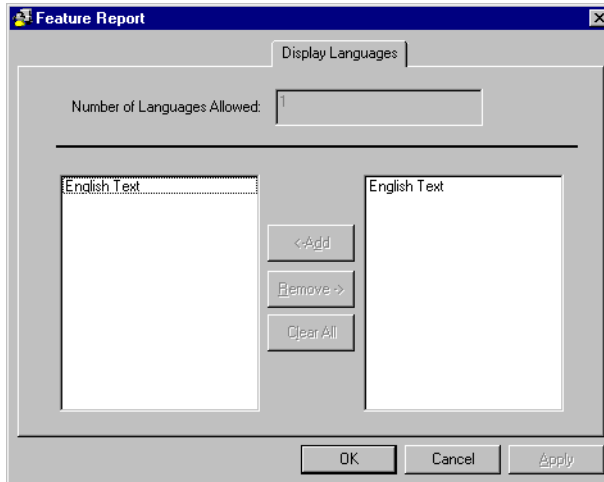
At the bottom of the dialog are 'OK', 'Cancel', and 'Apply' buttons.

**Note:** The value YES indicates that a feature is installed. The value NO indicates that the feature is not installed.



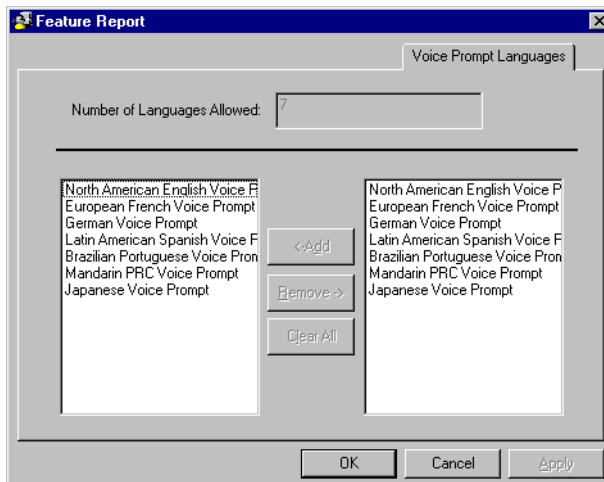
## Display Languages

The Display Languages tab lists the languages that are installed for information that appears on the screen. This tab contains read-only information. The Add, Remove, and Clear All buttons are disabled.



## Voice Prompt Languages

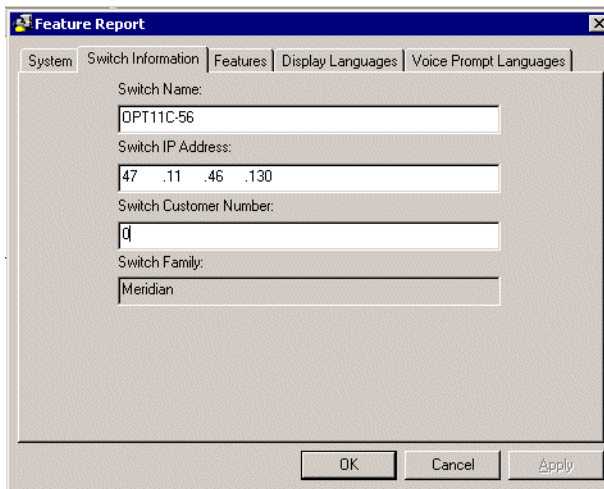
The Voice Prompt Languages tab lists the languages that are installed for voice prompts. This tab contains read-only information. The Add, Remove, and Clear All buttons are disabled.



## To view or change switch information

- 1 From the Windows Start menu, choose Programs → Symposium Call Center Server → Feature Report.
- 2 Select the Switch Information tab.

**Result:** The Switch Information tab appears. The following example is for a server connected to a Meridian 1/CSE 1000 switch. For servers connected to a DMS/MSL-100 switch, the Switch Information tab shows different information.

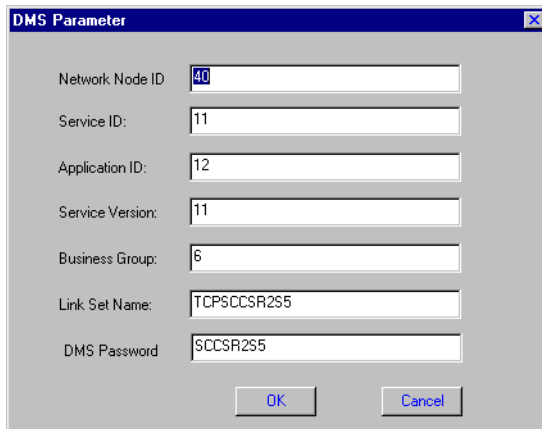


The screenshot shows a Windows-style dialog box titled "Feature Report". It has five tabs: "System", "Switch Information", "Features", "Display Languages", and "Voice Prompt Languages". The "Switch Information" tab is selected. Inside the tab, there are five text input fields with labels to their left: "Switch Name:" with the value "OPT11C-56", "Switch IP Address:" with the value "47 .11 .46 .130", "Switch Customer Number:" with the value "d", and "Switch Family:" with the value "Meridian". At the bottom of the dialog box are three buttons: "OK", "Cancel", and "Apply".

- 3 Modify any switch information, if required.

- 4 For DMS/MSL-100 systems, click Edit DMS Switch Parameters. For Meridian 1/CSE 1000 systems, there is no additional switch parameters screen.

**Result:** The DMS Parameter dialog box appears.



The screenshot shows a 'DMS Parameter' dialog box with the following fields and values:

| Field           | Value      |
|-----------------|------------|
| Network Node ID | 40         |
| Service ID      | 11         |
| Application ID  | 12         |
| Service Version | 11         |
| Business Group  | 6          |
| Link Set Name   | TCPSCSR2S5 |
| DMS Password    | SCCSR2S5   |

Buttons: OK, Cancel

- 5 Modify switch parameters, if required.

- 6 To save your changes, click OK.

**Result:** The Switch Information tab reappears.

- 7 To save your changes, click OK.

**Result:** The system prompts you to restart the server.

- 8 Restart the server.

**Result:** The switch information is now updated on the server.

# Migration

## Introduction

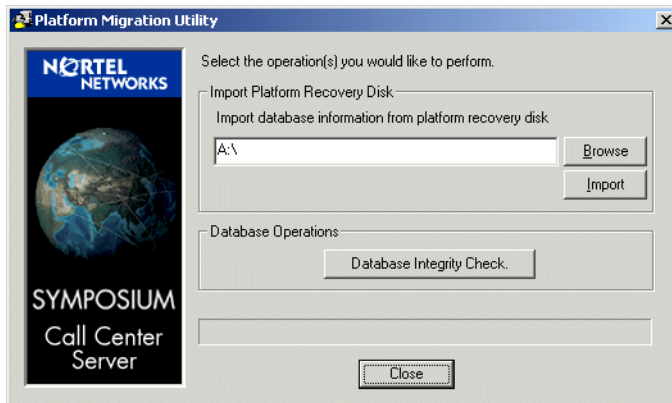
Use this utility

- after installation, upgrade, conversion, or changes to the server configuration, to import database information from a Platform Recovery Disk. For more information on creating the Platform Recovery Disk, see “To create a Platform Recovery Disk” on page 510.
- to perform a Database Integrity Check on the server’s database

## Accessing the Migration utility

From the Windows Start menu, choose Programs → Symposium Call Center Server → Migration.

**Result:** The Platform Migration Utility dialog box appears.



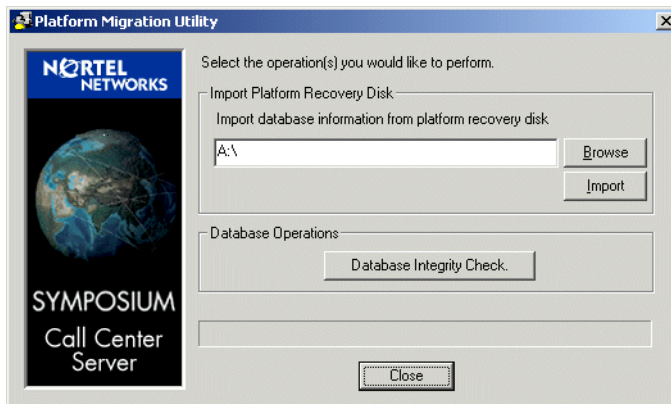
## Performing a Database Integrity Check

You can perform a Database Integrity Check to repair the database allocation map and the index allocation map in your database. This process can take several hours, depending on the size and state of your database, and the speed of your server. This procedure automatically takes the server offline for the duration of the check, so you must plan the timing of these checks accordingly.

### To perform a database integrity check

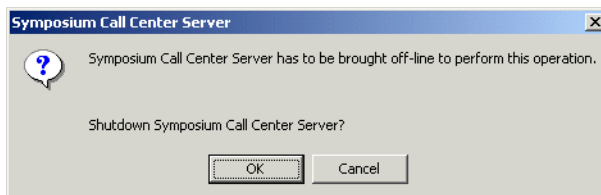
- 1 Log on to the server as **Administrator** or **NGenSys**.
- 2 From the Windows Start menu, choose Programs → Symposium Call Center Server → Migration.

**Result:** The Platform Migration Utility dialog box appears.



- 3 Click Database Integrity Check.

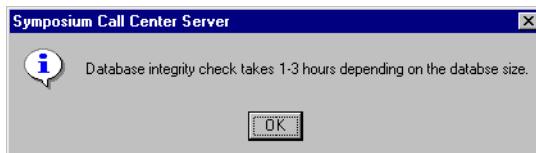
**Result:** The following dialog box appears:



- 4 Click OK.

**Result:** The system displays messages as it checks the status of each service running on the server.

- 5 Wait until the following dialog box appears:



- 6 Click OK to start the database integrity check.

**Result:** A DOS window appears on the screen. Do not close this window. The database integrity check takes from 1 to 3 hours to complete. You may not see any activity on the screen, but you should notice continuous disk activity.

- 7 Wait until the following dialog box appears:



- 8 Click OK.
- 9 Click Close to close the Platform Migration Utility dialog box.
- 10 Check the database check log (C:\DbChk.log) for database errors. To do this, use a text editor (such as Notepad).

When checking the log file, search for key words such as ERROR or MSG. Contact your Nortel Networks customer support representative for any detected database error. *Do not* put the server into service with any detected database errors, even though it may seem to be functioning normally.

**Note:** If you completed this procedure as part of a server recovery scenario or a platform migration, return to the chapter that referenced this procedure now. That chapter tells you what procedure to perform next.

## To import database information from the Platform Recovery Disk

You can use the Migration utility to import database information during conversion, migration, and recovery procedures. You can import the information from a Platform Recovery Disk located either on a floppy disk or in a remote directory.

- 1 From the Windows Start menu, click Programs → Symposium Call Center Server → Migration.

**Result:** The Platform Migration Utility dialog box appears. The system defaults to a floppy drive located on drive A.

- 2 If your Platform Recovery Disk is located on a floppy disk, insert it in the drive and click Import to import the database information.

**Note:** If your Platform Recovery Disk is located in a remote directory, click Browse to navigate to the directory. Then, when you have selected the directory, click Import.

- 3 The system imports the data and notifies you when the process is complete.

# Network DB Backup Path

## Introduction

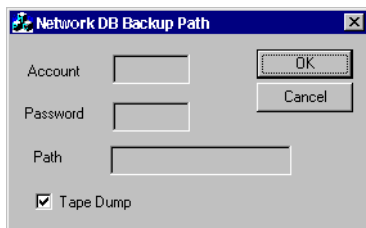
You can use the Network DB (database) Backup Path utility to select whether to back up your database to a remote directory on a network computer, or to a tape. If you choose to perform a backup to a remote directory, use this utility to enter the account information and the path of the remote directory in Symposium Call Center Server. If you choose to perform a backup to a tape, use this utility to select the tape option.

**Note:** If you choose the remote directory option, you must set up the remote directory and user accounts on the server in Symposium Call Center Server and the remote computer before using this utility. For more information, see “Setting up remote directory backups” on page 522.

## To start the Network DB Backup Path utility

From the Windows Start menu, choose Programs → Symposium Call Center Server → Network DB Backup Path.

**Result:** The Network DB Backup Path window appears.



## To select the tape backup option

For more information on tape backups, see “Setting up tape backups” on page 520.



- 1 From the Windows Start menu, choose Programs → Symposium Call Center Server → Network DB Backup Path.

**Result:** The Network DB Backup Path window appears.

- 2 Ensure that the Tape Dump check box is selected.
- 3 Click OK.

**Result:** The next scheduled backup will go to the tape drive.

## To select the remote directory backup option

Before you choose this option, you must first complete a series of steps to set up the connection between the server in Symposium Call Center Server and the remote directory. For more information, see “Setting up remote directory backups” on page 522.

- 1 From the Windows Start menu, choose Programs → Symposium Call Center Server → Network DB Backup Path.
- Result:** The Network DB Backup Path window appears.
- 2 In the Network DB Backup Path window, ensure that the Tape Dump check box is deselected.
  - 3 In the Account box, type the User Name that you assigned to the account on both the network computer and the server.
  - 4 In the Password box, type the password that you assigned to the account on both the network computer and the server.
  - 5 In the Path box, type the network path for the shared directory that you created on the network computer. Use the following format:

**computername\sharename**

- 6 Click OK to save your settings and exit.

**Result:** Symposium Call Center Server is now set to back up the database to the remote directory on the network computer.

- If you want to schedule a backup, see “Scheduling a backup” on page 535.
- If your backup is already scheduled, the system automatically sends the database backup files to the remote directory.

# PEP Viewer

## Introduction

You can use the Product Enhancement Package (PEP) Viewer utility to view a list of all PEPs and Service Update packs (SUs) that have been installed on the server. Use this utility before installing a new PEP or SU to verify that it has not already been installed.

You can also use the PEP Viewer utility to remove all PEPs and SUs installed on the server. You can use this feature when you are installing new PEPs and SUs on the system and want to remove all existing PEPs and SUs from the system. You can also use it as part of a recovery scenario or when you want to remove everything and use the server for a different purpose.

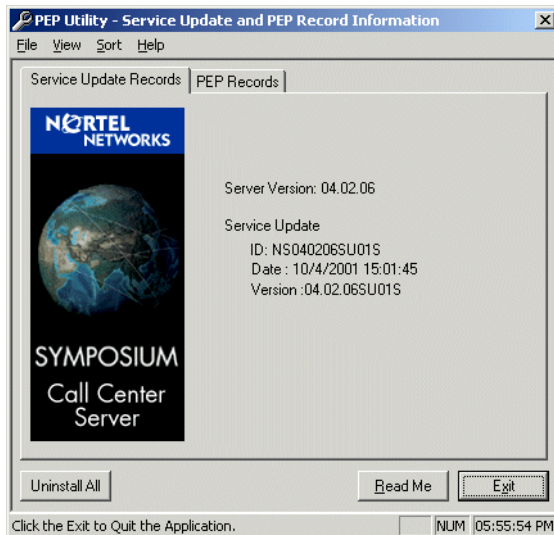
**Note:** The feature described above is available only if you have a Release 4.2 Service Update pack installed on your server.

You cannot use this utility to remove specific PEPs or SUs. Instead, you must use the Windows Add/Remove Programs utility. For more information, see “Uninstalling PEPs or Service Update packs from the server” on page 167.

## To start the PEP viewer utility

From the Windows Start menu, choose Programs → Symposium Call Center Server → PEP Viewer.

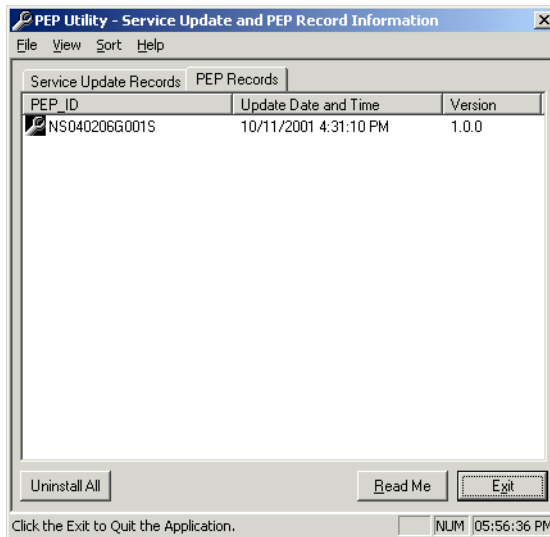
**Result:** The PEP Utility - Service Update and PEP Record Information window appears, displaying the latest installed SU.



## To view a list of all the PEPs installed on a server

Click the PEP Records tab.

**Result:** The list of installed PEPs appears.



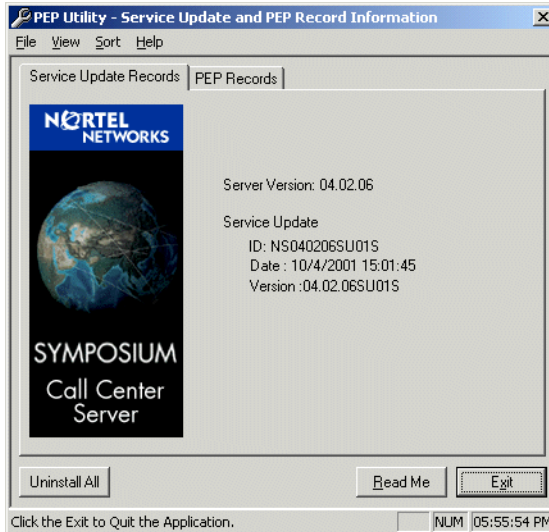
**Tip:**

- Double-click a PEP to display its readme file.
- Use the Sort menu to sort the PEPs by ID or date.

## To remove all the PEPs and SUs installed on a server

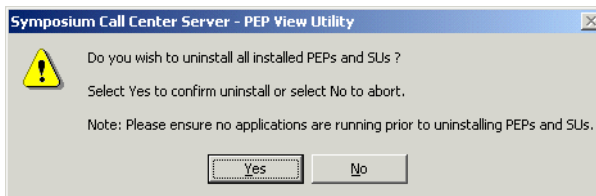
- 1 Make sure all running applications are closed.
- 2 From the Windows Start menu, choose Programs → Symposium Call Center Server → PEP Viewer.

**Result:** The PEP Utility - Service Update and PEP Record Information window appears.



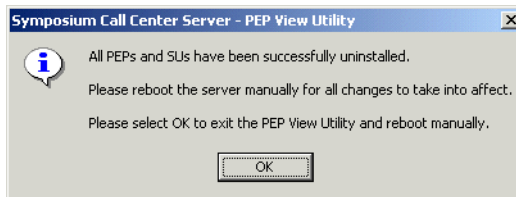
- 3 To remove all the PEPs and SUs installed on the server, click Uninstall All.

**Result:** The following window appears:



- 4 Click Yes.

**Result:** The PEPs and SUs are uninstalled and the following window appears:



- 5 Click OK.

**Note:** You must restart the system to ensure that all the changes take effect.

# Registry Maintenance

## Introduction

Use this utility to perform a registry comparison between two remote machines, a remote and a local machine, or two subkeys on the local machine. This utility also has backup and restore capabilities.

The comparison picks up any difference between the two registry entries, such as values with the same name but different data, and values or subkeys that exist in one registry but not on the other. Filtering options are available.

## To access the Registry Maintenance utility

From the Windows Start menu, choose Programs → Symposium Call Center Server → Registry Maintenance.

**Result:** The regexam window opens. From this window, you can perform the following tasks:

- Compare the registry on the server PC with the registry on a different PC.
- Compare the structure of the registry with the structure in an input file. Any differences between the two are noted, including different data and missing/extra keys/values. The input file is editable, and you can customize it to have a set or range of accepted values for certain keys instead of a fixed value.
- Write (dump) the structure of the registry starting from a given subkey. This option is an easy method for generating an initial input file for the detection option.
- Restore an earlier version of the registry.

# Server Setup Configuration

## Introduction

Use the Server Setup Configuration utility to

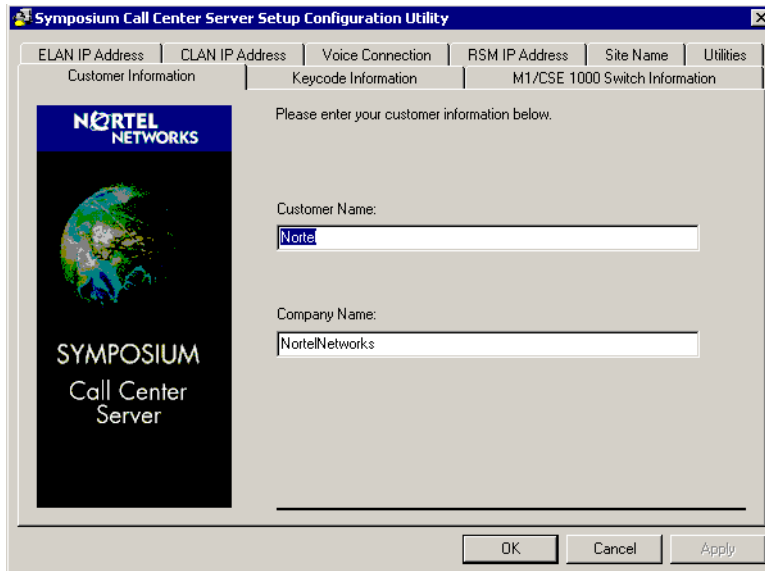
- configure Symposium Call Center Server and database after performing a new installation. For more information on the software and database installation process, see “Configuring the server and database (phase 3)” on page 136.
- enter server configuration data after reinstalling the server software and performing a platform migration
- (if you have installed Symposium Call Center Server Service Update NS040206SU07S) configure the connection to your voice processing system
- import server configuration data from a file, or export configuration data to a file
- create a Platform Recovery Disk
- enable new features by upgrading your keycode



## To start the Server Setup Configuration utility

From the Windows Start menu, choose Programs → Symposium Call Center Server → Server Setup Configuration.

**Result:** The Server Setup Configuration Utility window opens, displaying a series of tabs.



## Updating server configuration information

After you have successfully installed the server software, you can use the Server Setup Configuration utility to update configuration data that has changed. After you update the information and click OK in any of the tabs, the system

- validates all updated data that you have entered and notifies you if it is incorrect
- verifies that the Symposium Call Center Server computer name matches the current database computer name. If the names are different, then the Server Setup Configuration utility updates the database name to match the server's computer name.

**Note:** You can also use the Computer Name Sync utility to perform the same verification and synchronization. For more information on this utility, see “Computer Name Sync” on page 600.

- asks if you want to create a Platform Recovery Disk. For more information, see “To create a Platform Recovery Disk” on page 510.
- prompts you to restart the server to register the changed information

You can update configuration information in the following tabs:

- **Customer Information** Use this tab to change your customer name or company name.
- **Keycode Information** Use this tab to enter a new serial number (or dongle number for DMS/MSL-100 systems) and keycode when you enable new features on your server. When you click OK, the system verifies that the numbers are valid, and that they enable new features.

**Note:** You cannot enter a number for a version of the software that is lower than that which you currently have installed.

When you enter a keycode and press OK, the system also validates whether it matches the serial number, and that the server and switch type corresponding to the new keycode have not changed from the previous keycode.

- **DMS/M1/CSE 1000 Switch Information** Use this tab to update switch information, such as the switch name, IP address, and customer number.

**Note:** You cannot enter switch information on the NCC server.

- **ELAN IP Address** Use this tab to update the ELAN IP address of the server.

**Note:** If you are updating a Network Control Center server, you do not need an ELAN IP address.

- **CLAN IP Address** Use this tab to update the CLAN IP address of the server.
- **Voice Connection** This tab displays if you have installed Symposium Call Center Server Service Update NS040206SU07S. Use this tab to configure the connection to the voice processing system (CallPilot or Meridian Mail). For more information, see the *Symposium, M1/CSE 1000, and Voice Processing Guide*.
- **RSM IP Address** Use this tab to update the Real-Time Statistics Multicast (RSM) IP address of the server.

- **Site Name** Use this tab to change the site name for Symposium Call Center Server.

**Note:** If you change the IP address of a server in Symposium Call Center Server, it impacts other applications that connect to the server, such as Symposium Web Client. Therefore, when you change the IP address, you must notify the Symposium Web Client administrator.

### **Additional steps required for servers in a networking environment**

If you make changes to the ELAN, CLAN, or site name on either an NCC server or a server that is connected to an NCC server for networking, you must perform some additional steps after making the change in the Server Setup Configuration utility.

---

|                                                      |                                                                                                                                                                                                       |
|------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| If you change the CLAN or site name of an NCC server | using the Configuration (nbconfig) utility on the NCC server, add all of the sites in your multi-site call center. This updates the servers in the network with the changed information from the NCC. |
|------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

---

|                                                                                         |                                                                                                                                                                                                            |
|-----------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| If you change the CLAN, ELAN, or site name of a nodal server connected to an NCC server | using the Configuration (nbconfig) utility on the NCC server, remove and then re-add the changed nodal server. This updates the servers in the network with the changed information from the nodal server. |
|-----------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

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For more information, refer to the *Network Control Center Administrator's Guide* (see the section titled "Configuring the communications database").

## Adding server features with a keycode upgrade

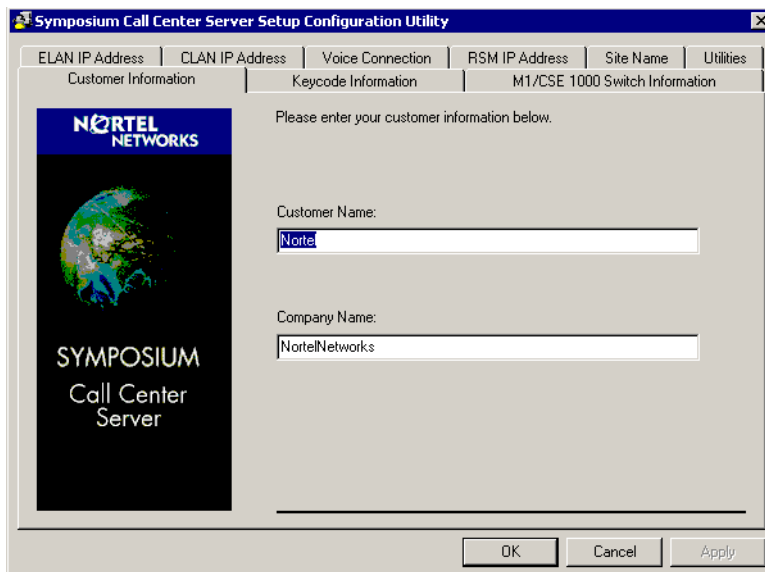
Use the Keycode Information tab in the Server Setup Configuration utility to enable new features on your server. When you purchase the new features, you are given a new keycode. Type this keycode in the Keycode Information tab and press OK to reconfigure your system and activate the new features.

**Note:** You cannot enter a keycode for a version of the software that is lower than that which you currently have installed.

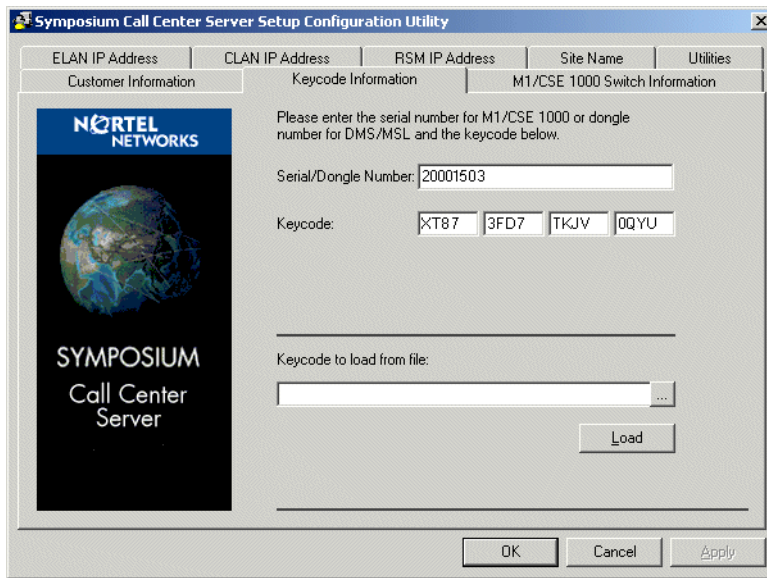
### To upgrade the Symposium Call Center Server keycode

- 1 From the Windows Start menu, choose Programs → Symposium Call Center Server → Server Setup Configuration.

**Result:** The Server Setup Configuration Utility window opens, displaying a series of tabs.



- 2 Click the Keycode Information tab.



The image shows a screenshot of the "Symposium Call Center Server Setup Configuration Utility" window. The window has a title bar with the text "Symposium Call Center Server Setup Configuration Utility" and a close button. Below the title bar, there are several tabs: "ELAN IP Address", "CLAN IP Address", "RSM IP Address", "Site Name", "Utilities", "Customer Information", "Keycode Information", and "M1/CSE 1000 Switch Information". The "Keycode Information" tab is currently selected. On the left side of the window, there is a logo for "NORTEL NETWORKS" and a graphic of a globe with the text "SYMPOSIUM Call Center Server" below it. The main area of the window contains the following text: "Please enter the serial number for M1/CSE 1000 or dongle number for DMS/MSL and the keycode below." Below this text, there are two input fields: "Serial/Dongle Number:" with the value "20001503" and "Keycode:" with four boxes containing "XT87", "3FD7", "TKJV", and "0QYU". Below these fields, there is a section labeled "Keycode to load from file:" with a text box and a "Load" button. At the bottom of the window, there are three buttons: "OK", "Cancel", and "Apply".

- 3 In the Keycode boxes, type the keycode for the upgraded features.
- 4 Click OK.

**Result:** The system shuts down the services and reconfigures your server setup. After the reconfiguration, the system prompts you to create a Platform Recovery Disk.

- 5 Click OK to create the Disk (or click Cancel if you do not want to create the Disk).

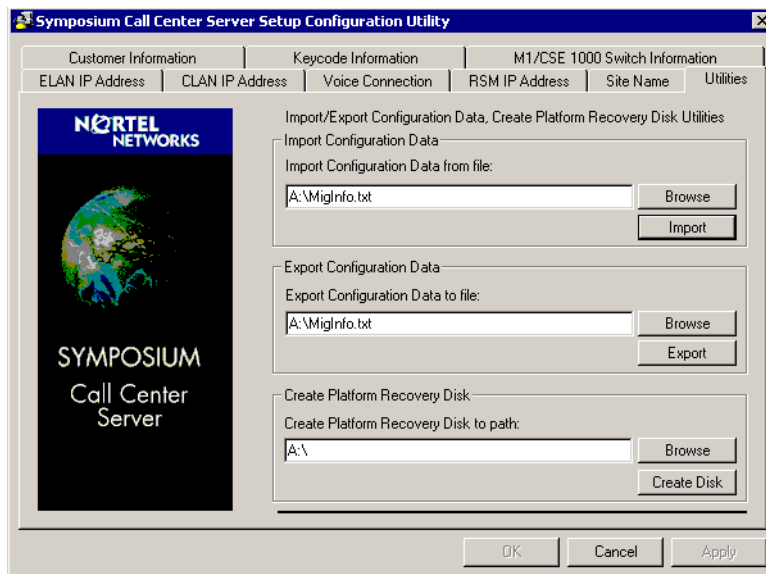
**Result:** The system prompts you to restart the server.

- 6 Restart the server to save your configuration settings.

## Importing and exporting configuration data

You can use the Utilities tab of the Server Setup Configuration utility to import configuration data from a text file, or to export configuration data to a text file. The file can be located on a floppy disk, on a drive that you specify on the server, or in a remote directory.

**Note:** If you specify a remote directory, you must map to the directory before you import or export configuration data.



The system defaults to a file called MigInfo.txt, located on drive A. This is the name of the configuration file that the system saves when you create a Platform Recovery Disk. However, you can specify a different name for this file, and use the Browse feature to navigate to a different save location.

### To import configuration data from a file

You can import configuration data when you need to recover your server setup, or when you need to reinstall the server software. You can import the data from a text file that you have previously exported, or you can import the MigInfo.txt file that the system saved when you created the Platform Recovery Disk.

- 1 In the Utilities tab, type the path and name of the file that you want to import, or click Browse to locate the file.
- 2 Click Import.

**Result:** The system imports the configuration data to the tabs in the Server Setup Configuration utility.

- 3 Click any tab other than the Utilities tab.
- 4 Click OK.

**Result:** The system reconfigures your server setup. After the reconfiguration, the system prompts you to create a Platform Recovery Disk.

- 5 Click OK to create the Disk (or click Cancel if you do not want to create the Disk).

**Result:** The system prompts you to restart the server.

- 6 Restart the server to save your configuration settings.

### To export configuration data to a file

After configuring your server, you can export its configuration settings to a file located on a floppy disk, or in a directory located on the server, or on a remote computer. You can then import this file if you need to recover your server at any point by using the Import function on the Utilities tab.

- 1 In the Utilities tab, type the path and name of the file that you want to export, or click Browse to navigate to the file and save location.
- 2 Click Export.

**Result:** The system exports the configuration data to the specified location.

- 3 After the export is complete, a message box appears informing you that it was successful.
- 4 Click OK.

## Creating a Platform Recovery Disk

When you create a Platform Recovery Disk, the system saves both server and database configuration data in the following four text files:

- **MigInfo.txt** This file contains all the server setup configuration information.
- **dbdvc.txt** This file contains information about the size and location of your database files.
- **dbseg.txt** This file contains information about the data and log segments in your database.
- **rbackup.txt** This file includes details about the user name, password, and path used when you perform a database backup to a remote directory. This is the information entered in the Network DB Backup Path utility.

You can use these files if you have to recover your server. For more information on creating and using the Platform Recovery Disk, see “To create a Platform Recovery Disk” on page 510.



# Shutdown

## Introduction

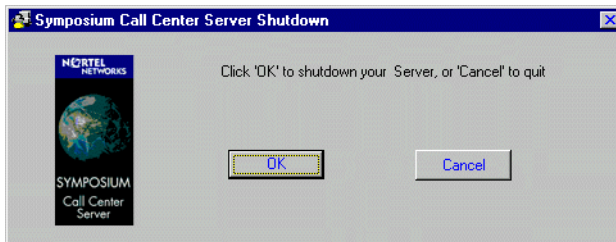
Use this utility to shut down Symposium Call Center Server services. You may have to shut down services prior to performing some maintenance activities.

This utility informs you about the state of each service and describes each action taken by the utility. At the end of the process, the utility provides general information on whether the system is completely shut down, and provides appropriate messages if there are services that cannot be shut down. The utility also reports any errors encountered during the shutdown.

## To shut down the server

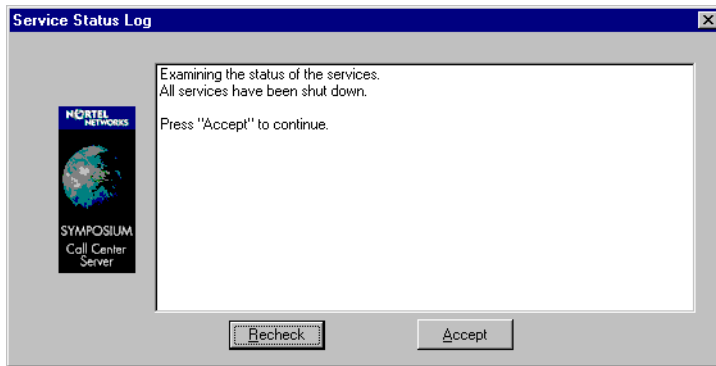
- 1 From the Windows Start menu, choose Programs → Symposium Call Center Server → Shutdown.

**Result:** The Symposium Call Center Server Shutdown dialog box appears.



- 2 Click OK.

**Result:** The utility shuts down all services, and then the Service Status Log dialog box appears. This log displays any services that failed to shut down. Click Recheck to refresh the service statuses.



- 3 If any services are still running, use the control panel Administrative Tools → Services icon to manually shut down the listed services. Then click Recheck to update the status log.
- 4 Click Accept to exit the utility.

# Startup

## Introduction

Use this utility to start up the Symposium Call Center Server services after they have been stopped by the Shutdown utility.

### To start up the server

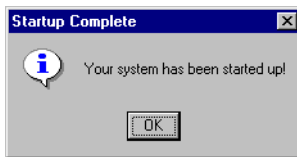
- 1 From the Windows Start menu, choose Programs → Symposium Call Center Server → Startup.

**Result:** The Symposium Call Center Server Startup dialog box appears.



- 2 Click OK.

**Result:** After all services have started, the Startup Complete dialog box appears.



- 3 Click OK.

# System Information

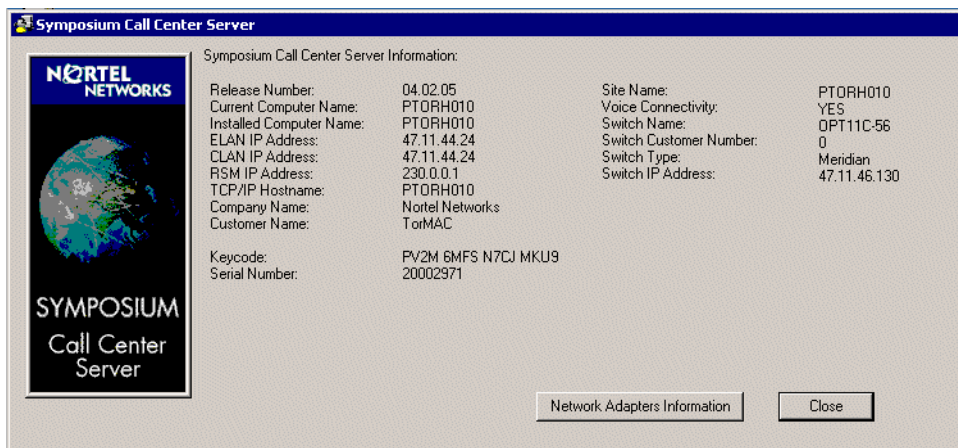
## Introduction

Use this utility to view particulars about the Symposium Call Center Server system, such as names, IP addresses, and system numbers.

## To access the System Information utility

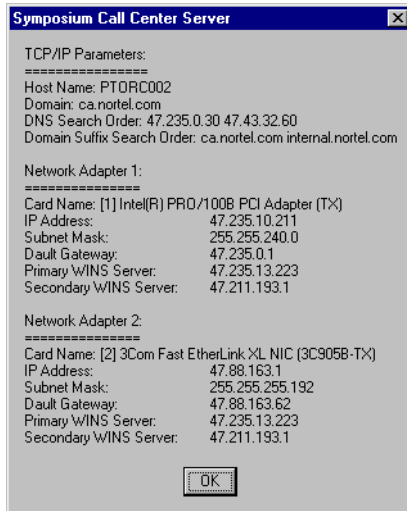
From the Windows Start menu, choose Programs → Symposium Call Center Server → System Information.

**Result:** The Symposium Call Center Server information window appears.



## To obtain Network Adapters Information

You can use this utility to obtain detailed information about network addresses by clicking Network Adapters Information. When you press this button, the following window appears:



After viewing the information on this screen, click OK to return to the System Information utility main window.

# System Monitor

## Introduction

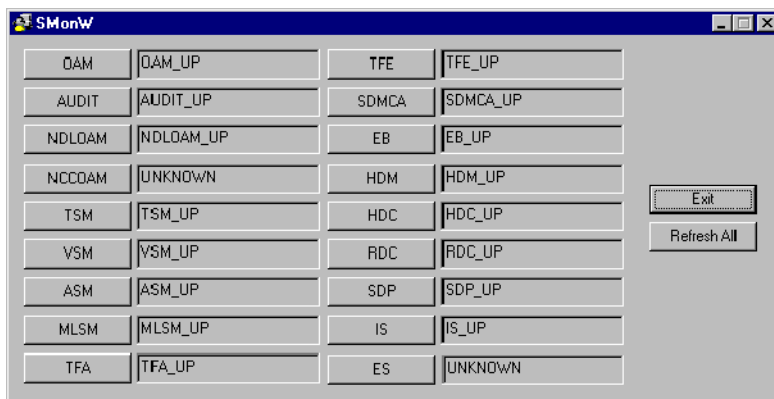
You can use the System Monitor utility to view the current status of all Symposium Call Center Server services.

## To start the System Monitor utility

To start this utility, you must use the Windows Start menu.

From the Windows Start menu, choose Programs → Symposium Call Center Server → System Monitor.

**Result:** The SMonW window appears.



Some services take a few minutes to become active. When a service is running properly on Symposium Call Center Server, the SMonW window shows the status as UP.

If a service has to be reactivated or refreshed, then click Refresh All. To refresh individual services, click the appropriate button.

For more information on the SMonW window, see “Troubleshooting problems with Symposium Call Center Server services” on page 686.

## Chapter 17

---

# Installing and configuring Real-time Statistics Multicast

### In this chapter

|                                                    |     |
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# Overview

## Introduction

If the optional Real-time Statistics Multicast (RSM) feature is installed on your Symposium Call Center Server, you can begin using the RSM service with the default RSM settings, or modify RSM's settings to conform to the requirements of your RSM-dependent applications.



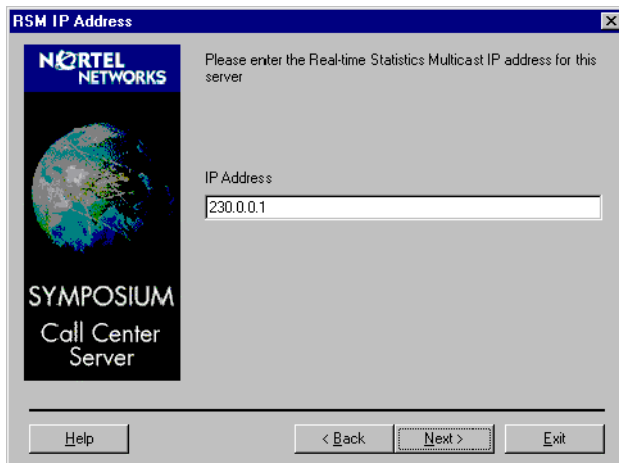
# Installing Real-time Statistics Multicast

## Introduction

RSM is installed during the Symposium Call Center Server installation. The installation process checks to make sure that you have the correct key code for RSM, and then installs the required RSM files on the server. When you install RSM, you must provide the IP multicasting address that will be used to transmit RSM data. The default port numbers and multicast rates for real-time statistics are set automatically.

## Installing Real-time Statistics Multicast

During the installation, you are prompted to enter the IP multicast address that RSM will use to send real-time statistical data.



The RSM IP Address dialog box appears whenever RSM is detected during any one of the following scenarios:

- an initial installation of Symposium Call Center Server
- a conversion, upgrade, or reinstallation of Symposium Call Center Server

For more information on installing the RSM feature in Symposium Call Center Server, see “Installing the server software” on page 121.

After completing the installation, you can do the following tasks:

- Use the mRcv.exe utility to verify that the RSM service is sending data to the appropriate ports. See “To start the mRcv application” on page 673 for more information.
- Accept the default RSM settings provided by the Symposium Call Center Server installation, and begin using the RSM service.
- Modify the default settings to values recommended by your RSM-dependent applications. See “Modifying the Real-Time Statistics Multicast service” on page 664 for more information.

# Modifying Real-time Statistics Multicast settings

## Introduction

After installing the optional Real-Time Statistics Multicast (RSM) feature, you can modify the RSM component's default settings on each Symposium Call Center Server to reflect the requirements of your organization. You can modify the following settings:

- the IP multicast address to which each server in Symposium Call Center Server sends real-time statistics
- the ports at which real-time statistics are received
- the multicast Time To Live (TTL) value for RSM
- the default multicast rate for each port at which real-time statistics are received

This section outlines how to modify and then enable changes to the RSM service on a server in Symposium Call Center Server.

The RSM service consists of the configuration and the data propagation components. RSM settings are configured through the RSM configuration and multicast control utilities. The RSM statistics are transmitted through the Statistical Data Propagator (SDP).

When you have completed your modifications, you must stop and restart the SDP service on Symposium Call Center Server. This service must be aware of IP multicast changes to send the appropriate data.

**Note:** When you modify multicast rates in the Multicast Configuration utility, you must open the Multicast Controller utility and click Apply to activate your changes. See “Modifying IP multicast settings on Symposium Call Center Server” on page 666 for more information.

## Modifying the Real-Time Statistics Multicast service

After the RSM component is installed on each server in Symposium Call Center Server, you can use the following utilities to reconfigure RSM:

- **RTD Multicast Controller Utility (MulticastCtrl.exe):** Use this utility to modify settings for those applications that require that real-time statistics be turned on manually.

**Note:** The real-time statistics groups that you need to turn on or off vary depending upon the applications that are receiving data from the RSM service. Nortel Networks highly recommends that you review the documentation for each RSM-dependent application in Symposium Call Center Server *before* modifying the RSM settings.

- **RTD Multicast Configuration Utility (RSMConfig.exe):** Use this utility to change
  - the IP multicast address
  - the Time To Live (TTL) value for the IP multicast data
  - the IP ports that will send the real-time statistics
  - the multicast rates for the IP ports that will send the real-time statistics

### To modify real-time statistics settings for applications that use the RSM service

The RTD Multicast Controller indicates which statistics will be sent and how they will be collected. Some applications that use RSM set this data automatically while others require manual configuration.

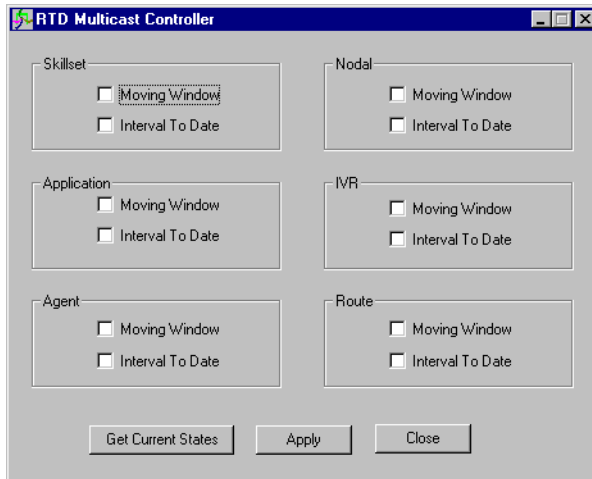
If you need to modify the default settings based on application requirements, or you want to customize statistics to be sent to match the needs of your users, use the RTD Multicast Controller window to select or deselect the appropriate settings.

- 1 From the windows Start menu, click Programs → Windows Explorer.
- 2 Navigate to the folder in which the RSM component is installed:

**[drive]:\Nortel\iccm\bin**

**3** Double-click MulticastCtrl.exe.

**Result:** The RTD Multicast Controller window appears.



**4** Click the Moving Window or Interval To Date check boxes, or both, for each real-time statistics group.

The Meridian 1/CSE 1000 switch real-time statistics groups are

- Skillset
- Application
- Agent
- Nodal
- Route
- IVR

The Digital Multiplex Switch (DMS) real-time statistics groups are

- Skillset
- Application
- Agent
- Nodal

- 5 Click Apply.

**Tip:** You must also use the controller utility's Apply button to activate changes to multicast rates made in the configuration utility. See "To activate a multicast rate modification" on page 669 for more information.

- 6 Click Close.
- 7 To activate new RSM settings on Symposium Call Center Server (with the exception of the multicast rates), stop and start the Statistical Data Propagator (SDP) service.

## Modifying IP multicast settings on Symposium Call Center Server

Perform the following steps to modify the multicast IP settings in Symposium Call Center Server.

**ATTENTION** Nortel Networks highly recommends that you review the documentation for each of the RSM-dependent applications that use the RSM service in Symposium Call Center Server *before* modifying RSM's IP multicast settings.

### To modify the IP multicast settings in Symposium Call Center Server

- 1 From the windows Start menu, choose Programs → Windows Explorer.
- 2 Navigate to the folder in which the RSM component is installed:

**[drive]:\Nortel\iccm\bin**

- 3 Double-click RSMConfig.exe.

**Result:** The RTD Multicast Configuration window appears.

RTD Multicast Configuration

Multicast IP group: 230.0.0.5

Multicast time to live (TTL): 2 (s)

Interval To Date

|              | IP Port: | Multicast Rate: | (ms) |
|--------------|----------|-----------------|------|
| Agent:       | 6060     | 5000            | (ms) |
| Application: | 6020     | 5000            | (ms) |
| Skillset:    | 6040     | 5000            | (ms) |
| Nodal:       | 6080     | 5000            | (ms) |
| IVR:         | 6100     | 5000            | (ms) |
| Route:       | 6120     | 5000            | (ms) |

Moving Window

|              | IP Port: | Multicast Rate: | (ms) |
|--------------|----------|-----------------|------|
| Agent:       | 6070     | 5000            | (ms) |
| Application: | 6030     | 5000            | (ms) |
| Skillset:    | 6050     | 5000            | (ms) |
| Nodal:       | 6090     | 5000            | (ms) |
| IVR:         | 6110     | 5000            | (ms) |
| Route:       | 6130     | 5000            | (ms) |

Registry Value Default Value Apply OK Cancel

### ATTENTION

The IP multicast addresses that support multicasting are 224.0.0.0 through 239.255.255.255, *but* the IP multicast addresses between 224.0.0.0 and 224.0.0.255 inclusive are reserved for routing and topology discovery protocols. The IP multicast addresses that you select for RSM sending and receiving *cannot* be within the 224.0.0.0 and 224.0.0.255 range.

- 4 In the IP Multicast group box, type the IP multicast address that has been designated as the sending address for IP multicasting in Symposium Call Center Server.
- 5 In the IP port boxes, type the IP port for each statistics group.

### ATTENTION

If you change the IP port settings, this can cause some applications that are dependent upon the RSM service to malfunction.

- 6 Change the Multicast time to live (TTL) value to a value that is appropriate for your network.

**ATTENTION**

---

If packets are traveling through more than one router to reach their destination, it is important to change the Multicast time to live (TTL) value to a value that is appropriate for your network and the number of routers that you use. If the TTL value is set too low and the packets have to go through many routers, the real-time multicast statistics may not reach your application.

- 7 To increase or decrease the default multicast rate, enter a new rate in milliseconds for each port in the Multicast Rate boxes.

**ATTENTION**

---

If you change the Multicast Rate for any of the displays listed in RTD Multicast Configuration, it may not produce the refresh rate changes that you anticipate. Refresh rates are dependent upon settings in other applications, as well as those set in the configuration window. In addition, certain applications require a specific multicast rate. Before changing a multicast rate, check the documentation for each application to verify that all applications that receive RSM data will not be affected by the change.

**Note:** If you enter 0 in the Multicast Rate box, you disable the statistic.

**Tip:** If you have made an error in modifying the multicast IP group, TTL, IP ports, or the multicast rates for each port, you can restore the original values by clicking Registry Values or Default Values. Note that if you modify any of these values and click OK or Apply, the appropriate registries are updated with your changes. If you click Registry Values *after* the modifications have been saved to the registry, it has no effect.

- Click Registry Values before you click Apply to retrieve the values stored in the registries. Use this option if you want to cancel a change without having to remember and retype the original values.
- Click Default Values to restore the values that are set when Symposium Call Center Server is installed. Use this option if you have saved changes to the registry that have caused RSM-dependent applications to malfunction, and you want to begin again with the default RSM configuration.



- 8 Click OK.
- 9 To activate new multicast rate settings on Symposium Call Center Server, you must open the configuration utility and click Apply. See "To activate a multicast rate modification" below for more information.

### To activate a multicast rate modification

When you change a multicast rate in the configuration utility, you are only modifying the default value, not the current transmission rate. RSM will continue to transmit data at the current rate until you open the Controller utility and click Apply.

- 1 From the Windows Start menu, choose Programs → Windows Explorer.
- 2 Navigate to the folder in which the RSM component is installed:

**[drive]:\Nortel\iccm\bin**

- 3 Double-click MulticastCtrl.exe.

**Result:** The RTD Multicast Controller window appears.

- 4 Click Apply.
- 5 Click Close.
- 6 To activate new RSM settings on Symposium Call Center Server (with the exception of the multicast rates), stop and start the Statistical Data Propagator (SDP) service.

**Result:** The new multicast rates are retrieved from the appropriate registry, and RSM begins transmitting at the new rate.

## Activating modifications to the RSM service in Symposium Call Center Server

When you modify the RSM service's multicast IP group, TTL, and IP port settings, you must activate the new values on Symposium Call Center Server by stopping and starting the Statistical Data Propagator (SDP) service.

## To activate the Symposium Call Center Server settings

- 1 From the Start menu, choose Settings → Control Panel.
- 2 Click Services.  
**Result:** The Services window opens.
- 3 From the list of services, select the SDP\_Service.
- 4 Click Stop.
- 5 Click Start.
- 6 Click Close.

**Tip:** If you are having problems stopping and starting the SDP\_Service, you can temporarily disable SDP\_Service to stop it. After stopping, reset the service to start automatically, and then restart the service.

- a. Click the SDP\_Service in the Services window.
- b. Click Startup.

**Result:** The Service dialog box appears.

- c. Click Disabled.

**Result:** The SDP\_Service is disabled.

- d. Click OK to return to the Services window.
- e. With the SDP\_Service highlighted, click Stop.

**Result:** The SDP\_Service is stopped.

- f. Click Startup again.

**Result:** The Service dialog box appears.

- g. Click Automatic.

**Result:** The SDP\_Service is set to automatically start when the system starts.

- h. Click OK to return to the Services window.
- i. With the SDP\_Service highlighted, click Start to restart the service.
- j. Click Close.

# Testing the Real-time Statistics Multicast service

## Introduction

After you have installed RSM on a Symposium Call Center Server or modified RSM and restarted SDP\_Service, you can use the Multicast Receive utility (mRcv.exe) to test the RSM service. mRcv.exe displays statistical information according to the settings specified in a configuration file called mRcv.ini.

## Configuring the Multicast Receive utility

The mRcv.exe utility tests the RSM service's send capabilities one port at a time. You can specify which IP address and port the utility should monitor in the [MCast] section of the mRcv.ini file.

### To modify the mRcv.ini file

- 1 From the Windows Start menu, choose Programs → Windows Explorer.
- 2 Navigate to the folder in which the RSM component is installed:

**[drive]:\Nortel\iccm\bin**

- 3 Use a text editor to open mRcv.ini.
- 4 Modify the IP address or the port number, or both.

**Note:** The port numbers listed within the section bordered by # symbols in the .ini file are for reference only and list all of the acceptable port numbers that you can use in your test. See "Sample mRcv.ini file" on page 672 for an example of the information contained in a standard mRcv.ini file.

For example, if you want to test receipt of Skillset - Interval to date data using mRcv.exe, check the port number for Skillset - Interval to date in the .ini file, and then change the Port= setting in the [MCast] section to that port number. If Skillset - Interval to date = 6040 in the .ini file, the [MCast] section of the .ini file should be modified as follows:

```
[MCast]
IP=234.5.6.7
Port=6040
```

---

**ATTENTION** The IP= value must match your IP multicast address.

- 5 Save the mRcv.ini file. After setting the parameters for your test, you can start mRcv.exe to begin the test. See “To start the mRcv application” on page 673 for more information.

### Sample mRcv.ini file

The sample below is the default mRcv.ini file provided by the Symposium Call Center Server installation. If you run the mRcv.exe utility using this .ini file, it will display Skillset - Moving window data sent by RSM, based on the settings in the [MCast] section at the bottom of the file (IP = 234.5.6.7 Port = 6050).

**Note:** The list of port numbers in the mRcv.ini file is for reference only, and each line is “commented out” with the # symbol. You can use these port numbers as an easy-to-access list of valid ports that are being used in the system to display data. The only portion of the .ini file that can be modified is the [MCast] section at the bottom of the file.

```
#####
# mRcv.ini file
#
# Valid port numbers are:
# Application - Interval to date = 6020
# Application - Moving window = 6030
# Skillset - Interval to date = 6040
# Skillset - Moving window = 6050
# Agent - Interval to date = 6060
# Agent - Moving window = 6070
# Nodal - Interval to date = 6080
# Nodal - Moving window = 6090
# IVR - Interval to date = 6100
# IVR - Moving window = 6110
# Route - Interval to date = 6120
# Route - Moving window = 6130
```

```
#####
[MCast]
IP = 234.5.6.7
Port = 6050
```

## To start the mRcv application

- 1 From the Windows Start menu, choose Programs → Windows Explorer.
- 2 Navigate to the folder in which the RSM component is installed:

[drive]:\Norte\licm\bin

- 3 Double-click mRcv.exe. The mRcv.exe utility opens in a console window displaying data from the port and IP address that you specified in the mRcv.ini file.

```
D:\Norte\licm\bin\mRcv.exe
#####
AppletId -2      CallsBand -0      CallBnAffTd=0      CallBnDly -0      CallsAns -0
CallBnAffTd=0    CallBnDly=0      CallWaitIn=0      MaxWaitTime=0      WaitingTime=0
CallBnDlyS=0     CallGferIp=0     CallOffer -0      InBfrtrflw=0      NotOutCalls=0
NotOCallBn=0     NotOCallBnD=0    NotOCallAns=0     NotOCallBnD=0     NotOCallMtn=0
NotOCallReq=0

#####
AppletId -4      CallsBand -0      CallBnAffTd=0      CallBnDly -0      CallsAns -0
CallBnAffTd=0    CallBnDly=0      CallWaitIn=0      MaxWaitTime=0      WaitingTime=0
CallBnDlyS=0     CallGferIp=0     CallOffer -0      InBfrtrflw=0      NotOutCalls=0
NotOCallBn=0     NotOCallBnD=0    NotOCallAns=0     NotOCallBnD=0     NotOCallMtn=0
NotOCallReq=0

#####
AppletId -10227  CallsBand -0      CallBnAffTd=0      CallBnDly -0      CallsAns -0
CallBnAffTd=0    CallBnDly=0      CallWaitIn=0      MaxWaitTime=0      WaitingTime=0
CallBnDlyS=0     CallGferIp=0     CallOffer -0      InBfrtrflw=0      NotOutCalls=0
NotOCallBn=0     NotOCallBnD=0    NotOCallAns=0     NotOCallBnD=0     NotOCallMtn=0
NotOCallReq=0
```

**Note:** The mRcv.exe utility displays *all* data being received on the selected port, including data that is not recognizable by RSM. All non-RSM data is identified as “Not recognized by RSM.”



# Chapter 18

---

## Troubleshooting and support

### In this chapter

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# Troubleshooting installation problems

## Introduction

To perform troubleshooting for the software installation, refer to the following chart. See “Other documents” on page 696 for more information and extended system-level troubleshooting.



## Troubleshooting chart for server installation problems

| Symptom                                                                               | Probable cause                                                                                                                                                                                                               | Action                                                                                                                                                                                                                                                         |
|---------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Error messages from the database setup during server installation.                    | Files copied incorrectly; other programs running on the server during installation.                                                                                                                                          | <ul style="list-style-type: none"> <li>■ Uninstall, and then reinstall the software.</li> <li>■ Close any other programs running on the server (for example, Control Panel) before reinstalling.</li> </ul>                                                    |
| Error messages at the end of the server software installation.                        | Files copied incorrectly.                                                                                                                                                                                                    | Uninstall and then reinstall the software.                                                                                                                                                                                                                     |
| Server fails to initialize with the switch.                                           | <ul style="list-style-type: none"> <li>■ Incorrect switch parameters were entered during server installation.</li> <li>■ For a DMS/MSL-100 switch, the dongle is not attached to the parallel port on the server.</li> </ul> | <p>Verify and change switch parameters defined on the server. See “Feature Report” on page 625.</p> <p>Connect the correct dongle to the port. Ensure the dongle ID matches the serial number entered during installation.</p>                                 |
| Blue screen appears after installing pcAnywhere while working in third-party program. | Incompatible third-party software is installed on the server.                                                                                                                                                                | Uninstall any third-party software applications, such as word processing and graphics programs, and then restart the server. Consult Symantec’s Web site at <a href="http://www.symantec.com/pcanywhere">www.symantec.com/pcanywhere</a> for more information. |

| Symptom                                                           | Probable cause             | Action                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|-------------------------------------------------------------------|----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Blue screen appears during restart after pcAnywhere installation. | Incompatible video driver. | <p>You need to restart the server in Safe mode and then uninstall and reinstall pcAnywhere.</p> <ol style="list-style-type: none"> <li>1 Press Reset to restart the server.</li> <li>2 While the server is starting, a continuous line appears across the bottom of the window above the text “For troubleshooting and advanced startup options for Windows 2000, press F8.” Immediately press F8.</li> <li>3 Use the arrow keys to highlight Safe mode, and then press Enter. The server restarts in Safe mode.</li> </ol> <p><b>Note:</b> If you cannot restart the server in Safe mode, then you must change the GINA that the server is calling. For more information, search on the Symantec web site (<a href="http://www.symantec.com">www.symantec.com</a>) for document ID number 2001060615310512.</p> <ol style="list-style-type: none"> <li>4 Uninstall pcAnywhere. For more information, see “To uninstall pcAnywhere 10.5” on page 196.</li> <li>5 Update the server’s modem and video drivers by consulting the driver manufacturers’ web sites for the latest versions.</li> <li>6 Reinstall pcAnywhere. For more information, see “To install pcAnywhere version 10.5” on page 182.</li> <li>7 Restart the server.</li> </ol> |

| Symptom                                                                                                                      | Probable cause                                                                                                                                                                                                                                                                                                    | Action                                                                                                                                                                |
|------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Error “MAS security device driver setup not able to start DS141OD” appears when installing server software on PVI platforms. | <ul style="list-style-type: none"> <li>■ The server’s parallel port is not physically configured, or it is configured, but disabled at the BIOS level.</li> <li>■ COM ports 1 and 2 are not physically configured, or they are configured, but with incorrect values for Symposium Call Center Server.</li> </ul> | See the steps listed in the section “Troubleshooting error “MAS security device driver setup not able to start DS141OD” when installing server software” on page 681. |

## When a system error occurs

For all errors, record the error messages, the system configuration, and actions taken before and after the error occurred. If the problem persists, contact your Nortel Networks customer support representative.

## Troubleshooting chart for Client installation problems

| Symptom                                                        | Probable cause                                                                                | Action                                                                                                                                                                          |
|----------------------------------------------------------------|-----------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Error messages at the end of the Client software installation. | Files copied incorrectly.                                                                     | Uninstall and then reinstall the software.                                                                                                                                      |
| Client upgrade resets halfway through the setup.               | This error occurs if, during the Client upgrade, you choose to upgrade common Microsoft DLLs. | Reinstall the software. When you are informed of a newer or read-only version of a common Microsoft DLL, click No. Do not upgrade the file, as this causes the upgrade to fail. |

| Symptom                                                                       | Probable cause                                                                                                                                                                                                                                                                                             | Action                                                                                                                                                                                                                                                                                                                                 |
|-------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Client software fails to start.                                               | <p>Possible client path overflow problem. The maximum length of the path is a function of the environment size, which depends on other parameters.</p> <p>To detect this problem, compare the path in the autoexec.bat file with the path shown by executing the command “path” at the command prompt.</p> | <p>1 Try reducing the length of the directory path for installing the Client application software, or uninstall another software application from the Client PC.</p> <p>2 Uninstall the Symposium Call Center Server Client application, restart the Client PC, and reinstall the Symposium Call Center Server Client application.</p> |
| Error message: Setup is not able to determine whether DMI service is running. | You are not logged on to the Client PC as <b>Administrator</b> .                                                                                                                                                                                                                                           | Log on to the Client PC as <b>Administrator</b> , and start the installation again.                                                                                                                                                                                                                                                    |

## PCI installation tips

Here are two useful PCI tips:

- Reserve interrupts (IRQs) and memory addresses specifically for ISA adapters. This prevents PCI cards from trying to use the same settings that ISA cards are using. Use the SCU to keep track of the ISA adapter resources.
- Certain drivers might require interrupts that are not shared with other PCI drivers. The SCU can be used to adjust the interrupt numbers for PCI devices. For certain drivers, you might have to alter settings so that interrupts are not shared. Interrupt sharing is not supported on this platform.

## Further troubleshooting

For detailed maintenance and diagnostics procedures, refer to the *Symposium Call Center Server Administrator's Guide*.

### Troubleshooting error “MAS security device driver setup not able to start DS141OD” when installing server software

This error sometimes appears when you perform a new installation of Symposium Call Center Server on some PVI platforms. It indicates a problem with the server's parallel ports or serial ports. Follow the steps below to check the setup and configuration of the parallel and serial ports.

#### To check the parallel port configuration

Ensure that a parallel port is physically configured on the server, as follows:

- 1 On the server, click Start → Settings → Control Panel → Services.
- 2 In the Services window, ensure that the ParPort, ParVdm, and Parallel services are in Started state.
- 3 If these services are not in Started state, then try to start them manually.
- 4 If you cannot start these services manually, then the parallel port is probably configured, but is disabled at the BIOS level. Try enabling the port at the BIOS level.
- 5 Try the installation again.

#### To check the serial port configuration

On the server, ensure that serial ports COM 1 and COM 2 are physically configured as follows:

- 1 On the server, click Start → Settings → Control Panel → Ports.
- 2 Click COMPORT 1 → Settings → Advanced. The Base I/O Port Address box must contain the value 3F8, and the IRQ box must be set to 4.
- 3 Click COMPORT 2 → Settings → Advanced. The Base I/O Port Address box must contain the value 2F8, and the IRQ box must be set to 3.

# Troubleshooting network connection problems

## Introduction

If you test the CLAN and ELAN connection using the ping command, and the test fails, then follow these steps to verify that the server ELAN and CLAN cards are configured and identified correctly.

## Requirements

- A laptop or PC that is near the server and can be connected directly to the server. In this procedure, the laptop or PC is referred to as the Client PC.
- A direct connect (crossover) network cable that allows two PCs to be directly connected without a hub in between them.

## To resolve the failed ping

- 1 Plug the crossover network cable into the network card in the Client PC.
- 2 Plug the other end into the ELAN card in the server.
- 3 If you must restore the IP address information of the Client PC after this procedure, then record the TCP/IP address, subnet mask, and gateway of the Client PC.
- 4 Configure the Client PC with an IP address that is part of the same subnet as the IP address assigned to the ELAN card.  
**Example:** If the server ELAN card has the IP address 1.1.1.1, then assign the laptop or PC an IP address of 1.1.1.2.
- 5 Set the Client PC to have a subnet mask of 255.0.0.0. Leave the gateway blank.
- 6 Open an MS-DOS prompt window on the Client PC and try to ping the server ELAN card. For example, if the server ELAN card has the IP address 1.1.1.1, then type **ping 1.1.1.1** and press Enter.

If the ping test succeeds, then you know that you have correctly identified the ELAN card in the network control panel.

The other network card, if present, must be the CLAN card.

- 7 From the server, repeat the steps described in “To retest the ELAN and CLAN network connection” below. If the test fails, then verify that the network is set up correctly.

**Tip:** In addition to the above steps, you can also check your TCP/IP stack as follows:

- Ping the loopback IP address (ping 127.0.0.1).
- If you are using two different network card drivers for the CLAN and ELAN, then ping the CLAN IP address, and the ELAN IP address of the Release 4.2 server. You should receive a response even if your platform is not physically connected to the network. If you do not get a response, then there may be a driver problem or OS corruption.
- Test your network driver in the Windows 2000 Device Manager. For detailed instructions, consult your network card manufacturer and the Microsoft Windows 2000 documentation.

### To retest the ELAN and CLAN network connection

- 1 Make sure you are logged on to the server as **Administrator**.
- 2 From the Windows Start menu, choose Programs → Accessories → Command Prompt.
- 3 In the Command Prompt window, type **ping** followed by the ELAN IP address for the switch, and then press Enter.

**Example:** ping 12.38.3.8

**Result:** The display indicates whether the ping was successful. If you do not receive a successful ping message, then no connection has been made.

- 4 To test the CLAN card, type **ping** followed by the CLAN IP address of another PC on the CLAN, and then press Enter.

**Example:** ping 47.2.13.9

**Result:** The display indicates whether the ping was successful. If you do not receive a successful ping message, then no connection has been made.

- 5 Type **exit**, and then press Enter to close the Command Prompt window.

# Troubleshooting the client-server connection

## Introduction

If the client cannot connect to the server, it displays a dialog box with the message `IP address is unreachable. Connection failed.` Click OK to dismiss the dialog box, and follow the steps in this section to solve the problem.

### ATTENTION

---

If you discover that you must change the server's CLAN or ELAN IP address, see "Changing the server IP address or site name" on page 607. You must make IP address changes in Symposium Call Center Server utilities as well as in the Network control panel.

## Things to check first

1. Check that all network cables are securely attached to the Client PC and server.
2. Make sure that the SMI system is configured properly. Select the system in the SMI Workbench, and choose File → System Properties. The IP address and name should match the CLAN IP address and site name, respectively, specified on the worksheet "Server and Client software installation information" on page 707.
3. From the Client PC, try to ping the server's CLAN IP address. If you are using a dial-up connection, then establish the modem connection before pinging.

If the ping is successful, then the network is fine between the server and the client. If the pinging is not successful, then you may be using the wrong IP address for the server, or there may be a network problem.



## To check the Client PC

### If using a dial-up connection to the server

- 1 Check that the Dial-Up Networking connection profile that you are using for the SMI system to connect to the server is set up correctly. Check that the dial-up connection information is correct (IP address for the server and phone number). For instructions on creating a dial-up connection profile, refer to “Establishing a pcAnywhere connection using dial-up” on page 194.
- 2 Try to connect to other PCs on the local network to ensure that you are not having a local network problem.

### If connecting to the server over the LAN

- 1 Check that the connection information for the SMI system is correct (IP address or computer name for the server). See “Adding an SMI system” on page 228.
- 2 Try to connect to other PCs on the LAN to ensure that you are not having a local network problem.

## To check the server

- 1 Check that the network card TCP/IP addresses are correct. If you must change the server's CLAN or ELAN IP address, see “Changing the server IP address or site name” on page 607.

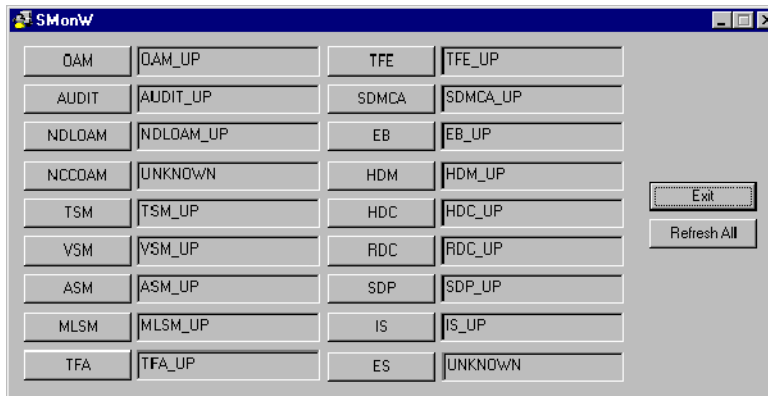
**Note:** The remaining steps apply only if the client is using a dial-up connection to connect to the server.

- 2 Check that the Client PC's IP address is in the range of IP addresses defined for remote access on the server.
- 3 Check that the Routing and Remote Access service is started.

# Troubleshooting problems with Symposium Call Center Server services

## The System Monitor window

The System Monitor Window (SMonW) is a server utility that you can open to view the status of services on the server. Some services take a few minutes to become active. When a service is running properly on Symposium Call Center Server, the SMonW window shows its status as UP.



### ATTENTION

Only one SMonW window should ever be open at any given time. More than one open SMonW window causes services to shut down.

If a service must be reactivated or refreshed, click Refresh All. To refresh individual services, click the appropriate button.

## Symposium Call Center Server services

All of the Symposium Call Center Server functions are Windows services. Each service, as described in the following table, is started automatically by the Services manager when the server starts up. If networking is enabled, then the NDLOAM appears in the UP state. NCCOAM appears in the UP state only if your server is configured as an NCC.

| Server service                              | Shown as | Purpose                                                                        |
|---------------------------------------------|----------|--------------------------------------------------------------------------------|
| Operations, Administration and Management   | OAM      | System operation, administration, and management                               |
| Auditing                                    | AUDIT    | Monitor function that manages all services                                     |
| Network services (Meridian 1/CSE 1000 only) | NDLOAM   | Nodal system operation, administration, and management                         |
| Network services (Meridian 1/CSE 1000 only) | NCCOAM   | Network Control Center system operation, administration, and management        |
| Telephony Service Manager                   | TSM      | Telephony interface between switch and server                                  |
| Voice Services Manager                      | VSM      | Interface to Meridian Mail via ACCESS VOICE processing interface               |
| Agent Skillset Manager                      | ASM      | Agent and skillset handling                                                    |
| Meridian Link Services Manager              | MLSM     | Allows third-party applications to interface with Symposium Call Center Server |
| Task Flow Access                            | TFA      | Allows third-party access via scripting commands (Data Exchange server)        |
| Task Flow Executor                          | TFE      | Executes all scripts and handles all calls                                     |
| Statistical Data Manager Configuration      | SDMCA    | Manages all of the other statistical collection services                       |
| Historical Data Manager                     | HDM      | Manages all of the historical data collected by HDC                            |

| Server service              | Shown as | Purpose                                                          |
|-----------------------------|----------|------------------------------------------------------------------|
| Historical Data Collection  | HDC      | Collects all of the historical data                              |
| Real Time Data Collector    | RDC      | Collects and generates real-time statistics for displays         |
| Statistical Data Propagator | SDP      | Distributes incoming statistical data to the appropriate service |
| Intrinsic Services          | IS       | Manages skillset intrinsic data                                  |
| Event Server                | ES       | Manages events                                                   |

## TFE does not come up after a conversion

If the Task Flow Executor (TFE) does not appear in the UP state after a conversion, then you must validate all scripts to correct the problem. For more information on validating scripts, refer to the *Symposium Call Center Server Scripting Guide* for your switch type.

## TSM does not come up on a Network Control Center server

This is normal. The Network Control Center, if present, performs only network administrative functions and does not perform any call processing. The Telephony Services Manager (TSM), therefore, is not required. The only services that should be up are

- OAM
- AUDIT
- NCCOAM
- HDM

## Other services do not come up

This problem can occur if you have more than one System Monitor window open.

# Troubleshooting problems with RSM

## Introduction

If your real-time displays do not contain data, you must check whether

- the RSM server is running
- the RSM server is configured properly
- the RSM server has been registered
- the link between the client and the server is up

## To troubleshoot RSM problems

- 1 From the Windows Start menu, choose Programs → Accessories → Command Prompt.
- 2 In the DOS window, type **D:**, and then press Enter.
- 3 Type **CD \Nortel\iona\Orbix\_2.3c02\bin**, and then press Enter.
- 4 To make sure that the server is running, type **psit**, and then press Enter.

**Result:** A list of active servers appears, similar to the following list. Make sure this list includes RtdMulticastServer:

```
[698: New Connection
(NY,IT_daemon,*,SYSTEM,pid=119,optimised)
Active servers at node PURPLE are :
Name           Marker  Code   Comms Port   Launch
PerClient? OS-pid
-----
```

- 5 To make sure that the server is registered, type **catit RtdMulticastServer**, and then press Enter.

**Result:** Server details appear for RtdMulticastServer, similar to the following:

```
[665: New Connection
(NY,IT_daemon,*,SYSTEM,pid=119,optimised)
Server details for server : RtdMulticastServer

Comms          : tcp
Code           : cdr
Activation     : shared
Owner          : sccs
Launch         : ;
Invoke         : ;all;

Marker          Launch Command
```

- 6 To make sure that the server is registered, type **lsit**, and then press Enter.

**Result:** Details appear, similar to the following:

```
[78: New Connection
(PURPLE,IT_daemon,*,SYSTEM,pid=119,optimised)

Root directory
```

- 7 To check the connection between the server and the client, type **pingit**, and then press Enter.

**Result:** Connection information appears, similar to the following:

```
[78: New Connection
(NY,IT_daemon,*,SYSTEM,pid=119,optimised)

Trying to contact NY and it's running.
```

# Troubleshooting other problems

## Swap file usage exceeds 80 percent, or system is low on virtual memory

If the server has insufficient swap file space, a warning message appears, notifying you that it is low on virtual memory. You can also check swap file usage in the Windows System Monitor. Swap file usage should not be consistently greater than 80 percent.

### To increase swap file space on a 1003t

For details, see “Configuring the virtual memory” in the *Symposium Call Center Server 1003t Installation and Maintenance Guide for Release 1.5/3.0*.

### To increase swap file space on a 702t

For details, see “Configure the virtual memory” in the *Meridian Application Server 702t Installation and Maintenance Guide for Release 1.0*.

### To increase swap file space on any other platform

If you have another platform, contact your Nortel Networks customer service representative.

## Reports cannot be generated from the Client PC

If you are unable to generate Symposium Call Center Server reports from the Client PC, check the bindings order of the network interface cards. You must configure them such that the CLAN card comes first, followed by the ELAN card, and then the Virtual Adapters for RAS. If the CLAN card is not first, you cannot generate reports from the Client PC.

The bindings order is controlled through a dialog box in the Windows operating system. For information on checking the bindings order, see “Check the bindings order for the CLAN and ELAN cards.” on page 81. Refer to the documentation provided by Microsoft for further information on modifying the protocol bindings order.

## System log warns that database disks are at or near capacity

The server's System Log in the Windows Event Viewer may display warning messages with the following text:

The [disk letter] disk is at or near capacity. You may need to delete some files.

If this message appears for any of the database drives (F drive through Y drive), you can ignore the message.

These warning messages are generated by the Windows 2000 operating system whenever the percentage of free disk space in a drive drops to or below 10 percent. However, due to the way the Symposium Call Center Server database drives are installed, 90 percent of each database drive is automatically reserved for the database, leaving the percentage of free disk space at 10 percent, even before the database begins filling up. This means that the warning message above can appear on a newly installed server that does not yet contain any data in the databases.

The database files created during the installation of Symposium Call Center Server are of fixed size (90 percent of the database drive size) and, therefore, do not grow in size.

**Note:** If you have stored additional files on the database drives (such as log files or trace files), this can push the used space on the database drives beyond 90 percent and possibly result in additional warning messages. You should avoid storing these files on the database drives.



# Nortel Networks support

## Technical support

The following types of support are available for the Platform Vendor Independence solution:

### **Software-only support**

This support is available for customers who purchase Symposium Call Center Server Release 4.2 software to install on a third-party Windows 2000 server platform.

Nortel Networks provides support for installation and configuration questions concerning the Operating System (when it concerns Symposium Call Center Server), the Symposium Call Center Server software, and its third-party components.

For this release of Symposium Call Center Server, there is no hardware support for the server. Customers must forward all related hardware issues to their hardware vendor. The hardware vendor must supply the appropriate hardware diagnostic software.

### **Software and hardware support**

This support is available to customers who purchase Symposium Call Center Server Release 4.2 software and a Nortel Networks server configured as a Platform Vendor Independent solution (a 1003t or certain 702t servers). Nortel Networks is the supplier of the server.

Nortel Networks provides support for installation and configuration questions for pcAnywhere, which is supplied with the Symposium Call Center Server software package.

In this case, Nortel Networks also provides support for the server. Customers should forward all related hardware issues to Nortel Networks, which can supply the appropriate level of hardware support.

## General troubleshooting procedures

### Hardware problem

All hardware diagnostics are the responsibility of the platform manufacturer, and are not included in this guide. This section reviews and suggests remedies for problems that could impede normal operation. Always check with the manufacturer's instructions and recommendations before you perform any hardware-related procedure.

### Network-related error

If the problem is a network-related error, determine if the server has enough memory and hard disk drive capacity. Consult your network operating system manual.

### Connections

Verify that all cables and boards are securely plugged into their appropriate connectors or slots.

### Added options

Remove all added options, and change only one component at a time.

### Power cords

Unplug the server's power cord(s), wait 20 seconds, plug the power cord(s) in again, and restart the system.

### If there is a hardware error

1. Log users off the LAN and power down the server. Disconnect the power cord and unplug the telephone cables.
2. Simplify the server configuration to a monitor, one floppy and one hard disk drive, and a keyboard and mouse. Remove all third-party options, and reinstall options one at a time, checking the system after each installation. Reconnect the power cord and telephone cables.
3. Restart the system. If the system does not function, refer to the following section, "If the system does not power on," on page 695.

**If the system does not power on**

1. Ensure that all cables and power cords are firmly plugged into their proper receptacles.
2. Ensure that all parts of the system are powered on and properly adjusted.
3. If the server is plugged into a switched multiple-outlet box, ensure that the switch on the outlet box is powered on.
4. Plug a different electrical device (such as a printer) into the power outlet, and power it on.
5. Unplug the power cord, wait 20 seconds, plug the power cord in again, and restart the system.
6. If the system still does not function, contact the server manufacturer.

# Other documents

## Introduction

For Windows information, refer to the following table:

| Document name                  | Document number                                                 | Purpose                                         |
|--------------------------------|-----------------------------------------------------------------|-------------------------------------------------|
| Windows 95 Documentation Set   | Produced by and available from your local Microsoft distributor | ■ Windows 95 operating system troubleshooting   |
| Windows 98 Documentation Set   | Produced by and available from your local Microsoft distributor | ■ Windows 98 operating system troubleshooting   |
| Windows 2000 Documentation Set | Produced by and available from your local Microsoft distributor | ■ Windows 2000 operating system troubleshooting |
| Windows XP Documentation Set   | Produced by and available from your local Microsoft distributor | ■ Windows XP operating system troubleshooting   |

# Part 3

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## Appendixes



# Appendix A

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## Worksheets

### In this appendix

|                                                     |     |
|-----------------------------------------------------|-----|
| Overview                                            | 700 |
| Switch information                                  | 701 |
| Operating system configuration information          | 704 |
| Server and Client software installation information | 707 |

# Overview

## Introduction

A fold-out worksheet is attached inside the front cover. Make photocopies of this worksheet and use it to record information required for the software installation.

You can use the tables in this appendix to supplement the worksheet. The tables provide some additional information and tips, such as computer name and switch name restrictions. They also organize the planning information according to when it is needed during the software installation.

To use the tables, make photocopies of them.

## Where to get the information

Sources of information for the worksheets include the customer's LAN, network, or system administrator, and the Symposium Call Center Server administrator.



# Switch information

## Introduction

Use the table appropriate to your switch type (Meridian 1/CSE 1000 or DMS/MSL-100).

## Restrictions for switch names

The following restrictions apply to switch names:

- Valid characters for switch names are A–Z, a–z, 0–9, \_ (underscore), and . (period).
- Switch names must begin with an alphabetic character and cannot contain spaces.
- The last character must not be an underscore or a period.
- Switch names must not exceed 80 characters in length.

## Meridian 1/CSE 1000 switch information

During software installation, you need the information specified in the following table:

| Item                                                               | Fill in the required information |
|--------------------------------------------------------------------|----------------------------------|
| Switch name                                                        |                                  |
| Switch customer number                                             |                                  |
| Switch ELAN primary IP address<br>(for example, 255.255.255.255)   |                                  |
| Switch ELAN secondary IP address (for<br>example, 255.155.155.237) |                                  |

**Notes:**

- If you enter an incorrect value during installation, you can use the Feature Report utility (see “Feature Report” on page 625) to correct the value after installation.
- Switches with two processors require two IP addresses. Use the switch primary address for the primary CPU (core 0), and use the secondary address for the redundant CPU (core 1). For smaller switches, such as an Option 11C, you need only the primary address.

**DMS/MSL-100 switch information**

During software installation, you need the information specified in the following table:

| Item                                                                                                                                                                    | Fill in the required information |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|
| Switch name                                                                                                                                                             |                                  |
| Switch customer number                                                                                                                                                  |                                  |
| Switch IP address (for example, 255.255.255.255)                                                                                                                        |                                  |
| IP addresses for routers on the ICM connection between the switch and ELAN<br><b>Note:</b> Record additional IP addresses on the back of the network planner worksheet. |                                  |
| Network node ID                                                                                                                                                         |                                  |
| Service ID                                                                                                                                                              |                                  |
| Application ID                                                                                                                                                          |                                  |
| Service version                                                                                                                                                         |                                  |
| Business group                                                                                                                                                          |                                  |
| Link set name                                                                                                                                                           |                                  |
| Password                                                                                                                                                                |                                  |

|                                   |  |
|-----------------------------------|--|
| Remote host IP address (optional) |  |
|-----------------------------------|--|

**Notes:**

- If you enter an incorrect value during installation, you can use the Feature Report utility (see “Feature Report” on page 625) to correct the value after installation.
- If an IP addressing scheme has not yet been established for the ICM connection, see your network administrator.

# Operating system configuration information

## Introduction

Use the information that you record in this section for the initial Windows 2000 operating system configuration.

## Data

You require the following data for certain procedures:

| Name                                                                                                                                                                                                                                                                                  | Required information |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|
| Windows 2000 licence key                                                                                                                                                                                                                                                              |                      |
| computer name <ul style="list-style-type: none"><li>■ 6–15 characters in length</li><li>■ first character must be alpha</li><li>■ letters, numbers, and underscores are allowed</li><li>■ no spaces, hyphens, or dashes are allowed</li><li>■ must be unique on the network</li></ul> |                      |
| administrator password                                                                                                                                                                                                                                                                |                      |
| workgroup name                                                                                                                                                                                                                                                                        |                      |
| type of modem for the server                                                                                                                                                                                                                                                          |                      |

In addition, you require the following information:

- user name, password, and domain name for access to the Customer Local Area Network (CLAN)
- list of unique names and IP addresses for all equipment on both CLAN and ELAN

See “IP addresses” below.

## IP addresses

Record the server's IP addresses for both ELAN and CLAN connections. The customer's LAN administrator is the source for IP addresses, subnet masks, and gateways.

### IP address table

| Name                               | IP address | Subnet mask | Gateway, description, equipment name, or comments |
|------------------------------------|------------|-------------|---------------------------------------------------|
| ELAN M1 Primary                    |            |             |                                                   |
| ELAN M1 Secondary                  |            |             |                                                   |
| ELAN server                        |            |             |                                                   |
| ELAN router/<br>gateway IP address |            |             |                                                   |
| CLAN server                        |            |             |                                                   |
| CLAN router/<br>gateway IP address |            |             |                                                   |
| RAS                                |            |             |                                                   |

## MAC addresses

Record the MAC address for both ELAN and CLAN cards. If the ELAN and CLAN card types are identical, the MAC address can help you to identify each card for testing and configuration purposes.

**MAC address table**

| Slot number | Card type | MAC address |
|-------------|-----------|-------------|
|             | ELAN      |             |
|             | CLAN      |             |

## Server and Client software installation information

| Required setup data                                                                                                                                                                                                                                                                                                                                                                                                                                    | Fill in the required information |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|
| Customer name                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                  |
| Company name                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                  |
| Keycode and serial number. This can be on a disk; if so, indicate “on disk.” For DMS/MSL-100, use the dongle number as the serial number.                                                                                                                                                                                                                                                                                                              |                                  |
| Switch information<br>(See “Switch information” on page 701.)                                                                                                                                                                                                                                                                                                                                                                                          |                                  |
| ELAN and CLAN IP addresses<br><b>Note:</b> ELAN and CLAN addresses must be unique.<br>Nortel Networks-supplied PCs are equipped with an ELAN network interface card. If you are configuring a Network Control Center server, you do not need to connect the ELAN network interface card to the ELAN cable. However, to ensure proper functionality, enter an IP address for the ELAN network interface card that is not used elsewhere in the network. |                                  |

| Required setup data                                                                                                                                                                                                                                                                                                                                                                                       | Fill in the required information                       |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------|
| <p>Site name. This name can consist of up to 15 characters, except the \ (backslash) character. In a multi-site network, the site name for each server must be unique. The application uses this name to identify the server in reports.</p> <p><b>Note:</b> For Meridian 1/CSE 1000 switches with the Network Skill-based Routing feature, the NCC site name is automatically propagated to servers.</p> |                                                        |
| (Networking option only) IP address of RSM server                                                                                                                                                                                                                                                                                                                                                         |                                                        |
| New password for NGenDesign account (This is a user account for Nortel Networks support.)                                                                                                                                                                                                                                                                                                                 | For security reasons, do not record the password here. |
| New password for NGenDist account (This is a user account for distributors to provide support.)                                                                                                                                                                                                                                                                                                           | For security reasons, do not record the password here. |
| Modem phone number for the server (for dial-up connections from the Client PC)                                                                                                                                                                                                                                                                                                                            |                                                        |



## Appendix B

---

# Determining whether a 702t server can be used with Release 4.2

### In this appendix

|                                    |     |
|------------------------------------|-----|
| Overview                           | 710 |
| Diagnostic procedures for the 702t | 713 |

# Overview

## Introduction

A 702t server that is compatible with Windows 2000 can be used as a platform for Symposium Call Center Server 4.2. Use this appendix to assess your 702t server to determine into which of the following categories it falls:

- a model that is already compatible with Windows 2000. The latest 702t models are shipped in this state.
- a model that you can upgrade to be compatible with Windows 2000. Certain 702t servers that were originally shipped with Windows NT 4.0 fall into this category.
- a model that cannot be used with Windows 2000. Certain early 702t MAS models fall into this category.

Models that are already compatible with Windows 2000 have the following label on the front panel:



If your server has this label affixed to the front panel, you can use it as a platform for Release 4.2 without any further checking or upgrades.

If your 702t server does not have the above label, you can still use it as a platform for Symposium Call Center Server 4.2 if it meets all the following requirements:

- It is configured for PVI.
- It has an AcceleRAID controller or no RAID controller.
- It has the correct BIOS revision.

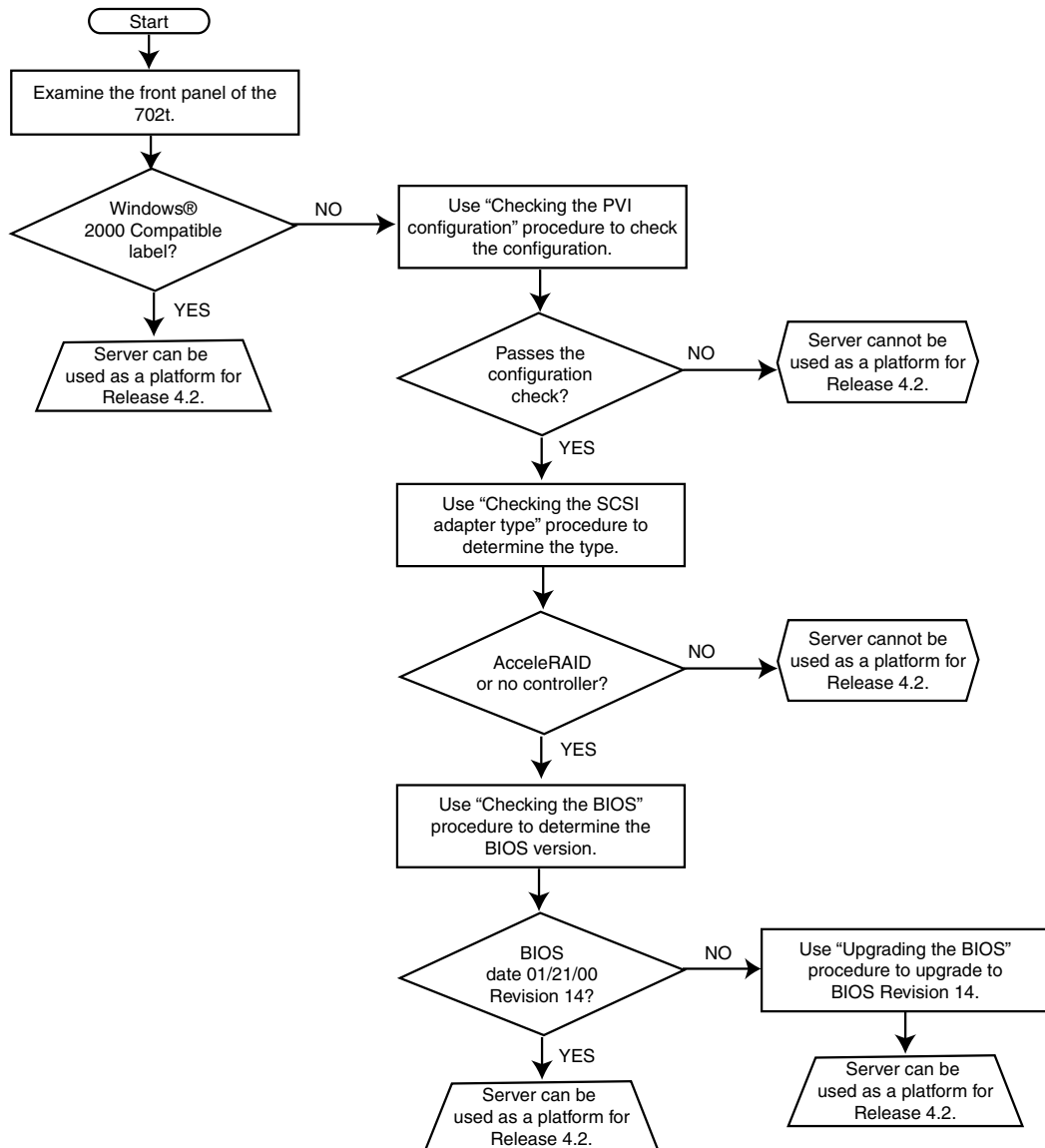
## **Using the diagnostic flow chart and diagnostic procedures in this appendix**

The following flow chart provides an overview of the process that you must follow to determine if your 702t server meets the requirements for use as a Release 4.2 platform. The procedures referenced in the flow chart are included in the remainder of this appendix.

As you work through the flow chart, you will end up with one of the following results:

- “Server can be used as a platform for Release 4.2”  
If you get this result, proceed with either a new installation to this server or a conversion from an original server to this server, according to the relevant procedure in this guide.
- “Server cannot be used as a platform for Release 4.2”  
If you get this result, choose a different platform for installation of your Release 4.2 server.

## Diagnostic flow chart for checking a 702t server



# Diagnostic procedures for the 702t

## Introduction

The procedures below are referenced from the flow chart in the previous section. Refer to the flow chart to understand how to use these procedures to determine whether you can use your 702t as a platform for Release 4.2 of Symposium Call Center Server.

## Checking the PVI configuration

To determine if your 702t server is configured for Release 4.0 PVI, run the Release 4.0 PVI Compliance Check utility on the server. This utility is available on the Release 4.0 Platform Support CD-ROM that is included with all Release 4.0 software.

**Note:** If your server is already running Windows 2000 Server or Advanced Server, you can skip this procedure and move to the next procedure according to the flow chart. When you install the Release 4.2 server, you must perform a PVI compliance check at that time, so you do not need to do it now.

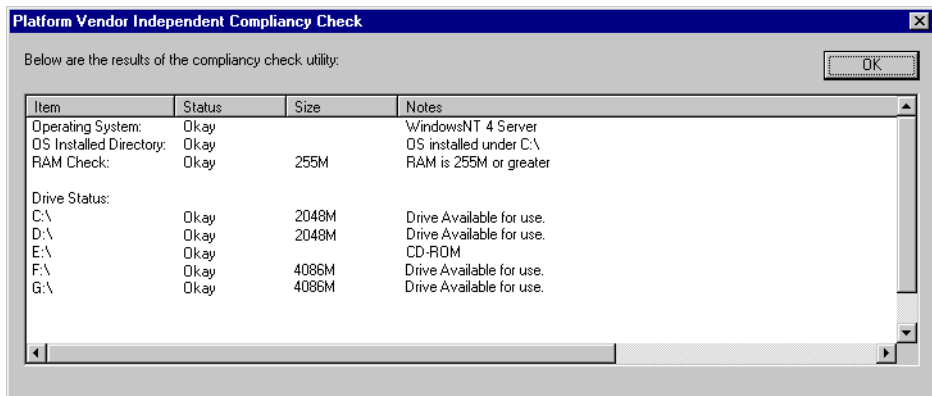
### To run the PVI Compliance Check (Windows NT 4.0)

- 1 Place the Platform Support CD-ROM into the CD-ROM drive.
- 2 From the desktop, select My Computer → CD-ROM (drive E).
- 3 In the CD-ROM root directory, double-click PVICHECK.EXE.

**Result:** The program searches for the following requirements:

- minimum 256 Mbytes RAM size
- minimum drive C partition of 2 Gbytes
- minimum drive D partition of 2 Gbytes
- drive E is a CD-ROM drive
- minimum drive F partition of 4 Gbytes
- listing of all additional drives and sizes beyond C, D, and F
- Windows NT Server 4.0 is installed on drive C

The results display in a window, as shown in the following example:



If your server is compliant, all the entries in the Status column show the status Okay. In this case, it has passed the configuration check. Continue to the next procedure according to the diagnostic flow chart.

If any of the entries in the Status column show the status Error, then your server is not configured for Release 4.0 PVI, and it cannot be used for Release 4.2 of Symposium Call Center Server.

## Checking the SCSI adapter type

Only 702t servers with either an AcceleRAID controller or no RAID controller are supported for Release 4.2. To determine the type of RAID controller (if any) that your server has, use one of the following procedures, depending on the operating system installed on the 702t.

### To view the SCSI adapter type (Windows NT 4.0)

- From the Windows Start menu, choose Settings → Control Panel → SCSI Adapters.

**Result:** The system displays a list of the controllers. If your server has an AcceleRAID controller, or no RAID controller, continue to the next procedure according to the diagnostic flowchart. If your server has a different RAID controller (for example, a Mylex DAC960), it cannot be used for Release 4.2 of Symposium Call Center Server.

## To view the SCSI adapter type (Windows 2000)

- 1 From the Start menu, choose Programs → Administrative Tools → Computer Management.

**Result:** The Computer Management window appears.

- 2 In the left pane, click Device Manager.
- 3 In the right pane, double-click SCSI and RAID controllers.

**Result:** The system displays a list of the controllers. If your server has an AcceleRAID controller, or no RAID controller, continue to the next procedure according to the diagnostic flowchart. If your server has a different RAID controller (for example, a Mylex DAC960), it cannot be used for Release 4.2 of Symposium Call Center Server.

## Checking the BIOS

Only 702t servers with BIOS Revision 14 or higher are supported for Release 4.2. To determine the BIOS revision on your server, use one of the following procedures, depending on the operating system that your 702t is running.

### To check the BIOS (Windows NT 4.0)

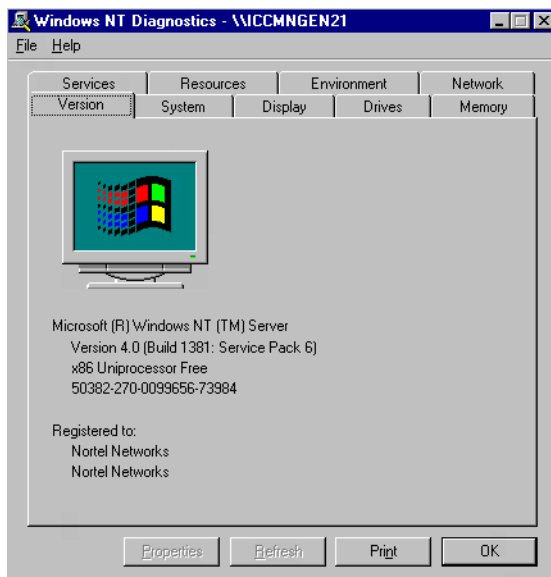
- 1 From the Windows Start menu, choose Run.

**Result:** The following window appears:



- 2 Type **WINMSD**, and then click OK.

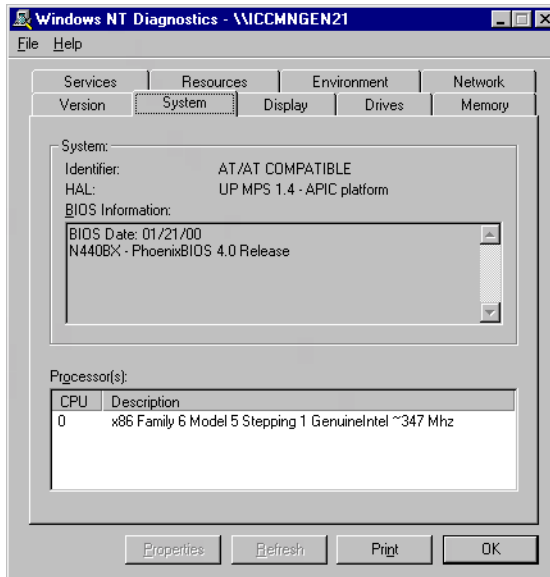
**Result:** The following window appears:





3 Select the System tab.

**Result:** The following window appears:



4 Verify that the BIOS date is 01/21/00 for Revision 14 or higher.

5 Click OK.

If you do not have the BIOS dated 01/21/00 for Revision 14 or higher, you must upgrade the BIOS firmware before installing Release 4.2 of Symposium Call Center Server. Continue to the next procedure according to the diagnostic flow chart.

## To check the BIOS (Windows 2000)

- 1 From the Windows Start menu, choose Run.

**Result:** The following window appears:



- 2 Type **debug**, and then click OK.

**Result:** A DOS window appears with a dash in the top left.

- 3 Type **d f000:0b00** after the dash, and then press Enter.

**Result:** The system displays results similar to the example below:

```
F000:0B00  00 12 00 00 03 01 00 E0-02 07 90 DA E9 FF 00 00
.....
F000:0B10  00 00 4E 49 47 48 54 53-30 2E 38 36 42 2E 30 30
..NIGHTS0.86B.00
F000:0B20  39 35 2E 50 31 34 2E 30-30 30 31 32 31 31 30 33
95.P14.000121103
F000:0B30  34 20 00 30 31 2F 32 31-2F 30 30 00 49 6E 74 65   4
.01/21/00.Inte
F000:0B40  6C 20 43 6F 72 70 6F 72-61 74 69 6F 6E 00 00 01   1
Corporation...
F000:0B50  08 01 00 01 02 03 04 20-20 20 20 20 20 20 20 20
.....
F000:0B60  20 20 20 20 20 20 20 20-20 20 20 20 20 20 20 20
F000:0B70  20 20 20 20 20 20 00 4E-43 34 34 30 42 58 20 44
.NC440BX D
```

- 4 Check the text in the right columns to identify the BIOS Revision and date. In this example
  - BIOS Revision 14 is indicated by the text *P14*, shown in bold above
  - the BIOS date is indicated by the text *01/21/00*, shown in bold above
- 5 To exit, type **q**, and then press Enter.

If you do not have the BIOS dated 01/21/00 or later for Revision 14 or higher, you must upgrade the BIOS firmware before installing Release 4.2 of Symposium Call Center Server. Continue to the next procedure according to the diagnostic flow chart.

### **To upgrade the BIOS firmware**

**Note:** Before upgrading the BIOS, perform a database backup following the procedures in Chapter 14, “Backing up data.”

- 1 Insert the CD-ROM titled Issue 1.05, Application Server Driver CD-ROM, Bootable NTRH8102 in the drive and restart the server.

**Result:** The Symposium Menu appears.

- 2 Select Symposium Tools.

**Result:** A list of options appears.

- 3 Select 702t.

**Result:** The 702t Menu appears.

- 4 Select EXECUTE NTRH8025 BIOS Update Utility.

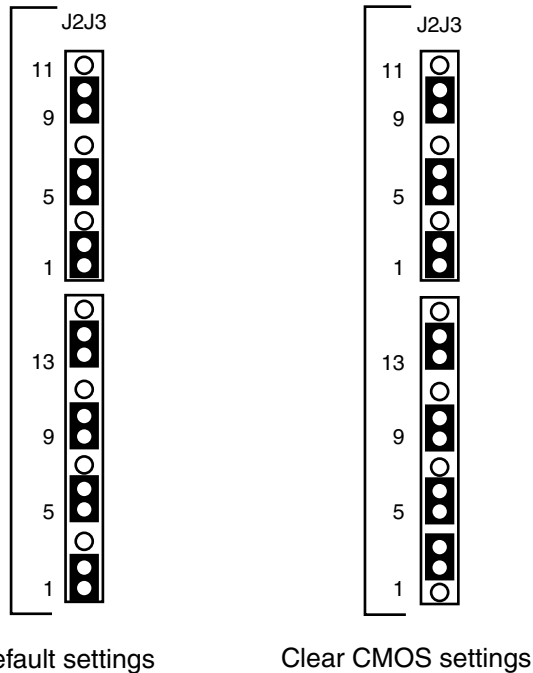
**Result:** The BIOS is updated. After the BIOS update is complete, the server restarts.

- 5 Power down the server, and remove the power cord from the system for 60 seconds.

- 6 Remove the server side cover, and move the CMOS Clear jumper from the Default settings to the Clear CMOS settings, as shown in the diagram below.

**Note:** The jumper block on the motherboard allows for customization of certain settings. The jumper block is located on the bottom right corner of

the motherboard. The following diagram shows the Default settings and the Clear CMOS settings for the system jumpers:



Default settings

Clear CMOS settings

- 7 Restart the system.

**Result:** A message appears indicating that the CMOS area has been cleared.

- 8 Power down the server and move the CMOS Clear jumper back to the Default settings.

- 9 Replace the side cover.

- 10 Restart the server and press F2 during the POST messages to enter Setup so you can configure the BIOS.

**Result:** The PhoenixBIOS Setup Utility window appears.

- 11 Continue to the next procedure.

## Configuring the BIOS CMOS setup

- 1 Make sure you are in the PhoenixBIOS Setup Utility window, as per the instructions at the end of the previous procedure.

**Note:** You enter this utility by pressing F2 while the server is restarting.

- 2 Press F9 to load the default BIOS configuration, and then select Yes to confirm.
- 3 Use the table below to check certain required BIOS settings. Make any necessary changes.

| Menu     | Submenu                                         | Setting                                                                                                                                                               |
|----------|-------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Main     | Processor Settings →<br>Processor Speed Setting | 350 MHz or 450 MHz<br>(depending on the<br>installed CPU speed)                                                                                                       |
| Advanced | Use Multiprocessor Specification                | 1.4                                                                                                                                                                   |
| Server   | PCI IRQs to IO-APIC Mapping                     | Disabled                                                                                                                                                              |
| Boot     | Boot Device Priority                            | <ol style="list-style-type: none"><li>1 Removable Devices</li><li>2 ATAPI CD-ROM<br/>Drive</li><li>3 Hard Drive</li><li>4 (any additional boot<br/>devices)</li></ol> |

- 5 Press F10 to save the settings and exit.

**Result:** The server restarts with the upgraded BIOS.



## Appendix C

---

# Required drivers for 702t and 1003t PVI servers used as platforms for Release 4.2

### In this appendix

|                                                             |     |
|-------------------------------------------------------------|-----|
| Overview                                                    | 724 |
| Creating update driver disks                                | 728 |
| Updating the AcceleRAID 352 firmware                        | 730 |
| Updating the Tandberg tape driver                           | 731 |
| Updating the Seagate tape drivers                           | 733 |
| Installing the RacoreWin2K Token Ring driver                | 736 |
| Installing AcceleRAID352 RAID Global Array Manager software | 738 |

# Overview

## Introduction

This section provides a list of the drivers you may require during the installation of Symposium Call Center Server 4.2 on the 702t and 1003t servers. The drivers your system requires depends on the hardware you are using. Any drivers not listed here are installed when you install Windows 2000 Server.

This section also provides procedures to create the upgrade driver disks from the Application Server Driver CD (NTRH8102) and HP NetServer Navigator CDs. Refer to the fifth column of this table, to find the procedures to upgrade a particular driver.

## Required drivers for the 702t server

| <b>Name of driver/<br/>software (as it appears during upgrade)</b> | <b>Create floppy disks from this CD-ROM</b>                     | <b>Where to get the CD-ROM</b>                 | <b>Where to find the procedures to create the upgrade driver disk</b>                                 | <b>Where to find procedures to update the driver</b>              |
|--------------------------------------------------------------------|-----------------------------------------------------------------|------------------------------------------------|-------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| AcceleRAID 352 Firmware                                            | Application Server Driver CD (NTRH8102) (version 1.0 or higher) | Supplied with Symposium Call Center Server 4.2 | See “To create the update driver disks from the Application Server Driver CD (NTRH8102)” on page 728. | See “To flash upgrades in the AcceleRAID controller” on page 730. |



| <b>Name of driver/ software (as it appears during upgrade)</b> | <b>Create floppy disks from this CD-ROM</b>                     | <b>Where to get the CD-ROM</b>                 | <b>Where to find the procedures to create the upgrade driver disk</b>                                 | <b>Where to find procedures to update the driver</b>                           |
|----------------------------------------------------------------|-----------------------------------------------------------------|------------------------------------------------|-------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------|
| Tandberg SLR/MLR Tape Drive                                    | Application Server Driver CD (NTRH8102) (version 1.0 or higher) | Supplied with Symposium Call Center Server 4.2 | See "To create the update driver disks from the Application Server Driver CD (NTRH8102)" on page 728. | See "Updating the Tandberg tape driver" on page 731.                           |
| STDAT4.sys (Seagate Tape drive driver)                         | Application Server Driver CD (NTRH8102) (version 1.0 or higher) | Supplied with Symposium Call Center Server 4.2 | See "Updating the Seagate tape drivers" on page 733.                                                  | See "Updating the Seagate tape drivers" on page 733.                           |
| BIOS Update Utility                                            | Application Server Driver CD (NTRH8102) (version 1.0 or higher) | Supplied with Symposium Call Center Server 4.2 | See "To create the update driver disks from the Application Server Driver CD (NTRH8102)" on page 728. | 702t Installation and Maintenance Guide                                        |
| GAM2k                                                          | Application Server Driver CD (NTRH8102) (version 1.0 or higher) | Supplied with Symposium Call Center Server 4.2 |                                                                                                       | See "Installing AcceleRAID352 RAID Global Array Manager software" on page 738. |

## Required drivers for the 1003t server

| <b>Name of driver/<br/>software (as it appears during upgrade)</b> | <b>Create floppy disks from this CD-ROM</b>                     | <b>Where to get the CD-ROM</b>                              | <b>Where to find the procedures to create the upgrade driver disk</b>                                 | <b>Where to find procedures to upgrade the driver</b> |
|--------------------------------------------------------------------|-----------------------------------------------------------------|-------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-------------------------------------------------------|
| SCSI Backplane Firmware Update Utility                             | Application Server Driver CD (NTRH8102) (version 1.0 or higher) | Supplied with Symposium Call Center Server 4.2              | See “To create the update driver disks from the Application Server Driver CD (NTRH8102)” on page 728. | 1003t Installation and Maintenance Guide              |
| Tandberg SLR/MLR Tape Drive                                        | Application Server Driver CD (NTRH8102) (version 1.0 or higher) | Supplied with Symposium Call Center Server 4.2              | See “To create the update driver disks from the Application Server Driver CD (NTRH8102)” on page 728. | See “Updating the Tandberg tape driver” on page 731.  |
| BIOS Update Utility                                                | Application Server Driver CD (NTRH8102) (version 1.0 or higher) | Supplied with Symposium Call Center Server hardware package | See “To create the update driver disks from the Application Server Driver CD (NTRH8102)” on page 728. | 1003t Installation and Maintenance Guide              |
| NetRAID Assistant for Windows 2000, Win NT, and Win 9x             | Application Server Driver CD (NTRH8102) (version 1.0 or higher) | Supplied with Symposium Call Center Server hardware package | See “To create the update driver disks from the Application Server Driver CD (NTRH8102)” on page 728. | 1003t Installation and Maintenance Guide              |

| <b>Name of driver/ software (as it appears during upgrade)</b> | <b>Create floppy disks from this CD-ROM</b>                           | <b>Where to get the CD-ROM</b>                              | <b>Where to find the procedures to create the upgrade driver disk</b>                                 | <b>Where to find procedures to upgrade the driver</b>           |
|----------------------------------------------------------------|-----------------------------------------------------------------------|-------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------|
| STDAT4.sys<br>(Seagate Tape drive driver)                      | Application Server Driver CD<br>(NTRH8102)<br>(version 1.0 or higher) | Supplied with Symposium Call Center Server hardware package | See “To create the update driver disks from the Application Server Driver CD (NTRH8102)” on page 728. | See “Updating the Seagate tape drivers” on page 733.            |
| Racore Win2k PCI Token Ring Drivers to                         | Application Server Driver CD<br>(NTRH8102)<br>(version 1.0 or higher) | Supplied with Symposium Call Center Server hardware package | See “To create the update driver disks from the Application Server Driver CD (NTRH8102)” on page 728. | See “Installing the RacoreWin2K Token Ring driver” on page 736. |

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# Creating update driver disks

## Introduction

This section provides procedures to create update driver disks from the Application Server Driver CD (NTRH8102) and Navigator CDs. For more information about updating the drivers and utilities on your 702t and 1003t servers, refer to *702t Installation and Maintenance Guide* and the *1003t Installation and Maintenance Guide*.

## To create the update driver disks from the Application Server Driver CD (NTRH8102)

To create a floppy disk from this CD, you must boot from the CD. You can do this using any server or PC. You must first configure the boot sequence in the system BIOS to search for the CD device before the hard drive. When you boot from the CD, a menu appears. Use the procedure below to create the driver.

- 1 From the main menu, select Symposium Tools, and then press Enter.

**Result:** A submenu appears.

- 2 Select the correct platform, and then press Enter.

**Result:** A platform submenu appears.

- 3 Select the driver you require.

- 4 Press Enter.

**Result:** A message prompts you to insert the floppy disk and warns you that everything on it will be erased.

- 5 Insert the floppy disk in the disk drive, and then type **y** and press Enter.

**Result:** From the DOS window, a second message prompts you to insert a floppy disk in drive A.

- 6 Press Enter to continue.

**Result:** The system formats the disk, and then prompts you to insert a volume label.

- 7    Press Enter to continue.

**Result:** The system prompts you to QuickFormat another disk.

- 8    Type **n**, and then press Enter.

**Result:** The system copies the driver files from the CD to the floppy disk. The DOS window closes and the platform submenu reappears.

- 9    Press ESC three times to return to the DOS command prompt.

- 10   Remove the CD and the floppy that now contains your driver. Label it as per the instructions on the CD.

# Updating the AcceleRAID 352 firmware

## To flash upgrades in the AcceleRAID controller

Before you begin you must create the driver disks. For more information, refer to “To create the update driver disks from the Application Server Driver CD (NTRH8102)” on page 728. Follow the procedure in this section to update the driver on your Release 4.2 server.

- 1     Shut down and restart the server.
- 2     When prompted during the restart, press Alt+R to enter the EZAssist utility.  
**Result:** The system load the RAID software and lists the installed RAID controller.
- 3     Select the RAID controller, and then press Enter.  
**Result:** The main task menu appears.
- 4     Select Advanced Options, and then press Enter.
- 5     Have the disk that contains the firmware, BIOS, boot block, or utility image files ready and, on the Advanced Options menu, select Update Flash Code and press Enter.
- 6     Insert the disk into the disk drive.
- 7     Type the path and the name of the file that needs to be flashed in the space provided, and then press Enter.  
**Result:** The image is read from the floppy disk, and the system prompts you to press Enter.
- 8     Press Enter to flash the image into the RAID controller.
- 9     Allow the above process to complete, and then press Esc until the Exit confirmation window appears.
- 10    Select Yes to exit the EzAssist utility.

# Updating the Tandberg tape driver

## Introduction

If you are using a tape drive to back up your files, before you perform a conversion from Symposium Call Center Server Release 3.0 or 4.0 to Symposium Call Center Server Release 4.2, you must ensure that you have the Tandberg MLR SCSI Sequential Device driver (dated 11/17/2000 and version 1.5.0.0).

## To identify the tape driver for Windows 2000

- 1 From My Computer, choose Properties → Hardware → Device Manager → Tape drivers.

**Result:** The TANDBERG MLR1 SCSI Sequential Drive appears listed below Tape drivers.

- 2 Right-click TANDBERG MLR1 SCSI Sequential Drive, and then click Properties.
- 3 Click the Driver tab.

**Result:** The information about the driver appears. If there is no driver listed, or if the driver is not the TANDBERG MLR1 SCSI Sequential Drive, follow the procedure below to update the driver.

## To update the tape driver for Windows 2000

Before you begin, you must create the Tandberg tape drive driver disks. For more information, refer to “To create the update driver disks from the Application Server Driver CD (NTRH8102)” on page 728. Follow the procedures in this section to update the driver on your Release 4.2 server.

- 1 From My Computer, choose Properties → Hardware → Device Manager → Tape drivers.

**Result:** The TANDBERG MLR1 SCSI Sequential Drive appears in the list under tape drivers.

- 2 Right-click TANDBERG MLR1 SCSI Sequential Drive, and then click Properties.

- 3 Click the Driver tab, and then click Update Driver.

**Result:** The Welcome to the Upgrade Driver Wizard window appears.

- 4 Click Next.

**Result:** The Install Hardware Device Drivers window appears.

- 5 Select "Search for a suitable driver for my device (recommended)," and then click Next.

**Tip:** The Locate Driver Files window appears.

- 6 Check the Floppy disk drives box, and then click Next.

**Result:** The Driver Search Results window appears.

- 7 Ensure that the wizard points to the tape.inf file, and then click Next.

**Result:** The Completing the Upgrade Device Driver Wizard window appears.

- 8 Click Finish.

**Result:** The TANDBERG MLR1 SCSI Sequential Drive driver is installed.



# Updating the Seagate tape drivers

## Introduction

If you are using a Seagate tape drive to back up and restore your database during conversion from Release 3.0 or 4.0 to Release 4.2, you must do the following, or else the database restore will fail:

1. Before you restore the database, you must temporarily install the Seagate driver STDAT4.sys on the Release 4.2 server.

### ATTENTION

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If you do not have the STDAT4.sys driver installed on your Release 4.2 server, you cannot restore the database. The driver that is installed automatically for the Seagate tape drive when you install Windows 2000 Server (4mmDAT.sys) cannot be used to read the data from the backup tape.

2. Once you have restored the database backup to the Release 4.2 server, you must change the driver back to the 4mmDAT.sys driver that is provided with the Windows 2000 Server operating system.

Detailed procedures for each of these steps are included below.

## To identify the tape driver installed on your Release 4.2 server

If you want to check the driver you have installed for your Seagate tape drive before restoring the database to the Release 4.2 server, use the following procedure.

- 1 From My Computer, choose Properties → Hardware → Device Manager → Tape drivers.

**Result:** The ARCHIVE Python 04687-XXX SCSI Sequential Device appears below Tape drivers.

- 2 Right-click ARCHIVE Python 04687-XXX SCSI Sequential Device, and then click Properties.

- 3 Click the Driver tab, and then click Driver Details.

**Result:** The path to the 4mmdat.sys driver appears on the Driver File Detail window. This driver is the default when you install Windows 2000 Server.

## To update the tape driver to restore the data during a conversion

Before you begin you must create the Seagate tape drive driver disks. For more information, refer to “To create the update driver disks from the Application Server Driver CD (NTRH8102)” on page 728.

- 1 From My Computer, choose Properties → Hardware → Device Manager → Tape drivers.

**Result:** The ARCHIVE Python 04687-XXX SCSI Sequential Device appears below Tape drivers.

- 2 Right-click ARCHIVE Python 04687-XXX SCSI Sequential Device, and then click Properties.

- 3 Click the Driver tab, and then click Update Driver.

**Result:** The Welcome to the Upgrade Driver Wizard window appears.

- 4 Click Next.

**Result:** The Install Hardware Device Drivers window appears.

- 5 Select “Display a list of the known drivers for this device so that I can choose a specific driver,” and then click Next.

- 6 Select the 4 millimeter DAT drive, and then click Have Disk.

- 7 Insert the disk into the disk drive, and then click OK.

- 8 Browse to the file OEMSETUP.INF, and then click Open.

- 9 Click Next.

**Result:** The Update Driver Warning appears.

- 10 Click Yes to ignore the warning.

- 11 Click Next.

**12** Click Finish.

**Result:** You can proceed with the database restore to the Release 4.2 server.

**Note:** After the data is successfully restored, you must change the tape driver back to the 4mmDAT.sys supplied with the Windows 2000 Server operating system. If you do not have this driver installed, you will not be able to use the Windows Backup/Restore feature.

**To install the 4mmDAT.sys driver following a successful database restore**

- 1** From My Computer, choose Properties → Hardware → Device Manager → Tape drivers.

**Result:** The ARCHIVE Python 04687-XXX SCSI Sequential Device appears below Tape drivers.

- 2** Right-click ARCHIVE Python 04687-XXX SCSI Sequential Device, and then click Properties.

- 3** Click the Driver tab, and then click Update Driver.

- 4** The Welcome to the Upgrade Driver Wizard window appears.

- 5** Click Next.

**Result:** The Install Hardware Device Drivers window appears.

- 6** Select “Search for a suitable driver for my device (recommended),” and then click Next.

- 7** Select the 4-millimeter DAT drive, and then click Next.

- 8** Select Specify a location, and then click Next.

- 9** Confirm the location of the driver that you want to install, and then click OK.

- 10** Click Finish.

**Result:** The tape driver is installed.

# Installing the RacoreWin2K Token Ring driver

## Introduction

Ensure you install the RacoreWin2K Token Ring Driver when you update from Symposium Call Center Server Release 3.0 or 4.0 to Symposium Call Center Server Release 4.2.

Before you begin, you must create the RacoreWin2K Token Ring driver disks. For more information, refer to “To create the update driver disks from the Application Server Driver CD (NTRH8102)” on page 728.

## To install the RacoreWin2K Token Ring driver

- 1 When you restart the computer after you install the Racore network card, Windows detects the new hardware and starts the Found New Hardware wizard.
- 2 Select “Search for a suitable driver for my device (recommended)”, and then select a floppy drive.
- 3 Click Next.
- 4 Ensure that the wizard points to a:\nttrw2k.inf, and then click Next.

## To upgrade the RacoreWin2K Token Ring driver

- 1 From My Computer, choose Properties → Hardware → Device Manager.
- 2 Right-click Racore Token Ring adapter, and then click Properties.
- 3 Click the Driver tab, and then click Update Driver.  
**Result:** The Welcome to the Upgrade Driver Wizard window appears.
- 4 Click Next.  
**Result:** The Install Hardware Device Drivers window appears.
- 5 Select “Display a list of the known drivers for this device so that I can choose a specific driver,” and then click Next.
- 6 Click Have disk.
- 7 Ensure that the wizard points to a:\nttrw2k.inf, and then click Next.

- 8    From the list of devices, choose Racore Preferred PCI Token Ring Adapter, and then click Next.
- 9    Click Next to confirm the installation.
- 10   Click Finish.

**Result:** The RacoreWin2K Token Ring driver is installed.

# Installing AcceleRAID352 RAID Global Array Manager software

## Introduction

The Global Array Manager (GAM) offers a large number of utilities and monitoring functions. Once launched, GAM maintains a real time Error log and Event Viewer, and provides functions found in the EzAssist software, which is embedded in the controller. You must install GAM to allow you to control and monitor the AcceleRAID352 RAID controller within Windows 2000. Follow the procedure below to install GAM.

## To install GAM

- 1 Boot and log on to Windows 2000.
- 2 Insert NTRH8102 CD in the CD-ROM drive. The following message appears: This program should not be executed under the Windows operating system unless you are running it on a Nortel 20Xi platform. Continue - y/n.
- 3 Type y.
- 4 Double-click the My Computer icon.
- 5 Right-click the CD-ROM drive, and then select Explore.
- 6 In the \Common\AR352\GAM2k\ directory, double-click Setup.exe, and then click Next.
- 7 In the Select Components window, clear the Client and Server options and select Workstation Array Manager, and then click Next.
- 8 Accept the default path for installation, and then click Next.
- 9 Click Next.
- 10 Select No to deny enabling External Controller Support, and then click Next.
- 11 The system prompts you to restart the computer.

**Result:** The installation is complete.

## Appendix D

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# Installing the Internationalization Framework

### In this appendix

|                               |     |
|-------------------------------|-----|
| Overview                      | 740 |
| Checklist                     | 742 |
| Configuring Windows           | 744 |
| Server and client PEPs        | 746 |
| Configuring an English client | 747 |

# Overview

## Introduction

Symposium Call Center Server Release 4.2 provides a base internationalization structure that supports installation on non-English operating systems, such as the Japanese or Traditional Chinese operating system. Additionally, in Release 4.2, Sybase ASE 12.0 adds database support for non-English character sets, such as Japanese and Traditional Chinese. As a result, you can now enter and display call center data in non-English character sets.

### Notes:

- For a complete list of available language versions, see the Meridian PEP Library web site, or contact your distributor.
- The Symposium Call Center Server application is not localized for non-English languages. Therefore, if you are using a localized version of Windows, any Windows-generated text (such as the “OK” button label) is translated, but server-generated text and messages continue to display in English. Also, you must enter any server configuration data in English.

This appendix provides instructions for installing the Internationalization Framework feature on Symposium Call Center Server.

## Migrating a non-English server

You can perform a platform migration from one internationalized server to another server that supports the same language if the following conditions apply:

- The language version of the Windows 2000 Server operating system and the system locale are the same on both platforms.
- The same language PEP is installed on both platforms.

**Note:** You cannot perform a platform migration from an internationalized server to a server that supports a different language.



## Client requirements

Nortel Networks recommends that

- the Client PC be configured for the same language as the server. For example, if the client is connecting to the Traditional Chinese server, configure the client for Traditional Chinese.
- the Client PC run the same localized version of the Symposium Call Center Server Client as the server. For example, if you are using the Traditional Chinese server, use the Traditional Chinese version of the Symposium Call Center Server Release 4.0 Client application. (To find out the minimum PEP level required to support your localized version of the client, see “Client minimum PEP levels” on page 746.)

**Note:** If a localized version of the Symposium Call Center Server Client application is not available, you can use the English version of the Client. If you do so, you can enter and view customer data in the local language, but the text on the Client screens displays in English. (Additional configuration is required. For instructions, see “Configuring an English client” on page 747.)

# Checklist

## Introduction

This checklist provides an overview of the steps required to install a non-English version of Symposium Call Center Server.

## Installation steps

| Step                                                                                                                                                                                                                                                                                                                                                    | ✓ |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|
| 1 Ensure that the switch has been properly configured. Refer to your switch documentation for instructions.                                                                                                                                                                                                                                             |   |
| 2 Complete the worksheets in Appendix A, “Worksheets.”                                                                                                                                                                                                                                                                                                  |   |
| 3 Install the server hardware. For more information, see Section A: “Getting started with the server’s base configuration,” on page 27, and Section B: “About the server,” on page 45. Follow the instructions in Section C: “Installing the server hardware,” on page 61.                                                                              |   |
| 4 Install and configure the appropriate Windows 2000 language version on the server. Make sure that you select the correct locale on the Regional Options window. For more information, see “Configuring Windows” on page 744.<br><br>For more information about the base configuration, see Section D: “Configuring the operating system,” on page 69. |   |
| 5 Install the server software and database. Follow the instructions in Chapter 3, “Installing the server software,” stopping BEFORE you begin the procedure in “Configuring the server and database (phase 3)” on page 136.                                                                                                                             |   |
| 6 Install the appropriate language PEP on the server. Follow the instructions in “Installing PEPs or Service Update packs on the server” on page 160. For a list of server language PEPs, see “Server language PEPs” on page 746.                                                                                                                       |   |
| 7 Complete the server installation and configuration. Follow the instructions in “Configuring the server and database (phase 3)” on page 136 and the subsequent sections in Chapter 3, “Installing the server software.”                                                                                                                                |   |

| Step                                                                                                                                                                                                                                                                          | ✓ |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|
| <b>8</b> Install and configure pcAnywhere 9.2 on the server. Follow the instructions in Chapter 5, “Installing and configuring pcAnywhere.”                                                                                                                                   |   |
| <b>9</b> Install and configure the appropriate Windows language version on the Client PC.                                                                                                                                                                                     |   |
| <b>10</b> Install the Client software. Follow the instructions in Chapter 6, “Installing the client software.”                                                                                                                                                                |   |
| <b>11</b> Install the minimum required localized client PEP (or a later version) on the Client PC. Follow the instructions in “Installing PEPs and Service Update packs on the client” on page 172. For the list of client PEPs, see “Client minimum PEP levels” on page 746. |   |

**Note:** If you are using an English client to connect to the localized server, use the procedure in “Configuring an English client” on page 747.

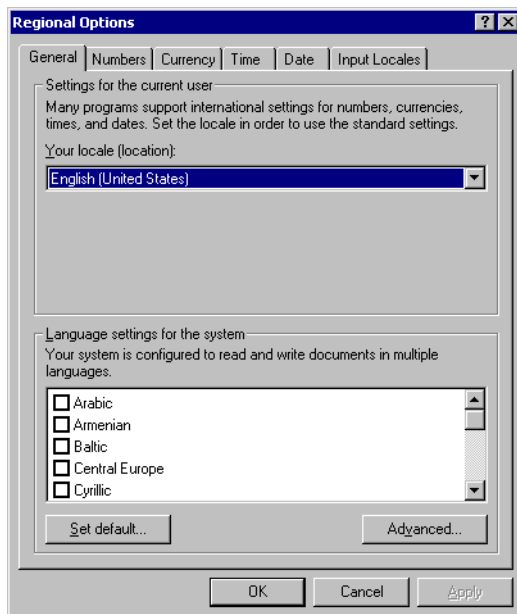
# Configuring Windows

## Introduction

This section lists the locales that are appropriate for the available language versions. (For a more up-to-date list, see the MPL web site, or contact your distributor.)

## Regional Options

In the Windows 2000 Regional Options control panel, choose a locale that is appropriate for your language version.



---

**If you are using this language****Choose one of these locales**

---

Traditional Chinese

Chinese (Taiwan)  
Chinese (Hong Kong)  
Chinese (Macau)

---

**If you are using this language****Choose one of these locales**

---

Japanese

Japanese

---

# Server and client PEPs

## Introduction

This section lists the server and client PEPs required for non-English language support. (For a more up-to-date list, see the MPL web site, or contact your distributor.)

## Server language PEPs

The following table lists the available server language PEPs:

| Language            | PEPs required  |
|---------------------|----------------|
| Traditional Chinese | NI0402TCHINESE |
| Japanese            | NI0402JAPANESE |

**Note:** Language PEPs are a special class of PEP, and do not create a PEP record that can be viewed with the PEP Viewer utility. To see the language PEPs installed on the server or client, use the Windows Add/Remove Programs control panel.

## Client minimum PEP levels

The following table lists the minimum client PEP levels required for the supported languages (if any):

| Language            | Minimum PEP level |
|---------------------|-------------------|
| Traditional Chinese | SU06              |
| Japanese            | SU06              |

# Configuring an English client

## Introduction

If you are using an English client to connect to a localized server, you must configure the Client PC to recognize the character set used in the database on the server. This ensures that data is represented correctly on the screens and in reports.

To configure the Client PC, you must perform these procedures:

- configure ODBC on the Client PC
- change the Locales.dat file

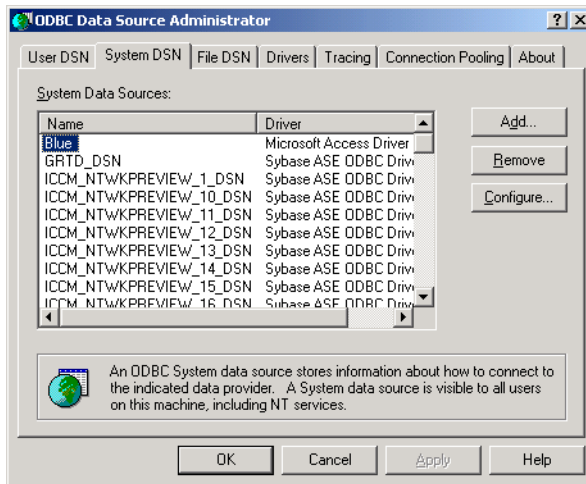
**Note:** If you are using a localized client to connect to the localized server, you need not perform these procedures.

## To configure ODBC on the Client PC

- 1 Based on the operating system you are using, start the ODBC Data Source Administrator in one of the following ways:
  - From the Windows Start menu, choose Settings → Control Panel. Then double-click the ODBC Data Source icon.

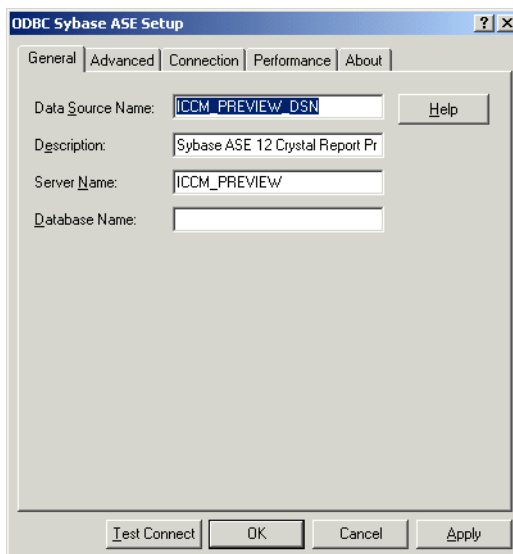
- From the Windows Start menu, choose Programs → Administrative Tools → ODBC Data Source.

**Result:** The ODBC Data Source Administrator window appears.



- 2 Click the System DSN tab.
- 3 Select the ICCM\_PREVIEW\_DSN data source, and then click Configure.

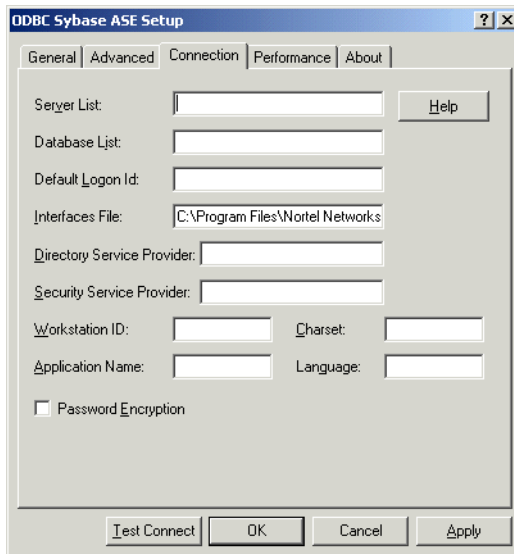
**Result:** The ODBC Sybase ASE Setup property sheet appears.





- 4 Click the Connection tab.

**Result:** The Connection property page appears.



- 5 In the Charset box, enter the appropriate character set for the language version installed on the server. The following table lists the character sets for the currently supported languages. For a more up-to-date list, refer to the MPL web site, or contact your distributor.

| Language            | Character set name |
|---------------------|--------------------|
| Traditional Chinese | BIG5               |
| Japanese            | SJIS               |

- 6 Click OK.
- 7 Repeat steps 3 to 6 for the following data sources:
- ICCM\_PRINT\_DSN
  - ICCM\_NTWKPREVIEW\_1\_DSN through ICCM\_NTWKPREVIEW\_30\_DSN.
- 8 Click OK until the ODBC Data Source Administrator closes.

## Changing the Locales.dat file

- 1 In a text editor (for example, Notepad), open the file `x:\ASE12CLT\locales\locales.dat` (where *x* is the drive on which you installed the Symposium Call Center Server client application).
- 2 In the [win3] section, go to line 458, which contains the following entry:  
`locale = default, us_english, iso_1`  
Replace “iso\_1” with the character set for your language version, as follows:

| Language            | Revised entry                                   |
|---------------------|-------------------------------------------------|
| Traditional Chinese | <code>locale = default, us_english, big5</code> |
| Japanese            | <code>locale = default, us_english, sjis</code> |

- 3 In the [NT] section, go to line 477, which contains the following entry:  
`locale = default, us_english, iso_1`  
Replace “iso\_1” with the character set for your language version, as follows:

| Language            | Revised entry                                   |
|---------------------|-------------------------------------------------|
| Traditional Chinese | <code>locale = default, us_english, big5</code> |
| Japanese            | <code>locale = default, us_english, sjis</code> |

- 4 In the [win32s] section, go to line 495, which contains the following entry:  
`locale = default, us_english, iso_1`  
Replace “iso\_1” with the character set for your language version, as follows:

| Language            | Revised entry                                   |
|---------------------|-------------------------------------------------|
| Traditional Chinese | <code>locale = default, us_english, big5</code> |
| Japanese            | <code>locale = default, us_english, sjis</code> |

- 5 Close the file and save your changes.

# Appendix E

---

## Migrating API applications

### In this chapter

|                                               |     |
|-----------------------------------------------|-----|
| Overview                                      | 752 |
| Migrating Host Data Exchange API applications | 753 |
| Migrating Real-Time Data API applications     | 756 |

# Overview

## Introduction

The sections in this appendix provide instructions for updating the run-time environment on the open interfaces client if you are running Host Data Exchange (HDX) or Real-Time Data (RTD) API applications, and are migrating to Release 4.2 of Symposium Call Center Server.

If you are running Real-Time Statistics Multicast (RSM), then you do not need to update the run-time environment when you migrate Symposium Call Center Server to Release 4.2.

**Note:** If you are a developer, or if you want to develop a new open interface application, contact Nortel Networks Developer Support by e-mail at [nt4cti@nortelnetworks.com](mailto:nt4cti@nortelnetworks.com).

# Migrating Host Data Exchange API applications

## Introduction

An existing application compiled against the Symposium Call Center Server Release 1.5, 3.0 or 4.0 Host Data Exchange (HDX) APIs can be run against a Symposium Call Center Server Release 4.2 system without recompiling.

## Migrating the application to Release 4.2

To migrate an application requires that you replace the execution environment on the PC running the application. You must perform the following two procedures just prior to migrating your Symposium Call Center Server:

- remove the previous execution environment
- run the setup for the execution environment

### To remove the previous execution environment

There is no uninstall utility provided to remove the installed execution environment. Instead, you must manually uninstall the execution environment by following this procedure.

- 1 Delete the following files located in the installed directory, if the files exist. The default location is C:\Nortel\Client\En\Bin\.

| For Windows 95/98 | For Windows NT/2000 |
|-------------------|---------------------|
| nbnmsrv.exe       | nbnmsrv.exe         |
| nicomsetup.exe    | nicomsetup.exe      |
| nbcomd.dll        | nbcomd.dll          |
| nbdbapi.dll       | nbdbapi.dll         |
| nbflt95.dll       | nbflt.dll           |
| dxprovid.dll      | dxprovid.dll        |

| <b>For Windows 95/98</b> | <b>For Windows NT/2000</b>                                                                                                                                                                                                            |
|--------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| nisysd.dll               | nisysd.dll                                                                                                                                                                                                                            |
| nbsm.dll                 | nbsm.dll                                                                                                                                                                                                                              |
| mtld.dll                 | mtld.dll                                                                                                                                                                                                                              |
| mfc40u.dll               | mfc40u.dll                                                                                                                                                                                                                            |
| mfc40.dll                | nbfltdb.dll                                                                                                                                                                                                                           |
| msvcrt40.dll             | nbcfg.dll                                                                                                                                                                                                                             |
| dxprovide0.dll           | nbss_e.dll                                                                                                                                                                                                                            |
|                          | mfc40ud.dll                                                                                                                                                                                                                           |
|                          | msvcrt40.dll                                                                                                                                                                                                                          |
|                          | mfc40.dll                                                                                                                                                                                                                             |
|                          | dx-provid0.dll                                                                                                                                                                                                                        |
| <b>2</b>                 | Remove the path where the execution environment was previously installed from the Path environment variable.                                                                                                                          |
| <b>3</b>                 | Use the registry editor to delete the following Nortel registry entries, if they exist: <ul style="list-style-type: none"> <li>■ Key Handle: HKEY_LOCAL_MACHINE</li> <li>■ Primary Key: Software\Nortel\Setup\NINAMESERVER</li> </ul> |

**To run the setup for the execution environment**

The execution environment SDK is available on the Symposium Call Center Server Client CD-ROM. Check the Symposium Call Center Server Supplementary CD-ROM or the Meridian PEP Library web site for updates.

- 1** From the Symposium Call Center Server Client CD-ROM, run `iccmsdk\setup.exe`.
- 2** In the Install Path box in the Setup window, type the destination directory path.
- 3** Select HDX.
- 4** Select either ANSI\_MBCS or Unicode.
- 5** Click Install to install the HDX execution environment.
- 6** After the installation is finished, exit the install program and restart the PC.

# Migrating Real-Time Data API applications

## Introduction

An existing application compiled against the Symposium Call Center Server Release 1.5, 3.0, or 4.0 Real-Time Data (RTD) APIs can be run against a Symposium Call Center Server Release 4.2 system without recompiling.

## Migrating the application to Release 4.2

To migrate an application requires that you replace the execution environment on the PC running the application. You must perform the following two procedures just prior to migrating your Symposium Call Center Server:

- remove the previous execution environment
- run the setup for the execution environment

### To remove the previous execution environment

There is no uninstall utility provided to remove the installed execution environment. Instead, you must manually uninstall the execution environment by following this procedure.

- 1 Delete the following files located in the installed directory. The default location is C:\Nortel\Client\En\Bin\.

| For Windows 95/98 | For Windows NT/2000 |
|-------------------|---------------------|
| nbnmsrvc.exe      | nbnmsrvc.exe        |
| nicomsetup.exe    | nicomsetup.exe      |
| nbcomd.dll        | nbcomd.dll          |
| nbdbapi.dll       | nbdbapi.dll         |
| nbflt95.dll       | nbflt.dll           |
| nirttd.dll        | nirttd.dll          |
| nisysd.dll        | nisysd.dll          |



**For Windows 95/98****For Windows NT/2000**

nbss.dll

nbsm.dll

nbss\_e95.dll

mtld.dll

mtld.dll

mfc40u.dll

mfc40.dll

nbfltdb.dll

msvcrt40.dll

nbcfg.dll

nbconfig.exe

nbss\_e.dll

nbconfig.exe

msvcrt40.dll

mfc40.dll

nbss.dll

- 
- 2 Remove the path where the execution environment was previously installed from the Path environment variable.
  - 3 Use the registry editor to delete the following Nortel registry entries:
    - Key Handle: HKEY\_LOCAL\_MACHINE
    - Primary Key: Software\Nortel\Setup\NINAMESERVER

**To run the setup for the execution environment**

The execution environment SDK is available on the Symposium Call Center Server Client CD-ROM. Check the Symposium Call Center Server Supplementary CD-ROM or the Meridian PEP Library web site for updates.

- 1** From the Symposium Call Center Server Client CD-ROM, run `iccmsdk\setup.exe`.
- 2** In the Install Path box in the Setup window, type the destination directory path.
- 3** Select RTD.
- 4** Select either ANSI\_MBCS or Unicode.
- 5** Click Install to install the RTD execution environment.
- 6** After the installation is finished, exit the install program and reboot the PC.

# Glossary

## A

### **accelerator key**

A key on a phoneset that an agent can use to place a call quickly. When an agent presses an accelerator key, the system places the call to the configured number associated with the key. For example, if an agent presses the Emergency key, the system places a call to the agent's supervisor.

### **access class**

A collection of access levels that defines the actions a member of the access class can perform within the system. For example, a member of the Administrator access class might be given a collection of Read/Write access levels.

### **access level**

A level of access or permission given to a particular user for a particular application or function. For example, a user might be given View Only access to historical reports.

### **ACCESS link**

A communication channel between Symposium Call Center Server and CallPilot or Meridian Mail.

### **ACCESS voice port**

A voice port that is controlled by the ACCESS link.

### **ACD call**

*See* Automatic call distribution call.

### **ACD-DN**

*See* Automatic call distribution directory number.

### **ACD group**

*See* Automatic call distribution group.

**ACD routing table**

*See* Automatic call distribution routing table.

**ACD subgroup**

*See* Automatic call distribution subgroup.

**acquired resource**

A resource configured on the switch that is under the control of Symposium Call Center Server. Resources must be configured with matching values on both the switch and Symposium Call Center Server.

**activated script**

A script that is processing calls or is ready to process calls. Before you can activate a script, you must first validate it.

**activity code**

A number that an agent enters on his or her phoneset during a call. Activity codes provide a way of tracking the time agents spend on various types of incoming calls. They are also known as Line of Business (LOB) codes. For example, the activity code 720 might be used to track sales calls. Agents can then enter 720 on their phonesets during sales calls, and this information can be generated in an Activity Code report.

**administrator**

A user who is responsible for setting up and maintaining Symposium Call Center Server.

**agent**

A user who is responsible for handling customer calls.

**agent logon ID**

A unique identification number assigned to a particular agent. The agent uses this number when logging on. The agent ID is not associated with any particular phoneset.

**agent to skillset assignment**

A matrix that, when you run it, sets the priority of one or more agents for a skillset. Agent to skillset assignments can be scheduled.

**agent to supervisor assignment**

A definition that, when you run it, assigns one or more agents to specific supervisors. Agent to supervisor assignments can be scheduled.

**application**

1. A logical entity that represents a Symposium Call Center Server script for reporting purposes. The Master script and each primary script have an associated application. The application has the same name as the script it represents. 2. A program that runs on a computer.

**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 is available for an agent if the agent's reporting supervisor is unavailable. *See also* reporting supervisor.

**Automatic call distribution**

A means of automatically distributing an organization's incoming calls among a number of answering positions (ACD agents). Automatic call distribution is useful in operations where callers want a service rather than a specific person. Calls are serviced in the order they arrive and are distributed so that the workload at each answering position is approximately equal.

**Automatic call distribution call**

A call to an ACD-DN. ACD calls are distributed to agents in an ACD group based on the ACD routing table on the switch. *See also* Automatic call distribution directory number.

**Automatic call distribution directory number**

A primary or supplementary DN associated with an ACD group. Calls made to an automatic call distribution directory number are distributed to agents belonging to the group, based on the ACD routing table on the switch.

**Automatic call distribution group**

An entity defined on the switch for the purpose of call distribution. When a customer dials an ACD group, the call is routed to any agent who is a member of that group.

**Automatic call distribution routing table**

A table configured on the switch that contains a list of ACD-DNs used to define routes for incoming calls. This ensures that incoming calls not processed by Symposium Call Center Server will be queued to ACD groups and handled by available agents.

**Automatic call distribution subgroup**

An entity defined on the switch to assign supervisory responsibilities. Each subgroup has one supervisor phoneset and a number of agent phonesets associated with it. Agents can log on to any phoneset within their ACD subgroup. The supervisor must log on to the supervisor phoneset to monitor his or her assigned agents.

**C****call age**

The amount of time a call was waiting in the system before being answered by an agent.

**call destination**

The site to which an outgoing network call is sent. *See also* call source.

**call intrinsic**

A script element that stores call-related information assigned when a call enters Symposium Call Center Server. *See also* intrinsic, skillset intrinsic, time intrinsic, and traffic intrinsic.

**call presentation class**

A collection of preferences that determines how calls are presented to an agent. A call presentation class specifies whether a break time between calls is allowed, whether an agent can put DN calls on hold for incoming ACD calls, and whether an agent phoneset displays that the agent is reserved for a network call.

**call priority**

A numerical value assigned in a script that defines the relative importance of a call. If two calls are in the queue when an agent becomes available, and one call is queued with a higher priority than the other, the agent receives the higher priority call first. *See also* skillset priority.

**call source**

The site from which an incoming network call originates. *See also* call destination.

**call treatment**

A script element that enables you to provide handling to a call while it is waiting to be answered by a call center agent. For example, a caller can hear a recorded announcement or music while waiting for an agent.

**call variable**

A script variable that applies to a specific call. A call variable follows the call through the system and is passed from one script to another with the call. *See also* global variable, script variable.

**Calling Line Identification**

An optional service that identifies the telephone number of the caller. This information can then be used to route the call to the appropriate agent or skillset. The CLID can also be displayed on an agent's phoneset.

**CallPilot**

A multimedia messaging system you can use to manage many types of information, including voice messages, fax messages, e-mail messages, telephone calls (including conferencing), calendars, and directories.

**CDN**

*See* controlled directory number.

**CLAN**

*See* Customer local area network.

**CLID**

*See* Calling Line Identification.

**client**

The part of Symposium Call Center Server that runs on a personal computer or workstation and relies on the server to perform some operations. *See also* server.

**command**

A building block used with expressions, variables, and intrinsics to create scripts. Commands perform distinct functions, such as routing a call to a specific destination, playing music to a caller, or disconnecting a caller.

**controlled directory number**

A special directory number that allows calls arriving at the switch to be queued when the CDN is controlled by an application such as Symposium Call Center Server. When a call arrives at this number, the switch notifies the application and waits for routing instructions, which are performed by scripts in Symposium Call Center Server.

**CSE 1000 switch**

Succession Communication Server for Enterprise 1000 switch

**Customer local area network**

The LAN to which your corporate services and resources connect. The server in Symposium Call Center Server and client both connect to the CLAN. Third-party applications that interface with the server also connect to this LAN.

**D****DBMS**

Database Management System

**deactivated script**

A script that does not process any new calls. If a script is in use when it is deactivated, calls continue to be processed by the script until they are completed.

**default activity code**

The activity code that is assigned to a call if an agent does not enter an activity code manually, or when an agent presses the activity code button twice on his or her phoneset.

Each skillset has a defined default activity code.



**default skillset**

The skillset to which calls are queued if they have not been queued to a skillset or a specific agent by the end of a script.

**desktop user**

A configured user who can log on to Symposium Call Center Server from a client PC.

**destination site**

The site to which an outgoing network call is sent. *See also* source site.

**DHCP**

*See* dynamic host configuration protocol.

**Dial-Up Networking**

*See* Remote Access Services.

**Dialed Number Identification Service**

An optional service that allows Symposium Call Center Server to identify the phone number dialed by the incoming caller. An agent can receive calls from customers calling in on different DNISs and, if the DNIS is displayed on the phoneset, can prepare a response according to the DNIS.

**Digital Multiplex Switch**

A Nortel Networks switch for the central office market.

**directory number**

The number that identifies a phoneset on a switch. The directory number (DN) can be a local extension (local DN), a public network telephone number, or an automatic call distribution directory number (ACD-DN).

**directory number call**

A call that is presented to the DN key on an agent's phoneset.

**display threshold**

A threshold used in real-time displays to highlight a value below or above the normal range.

**DMS**

*See* Digital Multiplex Switch.

**DN**

*See* directory number.

**DN call**

*See* directory number call.

**DNIS**

*See* Dialed Number Identification Service.

**dongle**

The attachment plugged into the parallel port of a server connected to a DMS/MSL-100 switch that authenticates the serial number required at the time of server installation.

**dynamic host configuration protocol**

A protocol for dynamically assigning IP addresses to devices on a network.

**dynamic link library**

A library of executable functions or data that can be used by a Windows application. Typically, a DLL provides one or more particular functions and a program accesses the functions by creating either a static or dynamic link to the DLL. Several applications can use a DLL at the same time.

**E****ELAN**

*See* embedded local area network.

**embedded local area network**

A dedicated Ethernet TCP/IP LAN that connects the server in Symposium Call Center Server and the switch.

**Emergency key**

A key on an agent's phoneset that, when pressed by an agent, automatically calls his or her supervisor to notify the supervisor of a problem with a caller.

**event**

1. An occurrence or action on Symposium Call Center Server, such as the sending or receiving of a message, the opening or closing of an application, or the reporting of an error. Some events are for information only, while others can indicate a problem. Events are categorized by severity: information, minor, major, and critical. 2. An action generated by a script command, such as queuing a call to a skillset or playing music.

**expression**

A building block used in scripts to test for conditions, perform calculations, or compare values within scripts. *See also* logical expression, mathematical expression, and relational expression.

**F****filter timer**

The length of time after the system unsuccessfully attempts to route calls to a destination site, before that site is filtered out of a routing table.

**first-level threshold**

The value that represents the lowest value of the normal range for a statistic in a threshold class. The system tracks how often the value for the statistic falls below this value.

**G****global settings**

Settings that apply to all skillsets or IVR ACD-DNs that are configured on your system.

**global variable**

A variable that contains values that can be used by any script on the system. You can only change the value of a global variable in the Script Variable Properties sheet. You cannot change it in a script. *See also* call variable, variable.

**I****ICM**

*See* Intelligent Call Manager.

**Incalls key**

The key on an agent phoneset to which incoming ACD and Symposium Call Center Server calls are presented.

**Intelligent Call Manager**

A high capacity call center TCP/IP interface to the switch that enables the exchange of messages between the switch and a remote host computer.

**Interactive voice response**

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

**Interactive voice response 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.

**Interactive voice response event**

A voice port logon or logoff. An IVR event is pegged in the database when a call acquires or de-acquires a voice port.

**Internet Protocol 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. For customers using NSBR, site IP addresses must be unique and correct. The format of an IP address is a 32-bit numeric address written as four values separated by periods. Each value can be 0 to 255. For example, 1.160.10.240 could be an IP address.

**intrinsic**

A word or phrase used in a script to gain access to system information about skillsets, agents, time, and call traffic that can then be used in formulas and decision-making statements. *See also* call intrinsic, skillset intrinsic, time intrinsic, and traffic intrinsic.

**IP address**

*See* Internet Protocol address.

**IVR**

*See* Interactive voice response.

**IVR ACD-DN**

*See* Interactive voice response ACD-DN.

**IVR event**

*See* Interactive voice response event.

**IVR port**

*See* voice port.

**L****LAN**

*See* Local area network.

**Line of Business code**

*See* activity code.

**LOB code**

*See* activity code.

**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.

**local call**

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

**local skillset**

A skillset that can be used at the local site only. *See also* network skillset, skillset.

**logical expression**

A symbol used in scripts to test for different conditions. Logical expressions are AND, OR, and NOT. *See also* expression, mathematical expression, and relational expression.

# M

## M1

Meridian 1 switch

## M1 IE

Meridian 1 Internet Enabled switch

## Management Information Base

A data structure that describes the collection of all possible objects in a network. Each managed node maintains one or more variables (objects) that describe its state. Symposium Call Center Server Management Information Bases (MIBs) contribute to the overall network MIB by

- identifying Nortel Networks/Meridian/Symposium Call Center Server nodes within the network
- identifying significant events (SNMP traps), such as alarms reporting
- specifying formats of alarms

## Master script

The first script executed when a call arrives at Symposium Call Center Server. A default Master script is provided with Symposium Call Center Server, but it can be customized by an authorized user. It can be deactivated but not deleted. *See also* network script, primary script, script, secondary script.

## mathematical expression

An expression used in scripts to add, subtract, multiply, and divide values. Mathematical expressions are addition (+), subtraction (-), division (/), and multiplication (\*). *See also* expression, logical expression, and relational expression.

## Meridian Link Services

A communications facility that provides an interface between the switch and a third-party host application.

## Meridian Mail

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

**Meridian MAX**

A Nortel Networks product that provides call processing based on ACD routing.

**MIB**

*See* Management Information Base.

**MLS**

*See* Meridian Link Services.

**MM**

*See* Meridian Mail.

**music route**

A resource installed on the switch that provides music to callers while they wait for an agent.

# N

**NACD call**

A call that arrives at the server from a network ACD-DN.

**NCC**

*See* Network Control Center.

**network call**

A call that originates at another site in the network. *See also* local call.

**Network Control Center**

The server on a Symposium Call Center Server system where NSBR is configured and where communication between servers is managed.

**network script**

The script that is executed to handle error conditions for Symposium Call Center Server calls forwarded from one site to another, for customers using NSBR. The network script is a system-defined script provided with Symposium Call Center Server, but it can be customized by an authorized user. It can be deactivated but not deleted. *See also* Master script, primary script, script, secondary script.

**Network Skill-Based Routing**

An optional feature with Symposium Call Center Server that provides skill-based routing to multiple networked sites.

**network skillset**

A skillset that is common to every site on the network. Network skillsets must be created at the Network Control Center (NCC).

**night mode**

A skillset state in which the server does not queue incoming calls to the skillset, and in which all queued calls are given night treatment. A skillset goes into night mode automatically when the last agent logs off, or the administrator can put it into night mode manually. *See also* out-of-service mode, transition mode.

**NPA**

*See* Number Plan Area.

**NSBR**

*See* Network Skill-Based Routing.

**Number Plan Area**

Area code

**O****object linking and embedding**

A compound document standard that enables you to create objects with one application and then link or embed them in a second application.

**ODBC**

*See* Open Database Connectivity.

**OEM**

Original equipment manufacturer

**OLE**

*See* object linking and embedding.



**Open Database Connectivity**

A Microsoft-defined database application program interface (API) standard.

**out-of-service mode**

A skillset state in which the skillset does not take calls. A skillset is out of service if there are no agents logged on or if the supervisor puts the skillset into out-of-service mode manually. *See also* night mode, transition mode.

**out-of-service skillset**

A skillset that is not taking any new calls. While a skillset is out of service, incoming calls cannot be queued to the skillset. *See also* local skillset, network skillset, skillset.

**P****PBX**

*See* private branch exchange.

**pegging**

The action of incrementing statistical counters to track and report on system events.

**pegging threshold**

A threshold used to define a cut-off value for statistics, such as short call and service level. Pegging thresholds are used in reports.

**PEP**

*See* Performance Enhancement Package.

**Performance Enhancement Package**

A Symposium Call Center Server supplementary software application that enhances the functionality of previously released software by improving performance, adding functionality, or correcting a problem discovered since the original release.

**personal directory number**

A DN on which an agent can be reached directly, usually for private calls.

**phoneset**

The physical device, connected to the switch, to which calls are presented. Each agent and supervisor must have a phoneset.

**phoneset display**

The display area on an agent's phoneset where information about incoming calls can be communicated.

**Position ID**

A unique identifier for a phoneset, used by the switch to route calls to the phoneset. Referred to as Telephony/Port Address in Symposium Call Center Server.

**primary ACD-DN**

A directory number that callers can dial to reach an ACD group.

**primary script**

A script that is executed or referenced by the Master script. A primary script can route calls to skillsets, or it can transfer routing control to a secondary script. *See also* Master script, network script, script, secondary script.

**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.

# R

**RAN**

recorded announcement

**RAN route**

*See* recorded announcement route.

**RAS**

*See* Remote Access Services.

**recorded announcement route**

A resource installed on the switch that offers a recorded announcement to callers.

**relational expression**

An expression used in scripts to test for different conditions. Relational expressions are less than (<), greater than (>), less than or equal to (<=), greater than or equal to (>=), and not equal to (<>). *See also* expression, logical expression, mathematical expression.

**Remote Access Services**

A feature built into Windows NT and Windows 95 that enables users to log on to an NT-based LAN using a modem, X.25 connection, or WAN link. This feature is also known as Dial-Up Networking.

**reporting supervisor**

The supervisor who has primary responsibility for an agent. When an agent presses the Emergency key on the phoneset, the emergency call is presented to the agent's reporting supervisor. *See also* associated supervisor.

**round robin routing table**

A routing table that queues the first call to the first three sites in the routing table, then the second three sites, then the third three sites, and so on, until an agent is reserved at one of the sites. *See also* sequential routing table.

**route**

A group of trunks. Each trunk carries either incoming or outgoing calls to the switch. *See also* music route, RAN route.

**routing table**

A table that defines how calls are routed to the sites on the network. *See also* round robin routing table, sequential routing table.

# S

**sample script**

A script that is installed with the Symposium Call Center Server client. Sample scripts are stored as text files in a special folder on the client. The contents of these scripts can be imported or copied into user scripts to create scripts for typical call center scenarios.

**SCM**

*See* Service Control Manager.

**script**

A set of instructions that relates to a particular type of call, caller, or set of conditions, such as time of day or day of week. *See also* Master script, network script, primary script, secondary script.

**script variable**

*See* variable.

**second-level threshold**

The value used in display thresholds that represents the highest value of the normal range for a given statistic. The system tracks how often the value for the statistic falls outside this value.

**secondary directory number**

A DN defined on the agent's phoneset as a Centrex line for incoming and outgoing non-ACD calls.

**secondary script**

Any script (other than a Master, network, or primary script) that is referenced from a primary script or any other secondary script. There is no pegging of statistics for actions occurring during a secondary script. *See also* Master script, network script, primary script, script.

**sequential routing table**

A routing table method that always queues a call to the first three active sites in the routing table. *See also* round robin routing table.

**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. Symposium Call Center Server is used to configure the operations of the call center. *See also* client.

**service**

A process that adheres to a Windows NT structure and requirements. A service provides system functionality.

**Service Control Manager**

A Windows NT process that manages the different services on the PC.

**service level**

The percentage of incoming calls answered within a configured number of seconds.

**service level threshold**

A parameter that defines the number of seconds within which incoming calls should be answered.

**Simple Network Management Protocol**

A systematic way of monitoring and managing a computer network. The SNMP model consists of four components:

- managed nodes, which are any device, such as hosts, routers, and printers, capable of communicating status to the outside world via an SNMP management process called an SNMP Agent
- management stations, which are computers running special network management software that interact with the Agents for status
- management information, which is conveyed through exact specifications and format of status specified by the MIB
- Management Protocol or SNMP, which sends messages called protocol data units (PDUs)

**site**

1. A system using Symposium Call Center Server that can be accessed using SMI. 2. A system using Symposium Call Center Server and participating in Network Skill-Based Routing.

**skillset**

A group of capabilities or knowledge required to answer a specific type of call.

*See also* local skillset, network skillset.

**skillset intrinsic**

A script element that inserts information about a skillset in a script. Skillset intrinsics return values such as skillsets, integers, and agent IDs. These values are then used in queuing commands. *See also* call intrinsic, intrinsic, time intrinsic, and traffic intrinsic.

**skillset priority**

An attribute of a skillset assignment that determines the order in which calls from different skillsets are presented to an agent. When an agent becomes available, calls might be waiting for several of the skillsets to which the agent belongs. The server presents the call queued for the skillset for which the agent has the highest priority.

**source site**

The site from which an incoming network call originates. *See also* destination site.

**standby**

In skillset assignments, a property that grants an agent membership in a skillset, but makes the agent inactive for that skillset.

**supervisor**

A user who manages a group of agents. *See also* associated supervisor and reporting supervisor.

**supplementary ACD-DN**

A DN associated with a primary DN. Any calls to the supplementary DN are automatically routed to the primary DN. A supplementary DN can be a toll-free (1-800) number.

**switch**

The hardware that receives incoming calls and routes them to their destination.

**switch resource**

A device that is configured on the switch. For example, a CDN is configured on the switch, and then is used as a resource with Symposium Call Center Server. *See also* acquired resource.

**Symposium Call Center Server call**

A call to a CDN that is controlled by Symposium Call Center Server. The call is presented to the Incalls key on an agent's phoneset.

**system-defined scripts**

The Master\_Script and the Network\_Script (if NSBR is enabled). These scripts can be customized or deactivated by a user, but cannot be deleted. These scripts are This script is the first scripts executed for every local or network call arriving at the call center.

**T****target site**

*See* destination site.

**TCP/IP**

*See* Transmission 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 perform functions traditionally performed by telephone equipment.

**threshold**

A value for a statistic at which system handling of the statistic changes.

**threshold class**

A set of options that specifies how statistics are treated in reports and real-time displays. *See also* display threshold, pegging threshold.

**time intrinsic**

A script element that stores information about system time, including time of day, day of week, and week of year. *See also* call intrinsic, intrinsic, skillset intrinsic, traffic intrinsic.

**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.

**traffic intrinsic**

An intrinsic that inserts information about system-level traffic in a script. *See also* call intrinsic, intrinsic, skillset intrinsic, time intrinsic.

**transition mode**

A skillset state in which the server presents already queued calls to a skillset. New calls queued to the skillset are given out-of-service treatment. *See also* night mode, out-of-service mode.

**Transmission Control Protocol/Internet Protocol**

The communication protocol used to connect devices on the Internet. TCP/IP is the standard protocol for transmitting data over networks.

**treatment**

*See* call treatment.

**trunk**

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

**U****user-created script**

A script that is created by an authorized user on the Symposium Call Center Server system. Primary and secondary scripts are user-created scripts.



**user-defined script**

A script that is modified by an authorized user on the Symposium Call Center Server system.

**utility**

A program that performs a specific task, usually related to managing system resources. Operating systems contain a number of utilities for managing disk drives, printers, and other devices.

**V****validation**

The process of checking a script to ensure that all the syntax and semantics are correct. A script must be validated before it can be activated.

**variable**

A placeholder for values calculated within a script, such as CLID. Variables are defined in the Script Variable Properties sheet and can be used in multiple scripts to determine treatment and routing of calls entering Symposium Call Center Server. *See also* call variable, global variable.

**voice port**

A connection from a telephony port on the switch to a port on the IVR system.

**W****WAN**

*See also* 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.

**workload scenarios**

Sets of configuration values defined for typical patterns of system operations. Five typical workload scenarios (entry, small, medium, large, and upper end) are used in the Capacity Assessment Tool for capacity analysis for Symposium Call Center Server.



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Installation and Maintenance Guide

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# **Nortel Networks Symposium Call Center Server**

## **Installation and Maintenance Guide**

Nortel Networks  
Mervue Business Park  
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